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DOE/EIS-0136

Volume 6
Written Comments

FINAL
ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT

IDAHO NATIONAL ENGINEERING LABORATORY
IDAHO FALLS, IDAHO

November 1988

U.S. DEPARTMENT OF ENERGY

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IDAHO FALLS, IDAHO

November 1988

U.S. DEPARTMENT OF ENERGY

COVER SHEET

RESPONSIBLE AGENCY: U. S. Department of Energy

TITLE: Final Environmental Impact Statement, Special Isotope Separation Project, Idaho National Engineering Laboratory, Idaho Falls, Idaho

CONTACT: Additional information concerning this statement can be obtained from:

Mr. J. P. Hamric
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402-1133
(208) 526-0306

For general information on the Department of Energy's EIS process, contact:

Office of the Assistant Secretary for Environment, Safety and Health
U.S. Department of Energy
Attention: Ms. Carol Borgstrom (EH-25)
Director, Office of NEPA Project Assistance
Room 3E-080, Forrestal Building
1000 Independence Avenue, SW
Washington, DC 20585
(202) 586-4600

ABSTRACT: The purpose of this Final Environmental Impact Statement (EIS) is to provide environmental input into a U.S. Department of Energy (DOE) decision on the proposed construction and operation of a Special Isotope Separation (SIS) Project using the Atomic Vapor Laser Isotope Separation (AVLIS) process technology and on the selection of a site for such a project. The SIS Project would provide DOE with the capability of segregating the isotopes of DOE-owned plutonium into specific isotopic concentrations. This capability is needed to provide a contingent capability in DOE's production of nuclear materials for national defense.

The alternatives considered in detail in this EIS include (1) constructing and operating the SIS Project at the Idaho National Engineering Laboratory (INEL) near Idaho Falls, Idaho; (2) constructing and operating the SIS Project at the Hanford Site near Richland, Washington; (3) constructing and operating the SIS Project at the Savannah River Plant (SRP) near Aiken, South Carolina; and (4) no action, or not constructing and operating the SIS Project.

This EIS includes discussion of the SIS facilities and processes; the environmental consequences of constructing and operating the facilities at the alternative sites; the environmental consequences of no action; and the potential environmental consequences caused by postulated accidents.

FOREWORD TO VOLUMES 3 THROUGH 6

The comment/response and comment (reproduced public input) volumes of the Special Isotope Separation (SIS) Project Final EIS have been prepared in compliance with the Council of Environmental Quality (CEQ) regulations 40 CFR 1503.4 and 1506.6. These volumes contain the reproduced public input and DOE's responses to the comments received during the public comment period on the Draft EIS.

Notice of availability of the Draft EIS for the Special Isotope Separation (SIS) Project appeared in the Federal Register on February 19, 1988. The Federal Register notice invited comment on the Draft EIS within the 60-day comment period, which ended April 21, 1988. Six public hearings were held, as follows:

Idaho Falls, Idaho	March 25 and 30, 1988
Twin Falls, Idaho	March 28 and 31, 1988
Boise, Idaho	March 26 and 29, 1988

At the beginning of the public comment period, a procedure was established to receive, document, identify, and prepare responses to public comments. Each comment (written, oral, or an exhibit) was assigned an identification number and is reproduced in Volumes 3 through 6 of the Final EIS.

The identification numbers assigned were as follows:

IXXX = Oral testimony given at the March 25 Idaho Falls hearing.
I5XX = Oral testimony given at the March 30 Idaho Falls hearing.
TXXX = Oral testimony given at the March 28 Twin Falls hearing.
T5XX = Oral testimony given at the March 31 Twin Falls hearing.
BXXX = Oral testimony given at the March 26 Boise hearing.
B2XX = Oral testimony given at the March 29 Boise hearing.
WXXX = Written testimony sent to DOE during the comment period.
EXXX = Exhibits (i.e., written testimony, letters, pictures, poems) submitted at the hearings.
XXX = Number designating order in which the testimony was received.

Note: The Moscow City Council Commission on Health and the Environment held a public hearing to obtain comment on the Draft EIS for the proposed SIS Project. The transcripts and exhibits received by DOE from this hearing have been entered into the record as written comment W284.

All letters, transcripts of oral testimony, and accompanying exhibits were photostatically reproduced and are included in Volumes 3 through 6 of the Final EIS. Specifically, Volume 3 contains transcripts of the oral testimony, Volumes 4 and 5 contain exhibits submitted during the public hearings, and Volume 6 contains written comments received by DOE. Volume 2 addresses the specific comments contained in Volumes 3 through 6 designated by a comment summary number placed in the margins next to the testimony, as applicable. This number refers to the associated Volume 2 comment summary and response. The introduction in the front of Volume 2 contains guidance for locating specific public testimony, summary comments, and the associated responses to the comments. Appendices A through E at the end of Volume 2 provide cross-references between the reproduced public input contained in Volumes 3 through 6, and the corresponding summary comments and responses comprising Volume 2.

In reviewing the unedited transcript of the oral testimony, DOE has exercised its judgement to interpret the intent of the comment when the transcription is obviously in error (e.g., RIFT is interpreted to mean WIPP on pages 310-313, Melinda Kassen's name was misspelled on pages 320-323, etc.)

VOLUME 6 - WRITTEN TESTIMONY

TABLE OF CONTENTS

W001

1- T. Hill
1- Hearing Rep File
1- File
1- P. Phelps.

RECEIVED
MAR 2 1990
SIS Project Office

I would like to present my testimony to the Department of Energy concerning the placement of the Special Isotope Separator plant at the Idaho Nuclear Engineering Laboratory located in Idaho.

First I would like to thank the D.O.E. for holding these hearings and for allowing me to present my testimony. I would like to make it known that I am a resident of the State of Idaho living South of Hansen, Idaho.

2.7.8 When we talk about the Environmental Impact of this proposed plutonium possessing plant we need to look further than just the local impact. I refer to the product and it's ultimate purpose and use. Environment is the immediate life sustaining requirements and any far reaching effects on the life support requirements of life in general or specific. Therefore the effect of the end product must be considered when looking at environmental impact. The end product of this plant is nuclear incinerary devises or simply put, bombs. Now a nuclear bomb has but one purpose and that is to destroy life. Not just human or enemy life but all forms of life. When the true environmental impact is considered, then any one of any reasonable intelligence can only say that this project is environmentally unsafe and should not be continued.

3.2.11 I believe that it is prudent to look at the nature and attitude of the division of government that will be the guiding force behind this project. In this case the controlling force is the Armed Forces of the United States of America.

It is sad but true that the Military does not have a very good track record when it comes to projects of this nature. In the early 1950's above ground nuclear tests were conducted in Nevada. The result was radiation poisoning of civilians in southern Utah.

Now mistakes can be made but when an error is made it should be corrected as best as possible. The military did not correct their mistake in Utah, instead they openly denied it and it took years of investigations and countless law suits to make the military tell us the truth about this. Only recently through the court

3.2.23 system the people of Southern Utah were told to go to Hell because the Army doesn't have to pay you a thing for killing you and your loved ones. One can only wonder if we will ever get the full story on this incident.

If this was the only breach of honesty from our defence department we might over look it, but it is not. In Skull Valley Utah in the 1970's the Army released deadly nerve gas and told no one. It may have been only luck that just a flock of sheep were killed, but the point is that it took years of investigations and more lawsuits to get to the truth. Once more the military has been proven to lie.

3.2.8 Just recently declassified documents revealed that the military released highly radioactive gases from their plant in Hanford, Washington. This was not an accident but a deliberate release to study the effects of such a gas release. Even in the face of needed research human life must be considered. This is but another example of the military not telling anyone of the danger that they are being placed in.

001

The United States, while under the leadership of Presidents Kennedy, Johnson, Nixon, Ford, and Carter was revered and respected as not only the world leader in space exploration but as the leader in safety. This held true until Ronald Reagan. Then the military became heavily involved in our space program. Under the pressure and careless leadership of the military the space program became a war tool. We all know too well the despicable results of the Challenger shuttle and it's crew when the military push was on. Now thanks to our own military we virtually have no space program.

The point that I am getting to is that the military will lie if necessary to cover up it's activities. When the military becomes 3.2.11
involved with the science community, it only leads to ruination of scientific research. It will also conduct deadly and highly illegal activities and not tell any one. Now I ask you this ,can we even trust our own government when the consequences are death?

Let me get back to the plant it's self. The worst atrocity man has ever imposed upon his fellow man was the gas chambers of Nazi Germany. This is looked upon by historians as so horrible that it cannot even be comprehended by some people. It has been vowed that this type of atrocity will never be allowed to ever exist again anywhere in the world. Well folks hold on to your hats because all the Jews killed in Germany added to all the men killed in World War two added to all the people ever killed in all the wars of man kind added to all the murders of people will not equal the number of people that one of these bombs can kill. Now I ask you is this what you want built anywhere?

The combined nuclear destruction capability of the nuclear 4.13
bombs now in the world is enough to destroy all forms of life on not just the planet Earth but 140 such planets. Why do we even think of making more?

When we think of the environmental impact we must consider the 5.30.3.1
waste products. Can we go on forever producing more radioactive waste. We have no safe place to store any of this waste now what alone create more. Remember these products will be with this planet for hundreds of thousands of years.

I ask you ,what will your children or grand children or great-grand children read in their history books about the Nuclear War called World War Three ? Well you don't need to wonder because there will be no history books to read. There will be no one to read them if there were any and there will be no one to write the history of Nuclear Insanity. There will be only a charred blackened globe drifting endlessly in space for time and eternity so poisonous and radioactive that no form of life known to us could possibly survive. Is this what you want ?

If you can but imagine for just a moment this cinder devoid of life then you can picture the monument to the Reagan administration and it's insane nuclear arms buildup.

If we are to look at the impact of this plant then we must look at the need for it. At the present time we are looking at 4.3
removing 500 nuclear missiles from Europe. What are we going to do with the plutonium in these. If we are to continue the coarse of nuclear disarmament in future treaties then why do we need to spend a billion dollars to build a plant we are trying to talk

1A

ourselves out of.

A more sane and humane project would be to build a plant that might depose of these nuclear war heads. If we were to do that then in our treaties we could bring Russia's bombs here and jointly depose of them then there could be no cheating on treaties by either side. 6.3

We are being told of the multitude of safety factors being planned into this plant. We are being told of the simplicity of it's operation. I ask you why can't it be put into downtown Boston or Los Angles. The answer is simple. It is deadly and dangerous and would be a prime target in case of a nuclear attack. This I submit is the real reason they want to put it in the middle of a desert some where out in Idaho.

This plant if constructed would only produce death, therefore it must be called a death plant. I strongly feel that we must improve the economy of Idaho but I am not ready to sell my sole to the devil for a few dollars. Must we resort to the death of other people in order to bring us wealth. Where will that thought put us in the books of history? How can you sell industries on the quality of life in Idaho when they know we manufacture death here. Please don't lower the standards of Idaho to this despicable level. 2.7.10 5.27.5.3

In summary I want to say that this is an insane project, run by a lying insane military,and is being sold to the people of a economic depressed state as a money promoter only. It makes one wonder if the economy of Idaho has been purposely set up so the people would consider such a horrifying project ? Please stop the nuclear madness ! 5.27.6.9

In closing I would like to make two quotes. These are found in the holy Bible. They were spoke by Jesus during his sermon on the mountain. First there is St. Matthew chapter 7 verse 15: Beware of false prophet's, which come to you in sheep's clothing, but inwardly they are ravening wolves. Second I will quote St. Matthew chapter 5 verse 9: Blessed are the peacemakers: for they shall be called the children of God. 1.1

2

Thank you,

Garry M. Nielsen
Rt. # 1 Box 1002
Hansen, Idaho 83334
208-423-4382

1- T. Hill
→ 1- Hearing reply file
1- file
1- P. Phelps

3860 Elgin Way
Boise, Idaho 83704
Phone: 208-323-9030
208-322-1039
January 3, 1988

Gentlemen:

I wish that I could give my testimony in person. Unfortunately, I will not be in the United States of America at the time that your hearings will convene.

I realise that many jobs are at stake should the Special Isotope Separation Facility not be built at INEL. 4.13

I am also aware of the fact that there are many tons of Plutonium 239 extant that can be refined into weapons without a laser refinery in Idaho.

In the spirit of the recently negotiated destruction treaty with regard to intermediate and theatre nuclear weapons, I would urge you to go further and support the destruction of strategic ICBMs. 4.14

Quite frankly, I think that the Earth should be spared another holocost. 1.1

I remain,
Yours sincerely,

John Wm. Sackman, D.Sc., Ph.D.

JWm.S/cts

Photocopies to: Ronald Reagan,
Steve Symms,
James McClure,
and Cecil Andrus

W003

1-CRN
1-T. Hill
1-File

864 Claire View Lane
Idaho Falls, Idaho
Feb 16, 1988

RECEIVED
MAR 2 1988
SIS Project Office

Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

ATTENTION: Clayton R. Nichols Acting Project Mgr. SIS Project Office

SUBJECT: Draft Environmental Impact Statement SIS Project. DOE/EIS-0136D

I have made a preliminary review of subject draft which was sent to me and I offer the following comments.

5.30.1.26 1. What is the reduction in chemical and radio-active waste between the SIS and the present method of producing weapon-grade plutonium. This information does not appear to have beem covered by the draft.

1.1 2. Based on information in the draft it appears that it would be more efficient to locate the SIS at the Hanford site near the processed N-Reactor fuel and scrap plutonium and transport the finished weapon grade plutonium to DOE'S Rocky Flats Plant. Industry normally locates close to supply of raw materials.

5.2.11 3. We have gotten along for years with the existing production reactors. THe U.S. congress is about to approve a treaty with Russia on the reduction of Nuclear Weapons. Some Scientists already state that we have sufficient nuclear capacity to blow the world to bits. Can the U.S. government realistically afford to spend 800 million on a SIS Project with such a large government debt at the present time?

2.6.3 4. This enviornmental report outlines the SIS Project in sufficent detail so that the Russians could copy the process with a few knowledgeable engineers. 2.6.4

5. Why not put the money into a new fuel processing plant to process the fuel from all commmerial nuclear power plants and include the requirement for weapons grade plutonium. The government would thus have an adequate supply of plutonium for defense purposes. The commercial nuclear power companies would have a place to process there spent stored fuel. The nuclear buried waste potential woud be reduced. The governments production reactors could be mothballed for a future emergency. The federal laws would probably have to be changed so the department of Energey and the Commercial Power Companies could cooperate. 5.26.2

6. A potential enemy will strike first at the only operating SIS plant. It seems that the only way to get around this enemy action is to stock-pile weapons grade plutonium at several strategic locations. 2.7.10

Sincerely,

Donald E. Weinberg, P.E.

Donald E. Weinberg

003

W004

W005

4

U.S. Department of Transportation
Office of the Secretary of Transportation

400 Seventh St., S.W.
Washington, D.C. 20590

FEB 18 1988

1- RDE
1- File
1- Correspondence file
1- T Hill
Routed by
ID Manager's Office

FEB 23 1988

Mr. Don Ofte
Manager, Idaho Operations Office
Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Ofte:

The Draft Environmental Impact Statement DOE/EIS-0136, Special Isotope Separation Project, which you recently sent to Secretary Burnley, was referred to this office.

We have no comment, but are forwarding the document to the Office of Hazardous Materials Transportation of the Department's Research and Special Programs Administration, for their review and any comment considered appropriate.

Thank you for making this DEIS available to us.

Sincerely,

Eugene L. Lehr
Chief, Environmental Division

Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

February 11, 1988

James O. Mason, Director
Center for Oisease Control
1600 Clifton Road, NE
Atlanta, GA 30333

Subject: Special Isotope Separation Project (SIS) Draft Environmental Impact Statement (EIS)

Dear Mr. Mason:

Enclosed is a copy of the Department of Energy draft Environmental Impact Statement, OOE/EIS-0136, Special Isotope Separation Project, Idaho National Engineering Laboratory, Idaho Falls, Idaho (February 1988). The statement has been prepared in accordance with the National Environmental Policy Act of 1969 to assess the environmental impacts of DOE's proposed action to construct and operate the Special Isotope Separation Production Plant at either the Idaho National Engineering Laboratory (INEL); Hanford, Washington; or the Savannah River Plant in South Carolina. The INEL has been designated as the preferred location to construct and operate the SIS.

Three public hearings on the draft statement will be held in Idaho as follows:

March 9, 1988
2:00 and 7:00 p.m.
Owyhee Plaza
1109 Main Street
Boise, Idaho

March 10, 1988
2:00 and 7:00 p.m.
Holiday Inn
1350 North Blue Lakes Blvd.
Twin Falls, Idaho

March 11, 1988
2:00 and 7:00 p.m.
University Place
1776 Science Center Drive
Idaho Falls, Idaho

Anyone who wishes to speak at any of these hearings should notify the following on or before March 7, 1988:

Dr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402
Telephone: (208) 526-0306

All interested persons are invited to participate in these hearings and/or submit written comments to Dr. Nichols by April 21, 1988. Envelopes should be marked "Special Isotope Separation EIS." Comments postmarked after April 21, 1988, will be considered to the extent practicable.

Very truly yours,

R. E. Tiller for
Don Ofte
Manager

Enclosure

5

DEPARTMENT OF HEALTH & HUMAN SERVICES — Public Health Service

Centers for Disease Control
Atlanta GA 30333

February 22, 1988

Received by
ID Manager's Office

FEB 29 1988

1- CRN
1- M File
1- T. Hill
1- Chron File

Don Ofte
Manager, Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Ofte:

I am replying to your letter of February 11 transmitting the Draft Environmental Impact Statement (DEIS) for the "Special Isotope Separation Project, Idaho National Engineering Laboratory, Idaho Falls, Idaho." We appreciate receiving a copy of this document for our review. Through prior arrangement, all DEIS's with a radiological health component are reviewed for the U.S. Public Health Service by the Office of Health Physics, Center for Devices and Radiological Health, Food and Drug Administration (FDA). By copy of this letter, I am forwarding our copy of this DEIS to FDA for review. The Office of Health Physics at FDA will forward their comments directly to your office when the review is complete.

Thank you for sending this document for our review. Please insure that we are included on your mailing list for further documents which are developed under the National Environmental Policy Act.

Sincerely yours,

David E. Clapp, Ph.D., P.E., CIH
Environmental Health Scientist
Special Programs Group
Center for Environmental Health
and Injury Control

cc:
C. Cox, Office of Health Physics, CDRH, FDA

5A

RECEIVED
MAR 2 1988
SIS Project Office

W007

LIFE ★ GUARD IDAHO
BOX 4090
KETCHUM • IDAHO • 83340

WATCHING OUT FOR IDAHO'S QUALITY OF LIFE

1-CRN
1-File
1-T Hill

Dear Clay.

Here is another copy of a letter from Feb. 3. as well as a copy of the page in my notebook. The checks mean that I transferred the names to you either by mail, or as in the case of the first three, in person.

Here is one more name.
Mr. Bob Smith
Department of Geology and Geophysics
University of Utah
Salt Lake City UT 84112

I expect these requests to go out the day they are received. I also expect these people to receive the full document not the executive summary.

2.9 I think it should be noted that there seems to be problems in distribution of the document. Now it appears you have run out of copies. I sense a reluctance on behalf of the DOE to making multiple copies available at places such as Congressman Stalling's offices.

This behavior is unacceptable. Copies should be freely distributed and made as widely available as humanly possible. The small cost of printing and distributing these critical documents should in no way preclude their mass distribution. I do not find the executive summary a substitute for the full document. I believe it should be sent to the public only when expressly requested.

2.8.8 I also understand that cost was cited as one of the reasons not to hold a hearing in Pocatello. Is that true? Please provide estimated costs for such a hearing.

Also enclosed is a request for information submitted on Jan. 19, 1988. I am still awaiting a response.

Yours Truly,

Liz Paul
Snake River Alliance

RECEIVED
FEB 22 1988
SLS Project Office

007

A PROJECT OF THE SNAKE RIVER ALLIANCE

BOX 1731 • BOISE, IDAHO 83701 • 208-344-9161

February 3, 1988

To: Clay Nichols

From : Liz Paul

Re: Additions to DEIS distribution list

Dennis Donnelly
225 Walnut
Holyoke, MA 01040

Ian Von Lindern
116 E 3rd St
Moscow ID 83843

Chemistry Department
Prof. Gayle Weigand
ISU
Pocatello, ID 83209

Biology Department
Prof. Charles Trost
ISU
Pocatello ID 83209

Kenneth L. Pierce
Mailstop 913 USGS
Box 25046 Fed. Center
Denver CO 80225

Biology Dept.
Prof. Jack Griffith
ISU
Pocatello ID 83209

6

7A

DEIS Distribution List

✓ Prof. Chuck Skoro
416 Ada St.
Boise ID 83702

✓ Ian Von Lindern
Moscow ID

✓ Dr. Wayne Minshall
1983 S Old Hwy 91
INKom ID 83245

✓ Dennis Donnelly
225 Walnut
Holyoke MA 01040

✓ Prof. Al McGlinsky
12713 Bentwell Lane
Nampa ID 83651

✓ Gayle Weigand
✓ Charles Trost
✓ Ken Pierce
✓ Jack Griffith

✓ Geology Dept % Paul Link
ISU
Pocatello, ID 83209

✓ Mr. Charles Pace
Sho-Ban
Box 306 Fort Hall 83203

✓ Mr. Larry Young
Mayor, City of Ketchum
Box 2315
Ketchum ID 83340

✓ Ms Sue Ball
Sho-Ban
Box 306

✓ Ms Ruth Leider
Mayor, City of SV
Box 416
SV ID 83353

✓ Mr. John Peavey
Idaho State Senator
Statehouse
Boise ID 83720

7B

LETTER TO CLAY NICHOLS AND TROY WADE, DOE

January 19, 1988

2.13.18

1. Is there any known use for the Special Isotope Separation plant, as proposed for construction at the Idaho National Engineering Laboratory, other than separation of plutonium isotopes ? If yes, please describe.
2. Is there any speculated use for the SIS other than the purpose mentioned above ? If yes, please describe.
3. Does the DOE have any plans to use the proposed SIS plant for any purpose other than separation of plutonium isotopes ?
If yes, please describe.
4. Is there any known application of atomic vapor laser isotope separation other than separation of plutonium or uranium isotopes ? If yes, please describe.
5. Is the DOE funding research into other applications of AVLIS other than what is mentioned above ? If yes, please describe.
6. Are you aware of any other research into uses of AVLIS? If yes, please describe.
7. What technologies will be transferred from the SIS to non-INEL Idaho businesses? Please be as detailed as possible in your description.
8. What businesses/industries in Idaho have need for AVLIS technology ? high-energy dye lasers ?
9. What will the product of the proposed SIS be? What will it be used for ? Please provide as much detail as possible.
10. Is there any other uses for the product of the SIS other than what you answered for #9 ?

Sincerely,

Liz Paul

7C

W008

RECEIVED

FEB 25 1988

SIS Project Office

1-CRN
1- Chron File (w/o att
1- T Hill (w/o att.)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Box 25046 Mail Stop 913
Denver Federal Center
Denver, CO 80225-0046

Feb. 19, 1988

Mr. Clayton R. Nichols, Acting Project Mgr.
SIS Project Office
Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Clay:

It has been quite a while since we last saw each other those frosty days in the Raft Valley on the geothermal project. I have continued my work in the Snake River Plain-Yellowstone region, and am now working on the glacial-geology, tectonics, and archeology of Jackson Hole.

I received a copy of the "Draft Environmental Impact Statement " for the "Special Isotope Separation Project My comments given here are not part of a formal U.G. Geological Survey review, but offered simply to improve the draft EIS.

5.10.12 The section on the geology of INEL has no references to literature published after 1984. In particular, the following U.S. Geological Survey Open File Report 85-290 with 38 papers on the Borah Peak Earthquake of Oct. 28, 1983, and a related collection of 11 articles in the 1987 Bulletin of the Seismological Society of America are not referenced:

Proceedings of Workshop XXVIII on the Borah Peak Earthquake, 1985, U.S. Geological Survey Open File Report 85-290. 686 pages,

Bulletin of the Seismological Society of America, No 3, v. 77, p. 691-876.11 articles on the Borah Peak Earthquake.

5.10.12 Enclosed is a copy of my 1985 article on the history of the Arco segment of the Lost River fault, which is one of the faults nearest the proposed SIS facility. The late Quaternary slip rate is about 0.12 m/1000 years. No offsets have occurred in the last 30,000 years. Using the Borah Peak faulting as a model, maximum offset during an earthquake is likely to be no more than 2 m. If one assumes a model of constant strain buildup, then about 4 m of strain has accumulated, and offset on the Arco segment is overdue (Pierce, 1985 , p. 204). Another model that assumes clustering fault offset through time is permissive of continued quiescence (Pierce, 1984, p. 204). I think a conservative assessment of earthquake hazard would have to assume that the first model be considered valid for design purposes unless evidence can be found to reject it. Seismic effects of an offset on this fault can be estimated from the segment length (30 km including the 10 km extension south of Arco), and maximum offset (2-3 m??), and distance from the proposed plant (20-30 km?).

I have also enclosed a paper on the Quaternary Tectonic setting of the Borah Peak Earthquake (Scott, Pierce, and Hait, 1985) published in the Bulletin of the Seismological Society of America. This paper discusses past and future activity on the major basin-and-range faults north of the Snake River Plain. 5.10.13

If possible, I would like a copy of the EG&G 1984 (revised 1985) "INEL Environmental Characterization report, EGG-NPR-6666" I would also like a copy of the Sierra Seismic report by King and Doyle, 1982, and particularly the Seismic Hazard analysis for INEL by Tera (Corporation) in 1984

I hope the enclosed information is of value to environmental considerations at the Idaho National Engineering Laboratory. If you have any questions or wish amplification of any points, please feel free to call me (FTS 776-1244 or 1256, (303) 236-1244 or 1258).

Sincerely,

Kenneth L. Pierce

Kenneth L. Pierce
Research Geologist
U.S. Geological Survey

Enclosures: Arco segment paper, Quaternary Tectonics paper, Idaho Gravels paper, abstract on eastern Snake River Plain neotectonics. Editorial comments on geology section.

8

in publicly available monitoring reports for the INEL; a report entitled INEL Environmental Characterization Report and its appendixes (EG&G Idaho, Inc., 1984); the Final Environmental Impact Statement for Waste Management Operations at the Idaho National Engineering Laboratory (ERDA,1977a); and an Environmental Evaluation of Alternatives for Long-Term Management of Defense High-Level Radioactive Wastes at the Idaho Chemical Processing Plant (DOE, 1982a).

3.1.4.1 Topography

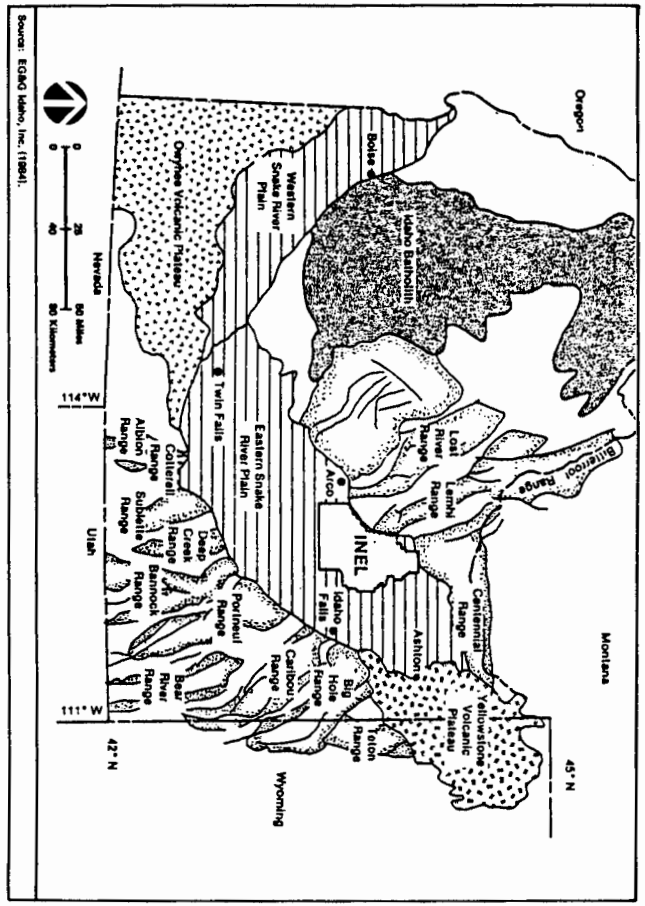
The surface of the INEL is relatively flat, with predominant relief manifested either as volcanic buttes jutting up out of the desert floor or as unevenly surfaced basalt flows and/or flow vents and fissures. Elevations on the INEL range from 1585 meters (5200 feet) in the northeast to 1450 meters (4750 feet) in the southwest, with the average being 1525 meters (5000 feet). A broad topographic ridge extends northward through the INEL, effectively separating the drainage of mountain ranges northwest of the INEL from the Snake River.

The ground surface of the ICPP area is also relatively flat, with approximately 9 meters (30 feet) of mixed sediments covering the underlying basalt surface. The elevation on the south end of the ICPP area is 1498.9 meters (4917.5 feet), sloping to 1496.7 meters (4910.5 feet) at the northern perimeter.

3.1.4.2 Geology

The Snake River Plain is a physiographic depression that extends from the Idaho-Oregon border to the Yellowstone Volcanic Plateau (Figure 3-2). The plain is composed of two structurally dissimilar segments: the western portion of the Snake River Plain, which geophysical evidence indicates is a graben structure bounded on both north and south by large normal faults, and the Eastern Snake River Plain (ESRP), which is not bounded by faults. The INEL is located on the ESRP, which is considered to be the easternmost extension of the Columbia Plateau province. The ESRP is bounded by the Northern Rocky Mountain province to the north, the Middle Rocky Mountain province to the east, and the Basin and Range province to the south (EG&G Idaho, Inc., 1984). The ESRP is a volcanic plain that consists of a series of volcanic calderas overlain by extrusive volcanic rocks interbedded with alluvial, lacustrine, and aeolian sediments. The covered volcanic calderas are predominantly rhyolitic. The extrusive volcanic rocks are largely basaltic lava flows that may contain moderate amounts of welded tuff and rhyolitic pumice (EG&G Idaho, Inc., 1984).

Important structural and tectonic features of the region surrounding the INEL include the block-faulted Lost River, the Lemhi, and the Bitterroot Ranges of the Northern Rocky Mountain province to the north; the block-faulted mountains of the Basin and Range province to the south; and the rift zones in the ESRP.



Source: EG&G Idaho, Inc. (1984).

Figure 3-2. Generalized Map of Southern Idaho Showing Geographic and Geologic Features.

The mountains north of the INEL were formed by normal movement along northwest-southeast-trending faults starting in the Eocene Epoch. These faults cut older folds and thrust faults of Triassic to Eocene age (Armstrong and Oriel, 1965). In turn, the normal faults are cut by strike-slip faults of largely right-lateral movement that occur in an 80-kilometer-wide (50-mile-wide) by 240-kilometer-long (150-mile-long) zone between Arco, Idaho, and the Big Hole Basin in Montana (Ruppel, 1965). Geophysical surveys have shown the southeast margin of the Northern Rocky Mountain province to be a northeast-southwest-trending normal fault. Vertical displacement along this fault is believed to be on the order of 300 meters (1000 feet) (Sparlin, 1982). Another study performed by Sierra Geophysics, however, found no evidence for such a fault (King and Doyle, 1982).

The basalt plateau upon which the INEL is located is postulated to contain three northwest-southeast-trending rift zones that may have formed by the extension of Basin and Range tectonism into this area (Figure 3-3). These rift zones could have been the centers for basaltic eruptive vents near the INEL, the rifts being defined by the linear arrangement of vents and fissures (Kuntz and Dalrymple, 1979).

Three normal faults associated with mountain building north of the INEL have been identified as occurring on the ESRP. These are the Arco, Howe, and "Boundary" faults (EG&G Idaho, Inc., 1984).

The Arco Fault and the Howe Fault are both believed to have been active between 100,000 and 15,000 years before present. Both are southern extensions of normal faults associated with mountain building to the north. The Arco Fault is the southernmost extension of the Lost River Range Front Fault system, and the Howe Fault is an extension of the Lemhi Range Front Fault system. The Arco Fault is believed to extend approximately 15 kilometers (9.3 miles) into the ESRP. Attempts to measure the length of the Howe Fault on the ESRP have been unsuccessful. Only gravity data suggest that this fault extends into the ESRP. Although several authors have postulated that the Boundary Fault lies along the northwest margin of the ESRP, geophysical data and geologic field reconnaissance mapping suggest that a boundary fault of the magnitude necessary to explain the seismic evidence does not exist (EG&G Idaho, Inc., 1984).

3.1.4.3 Seismic and Volcanic Activity

The Intermountain Seismic Belt (ISB) and the Idaho Seismic Zone (ISZ) are the two major areas of seismic activity near the ESRP. At their closest points, the seismic zones lie approximately 20 kilometers (12 miles) from the INEL, effectively encircling the INEL on all sides except the southwest quadrant (EG&G Idaho, Inc., 1984).

Although high-magnitude earthquakes do not originate beneath the INEL, large earthquakes do occur in the adjacent seismic belts (EG&G Idaho, Inc., 1984). The largest reported earthquake event in the ISZ occurred along the western flank of Borah Peak (Lost River Range) approximately 64 kilometers (40 miles) northwest of Arco (Table 3-1). This earthquake occurred on October 28, 1983, and had a magnitude of 7.3 on the Richter scale. Although

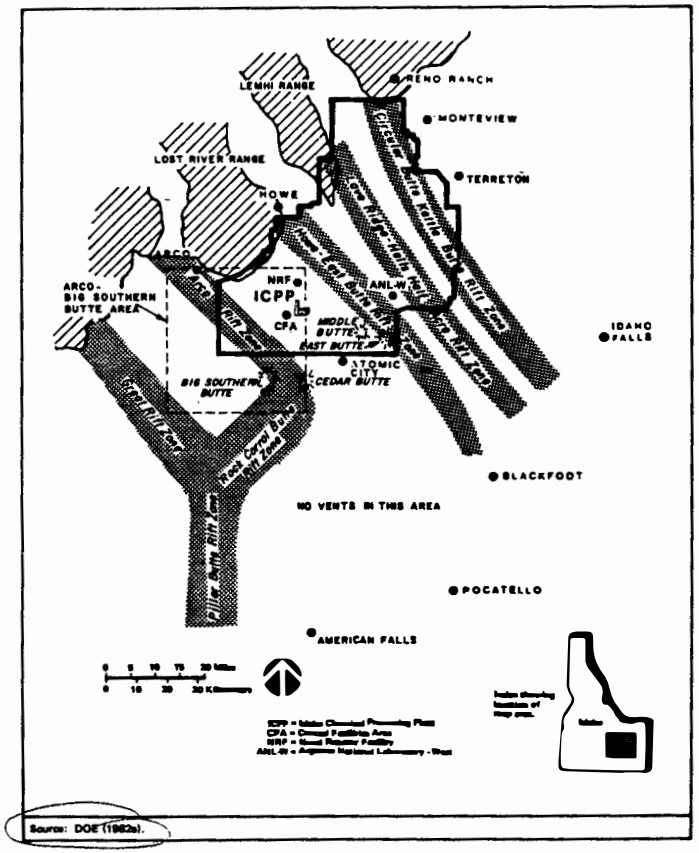


Figure 3-3. Postulated Rift Zones and Volcanic Structures near the INEL.

Table 3-1. Largest Historic Earthquakes in the Region Surrounding the Eastern Snake River Plain[a]

Date	Latitude (°N)	Longitude (°W)	Modified Mercalli Intensity	Richter magnitude, M_L	Location
November 10, 1884	42.0	111.3	VIII	6	Bear Lake Valley[b]
October 5, 1900	41.0	112.7	VIII	6	Hansel Valley, Utah[b]
June 27, 1925	38.0	112.2	VIII	6.75	East of Helena, Montana[b]
March 12, 1934	41.7	112.9	IX	6.6 (M_S)[c]	Hansel Valley, Utah[b]
October 18, 1935	46.0	112.0	VIII	6.25	Helena, Montana[b]
October 31, 1935	46.0	112.0	VIII	6	Helena, Montana[b]
July 12, 1944	44.7	110.2	VII	6.1	Seeface, Idaho[b]
February 13, 1946	44.7	110.4	VI	6.0	Near Clayton, Idaho[b]
November 23, 1947	44.0	112.0	VIII	6.25	Southwestern Montana[b]
August 17, 1959	44.0	111.1	X	7.1	Hebgen Lake, Montana[b]
August 18, 1959	44.8	110.7	VI	6.2	Yellowstone Park, Wyoming[d]
August 18, 1959	44.8	111.0	V	6.2	Southwestern Montana[d]
March 27, 1975	42.1	112.6	VIII	6.3 (M_S)	Pocatello Valley, Idaho-Utah border[b]
				6.0 (M_L, M_S)[e]	
June 30, 1975	44.0	110.6	VII	6.1 (M_L)	Yellowstone Park, Wyoming[b]
				7.3 (M_S)	
October 28, 1983	44.05	113.58	VII	7.3	Borah Peak, Idaho

[a]Source: EG&G Idaho, Inc. (1984).

[b]Includes aftershocks (or largest swarm events) of magnitude 4.0 or greater (or Modified Mercalli Intensity VIII for preinstrumental shocks from 1852 through July 1980).

[c]M_S is the magnitude of surface waves.

[d]Part of 1959 Hebgen Lake earthquake sequence.

[e]M_L is the local magnitude.

the shock was felt, no structural or safety-related damage occurred at the INEL (Gorman and Guenzler, 1983).

Four earthquakes have been centered within the ESRP, although none has exceeded a Richter scale magnitude of 1. The only earthquake to have its epicenter within the INEL was a 0.7-magnitude event centered 6 to 8 kilometers (3.7 to 5 miles) east of the NRF. No damage from these earthquakes was reported (King and Doyle, 1982; EG&G Idaho, Inc., 1984).

Peak accelerations for 100- and 1000-year return periods were determined for the ANL-W area located in the southeast section of the INEL (Tera, 1984). It was estimated that accelerations of 0.073g and 0.14g have return periods of 100 and 1000 years, respectively. In general, areas of the INEL northwest of the ANL-W area could expect significantly stronger ground motion for the same return periods. This is because the source area for the earthquakes producing these peak accelerations is largely in the ISZ to the northeast.

Because the INEL is located in a province built principally by volcanic eruptions, there is a potential for resumption of volcanic activities. Volcanic processes that might affect facilities at the INEL are lava flows, earthquakes associated with volcanism, ground deformation, and explosive eruptions (EG&G Idaho, Inc., 1984).

Recent lava flows on the ESRP are basaltic in composition, and have traveled a maximum distance of 30 kilometers (19 miles) from their sources, with an average distance of 5 to 10 kilometers (3 to 6 miles) (EG&G Idaho, Inc., 1984). The most recent volcanic activity in the ESRP occurred 64 kilometers (40 miles) west and south of the INEL along the Great Rift and King's Bowl Rift approximately 2100 years ago. The most recent volcanic activity on the INEL occurred about 12,000 years ago. Just outside the eastern boundary of the INEL, the Hell's Half-Acre flow has been dated at 4100 years ago. The mean rate of occurrence of volcanic eruptions is estimated at between 30,000 and 100,000 years (Kuntz, 1978; Kuntz and Dalrymple, 1979). Because of the ages of the previous flows and the locations of the INEL facilities, safety-related problems due to lava flows are not anticipated (EG&G Idaho, Inc., 1984).

Earthquakes associated with volcanic eruptions that might be expected at the INEL are of two types: (1) earthquakes due to magma movement and (2) sympathetic tectonic earthquakes. Earthquakes due to magma movement are typically shallow (1 kilometer or 0.6 mile), of low magnitude (4.0 to 5.0), and restricted to areas near the magma source. Sympathetic tectonic earthquakes are caused by forceful injection of magma into existing rift zones and as such are generally confined to the rift areas. Because of the low magnitude and localized effects from these types of earthquakes, safety-related problems due to sympathetic tectonic earthquakes and earthquakes due to magma movement are not anticipated (EG&G Idaho, Inc., 1984).

Ground deformation is the inflation or deflation of the land surface due to the movement of magma. The effects of inflation/deflation tend to be localized around active volcanic vents and thus are not expected to impact the INEL (EG&G Idaho, Inc., 1984).

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SURFACE FAULTING ACCOMPANYING THE BORAH PEAK EARTHQUAKE AND SEGMENTATION OF THE LOST RIVER FAULT, CENTRAL IDAHO

BY ANTHONY J. CRONE, MICHAEL N. MACHETTE, MANUEL G. BONILLA, JAMES J. LIENKAEMPER, KENNETH L. PIERCE, WILLIAM E. SCOTT, AND ROBERT C. BUCKNAM

ABSTRACT

On the morning of 28 October 1983, the M_s 7.3 Borah Peak earthquake struck central Idaho and formed a Y-shaped zone of surface faults that is divided into a southern, a western, and a northern section. The total length of the surface faults is 36.4 ± 3.1 km, and the maximum net throw is 2.5 to 2.7 m. The near-surface net slip direction, determined from the rakes of striations in colluvium, averaged 0.17 m of sinistral slip for 1.00 m of dip slip.

The 20.6-km-long southern section is the main zone of surface faulting and coincides with the Thousand Springs segment of the Lost River fault. It has the largest amount of net throw, most complex rupture patterns, and best evidence of sinistral slip. The surface faults include zones of ground breakage as much as 140 m wide, *en echelon* scarps with synthetic and antithetic displacements, and individual scarps that are nearly 5 m high.

The 14.2-km-long western section diverges away from the Lost River fault near the northern end of the southern section. The net throw on this section is generally less than 0.5 m but locally is as much as 1.6 m. The new ruptures are poorly developed across the crest and north flank of the Willow Creek hills; they are mostly downhill-facing, arcuate scars, perhaps incipient landslides, that may overlie a deeper zone of tectonic movement.

The northern section, at least 7.9 km long, is on the Warm Spring segment of the Lost River fault and has a maximum net throw of about 1 m. The pattern of surface faulting on this section is simple compared to the other sections. A 4.7-km-long gap in 1983 surface faults separates the northern and southern sections but contains an older scarp of late Pleistocene age.

Geologic, seismologic, and geodetic data from the earthquake suggest that barriers confined the primary coseismic rupture to the Thousand Springs segment of the fault. The rupture propagated unilaterally to the northwest from a hypocenter near the southeastern end of the segment. The southeastern boundary of the segment is marked by an abrupt bend in the range front, a 4-km-long gap in late Quaternary scarps, and transverse faults of Eocene age that intersect the Lost River fault.

The northwestern boundary of the Thousand Springs segment is at the junction of the Willow Creek hills and the Lost River fault. Here, the southern and western sections of surface faults diverge and there is a gap in the 1983 scarps. During the first few weeks after the main shock, the large-magnitude and large stress-drop aftershocks clustered near this barrier. Later, aftershocks were mainly northwest of the barrier on the Warm Spring and Challis segments, and showed that strain adjustments eventually affected the entire northern part of the Lost River fault. Fault-scarp morphology and the bedrock geology suggest that the boundary between the Thousand Springs and Warm Spring segments has probably ruptured less frequently and had less net slip during much of the late Cenozoic than the interior of the adjacent segments. The 1983 faulting shows that although segment boundaries can stop or deflect primary ruptures, secondary surface faulting can occur on adjacent segments of the main fault. A late

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Pleistocene Episodes of Alluvial-Gravel Deposition, Southeastern Idaho

by

Kenneth L. Pierce[1] and William E. Scott[1]

ABSTRACT

In southeastern Idaho, extensive gravel deposits occur on alluvial fans and along major streams. Gravel deposits of late Pleistocene age occur in each drainage; older gravel deposits form terraces or are buried by the younger gravels. Ages of these deposits are estimated from stratigraphic relations to glacial deposits, sequence relations, degree of soil development, thickness of carbonate coats on stones in soils, thickness and stratigraphy of loess mantles, and radiometric ages. These Pleistocene gravel deposits are characterized by (1) a clast-supported fabric that either is openwork or has a loose sand matrix that generally does not completely fill the spaces between clasts, (2) less than a few percent silt and clay, (3) sorting such that three-fourths of the material in a given exposure is restricted to 4 phi units in the gravel range and even better sorting in individual gravel beds, (4) subhorizontal beds decimeters thick and planar for distances of more than 5 meters, (5) a scarcity of fine-grained beds, and (6) general absence of matrix-supported beds. In contrast, Holocene alluvium is dominantly fine grained and is confined largely to upland valleys and to floodplains. Mudflow deposits are uncommon, except within the mountains and at the heads of small alluvial fans.

These late Pleistocene and older gravels were deposited by streams with sustained seasonal flows probably at least ten times larger than discharges of present streams. Glacial meltwater is only locally a factor in increased discharges because gravels in unglaciated drainages are similar in age and character to those in glaciated drainages. High flows caused by an increase in precipitation do not seem likely because during glacial times the northern Pacific Ocean, which is and was the moisture source for southern Idaho, was colder than at present. Factors thought to be responsible for markedly increased seasonal discharges are (1) a thicker cold-season snowpack resulting from climates as much as 10-15°C colder than present, (2) later and more rapid seasonal melt of this snowpack, and (3) surface runoff, rather than ground-water underflow, of most of this increase in seasonal discharge.

Stabilized rubbly colluvium on mountain slopes suggests that the periglacial conditions of the Pleistocene produced a greater supply of gravelly debris to streams. In contrast, much of the sediment now transported by streams is derived from erosion of loessial deposits that mantle much of the landscape.

INTRODUCTION

In 1974 when we started our surficial geologic studies in the Basin and Range province[2] of Idaho, we expected to find recent, widespread mudflow and flash-flood deposits forming large alluvial fans. In contrast, we determined that the alluvial fans are largely relict Pleistocene landforms, consisting of well-washed, relatively coarse-grained gravel. This gravel was deposited during discrete episodes that were probably broadly coincident with Pleistocene glacial ages. Holocene sediments are mostly fine grained and are probably largely reworked loess. They are restricted to small deposits along major drainages, where they cover late Pleistocene gravels. This contrast in almost every drainage between the gravel deposition during late Pleistocene time and the mud deposition in Holocene time documents a marked change in stream competency.

In southeastern Idaho, these aluvial gravels are areally much more extensive than glacial deposits and provide a much more visible manifestation of Pleistocene climates. In this report we give examples from sites on and adjacent to the eastern Snake River Plain that illustrate (1) the character and origin of alluvial-fan and main-stream gravels and (2) the evidence for their deposition during gravel-depositing episodes of late Pleistocene and older ages. In addition, we speculate on the conditions that favored gravel deposition during these episodes and offer recommendations for future studies.

Historical observations of flash floods and mudflows on alluvial fans in the Great Basin have led to the inference that these processes are important in the construction of alluvial fans throughout the Basin and Range province. Blackwelder (1928) described the historic Willard mudflow on the alluvial fan at the mouth of Willard Canyon along the Wasatch Front, and noted that mudflow and flash-flood deposits are widespread on alluvial fans in the Basin and Range province. Clayton (1981) studied three fans in southeastern Idaho that showed evidence of late Holocene activity. Although alluvial fans whose surface is underlain by Holocene deposits do occur in southeastern Idaho, they are small and generally restricted to two settings: (1) relatively low-gradient fans of fine-grained alluvium built out onto nearly flat bottomlands of the axial drainages, and (2) very steep fans composed of bouldery deposits derived from precipitous source areas and carried down steep drainages to the fan heads.

Our conclusion that alluvial-fan and main-stream gravels were deposited by streams with sustained flows much greater than at present was first presented in a report on the Raft River Valley (Williams and others, 1974). While we continued our studies in Idaho, Funk (1976) completed a study of sedimentary characteristics of fan gravels in the Birch Creek valley and concluded that these gravels were also deposited by sustained stream flows much larger than at present.

[1]U. S. Geological Survey, Denver, Colorado 80225.

[2]For the purposes of this report, we include the Lost River, Lemhi, and Beaverhead Ranges, which lie north of the Snake River Plain, in the Basin and Range province.

Pierce, K. L. and W. E. Scott, 1982, Pleistocene episodes of alluvial-gravel deposition, southeastern Idaho, in Bill Bonnichsen and R. M. Breckenridge, editors, Cenozoic Geology of Idaho: Idaho Bureau of Mines and Geology Bulletin 26, p. 685-702.

DESCRIPTION OF GRAVEL DEPOSITS

GEOLOGIC SETTING

Quaternary gravel deposits in southeastern Idaho occur both in the basins of the Basin and Range province and on the Snake River Plain (Figure 1). These sites of gravel deposition were formed by middle to late Cenozoic extensional faulting and volcanic activity. Nearby uplifted areas contributed gravel to stream systems that deposited gravels in the basins. The timing and character of gravel deposition appear to have been strongly affected by Pleistocene climate changes. Similar changes in stream regimen in both glaciated and unglaciated drainages provide compelling evidence for climatically induced changes in Pleistocene stream discharges that were unrelated to the direct effects of glaciation.

ALLUVIAL FANS OF UNGLACIATED DRAINAGE BASINS

Raft River Valley

A 10- to 15-kilometer-wide apron of large alluvial fans covers most of the floor of the Raft River Valley, which extends 65 kilometers south from the Snake River Plain to the Utah border (Figure 1; Williams and others, 1974; Pierce and others, in press). Except for parts of the Raft River Range at the south end of the valley, the flanking ranges did not support significant glaciers in Pleistocene time.

Cottonwood Creek fan. A typical alluvial-fan sequence was deposited by Cottonwood Creek near the Raft River geothermal site about 20 kilometers south of Malta (Figure 2). The age sequence of this and other fans can be determined by (1) geomorphic relations, (2) amount of dissection by drainages heading on the fan, (3) degree of soil development, and (4) relations to faults of mid-Quaternary age. The youngest fan deposit of the Cottonwood Creek sequence forms a wedge-shaped, smooth, nearly undissected surface mantled by about 20 centimeters of eolian silt. This fan deposit heads at a distance of 6 to 8 kilometers from the front of the Jim Sage Range. The surface of the fan slopes about 1.3 degrees, and its distal portion is buried by fine-grained Holocene alluvium along the Raft River.

Borrow pits in the youngest fan gravel, 1 kilometer west of Bridge, expose more than 2 meters of gravel. The gravel has a clast-supported (stone-on-stone) fabric; the space between the stones either is filled with sand or is openwork. Fine-grained beds are rare except in soil horizons, and silt and clay are estimated to constitute only a few percent of the deposit by comparison with other gravels analyzed for grain size. We use the term well-washed to reflect this paucity of silt and clay in the gravel beds. The surface soil in this deposit is weakly developed and has similar depth of oxidation and carbonate content as do soils in deposits of the high stand of Lake Bonneville at Kelton Pass, 20 kilometers southeast of Cottonwood Creek. As these Lake Bonneville deposits have been exposed to weathering since the Bonneville Flood, which occurred 14,000 to 15,000 years ago (Scott and others, 1982 this volume), this similarity suggests a late Pleistocene age for the youngest gravels of the Cottonwood Creek fan.

Older gravels of the Cottonwood Creek fan are well exposed in a large gravel pit south of the youngest fan deposit (Figure 2). The older gravels are similar to the younger gravels in having a clast-supported framework in both openwork beds and beds with a matrix of coarse sand (Figure 3). The gravel beds contain almost no silt or clay. Most beds

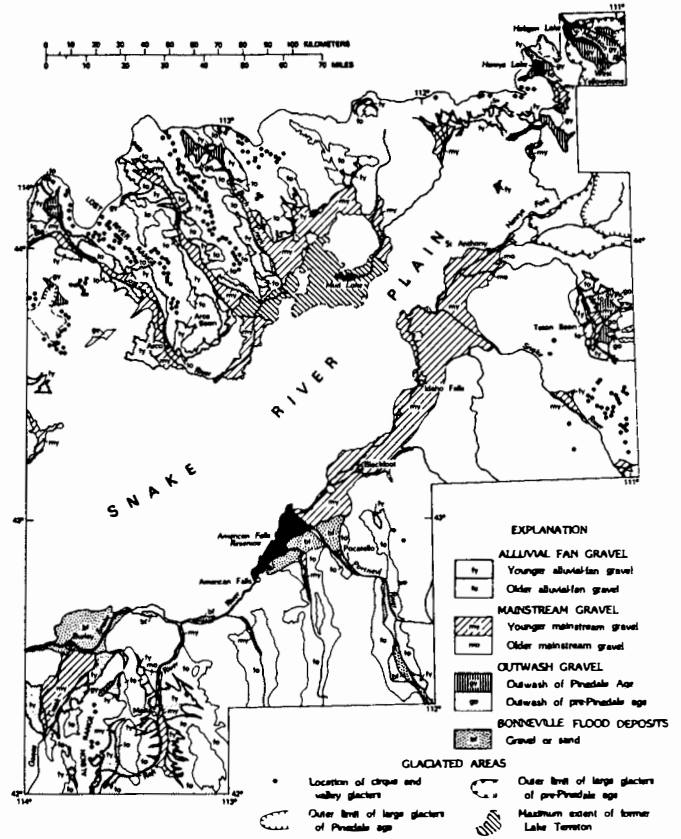

Figure 1. Map showing Pleistocene gravel deposits, glaciated areas, and extent of former Lake Terreton, in southeastern Idaho (modified from Scott, in press and Pierce, 1979).

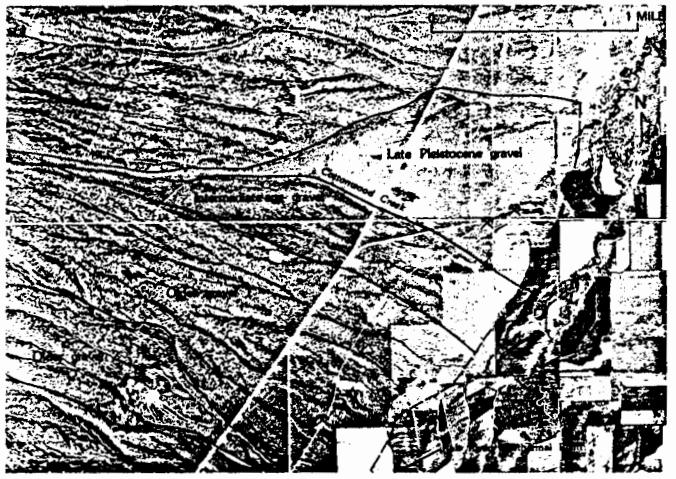

Figure 2. Vertical aerial photograph of Cottonwood Creek fan, Raft River Valley, showing contrast between smooth, wedge-shaped, late Pleistocene deposits and partly dissected older deposits. Age sequence indicated by carets, which are on younger side of contact between deposits of different ages.

are about 0.25 meter thick and are laterally continuous for more than 5 meters. Channels can be seen in cross section; one is about 2 meters wide and 0.5 meter deep. Larger channels probably exist but are difficult to trace in the gravel. Crossbedding is present in some channel deposits. Longitudinal exposures show imbrication of tabular stones. Beds with a muddy matrix were not seen. Boulders as large as 25 by 15 by 15 centimeters are present, and percussion marks are common on large stones of glassy rhyolite. The exposures show an upper gravel about 5 meters thick that partly truncates a silty, calcic soil developed in an older gravel unit.

Holocene deposits of Cottonwood Creek are largely fine grained and are confined to valleys in the Jim Sage Range and to the trench leading from the range to the apex of the youngest fan deposit (Figure 2). During the large spring runoff of 1975, Cottonwood Creek was only about 0.1 meter deep and 0.5 meter wide in the channel at the margin of the youngest fan deposit; the water was clear and was not transporting gravel.

Meadow and Sublett Creek fans. The combined fans of Meadow and Sublett Creeks on the eastern side of the Raft River Valley about 5 kilometers east of Malta (Figures 1 and 4) form large late Pleistocene alluvial fans, yet modern streamflow is generally nonexistent on these fans. These two fans cover about 125 square kilometers and were deposited by streams from the southwestern Sublett and northeastern Black Pine Ranges. Except for sand and loess dunes, the fan surfaces are flat and slope only about 0.5 degree. A loess mantle about 0.5 meter thick facilitates farming of the surface of these fans.

Particle-size analyses by the Idaho Department of Highways of samples from test holes on the fan adjacent to Interstate Highway 84 (Figure 4) show that the gravel is remarkably well washed (Figure 5). The gravel generally contains only 1 to 5 percent silt and clay. Individual samples from the test boles include several beds and have inclusive graphic standard deviations that average -2.4 ± 0.3 (in phi

units), indicating they are "very poorly sorted" (Folk, 1968), but this sorting nomenclature is not very useful in making distinctions among alluvial gravel deposits. Individual beds are better sorted than the deposit as a whole and seem to us to be as well sorted as an alluvial gravel in this environment can be. The mean grain size of the gravels decreases down-fan from about 9 ± 3 millimeters (1 S.D.; n=44) 3 kilometers from the fan head to about 5.5 ± 1 millimeters 10 kilometers farther down the fan (Figure 6). The weight percent of gravel larger than 50 millimeters in diameter decreases from about 5 percent to about 0 percent over the same distance (Figure 6).

Soils in these loess-mantled fan gravels are weakly developed. The carbonate-enriched (Cca) horizon is from 0.2 to 0.4 meter thick and locally contains a 1-centimeter-thick cemented layer. Carbonate coats on the undersides of stones in the Cca horizon at three different localities average 0.4 ± 0.3 millimeter, 0.6 ± 0.3 millimeter, and 0.8 ± 0.3 millimeter (Pierce and others, in press). This variation probably reflects differences in the time since the last activity on different portions of the fan, but the three localities are all considered to represent the last episode of gravel deposition.

No Holocene alluvial deposits were found on these two fans. Holocene alluvium of silt to silty gravel is present along the streams within the ranges, and it mantles the floors of the trenches at the fan heads (Figure 4). Stream-gauge records cover only a few years. In the 1966 water year, the maximum recorded discharge of Sublett Creek within the mountains was only 0.08 cubic meter per second (2.7 cubic feet per second), and in the 1965 and 1966 water years, no flow was recorded along Meadow Creek (Thomas, 1967, p. 65, 62).

Fans Near Southern End of Lost River Range

Although the higher parts of the central and northern Lost River Range were glaciated, the southern end of the range was not. The fan gravels in this area consist almost entirely of carbonate rocks.

Arco basin. The broad valley northeast of Arco, here called the Arco basin (Figure 1), is floored by coalescing alluvial fans that almost entirely date from the last episode of gravel deposition. The area covered by these young fan gravels is approximately 50 square kilometers; the size of the drainage basin feeding them is about 100 square kilometers. The surface of the fans is mantled by about 0.5 meter of loess. At present no perennial streams flow through the Arco basin. Carbonate coats on limestone clasts in surface soils are 1.3 ± 0.5 millimeters (1 S.D.) thick at a site near the Big Lost River and 1.0 ± 0.3 millimeter at a site near the head of the basin. These thicknesses of coats on limestone clasts are similar to those in soils in the younger fan gravels and glacial outwash of Pinedale age to the north in the Big Lost River valley (Table 1). The gravels exposed at the outlet of the basin are well washed, containing no more than a few percent silt and clay.

Alluvial fans north of Arco. Sequences of gravel deposits of small alluvial fans of various ages occur at the mouths of the unglaciated drainages on the west side of the southern part of the Lost River Range (Figure 1). At the range front, the older fans are offset by the Arco fault scarp, and younger fans have been deposited on the downdropped side of the fault. The Arco fault scarp is prominently expressed at the foot of this relatively low segment of the Lost River Range that extends for about 15 kilometers north of Arco (Malde, 1971).

The argument for Pleistocene gravel-depositing episodes is somewhat complicated in this area of small fans, because Holocene deposits of angular gravel have accumulated as pods along stream channels where the steep drainages debouch from the mountain front. Nevertheless, exposures of young fan deposits away from the fan heads generally show well-washed gravel with soils and carbonate coats indicating a late Pleistocene age. Only one mudflow deposit was noted in several gravel-pit exposures. Further north in the Lost River Valley at the base of Borah Peak, bouldery mudflows of late Holocene age occur on the surface of the Elkhorn fan (Clayton,

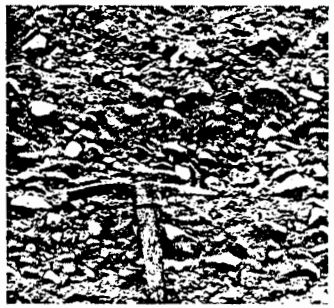

Figure 3. Photograph of gravel beds in older fan deposits of Cottonwood Creek, Raft River Valley. Note coarse-grained gravel beds with clast-supported framework and openwork beds. Pick head is 30 centimeters across.

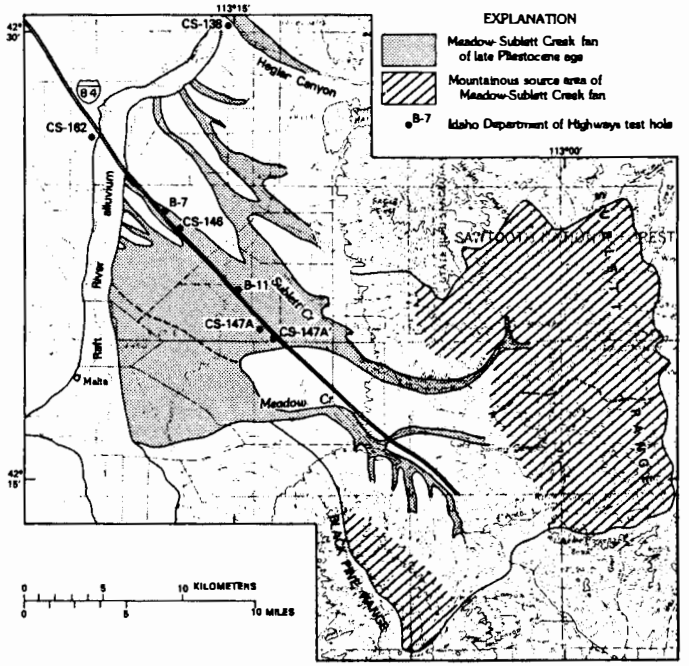

Figure 4. Map of combined alluvial fans of Meadow and Sublett Creeks, Raft River Valley, showing fan deposits of the last episode of gravel deposition.

1981, p. 34). The upper part of this fan slopes 9 degrees and the mountain front draining to the fan abruptly rises 1,500 meters within 5 kilometers of the fan head.

The best evidence that these fans are relicts of Pleistocene conditions comes from the measurement of carbonate coats on stones from the upper part of calcic horizons developed in the youngest fan gravels (section 35 fan, King Canyon fan; Table 1). The coats from the youngest fans are about 1 millimeter thick, about the same as those from outwash and moraines of Pinedale age in a similar climatic environment along Willow Creek, 70 kilometers north of Arco (Table 1). Therefore, the youngest extensive fans near Arco are probably latest Pleistocene, or Pinedale, in age (Table 1). Small deposits having weaker soils with thinner carbonate coats occur along modern drainageways (Table 1); these deposits are probably Holocene

in age.

ALLUVIAL FANS OF PARTLY GLACIATED DRAINAGE BASINS

Alluvial fans formed by gravels similar to those of unglaciated drainage basins occur downstream from mountainous source areas that were only partly covered by Pleistocene glaciers.

Ramshorn Canyon Fan

Nearly the entire surface of the Ramshorn Canyon fan in the southern Big Lost River valley (Figure 1, 20 kilometers north of Arco) was formed during the last gravel-depositing episode (Figure 7). The mean thickness of carbonate coats on stones in surface soils from five sites on this fan ranges between 1.0 and 1.3 millimeters, which suggests a Pinedale age (Table 1). Small cirque glaciers occupied less than 10 percent of the Ramshorn Canyon drainage, but during late Pleistocene time, snowmelt from the relatively high, unglaciated terrain of the basin probably contributed much more runoff than melting of the small amount of glacial ice. The vigor of the late Pleistocene streams is reflected in the pattern and size of braided channels on the fan (Figure 7). Loess of late Pleistocene age is thin or absent on the surface of the fan, but small drifts of loess are present in the lee of small fluvially undercut scarps.

Only minor Holocene deposition has occurred on this fan, primarily along a small incised channel (Figure 7). Before 1959, an earthen dam was constructed across this channel, but it was subsequently breached by the stream. A large rockslide of Holocene age has blocked the north fork of Ramshorn Canyon and prevents sediment carried by flash floods from more than half of the drainage basin from reaching the fan head.

Birch Creek Valley

Most of the alluvial fans in the western and

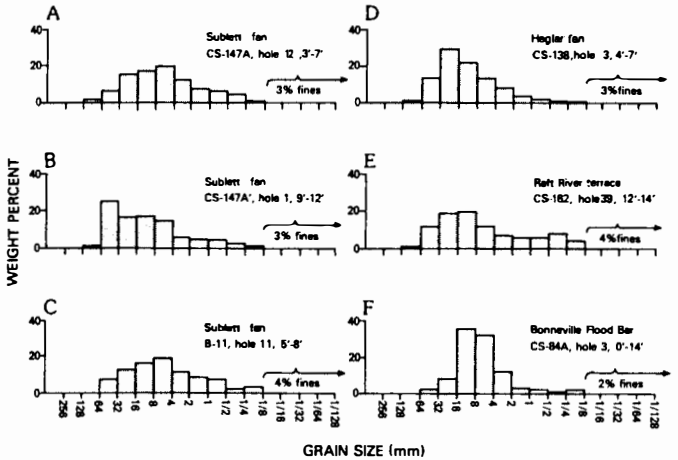

Figure 5. Particle-size distributions of bulk samples of alluvial-fan gravels, Raft River terrace gravels, and Bonneville Flood deposits, Raft River Valley. Grain-size data is derived from cumulative curves plotted from sieve data of the Idaho Department of Highways, Jerome, Idaho.

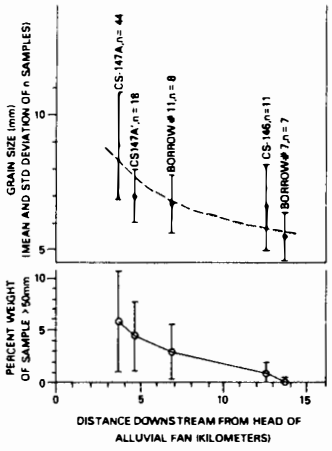

Figure 6. Plot of average grain size and weight percent of gravel coarser than 50 millimeters against distance from the fanhead for the Meadow-Sublett Creek fans, Raft River Valley, Idaho. Trend lines visually fitted. Data derived from cumulative curves plotted from sieve data of the Idaho Department of Highways, Jerome, Idaho.

northern Birch Creek valley (Figure 1) came from drainages that contained valley glaciers, some as long as 6 kilometers (Knoll, 1977). Other fans, particularly those from the southwestern Beaverhead Range, have unglaciated source areas.

Funk (1976) studied the sedimentary characteristics of the fan deposits in the valley and estimated that 90 percent of the fan deposits consist of gravel with clast-supported framework. This clast-supported gravel consists of equal parts of two facies: (A) beds averaging 0.25 meter thick of fining-upward gravel that commonly are openwork in the lower, coarser part and (B) beds of ungraded gravel averaging 0.5 meter thick that commonly have a framework filled with coarse sand.

Funk (1976, Figure 43) also noted two types of bimodal partical-size distrihutions (Figure 8). In his type I, the sand mode is clearly separate from the gravel mode, whereas in his type II, the two modes overlap (Figure 8). In both types about three quarters of a gravel bed is restricted to 2.3 phi units (Figure 8). Type I gravels are characteristic of braided-stream deposits (Glaister and Nelson, 1974); type II deposits are less definitive but are also characteristic of fluvial environments (Vischer, 1969). Both types result from mixing of bedload and suspended load (70 to 80 percent bedload and 20 to 30 percent suspended load) in a fluvial environment. The dominance of coarse bedload indicates transport under upper-flow-regime conditions (Funk, 1976, p. 127).

Based on the relation of facies, particle-size distributions, bedding features, and fabrics, Funk (1976, p. 130, 144) concluded that deposition of the fan gravels occurred in a high-energy, braided, fluvial system characterized by fluctuating water and sediment discharges, high-regime flow, and rapid aggradation. Deposition occurred mainly in shifting channels and bars of braided streams during waning flows after higher discharges had transported the gravel downstream. According to Funk (1976, p. 144):

> *Well-graded units with a well-developed fabric were probably deposited in bars, whereas poorly sorted units lacking a distinct fabric are most likely channel-fill deposits. Units with intermediate characteristics reflect a combination of channel and bar deposits.*

Debris-flow, flash-flood, or mud flow deposits are conspicuously absent in the alluvial-fan deposits in the Birch Creek valley, although mudflow deposits are present locally in cirques (Knoll, 1977). For the fans in Birch Creek valley, as for alluvial fans elsewhere in southeastern Idaho, the debris-flow model commonly used elsewhere in the Basin and Range province is clearly not appropriate. The alluvial-fan systems are essentially inactive under the prevailing climatic and hydrologic regimes; gravel deposition occurred under conditions of much greater sustained discharge and sediment yield than at present (Funk, 1976, p. 132, 215).

ALLUVIAL FANS OF EXTENSIVELY GLACIATED DRAINAGE BASINS

Alluvial fans downstream from extensively glaciated areas are conventionally interpreted as outwash fans of Pleistocene age. Although the outwash contribution to alluvial fans that had large glaciers in their source areas is important, the fact that unglaciated basins produced similar gravel fans, suggests that, even in glaciated drainages, factors other than outwash deposition were significant in forming gravel fans.

In the ranges north of the Snake River Plain (Figure 1), outwash locally can be traced from moraines of Pinedale age directly to large alluvial fans, such as at (1) Cedar Creek and Willow Creek in the Borah Peak area of the Big Lost River valley

(Scott, in press), (2) Bell Mountain and Spring Mountain canyons in the Birch Creek valley (Knoll, 1977; Funk, 1976, Figure 24), (3) Targhee Creek in the Henrys Lake basin (Scott, in press), and (4) West Yellowstone basin (Pierce, 1979, Figure 35). In addition to these geomorphic relations, soil development and thickness of carbonate coats on stones in Cca horizons (Table 1) suggest that these fan gravels were deposited during the last, or Pinedale, glaciation.

South of the Snake River Plain (Figure 1), outwash can be traced directly from Pinedale moraines to fan gravels at Marsh Creek on the east side of the Albion Range and at Clear Creek on the north side of the Raft River Range. The next range east of the Raft River Valley where glaciers reached the range front is the Teton Range. At the mouth of Teton Canyon, outwash forms both a fan deposit of Pinedale age and a loess-mantled fan deposit of Bull Lake age (Pierce and others, 1982 this volume, Figures 2 and 3).

MAIN STREAM GRAVELS

The main streams deposited extensive gravel fills in late Pleistocene time (Figure 1). The source areas of the Henrys Fork and of the Snake River upstream from Palisades Reservoir contained extensive glaciers; however, other main streams that deposited extensive gravel fills during late Pleistocene time have mountainous source areas in which there was little glaciation. Crude estimates of the amount of unglaciated, mountainous source areas of main streams drainages are: Goose Creek, 99 percent; Raft River, 98 percent; Big Lost River, 90 percent; Little Lost River, 95 percent; Birch Creek, 95 percent; and Snake River downstream from Idaho Falls, 90 percent. Thus, although glaciation in source areas is important to gravel deposition in some main streams, other causes must be involved.

Raft River

Deposits of the Raft River demonstrate a late Pleistocene to Holocene change in stream competency. Excavations and logs of water wells show that gravel with a clean, sandy matrix underlies 3 to 5 meters of fine-grained Holocene alluvium that floors the 1- to 3-kilometer-wide bottomland along the Raft River (Williams and others, 1974; Pierce and others, in press). The gravel probably was deposited by a large braided stream. Flanking these bottom lands are two wide belts of coalescing alluvial fans discussed previously.

Table 1. Mean thickness of carbonate coats (in mm ± 1 S.D.) on limestone clasts from surface soils in alluvial-fan deposits, west side of the Lost River Range. Line of asterisks (*) identifies age of the youngest surface-faulting event on the Arco fault scarp (K. L. Pierce, unpublished data).

LOCATION	AGE								
	Holocene	Late Pleistocene				?	Middle(?) Pleistocene		
		A	B		B'	C			
Willow Creek									
Fan of Pinedale age		1.3 ± 0.2							
Outwash of Pinedale age		1.0 ± 0.4							
End moraine of Pinedale age		1.4 ± 0.4							
Ramshorn Canyon fan		1.2 ± 0.4			2.6 ± 1.5				
		1.3 ± 0.5							
		1.1 ± 0.4							
		1.3 ± 0.4							
		1.0 ± 0.3							
King Canyon fan		0.9 ± 0.3	1.7 ± 0.5	*	1.5 ± 0.7		6.9 ± 2.6		
		1.1 ± 0.4	1.6 ± 0.4	*	2.0 ± 0.6		6.2 ± 2.1		
			1.5 ± 0.5	*	2.1 ± 0.7				
				*	2.2 ± 1.0				
				*	2.3 ± 1.0				
Section 35 fan	0.3 ± 0.3	0.9 ± 0.4	1.7 ± 0.7	*		3.3 ± 1.3	5.0 ± 2.4	10.1 ± 5.4	
		0.8 ± 0.8	1.5 ± 0.5	*		2.3 ± 1.1	5.1 ± 1.4		
			1.2 ± 0.6	*		3.2 ± 1.5			
				*		4.3 ± 2.1			
Arco basin		1.0 ± 0.3							
		1.3 ± 0.5							

The character of the main stream gravel is best seen in exposures of an older but similar gravel of the Raft River in pits north and south of the Interstate Highway 84 crossing of the Raft River (Pierce and others, in press). This gravel contains more medium and fine sand than the fan gravels and has a grain-size distribution that is more clearly bimodal (Figure 5). Mean grain size of gravel in the pits south of Interstate 84 average 7.0 ± 3.4 millimeters (1 S.D.; n=29); about 2 kilometers farther downstream it is 6.8 ± 2.0 millimeters (n=39). The cut-and-fill stratification in the sandy gravels is similar to that seen elsewhere in outwash gravels. The age of this gravel is estimated to be about 150,000 years based on the stratigraphy in the overlying loess mantle that includes two loess units and a strong buried soil developed in the lower loess unit and the upper part of the gravel (Pierce and others, 1982 this volume).

The Raft River is now a small low-gradient stream flowing between banks of fine-grained sediment; it has only minor amounts of gravel in its channel. Between 1947 and 1957, the greatest discharge of the Raft River near Bridge, Idaho, was 30 cubic meters per second (1,090 cubic feet per second) on February 5, 1951, but typical annual peak discharge is between 1.4 and 5.7 cubic meters per second (50 and 200 cubic feet per second) (Thomas and others, 1963, p. 89). The silty, fine-grained sediment that underlies the bottomlands along Raft River is Holocene in age. Carbonaceous material collected from the lower part of this fine-grained unit yielded radiocarbon ages of 8,370 ± 250 and 7,720 ± 250 years (W-3237 and W-3239; Meyer Rubin, written communication, 1975; Pierce and others, in press). A 2-centimeter-thick volcanic ash from 1.7 meters below the surface of this fine-grained unit has characteristics similar to those of the Mazama ash (R. E. Wilcox, written communication, 1975), which is about 6,600 years old. The active meander belt occupies only about one-tenth of the width of these bottomlands. Humic sediment from a depth of 2.9 meters within this belt is 680 ± 200

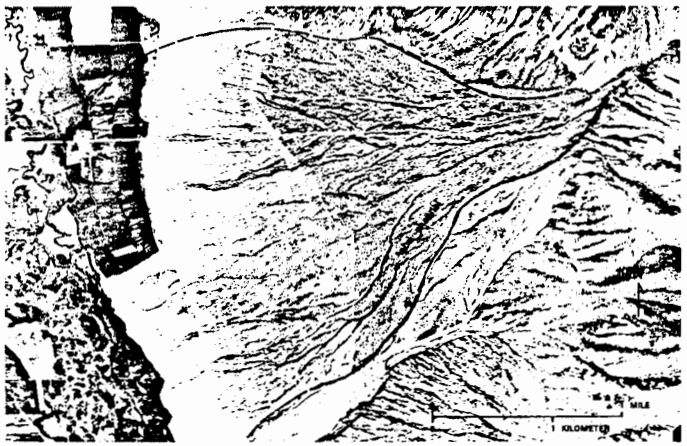

Figure 7. Vertical aerial photograph of the Ramshorn Canyon fan, Big Lost River valley. Dashed line outlines alluvial gravels of late Pleistocene age of Ramshorn Canyon with fresh surface morphology. Note preservation of braided-channel pattern. Based on thickness of carbonate coats, the conspicuous incised channel in center of photograph was abandoned near the close of the last gravel-depositing episode.

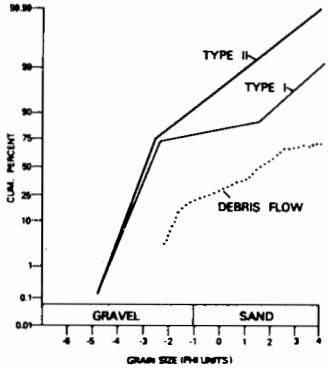

Figure 8. Particle-size distributions for the two types of gravel beds in the fans of Birch Creek valley (after Funk, 1976, Figure 43). Both distributions are bimodal. In both types, the finer fraction is sand, but in type I deposits the sand mode is more distinct from the gravel mode. For comparison, the dotted line is the particle-size distribution of a debris-flow deposit (from Funk, 1976, after Glaister and Nichols, 1974).

years old (W-3065; Meyer Rubin, written communication, 1975). These ages suggest that this fine-grained alluvium accumulated throughout the Holocene and that the underlying gravel is late Pleistocene to perhaps early Holocene in age.

In the Albion Basin to the west of the Raft River Valley, a section of dominantly fine-grained sediment was exposed to a depth of 4.5 meters by gullying of Sammis Creek. Well-washed gravel is inferred to lie at a greater depth. A radiocarbon age of 9,280 ± 120 years (W-4966) from the base of this exposure provides a minimum age for the inferred change from Pleistocene gravel to Holocene fine-grained sediment deposition (Pierce and others, in press).

Snake River

An extensive gravel deposit of late Pleistocene age, about 15 kilometers wide and at least 10 meters thick, occurs along the Snake River from St. Anthony to American Falls Reservoir (Figure 1; Scott, in press). Two complementary effects fostered its accumulation. First, American Falls Lake was dammed by the Cedar Butte Basalt 72,000 ± 14,000 years ago, resulting in elevated base levels upstream until about 14,000 to 15,000 years ago when the Bonneville Flood drained the lake (Scott and others, 1982 this volume; Bright, 1982 this volume). Second, conditions that favored deposition in other areas of nonglacial and glacial gravels at this time also existed along the Snake River. Based on the degree of soil development, the terrace marking the top of this gravel fill is Pinedale in age. Following the draining of American Falls Lake and the change in stream regimen between late Pleistocene and Holocene time, this gravel fill was incised by the Snake River and its tributaries.

Deposits thought to be the result of glacial-outburst floods from Pinedale icecaps on the Yellowstone Plateau occur beneath Egin Bench near St. Anthony and the obsidian-sand plain near West Yellowstone (Pierce, 1979, p. 48-52). These deposits consist of flat-bedded, openwork gravel composed dominantly of obsidian granules. On Egin Bench at Parker, an elongate bar 5 meters high composed of planar, inclined beds demonstrates that floodwaters were at least 5 meters deep across this 10-kilometer-wide section of the Henrys Fork valley.

Downstream from Pocatello, Bonneville Flood deposits floor large areas of the American Falls and Burley basins. Alluvial deposits that postdate the flood are limited in extent along the Snake River and its tributaries, and the flood deposits are little eroded or modified by subsequent fluvial activity. These relations suggest that the most recent episode of Pleistocene gravel deposition was mostly over by the time of the Bonneville Flood.

Big Lost River

The Big Lost River is an influent stream that flows out onto the Snake River Plain and disappears into the underlying rocks and sediments. In late Pleistocene time it transported and deposited gravel and sand much farther out onto the plain (Figure 1). During the Pleistocene, high discharges of the Big Lost River combined with flows from the Little Lost River and Birch, Beaver, and Camas Creeks to maintain Lake Terreton, a large shallow lake on the Snake River Plain (Figure 1). Upstream from Arco, the bottomlands along the Big Lost River are mantled by a meter or more of fine-grained flood-plain alluvium, presumably of Holocene age.

DISCUSSION

SYNTHESIS OF OBSERVATIONS

Gravel deposition in southeastern Idaho during late Pleistocene time occurred under conditions markedly

different from those of the Holocene, as evidenced by the contrast between widespread Pleistocene gravel deposits of fans and alluvial fills and restricted Holocene fine-grained deposits within the same drainage basins (Figure 9). According to Schumm's (1977) classification, these alluvial fans were wet fans at the time of gravel deposition; now they are mostly dry fans and receive little or no sediment.

The youngest extensive deposits of gravel are dated as late Pleistocene, probably between 25,000 and 11,000 years old, because (1) soil development in these deposits is similar to that in deposits of the last, or Pinedale, glaciation, (2) the thickness of carbonate coats on stones in soils in these deposits are similar to those in soils in deposits of the last glaciation, (3) the last gravel-depositing episode was interrupted near its end by the Bonneville Flood, which occurred about 14,000-15,000 years ago, (4) well-washed alluvial gravel deposition in the Raft River Valley and the Albion Basin had ceased by 8,000 to 9,000 years ago and fine-grained alluvium had begun to accumulate on the basin floors, and (5) these gravels are mantled by a small fraction (0.5 meter) of loess unit A that accumulated between 11,000 and about 70,000 years ago (Pierce and others, 1982 this volume).

The presence of glaciers in source areas is not particularly important for the deposition of these alluvial-fan gravels. Morphologically fresh, late Pleistocene fan deposits are present downstream from glaciated as well as unglaciated source areas. A braided channel pattern commonly is well preserved on the youngest fan surfaces (see for example Figure 7). The channel widths of the former streams have not been well defined, but for many of the alluvial fans the width was 10 meters or more. In gravel-pit exposures, beds from 0.2 to 0.5 meter thick can be traced horizontally for distances of more than 3 to 5 meters. Gravelly, braided stream deposits generally indicate abundant sediment supply and high discharges (Ore, 1964).

The fan gravels are similar in appearance, whether the source area was unglaciated, partly glaciated, or extensively glaciated. All have a clast-supported

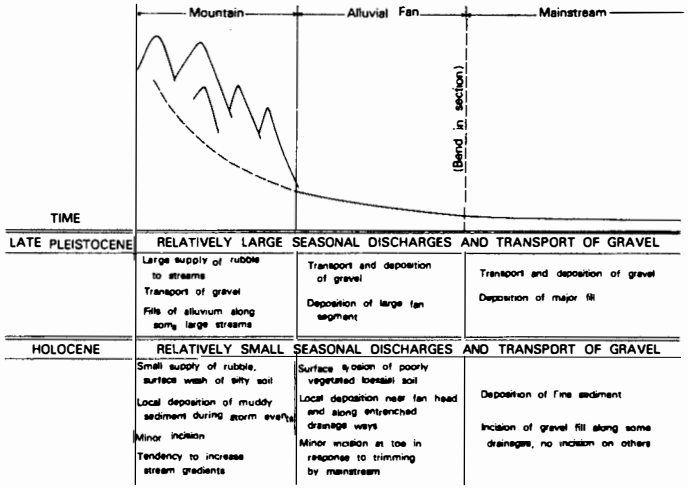

Figure 9. Model in which Pleistocene and Holocene conditions are contrasted for a drainage system in southeastern Idaho, consisting of a drainage basin, alluvial fan, and main stream.

framework and show imbrication dipping up-fan. Beds are typically from 0.1 to 0.5 meter thick and are generally planar for distances of more than several meters; low-angle cross stratification is locally discernible. Except for buried soils that separate the gravel sheets of successive episodes, beds with a muddy matrix are scarce, and silt and clay constitute at most only a few percent of the gravel beds. The abundance of loess and Holocene fine-grained alluvium in southern Idaho suggests that enough fine-grained material to form mudflows was available during times of gravel deposition as well as at present. The scarcity of fines and matrix-supported beds in the gravel suggests that final deposition was by vigorous, sustained streamflows. If debris-flow deposits, fine-grained sediments, or more poorly sorted gravels were present initially, they have been almost entirely reworked.

Standard sorting classifications were developed for sand and finer grained sediments and are not particularly useful for gravel deposits. In the Raft River Valley, samples that include several beds from the unglaciated Sublett Creek drainage have inclusive graphic standard deviations of ~2.4 ± 0.3 phi units (n=16) and are classified as very poorly sorted (Folk, 1968). In the Birch Creek valley, samples from individual gravel beds of partly glacial drainages have inclusive graphic standard deviations that average ~2.2± 0.4 phi units (n=23) and are mostly very poorly sorted (Funk, 1976, p. 103; Folk, 1968). About three-quarters of the gravel in beds from the fans of the Birch Creek valley is restricted to a range of 2.4 phi units (a factor of 5 times; Figure 8); most of the remainder is sand that is not abundant enough to fill the pore space between the gravel clasts. Analyses of samples including several different beds of the Sublett Creek-Meadow Creek fan show that about 70 percent of the particles lie within 4 phi units (a factor of 16 times; Figure 5). Thus, although these alluvial gravels are classified mostly as very poorly sorted, they probably are as well sorted as gravel can be in this environment; only beach gravels and some flood gravels are better sorted (Figure 5; Pettijohn, 1957, p. 248). Mudflow and debris-flow deposits generally are more poorly sorted, contain more silt and clay and a wider range of gravel sizes, and are matrix supported (Sharp and Nobles, 1963; Hooke, 1967; Fisher, 1971; Harmes and others, 1975, p. 153).

The last episode of gravel deposition provides a model (Figure 9) for conditions during the deposition of older, similar gravel deposits. Fan gravels having weathering characteristics and loess mantles similar to those of outwash gravels that head in moraines of Bull Lake age in Teton and Birch Creek valleys (Knoll, 1977; Scott, in press; Pierce and others, 1982 this volume) are also inferred to be Bull Lake in age. Thus, older episodes of gravel deposition appear to correlate with older periods of glaciation. However, as during the last gravel-depositing episode, a glacial source was not required for these older episodes; unglaciated drainages produced similar gravels.

Although the degree of soil development and the thickness of carbonate coats help to determine the relative age of the older gravel deposits, correlations among these deposits are much less certain than for deposits of the last episode of gravel deposition. Carbonate coats on stones from soils in fan gravels on the west side of the Lost River Range (Table 1) and from the Raft River Valley show a direct, systematic increase in thickness with age, although the rates of coat accumulation probably vary with lithology, location, and time. The thickness of carbonate coats suggests that the older fan gravels are many times the age of the fan deposits of late Pleistocene age. Gravels about 15,000 years old have coats about 1 millimeter thick on limestone clasts (Table 1; Pierce and others, in press) and about 0.5 millimeter thick on volcanic clasts. Uranium-thorium ages for carbonate coats on limestone clasts near Arco indicate that coats 2 millimeters thick are about 30,000 years old, and that coats 10 millimeters thick are about 170,000 years old (J. N. Rosholt and K. L. Pierce, unpublished data). In contrast, basalt clasts in till estimated to be about 150,000 years old east of Ashton (Pierce and others, 1982 this volume) have carbonate coats only about 3.1 ± 1.3 millimeters thick (n=32).

SPECULATIONS ON CAUSES OF GRAVEL DEPOSITION

In the Basin and Range province of southeastern Idaho, Pleistocene gravels were deposited by streams with greater discharges than present streams. Deposits have been described elsewhere in the Rocky Mountains that show a similar change in stream regimen from gravel deposition in late Pleistocene time to mud deposition in Holocene time. In the Colorado Piedmont, late Pleistocene alluvial deposits are mostly gravel, whereas Holocene alluvium is mostly silt, sand, and clay (Scott, 1965). From a hydraulic analysis of some of these gravel deposits, Baker (1974) determined that both glacial and nonglacial streams had late Pleistocene discharges an order of magnitude greater than present flows. Along streams in the basins of Wyoming, Leopold and Miller (1954) defined stratigraphic units that reflect a change in stream competency; Holocene deposits of the Kaycee Formation, and younger formations, are fine grained, whereas the Pleistocene Arvada Formation is composed of gravel. In central Utah, R. E. Anderson

(written communication, 1980) has obtained Holocene radiocarbon ages on alluvial-fan deposits that postdate more gravelly deposits of inferred late Pleistocene age. Along the East Fork River, Wyoming, studies of modern bed-load transport have shown that coarse sand and very fine pebble gravel, but almost no coarser gravel, is being transported, whereas adjacent gravel terraces show that outwash gravel was being transported in late Pleistocene time from the Wind River Range (Leopold, 1982; Meade and others, 1981; Emmett, 1980, p. 7).

The deposition of Quaternary gravels in southeastern Idaho resulted from the combined effects of the climates that prevailed under Pleistocene glacial conditions and geologic processes that produced mountainous source areas and nearby basins of deposition. That late Pleistocene gravels of glaciated and unglaciated drainages are similar argues that climatic effects other than glaciation itself were of major importance.

A simple way to explain these increased stream discharges in southeastern Idaho is to postulate increased precipitation, a mechanism that has commonly been used to explain the filling of pluvial lakes in the Great Basin. Other considerations suggest that this mechanism probably is not applicable. During the last glaciation, the north Pacific Ocean was colder (CLIMAP, 1976) than at present and therefore probably would have provided less moisture for precipitation in the western United States. Consequently, we infer that increased precipitation in southeastern Idaho during this time is unlikely. More likely, the effects of lower temperatures led to increased streamflows by decreasing the evaporation and by altering the magnitude and timing of snowmelt. With today's mean annual precipitation, pluvial Lake Bonneville could have filled to overflowing if mean annual temperatures were only about 7°C colder than at present (McCoy, 1981). Table 2 lists and briefly explains factors that would lead to sustained, seasonal stream discharges much greater than at present. Most of these factors are directly related to how much colder Pleistocene glacial conditions were, compared with the present.

Estimates of the amount of late Pleistocene cooling vary widely. A method commonly used for estimating Pleistocene temperature changes is to multiply the atmospheric lapse rate by the altitudinal difference between past and present snowlines. Such calculations yield commonly accepted estimates that late Pleistocene temperatures in the Rocky Mountains were about 6°C colder than at present (Flint, 1976). However, this simple lapse-rate calculation fails to account for precipitation gradients. If late Pleistocene precipitation and precipitation gradients were the same as at present, snowline changes suggest that mean annual temperatures at that time were 10-15°C colder than at present (Porter and others, in press; K. L. Pierce, unpublished data). Widespread permafrost conditions on the basin floors of Wyoming also suggest similar decreases of late Pleistocene mean annual temperatures (Mears, 1981).

If late Pleistocene temperatures in southeastern Idaho were 10-15°C colder than at present, the consequent changes in the timing and magnitude of peak discharges of streams might readily explain the deposition of gravel without any increase in annual precipitation (Table 2).

In the Snake River basin, snowmelt is responsible for most peak discharges (Thomas and others, 1963, p. 8). Maximum runoff of streams that head above an altitude of 3,000 meters in high, formerly glaciated terrain occurs in June, whereas that of lower altitude basins that were not glaciated occurs typically almost 2 months earlier, in late April (Thomas and others, 1963, p. 56-90). Weather records from the Yellowstone area suggest that a mean annual temperature decrease of about 10°C would delay the time when average monthly temperatures reach above freezing by about 2 months (K. L. Pierce, unpublished data). Thus, with a 10°C cooling, peak discharges from unglaciated basins in southeastern Idaho might occur about June, and peak discharges from glaciated areas might occur in July or August.

Another way to regard the effect of deferred snowmelt relates directly to lower Pleistocene snowlines. During Pleistocene glacial culminations, equilibrium-line altitudes in the western United States were about 900 meters lower than at present (Flint, 1971, p. 468; Scott, 1977; Porter and others, in press). To a first approximation, peak runoff in late Pleistocene time from unglaciated drainage basins in Idaho averaging 2,000 meters in altitude may have occurred at a similar time of year (midsummer) as that in present basins at about 3,000 meters in altitude.

In summary, colder late Pleistocene temperatures would have led to a thicker snowpack that would have melted later in the spring or summer. Because, at this time, the incidence of the sun's rays was more nearly vertical and the days were longer than earlier in the spring, melting would have occurred also at a more rapid rate, thus producing higher sustained peak discharges than at present (Table 2).

Our interpretation of the relation between alluvial-fan deposition and Pleistocene climatic cycles in southeastern Idaho differs in detail from that of Funk and Dort (1977), who concluded:

> *During a single cycle of fan development, it is inferred that erosion was the dominant process acting on the fans until the glacial climate ameliorated, because ice and snow trapped sediment in the drainage basins, effectively reducing sediment yields.*

After the ice began to recede, increased sediment loads derived from glacial drift exposed up-valley resulted in deposition of a new fan segment.

Instead, we conclude that maximum sediment supply and sediment and water discharges are directly associated with full glacial conditions. Both glacial and nonglacial source areas produced similar gravel deposits on alluvial fans in the Birch Creek valley and elsewhere in southeastern Idaho, suggesting that annual snowmelt, not the effects of deglaciation, was the key ingredient causing higher sediment and water discharges.

In addition to increased peak runoff, increased gravel supply (Table 3) was a critical factor in gravel-depositing episodes. Large differences between Pleistocene and Holocene colluvial activity are discernible within the mountains of southeastern Idaho. In mountainous areas that were not glaciated during late Pleistocene time, the slopes are extensively mantled with blocky rubble; stone stripes (Figure 10) and other forms of patterned ground occur widely. This rubble appears to be stable now, but it was last active during the colder climate of the late Pleistocene. Similar features occur on the Snake River Plain and show that periglacial conditions existed at low altitudes in southeastern Idaho at times during the Pleistocene (Malde, 1964; Fosberg, 1965).

Although little deposition of gravel has occurred downstream from the mountain fronts in Holocene time, streams within the mountains currently move some gravel. Historic and older Holocene deposits of gravelly alluvium are present along these drainages, especially at junctions between streams of different orders. Archeological studies in the Cassia Mountains show that 1-2 meters of alluvial sand, silt, clay, and fine gravel have accumulated in about the last 10,000 years, as dated by tool types and by probable 6,600-year-old Mazama ash near the middle of this fine-grained sequence (Green, 1972, Figures 7 and 8).

Furthermore, some streams that are prone to flash floods generated by intense thunderstorms have formed alluvial fans in Holocene time; however, the fans are composed largely of fine-grained sediment. For example, at the northeast end of the Raft River Valley, a fine-grained fan of Holocene age extends onto the Raft River bottoms from the mouth of Heglar Canyon (Pierce and others, in press). This young fan has blocked the Raft River resulting in the formation of a marshy area above the fan. Heglar Canyon is subject to rather frequent flash floods. About 10 kilometers upstream from the mouth of Heglar Canyon, a maximum discharge of 55 cubic feet per second was recorded between 1958 and 1966 for a 20-square-kilometer drainage basin (Thomas, 1967, p. 66). A flash flood in July of 1982 flooded part of the fan and moved some gravel down an artificially straightened channel and deposited fine sand and silt on the fan surface. The gravels that were moved in the channel are interbedded with finer grained sediment and are unlike the well-washed gravels of fans of late Pleistocene age.

Under present flow conditions, streams require steeper gradients than those at present for significant gravel transport to the alluvial fans and axial drainages of the depositional basins. Holocene changes in stream profiles appear to be increasing stream gradients by deposition of alluvium along the drainages within the mountains and near the fan heads. Uplift of the mountains relative to the basins also increases gradients. Under the present climate and at present rates of deposition, erosion, and uplift, time in excess of several tens of thousands of years probably will be required for gradients to become steep enough for efficient transport of gravels out into the depositional basins. We infer that this transport might occur primarily by debris flows and mudflows generated by major storm events and thereby differ from the longer sustained streamflows inferred from the Pleistocene gravel deposits. The Tertiary fan glomerates of the western United States that have a fine-grained matrix may provide an example of what gravelly basin-fill sediments would look like that were deposited by debris flows or mudflows under present climatic conditions but on fans having gradients steeper than at present.

However, a new episode of cold climate is likely to occur (Shackleton and Opdyke, 1973; Hays and others, 1976) before the streams have sufficient time

Table 2. Factors tending to increase peak discharges of late Pleistocene streams compared with those of present and Holocene streams.

FACTOR	REMARKS
1. Cooler Pleistocene temperatures	With a mean annual precipitation of 50 centimeters, a change in mean annual temperature from 10° to 0°C would increase total annual discharge by about 4 times (Langbein, 1949; Schumm, 1965) because of decreased evaporation, transpiration, and sublimation.
2. Greater snowpack	In autumn and spring, more moisture would occur as snowfall and less would melt; thus, total water content of spring snowpack would be greater.
3. Snowmelt occurring later in the year	Later in the snowmelt season, days are longer and the incidence of the rays of the sun is more nearly vertical. Both factors would result in more rapid snowmelt and tend to concentrate snowmelt into a shorter interval of time, thus increasing peak discharges.
4. Increased surface runoff	Much of the discharge from drainage basins in southeastern Idaho is now accomplished by ground-water underflow through porous alluvial-fan and stream-channel deposits, but ground-water underflow could accommodate only a small part of any increased discharge. Before alterations by man, about 80 percent of the natural discharge from the Raft River basin was accomplished by ground-water underflow (Walker and others, 1970). If total discharge were increased fourfold and the increase was entirely manifested as runoff, surface runoff would increase twenty-fold.
5. Increased seasonally and permanently frozen ground	Runoff would increase because infiltration would be impeded by either seasonally or permanently frozen ground. Applies mainly to higher altitudes.
6. Glaciers in parts of some drainage basins	Glaciers tend to prolong peak discharges by providing a source of meltwater throughout summer. Glaciers were absent or small in many of the drainage basins that produced gravel deposits in southeastern Idaho.
7. Increased total precipitation	An increase in precipitation seems unreasonable in view of the decreased sea-surface temperatures of the late Pleistocene Pacific Ocean (CLIMAP, 1976), which is the source area for precipitation in southeastern Idaho. An actual decrease in precipitation might be likely if mean annual temperatures were as much as 10-15°C colder.

Table 3. Factors tending to increase the supply of gravel to late Pleistocene streams compared to that of present and Holocene streams.

FACTOR	REMARKS
1. Increased frost action	Frost splitting of bedrock into gravel-sized material, thereby mantling slopes of drainage basins with rubbly colluvium.
2. Increased downslope movement of rubbly colluvium	Frost climate facilitates mass movement of rubble downslope to streams. Solifluction and frost heaving were much more active then at present, especially at intermediate altitudes.
3. Diminished soil erosion	Colder climate creates greater effective soil moisture and consequently greater plant cover, which results in diminished surface erosion of the generally fine-grained soil.
4. Glaciers in parts of some drainage basins	Glaciers tend to augment the amount of both fine- and coarse-grained sediment supplied to streams.

Figure 10. Photograph of inactive stone stripe on hillslope in the Cotterel Range on the west side of the Raft River Valley. The entire upland area is mantled with rubbly colluvium that is generally stabilized by thick tuff. Similar rubble mantles the source area of the Cottonwood Creek fan. This site is relatively low in altitude (2,100 meters), below the modern zone of continuous coniferous forest and near the upper limit of junipers.

to increase their gradients enough to transport gravel to the fans. Increased coarse-sediment supply and greatly enhanced peak discharges on the relatively low-gradient alluvial fans and axial drainages would then cause a new episode of gravel deposition.

RECOMMENDATIONS FOR FUTURE WORK

This report is a by-product of mapping and stratigraphic studies. Specific studies focused on the following aspects of gravel deposition would increase our understanding of the Pleistocene gravels of southeastern Idaho: (1) detailed comparisons of the sedimentary characteristics of alluvial fans from glaciated and unglaciated drainage basins; (2) estimation of late Pleistocene discharges by calculating velocity and discharge from the width, depth, and gradient of preserved channels and the size of transported clasts; (3) hydrologic modeling of discharges produced by snowmelt under climatic conditions appropriate for the glacial climates of the Pleistocene; (4) study of Tertiary fanglomerates and Pleistocene gravels to compare the stream regimens under which each was deposited; (5) determination of times of formation and transport of rubbly colluvium on slopes in the mountains; (6) study of present and older Holocene stream activity within the mountains; (7) dating of Pleistocene gravels older than those deposited during the last episode and comparison of times of deposition with the Quaternary climatic record; and (8) estimate rates of episodic gravel production and deposition based on volumes of gravel deposited during the last gravel-depositing episode.

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QUATERNARY TECTONIC SETTING OF THE 1983 BORAH PEAK EARTHQUAKE, CENTRAL IDAHO

BY WILLIAM E. SCOTT, KENNETH L. PIERCE, AND M. H. HAIT, JR.

ABSTRACT

The 1983 Borah Peak earthquake was accompanied by extensive surface faulting along a part of the Lost River fault that has abundant evidence of latest Quaternary (last 15,000 yr) offset. This fault and two similar range-front normal faults along the Lemhi Range and Beaverhead Mountains lie in an area of basin-and-range structure in central Idaho that is part of a roughly V-shaped belt of latest Quaternary surface faulting that extends from the Wasatch fault, through the Yellowstone area, to the Lost River fault. The position of this belt may be related to the outward migration of a thermal front associated with the northeastward progression of late Cenozoic silicic volcanism along the Yellowstone-Snake River Plain axis. The central segments of the Lost River, Lemhi, and Beaverhead faults have been active more recently, and probably more active throughout Quaternary time, than the southern and northern segments. The main 1983 surface faulting occurred in an area of high structural relief along a central segment of the Lost River fault that has ruptured in latest Quaternary time, which suggests that comparable areas along other range fronts in the area should be regarded as likely sites of future surface faulting. Other perspective of fault behavior suggest additional possible sites, and all segments of the range-front faults are regarded as capable of surface faulting.

INTRODUCTION

The Borah Peak earthquake (M_s = 7.3) of 28 October 1983 occurred in an area of basin-and-range structure (Reynolds, 1979) in central Idaho that contains widespread evidence of latest Quaternary (last 15,000 yr) faulting but has had little historic seismicity (Figures 1 to 3; Smith and Sbar, 1974). A 34-km-long zone of surface faulting along the north-central part of the western front of the Lost River Range accompanied the earthquake; both field evidence and focal mechanism indicate that the fault movement was normal-sinistral on a southwest-dipping plane (Crone and Machette, 1984).

This report briefly describes the neotectonic setting of the Borah Peak area, summarizes our knowledge of the distribution and ages of Quaternary faulting there, and discusses possible sites of future surface faulting.

REGIONAL NEOTECTONIC SETTING

Figure 1 covers the northeastern part of the Basin and Range province and shows the location of the surface faulting associated with the 1983 earthquake in relation to other areas of historic surface faulting, to major late Cenozoic normal faults, and to areas of historic seismicity that define the Intermountain Seismic Belt and the Idaho Seismic Zone of Smith and Sbar (1974). Without regard to historic seismicity, this part of the Basin and Range can be subdivided into domains based on: (1) amount of latest Quaternary surface faulting; (2) high rates of Quaternary faulting as shown by geologic studies or inferred by high structural relief along imposing range fronts; and (3) structural setting (Figure 2). Domains 2 to 5 represent several structural settings and contain few and widely distributed faults that have moved in latest Quaternary time. In contrast, domain 1 contains many faults that have

moved in latest Quaternary time and most of these have evidence of a high rate of Quaternary faulting. Also, of the three historic surface-faulting events in the Intermountain Seismic Belt, (1) 1934 in Hansel Valley, Utah (M_L = 6.6, Arabasz *et al.*, 1980), (2) 1959 near Hebgen Lake, Montana (M_S = 7.5, Doser, 1985), and (3) 1983 near Borah Peak, Idaho (M_S = 7.3), the latter two occurred in domain 1.

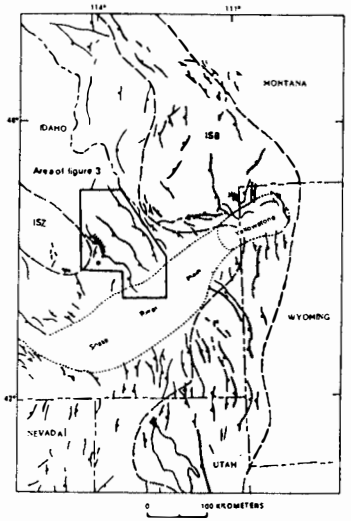

FIG. 1. Neotectonic setting of the 1983 Borah Peak earthquake in the northeastern Basin-and-Range Province showing major late Cenozoic normal-slip faults (modified from Howard *et al.*, 1978 and Nakata *et al.*, 1982). Those with latest Quaternary movement that lie at the base of high, steep range fronts are shown by a bold line; those with historic rupture are hachured. Light-shaded areas are parts of the Intermountain Seismic Belt (ISB) and Idaho Seismic Zone (ISZ) of Smith and Sbar (1974) that contain most epicenters of earthquakes from 1850 and 1974 (Arabasz *et al.*, 1980, Figure 1-1). Asterisk indicates epicenter of the 1983 Borah Peak earthquake.

Although historic seismicity plays no role in defining the domains, domain 1 lies mostly within the historically active parts of the Intermountain Seismic Belt (Figures 1 and 2). Conspicuous exceptions to this relation include the area of domain 1 in which the Borah Peak earthquake occurred and which was nearly aseismic prior to 1983, and the part of the Intermountain Seismic Belt in west-central and northwest Montana in which there are few major latest Quaternary faults.

Domain 1 includes the Wasatch fault (1A, Figure 2), which has slip rates that locally exceed 1 m/1000 yr (Swan *et al.*, 1980) and has accommodated much of the east-west regional extension between the Great Basin and stable interior in latest Quaternary time, and the following active neotectonic elements that form a V-

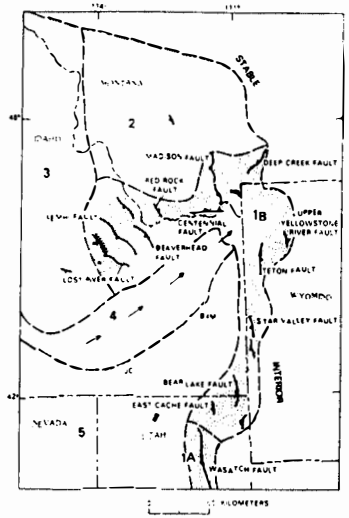

FIG. 2. Neotectonic domains (see text) of the same area as Figure 1 including latest Quaternary faults from Figure 1. Large arrows show trajectory of thermal activity along the Yellowstone-Snake River Plain (Y-SRP) axis. JC, Jim Sage and Cotterel Mountains; BFM, Blackfoot Mountains. (1) Wasatch (1A); Yellowstone-Lost River (1B) belt of latest Quaternary surface faulting. Area of greatest neotectonic activity based on Quaternary geologic evidence exclusive of historic seismicity is stippled. (2) Southwestern Montana. Many late Cenozoic faults, but only a few, widely distributed range-bounding faults with evidence of latest Quaternary surface faulting. Recent studies (e.g., O'Neill and Lopez, 1985) indicate that some additional latest Quaternary surface faults occur in this area, but the widely distributed pattern is maintained. (3) Idaho batholith. Relatively rigid block broken locally by Quaternary faults. (4) Eastern Snake River Plain. Little evidence of late Quaternary faulting except for rifts associated with basaltic volcanism. (5) Northeastern Basin and Range west of (1). Many late Cenozoic faults, but only widely distributed evidence of latest Quaternary surface faulting.

shaped belt (1B) north of the Wasatch fault. These are: (a) a set of right-stepping faults that extend from Cache Valley, Utah, to Star Valley, Wyoming; (b) the Teton fault; (c) faults in the Yellowstone area; (d) the Deep Creek, Madison, Centennial, and Red Rock faults in Montana; and (e) the Beaverhead, Lemhi, and Lost River faults in Idaho.

This neotectonic belt of major Quaternary faults has a remarkable spatial relation to the Yellowstone-Snake River Plain axis (*Y-SRP* axis; Figure 2). In the northern part of this belt, the most active portion based on Quaternary geologic evidence (stippled on Figure 2) lies generally from several 10 to 100 km beyond the margin

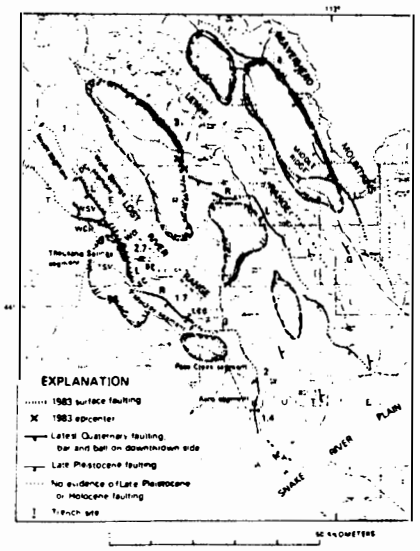

FIG. 4. Major frontal faults in the Lost River-Beaverhead area. 1983 break from Crone and Machette (1984). Numbers along faults are estimates of minimum structural relief in kilometers from sum of thickness of basin fill (Crosthwaite *et al.*, 1970; Ruppel, 1982) and relief of adjacent range, and, at north end of Lost River fault, from minimum offset of Challis Volcanics. Thick basin fills (stippled) interpreted from gravity lows with >15 mgal of closure (Mabey *et al.*, 1974). Direction of dip of upper Tertiary volcanics are shown by strike-and-dip symbol. G, gravel transported from west of area that underlies 6.5 m.y.-old basalt (see text). Segments that have evidence of a left- or right-lateral component of slip in pre-1983 events are shown by L and R, respectively. DC, Devils Canyon; WSV, Warm Springs valley; WCH, Willow Creek hills; TSV, Thousand Springs Valley; WC, Willow Creek; BP, Borah Peak; EC, Elkhorn Creek; LCC, Lower Cedar Creek. The town of Challis, where the two earthquake-related fatalities occurred, lies just west of the north end of the north segment of the Lost River fault.

of the eastern Snake River Plain, whereas the southern part lies from 100 to 200 km from the Plain margin in the west and merges to within 100 km of the Plain margin in the Teton area. Both parts join within the Yellowstone area.

Major silicic volcanism started about 15 m.y. ago on the *Y-SRP* axis in southwest

Idaho, migrated northeastward along the axis at an average rate of about 3.5 cm/yr, and at present is centered in the Yellowstone area (Armstrong *et al.*, 1975; Christiansen and McKee, 1978; Morgan *et al.*, 1984). This volcanism was accompanied by crustal heating and uplift; subsequent cooling is reflected in the decrease in elevation southwestward along the *Y-SRP* axis (Brott *et al.*, 1978; Smith *et al.*, 1985). The passage of this thermal activity along the axis also produced an outwardly migrating thermal front with a geometry analogous to the wake of a moving boat.

The belt encompassing the major latest Quaternary faults of the northeastern Basin and Range (Figure 2) also has a wake-like pattern about the *Y-SRP* axis and converges with the axis at Yellowstone suggesting the pattern of neotectonic activity may relate to the thermal front migrating outward from the *Y-SRP* axis. If this association between the thermal front and the active neotectonic belt is valid, it provides a testable late Cenozoic tectonic history for areas within the belt. That is, the passage of the thermal front produces first high rates of faulting as the crust is heated and thinned, followed by decelerating rates of deformation or relative quiescence as heating ceases and cooling occurs.

Tectonic histories of range-front faults between the Snake River Plain and the belt of major latest Quaternary faulting (Figure 2) appear to confirm the above prediction of a high rate of faulting followed by a decelerating rate. Numerous basins and ranges south of the Plain attest to active late Cenozoic faulting, but in these areas there is little evidence of Quaternary faulting. For example, the Cotterel and Jim Sage Mountains are adjacent to the western part of the eastern Snake River Plain and consist of volcanics and sediments emplaced in a topographic low about 10 m.y. ago, at about the time silicic volcanism was centered along the adjacent part of the *Y-SRP* axis (Armstrong *et al.*, 1975; Williams *et al.*, 1982). Subsequently, the basin was extended greatly along an east-dipping, low-angle detachment, and the ranges were uplifted to produce about 1 km of structural relief on the 10-m.y.-old volcanics. High rates of deformation between 10 and 5 m.y. ago contrast with low rates during the last 5 m.y. (Covington, 1983, Figure 5; H. R. Covington, written communication, 1984) and low rates of Quaternary deformation (Williams *et al.*, 1982; K. L. Pierce, unpublished data, 1984). Further northeast along the south margin of the eastern Snake River Plain, the Blackfoot Mountains were uplifted at high rates (0.8 m/1000 yr) between 5.9 and 4.7 m.y. ago to attain most of their present relief (Allmendinger, 1982). At about this time, major silicic volcanism was centered along the adjacent part of the *Y-SRP* axis (Armstrong *et al.*, 1975). In contrast, there is no evidence of significant Quaternary surface faulting along the main range-front fault on the west side of the Blackfoot Mountains.

Current geologic information from north of the Plain is not sufficient to determine if similar variations existed there in rates of uplift during late Cenozoic time. However, based on the height and morphology of range fronts and on the age of surface faulting discussed later, the parts of the range-front faults adjacent to the Plain appear to have had a lower rate of faulting during late Quaternary time than parts farther north.

We do not intend to suggest that the cause of Basin and Range deformation marginal to the eastern Snake River Plain is solely the result of thermal activity associated with the *Y-SRP* axis, but rather that a thermal front may have localized faulting in a wake-like belt that has propagated outward through the northeastern Basin and Range from the *Y-SRP* axis.

The Lost River, Lemhi, and Beaverhead faults define an area of similar structural pattern and neotectonic activity at the northwestern end of the latest Quaternary belt of surface faulting that is the focus of the rest of this discussion.

The present topographic relief of the Lost River, Lemhi, and Beaverhead ranges is the result of late Cenozoic faulting (Baldwin, 1951; Ruppel, 1982). Most of this faulting may have occurred during the last 4 to 7 m.y. based on: (1) the presence of fluvial-gravel clasts that must have been transported from west of this area and that now underlie 6.5-m.y.-old volcanic rocks in the Lemhi Range (G on Figure 3); and (2) uplift-induced east dips of basalts that overlie 4.3-m.y.-old ash-flow tuffs near the southern ends of the ranges (Figure 3; M. H. Hait, Jr., unpublished data; dates from Morgan *et al.*, 1984). Ruppel (1982) suggests that the Lemhi Range and Beaverhead Mountains are block uplifts of mostly Miocene age, and that the fault scarps on the southwest sides of the ranges reflect eastward tilting in late Pliocene to Holocene time. In contrast, Hait (1984) finds evidence for considerable extension during middle Cenozoic time. We favor an interpretation that the three ranges are parts of normal-fault-bounded blocks that range from structurally flat-topped (Ruppel, 1982) to eastward-tilted. Faulting during Quaternary time appears largely related to eastward tilting because: (1) fault scarps that cut Quaternary deposits occur mainly on the west sides of the ranges; (2) some parts of the ranges are asymmetric with steep west sides and gentler sloping east sides; and (3) upper Tertiary tuffs and basalts in and between the southern parts of the ranges have easterly dips (Figure 3).

Quaternary Surface Faulting in the Lost River-Beaverhead Area

Quaternary surface faulting has broken most of the Lost River, Lemhi, and Beaverhead range-front faults. Similar geometric and temporal patterns of breakage and structural relief are repeated along each fault (Figure 3).

The mapped patterns of the faults are strikingly similar. All three generally hug the western range fronts, change trend by as much as 90°, and, in places, diverge from range fronts and strike across basins. Quaternary offset on the faults is dominantly normal slip, but lateral components can be recognized locally by *en-echelon* patterns of faults (Figure 3).

Structural relief along the three faults, as estimated from topographic and geophysical data, is generally greater along central segments, which are partly coincident with an arch north of and parallel to the Snake River Plain (see discussion in Ruppel, 1982), than along distal segments (Figure 3). These relations suggest that the central segments have higher long-term rates of faulting, which is consistent with estimates of short-term slip rates for various segments. In the Borah Peak area, which has about 2.7 km of structural relief, the 15,000-yr-old surface of the Willow Creek fan (Pierce and Scott, 1982) is offset 3.5 to 4.5 m, including the 1.5 to 2-m offset of 1983 (Crone and Machette, 1984). The mean slip rate there is about 0.3 m/1000 yr. Similar relations along the central segments of the Lemhi and Beaverhead faults suggest they have similar rates. In contrast, the Arco segment of the Lost River fault, which has about one-half the structural relief of the Borah Peak area, has a maximum mean slip rate of 0.1 m/1000 yr (see discussion of Arco segment: Pierce, 1985); the southern segment of the Lemhi fault probably has a similar rate.

In addition to having greater structural relief, the central segments of the faults have moved more recently than the distal segments. The ages of latest faulting shown on Figure 3 are based on the stratigraphic relationship of fault scarps to surficial deposits whose ages are estimated by stratigraphic, geomorphic, and soil-development evidence (Malde, 1971; Hait and Scott; 1978; Pierce and Scott, 1982; Scott, 1982). The latest Quaternary scarps are typically 2 to 5 m high and displace

alluvial and glacial deposits of Pinedale age (as young as 12,000 to 15,000 yr). The late Pleistocene and older scarps are as high as 20 m. These do not displace latest Quaternary deposits, but do offset surficial deposits that are locally as young as 30,000 yr, but that are commonly more like deposits dated about 160,000 yr (see discussion of Arco segment: Pierce, 1985).

A consistent pattern of ages of fault scarps on the western fronts of the ranges is evident on Figure 3. Late Pleistocene or older scarps occur along the southern sections of the range fronts within about 25 km of the Snake River Plain; scarps along the central and north-central sections of the ranges are latest Quaternary; and the absence of scarps along the northernmost range fronts suggests that in these areas the last surface-faulting event is older than late Pleistocene.

Lost River Fault and 1983 Surface Faulting

Reconnaissance and detailed mapping of the Lost River fault defines 6 or 7 fault segments that are characterized by different geomorphic expression, structural relief, and ages of last movement that follow the pattern discussed previously (Figure 3).

Fault scarps along the 20-km-long *Arco segment* do not displace latest Quaternary deposits, but do offset extensively preserved older fan surfaces by as much as 20 m. In the area of a trench across the fault (Malde, 1971, 1985), several stratigraphic datums allow estimates of the slip rate of this segment (Pierce, 1985). A surface estimated to be about 160,000 yr old based on uranium-series ages of layered carbonate coats on clasts in soils is offset about 19 m or possibly more, and a volcanic ash estimated to be about 70,000 to 110,000 yr old is offset about 8 m. Because of burial and limited exposure, the existence of back rotation or graben formation cannot be evaluated, so the slip rate of 0.07 to 0.1 m/1000 yr estimated from these datums is regarded as a maximum.

Near the northern end of the Arco segment, the youngest faulting offsets fan gravels about 3 m (Pierce, 1985). The inner part of a carbonate coat on a clast from the soil in the faulted gravel has uranium-series dates of 23,000 and 30,000 yr (John Rosholt, written communication, *in* Pierce, 1985). Carbonate coats from the faulted gravel and slightly younger unfaulted gravel are about twice as thick as coats from a nearby surface estimated to be about 15,000 yr old (Pierce and Scott, 1982). Based on these uranium-series dates, carbonate-coat thicknesses, and the morphology of the scarp, Pierce (1985) concludes that the youngest faulting on the Arco segment occurred about 30,000 yr ago.

South of the Arco segment, a zone of discontinuous scarps as high as 10 m that displace surficial deposits and lavas of late and middle Pleistocene age extends 12 km onto the Snake River Plain (Kuntz, 1978). The exact age relationship of these scarps to the scarps along the Arco segment is not known, but both sets of scarps displace deposits of similar age.

North of the Arco segment, the *Pass Creek segment*, which forms a marked dogleg in the range front, extends 30 km to just south of Lower Cedar Creek. Fault scarps are preserved only locally along this segment. The range front maintains a steep-faceted profile as in adjacent segments, has high structural relief, and is doubtless bounded by a fault. Surficial deposits older than about 30,000 yr are not well exposed along most of this segment, so the general lack of scarps is difficult to interpret, but faulting may not have occurred in the last 30,000 to 50,000 yr.

The 22-km-long *Mackay segment* extends from Lower Cedar Creek, east of Mackay, to the prominent bend in the range front at Elkhorn Creek. Fault scarps

of latest Quaternary age occur throughout the entire segment, and generally are preserved even on steep (30°) slopes at the base of the range front. A trench across the fault scarp at the mouth of Lower Cedar Creek in a pre-Pinedale fan deposit records several surface-faulting events, the last of which occurred after the deposition of a pod of Mazama ash (6800 ^{14}C yr old; Hait and Scott, 1978). A date of 4,320 ± 130 ^{14}C yr B.P. (W-4427) from organic matter buried by colluvium derived from the free face formed during the last surface-faulting event indicates that this event probably occurred about 4,000 yr ago. The Mackay segment has less structural relief than the Thousand Springs segment to the north, suggesting that the Mackay segment has a lower long-term slip rate. However, the lack of evidence of pedimentation of the front, the position of the latest Quaternary scarp on steep faceted spurs, and the burial of the head of extensively exposed middle Pleistocene and older alluvial-fan deposits by younger fan deposits (Scott, 1982) suggest that this segment has been very active in late Quaternary time.

The *Thousand Springs segment*, which extends from Elkhorn Creek north to the Willow Creek hills, was the site of the greatest amount surface rupturing during the 1983 Borah Peak earthquake (Crone and Machette, 1984). This segment has the greatest structural relief (2.7 km; Figure 3) measured along the Lost River fault, and therefore probably has the highest long-term slip rate. Pre-1983 fault scarps of latest Quaternary age are best preserved at sites where the scarp lies a short distance out from the steep mountain front, such as at Cedar, Rock, and Willow Creeks. Trenches across the scarp at the mouth of Willow Creek (Hait and Scott, 1978; D. P. Schwartz and A. J. Crone, personal communication, 1984) where the scarp offsets an alluvial surface estimated to be about 15,000 yr old (Pierce and Scott, 1982) and a reconstruction of geomorphic surfaces across the fault (Vincent, 1985) indicate that one pre-1983 surface-faulting event occurred along the central part of this segment in latest Quaternary time.

Based on the following limited evidence, the pre-1983 event on the Thousand Springs segment occurred probably in early Holocene or latest Pleistocene time rather than in late Holocene time as thought by Hait and Scott (1978) and Scott *et al.* (1985). A soil formed in the alluvium of the hangingwall and buried by colluvium derived from the pre-1983 fault scarp indicates that the 15,000-yr-old alluvial surface of Willow Creek had been exposed to soil-forming processes for some period of time prior to faulting. In the references cited above, we reasoned that because the buried soil and nearby relict soils formed in the same alluvium have similar degrees of development, most of the 15,000-yr-interval had passed prior to the pre-1983 event. On reexamination of the buried soil, we find that although the calcic C horizons of both soils are of similar thickness, the one in the relict soil contains much more secondary calcium carbonate, and therefore probably formed over a much longer period of time than the buried soil. Furthermore, the buried soil is at a shallow enough depth (several tens of centimeters at most) that it may have continued to accumulate calcium carbonate after burial. We now favor a more conservative interpretation—the soil provides evidence of several thousand years passing between the stabilization of the alluvial surface and the pre-1983 event. Consistent with this interpretation, limited scarp-morphology data that was acquired along the pre-1983 scarp in the Willow Creek area (R. C. Bucknam, personal communication, 1985) suggest that it was morphologically similar to other scarps in the Basin and Range that formed in latest Pleistocene to early Holocene time, and that it was too degraded to be of late Holocene age. Therefore, we tentatively conclude that the pre-1983 event on the Thousand Springs segment is at least several thousand years older than the last event on the Mackay segment, which occurred about 4000 yr ago.

Near Willow Creek, many features of the 1983 break (Crone and Machette, 1984, Figure 4) closely mimic features of the pre-1983 scarp. The offset of the

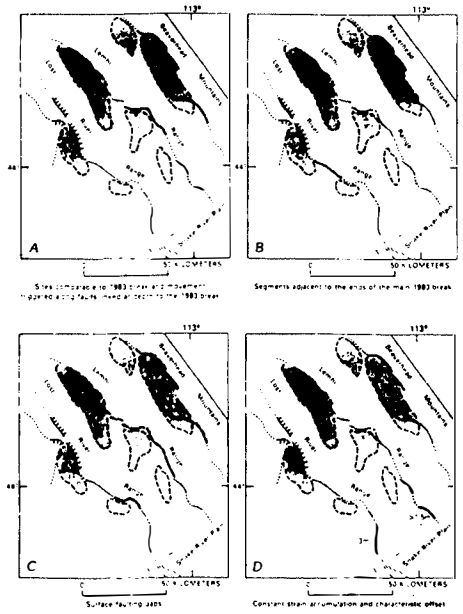

FIG. 4. Likely sites of future surface faulting in the Lost River-Beaverhead area based on several perspectives (see text). Most surface fault shown by hachures. Identified sites are shown by bold line; others identified with less certainty are shown by dashed bold line. Areas of thick basin fills (dark stipple) are taken from Figure 3. Upland areas are in light stipple; basins in white.

Willow Creek fan accompanying the 1983 earthquake was 1.5 to 2 m, compared to the pre-1983 offset of 2 to 2.5 m. Other features include a right-stepping pattern of short faults, a broad complex graben with a conspicuous horst, and minor thrust features west of the graben.

The segment of the 1983 break that diverges from the Lost River fault and strikes west into the Willow Creek hills in part occurs on remnants of older scarps marked by conspicuous benches and changes in slope, but also displaces surfaces having no apparent evidence of late Pleistocene offset. The higher structural position of the Willow Creek hills compared to the basins to the north and south suggests recurrent uplift of the hills during the late Cenozoic. Elsewhere, this similar pattern of a fault splay crossing a basin occurs at Middle Ridge (Figure 3).

The *Warm Springs segment* extends for 15 km north of the Willow Creek hills as a conspicuous fault scarp of latest Quaternary age as high as 5 m. The scarp ends at Devils Canyon, which is also the northern end of ground cracking associated with the 1983 earthquake. Along this segment, the 1983 ground breakage generally lies on the mid-slope of the older fault scarp and ranges from scarps locally as high as 1 m to small, discontinuous cracks. As is the case for the Mackay segment, the structural relief along the Warm Springs segment is not as great as that of the Thousand Springs segment; however, the character of the range front and the height and position of the young scarps suggest that the Warm Springs segment has had late Quaternary slip rates similar to those of the other two segments.

The *northernmost segment* of the Lost River fault extends from Devils Canyon to the end of the Lost River Range near Challis, has low structural relief, and shows no evidence of late Quaternary faulting.

Likely Sites of Future Faulting in the Lost River-Beaverhead Area

In view of our understanding of the 1983 Borah Peak earthquake and its Quaternary tectonic setting, what are likely sites in the area for future extensive surface faulting accompanying large earthquakes? Widespread evidence of late Quaternary surface faulting and the morphology of the range fronts suggest that future ruptures could occur along any part of the Lost River, Lemhi, or Beaverhead faults. Prediction of specific sites of future surface faulting requires an understanding of several conditions at depth including patterns and rates of strain accumulation, physical properties of the rocks, and linkages between the range-front faults. Unfortunately, we know little about these. Nevertheless, one can view the history of surface faulting, the geomorphic and structural features of the area, and the 1983 break from the following perspectives to gain insight as to which of the segments are more likely to rupture than others. Although these perspectives do not allow the site of the next event to be predicted with confidence, they are useful for identifying potential sites for the next several surface ruptures in the area.

Sites comparable to 1983 break. The 1983 surface faulting occurred along a segment with both high structural relief, which indicates high long-term slip rates, and latest Quaternary offset. Consequently, similar segments can be viewed as likely sites for future surface faulting. The part of the Lost River fault that broke in 1983 and the central segments of the Lemhi and Beaverhead faults have these characteristics (Figure 4A) and therefore are likely sites.

Movement triggered along faults linked at depth with the 1983 break. If the Lost River, Lemhi, and Beaverhead faults are linked to a single west-dipping detachment at depth, then the 1983 slip along the central segment of the Lost River fault, which is the westernmost of the three, might trigger movements along one or several of the central segments of the faults to the northeast (Figure 4A) that would lie higher on the assumed detachment plane. This is analogous to the displacement of blocks in a landslide, in which the movement of one block removes support for blocks higher on the failure plane and causes some of them to move.

Segments adjacent to the ends of the main 1983 break. The Mackay and Warm Springs segments have less structural relief than the Thousand Springs segment, which accounted for the main part of the 1983 surface rupture, and therefore probably have lower long-term slip rates. However, the similar height and morphology of the range along these segments and the position of latest Quaternary fault scarps on the lower slopes of the steep faceted spurs of the range front suggest that all three segments have had comparable rates of Quaternary faulting. In addition, the similarity in the height of the latest Quaternary fault scarps along these segments indicates all three probably had similar amounts of surface faulting in latest Quaternary time. Therefore, future surface-faulting events along the adjacent segments seem likely if these sections of range front are to keep pace with slip along the Thousand Springs segment (Figure 4B).

From the evidence presented earlier, the pre-1983 event on the Thousand Springs segment (early Holocene or latest Pleistocene) probably preceded the last surface-faulting event on the Mackay segment (about 4000 yr ago) by at least several thousand years. The 1983 event on the Thousand Springs segment might then be expected to be followed by offset on the Mackay segment. We do not know the age relation of the pre-1983, latest Quaternary event(s) on the Warm Springs segment with those on the Mackay and Thousand Springs segments; however, the Warm Springs segment did have a small amount of surface rupture in 1983, which may act to delay its next event by having released the strain accumulated since its last rupture.

Surface-faulting gap. A seismic gap is a fault segment that has not ruptured in historic time and that lies between historic fault scarps; such a gap is thought to be a likely site for future rupture (Wallace and Whitney, 1984). By analogy, a fault segment that lies between ones having evidence of more recent, but prehistoric, breakage can be called a surface-faulting gap, and be considered a likely site for future faulting. The Pass Creek segment of the Lost River fault has no evidence of late Pleistocene or Holocene movement; however, it lies in an area having high structural relief and an imposing range front (Figure 4C), which suggests that it probably has a long-term rate of faulting similar to that of adjacent segments that have ruptured in late Pleistocene or Holocene time. A few segments of the Lemhi and Beaverhead faults also fall in this category.

Other possible gaps are shown in Figure 4C by the dashed bold lines along latest Quaternary faults; however, so little is known about the age relations between individual segments of these latest Quaternary faults that surface-faulting gaps cannot be defined with certainty.

Characteristic offset assuming constant strain accumulation. Schwartz and Coppersmith (1984) propose that a given fault segment ruptures when a certain strain threshold is reached and results in a characteristic surface offset. If we assume that slip rates estimated from geologic relations reflect mean strain rates on a segment, then an offset is likely when the product of the slip rate and the time since the last surface-faulting event approaches the characteristic offset. The Arco segment has an estimated maximum long-term slip rate of about 0.1 m/1000 yr and has not ruptured in the past 30,000 yr, which suggests a potential strain accumulation of as much as 3 m (Pierce, 1985) provided that the rate of strain accumulation in the last 30,000 yr is equal to the long-term rate. As the surface offset accompanying the 1983 earthquake and prehistoric offsets estimated from trench studies are less than this, movement on the Arco segment can be considered overdue (Figure 4D). The potential strain accumulation on other fault segments is not as well known; however,

limited geomorphic information on the southern segment of the Lemhi fault suggests that surface-faulting events may have a similarly long (10^4 yr) recurrence interval. The time since the last surface-faulting event on this segment is >15,000 yr, which implies a potential strain accumulation of >1.5 m by using the slip rate for the Arco segment.

Grouping of events. Surface faulting along segments may not occur at uniform rates, but rather as intervals of activity along one segment or a belt of several segments separated by periods of diminished or no activity during which surface faulting is concentrated in another area (e.g., Wallace and Whitney, 1984; Wallace, 1985). If such grouping in space and time occurs in the Lost River-Beaverhead area, some of the preceding perspectives may simply be manifestations of it. For instance, grouping provides an explanation for surface-faulting gaps; the gaps are segments that are in a relatively inactive interval. Likewise, the occurrence of latest Quaternary offsets on the central segments of the faults may be a functin of grouping. In addition, nonuniform rates of surface faulting for a given segment would negate the assumption of uniform strain accumulation for the characteristic offset perspective. The demonstration of grouping is a poorly understood but key component in understanding the kinematics of late Cenozoic deformation in the Lost River-Beaverhead area (as well as other sites in the Basin and Range) and thereby being able to better predict sites of future surface faulting.

Whether or not grouping occurs, we regard several fault segments as the most likely candidates for future surface faulting in the Lost River-Beaverhead area. These sites are: (1) segments of the Lemhi and Beaverhead faults that ruptured in latest Quaternary time and have high structural relief, and that perhaps had some support removed by the 1983 displacement on the Lost River fault (Figure 4A) and (2) the Mackay segment of the Lost River fault (Figure 4B) because of the apparent similarity in the latest Quaternary fault activity along the Thousand Springs and Mackay segments.

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Clay- We'll visit this area on the Field Trip at the 1988 GSA meeting

Ken

QUATERNARY HISTORY OF FAULTING ON THE ARCO SEGMENT OF THE LOST RIVER FAULT, CENTRAL IDAHO

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ABSTRACT

The Arco segment forms the southern 15–20 km of the Lost River range-front fault. Quaternary faulting on this segment is manifest by prominent scarps in middle Pleistocene alluvial-fan gravels. Latest Pleistocene fan gravels are not faulted. Profiles measured along the fault scarp show a systematic relation between maximum slope and the logarithm of the scarp height. The scarp is more degraded than other scarps in the region dated as about 15 ka (ka, thousand years old). Both the surface geology and the geology exposed in a deep trench across the fault scarp are used to determine the history of faulting, which is numerically dated by $^{230}Th/^{234}U$-isochron dating of layers from stratified carbonate coats, by fission-track dating of ash exposed deep in a trench across the fault, by rates of carbonate coat deposition, and by Quaternary stratigraphic studies in the region.

The history of faulting is constrained by 7 points on a plot of offset against age (fig. 4). In the past 160 ka, displacement has totaled about 19 m, yielding an overall slip rate of 0.12 m/ka. No fault displacement has occurred in the past 30 ka, which suggest fault movement is well overdue if strain buildup is assumed to be relatively constant. Some evidence suggests this assumption is incorrect and that episodes with multiple fault displacements are separated by intervals of quiescence; in this case the next offset on this segment could occur either soon or not for tens of thousands of years.

INTRODUCTION

The Borah Peak earthquake of October 28, 1983 occurred on the Thousands Springs segment of the Lost River fault (fig. 1). The Arco segment is the southern segment of this fault, and is about 50 km south of where surface faulting occurred during the Borah Peak earthquake (fig. 1). The Arco segment is about 15–20 km long and extends from near Arco to a few kilometers north of King Canyon (fig. 1). The topographic relief of the Lost River Range along the Arco segment is only about half that where surface faulting occurred during the Borah Peak earthquake.

In an evaluation of faulting near the National Reactor Testing Station, Malde (1971 and 1985 (this volume)) described the Arco fault scarp, including a detailed sketch of a 10-m-deep trench across the fault scarp. This report builds on the work of Malde with the objective of quantifying the fault history by defining the fault displacement through time. Towards this end, new numerical-age information was gained by measurement of the thickness of carbonate coats on stones in alluvial-fan gravels, $^{230}Th/^{234}U$ isochron dating of layers from these coats, fission-track dating of a volcanic ash, regional Quaternary stratigraphic studies, and profiling of the fault scarp.

SCARP MORPHOLOGY

The Arco segment of the Lost River fault (fig. 1) is defined by prominent but discontinuous scarps (Malde, 1985) in middle Pleistocene alluvial-fan deposits. Younger alluvium partially buries the lower part of the fault scarp and thus diminishes the heights of the scarp, excepting for some low scarps east of the main fault. Scarp heights based on measurement of 27 scarp

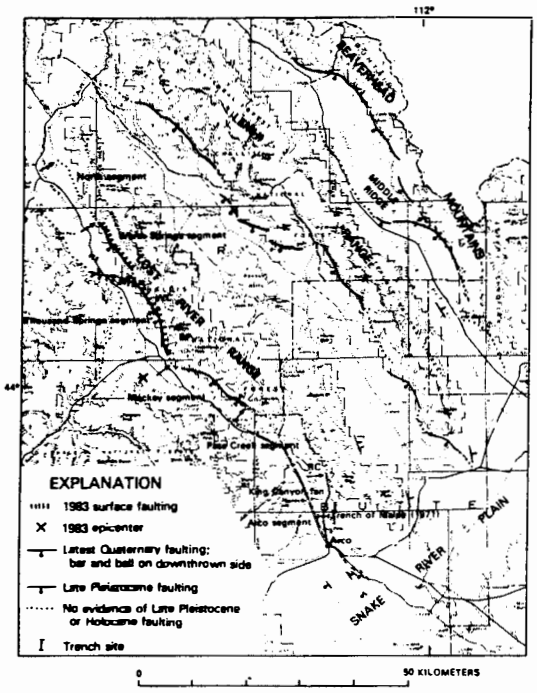

Figure 1. Map showing location of the Arco segment of the Lost River fault and other Quaternary faults in the Lost River-Beaverhead area. See Scott and others (1985, this volume) for discussion of regional setting, and for distinction of the named segments of the Lost River fault. Arrows indicate boundaries between segments of the Lost River fault. RC, Ramshorn Canyon, WC, Willow Creek, BP, Borah Peak.

profiles range from 2 to 25 m (fig. 2). The higher scarps result from multiple movements because offsets greater than 2 m are unlikely, especially considering the scarps that formed during the Borah Peak earthquake averaged only 0.8 m high (Crone and others, 1985). The maximum scarp angle generally spans more than half the scarp height. The scarp generally shows no oversteepened sections surviving from the last movement on the fault, although with very oblique morning light, a steeper slope is visible on the scarp at the position of the fault trace just south of the trench (fig. 1).

Comparison of the maximum scarp angle with the logarithm of scarp height shows that 80 percent of the variation in maximum scarp slope can be explained by scarp height (fig. 2). This correlation seems high, particularly because the scarps profiled are the product of many individual movements, and they are buried to differing degrees by younger alluvium. The data from the Arco segment plots clearly below those for either the Lake Bonneville shoreline scarps (Bucknam and Anderson, 1979), and the west-facing, late-glacial terrace scarps on nearby alluvial fans (Pierce and Colman, in preparation), which are both about 15 ka (Scott and others, 1983; Pierce and Scott, 1982). Studies of scarp morphology show that, all factors other than time being equal, if two scarps have similar heights but different maximum slope angles, the scarp with the lower maximum slope is older. The fault scarp displacing the King Canyon alluvial fan ("K" on fig. 2) result only from the youngest faulting event(s?). This scarp is more degraded than 15 ka scarps in similar materials under similar climates (fig. 2), thus suggesting the last movement on the Arco segment is older than 15 ka.

QUATERNARY STRATIGRAPHY RELEVANT TO FAULTING

The Quaternary history of the Arco segment is based mostly on displaced alluvial-fan deposits. The Quaternary stratigraphy and correlation of these deposits is based on: (1) geologic sequence within deposits from a given drainage basin and between deposits of adjacent drainage basins, (2) degree of preservation of the original surface morphology on the alluvial fans, (3) soil development, and particularly (4) thickness of laminated calcium carbonate coats from the undersides of limestone clasts collected from a depth in the soil where coats are the thickest.

These fan deposits are subdivided into younger (Qfy), middle (Qfm), and older (Qfo) units (table 1). The youngest time of widespread alluvial fan deposition occurred in late Pleistocene time, and little accumulation has occurred in Holocene time except along drainageways in the mountains and at the fan heads (Pierce and Scott, 1982). The late Pleistocene episode of fan depositon, and presumably the earlier episodes, is related to the colder climates of the Pleistocene apparently when winter precipitation was more effectively stored as snow and released in concentrated seasonal runoff during snowmelt (Pierce and Scott, 1982).

The oldest alluvial-fan deposit (unit Qfo_1) is exposed on the upthrown side of the fault. Carbonate coats commonly are between 7 and 10 mm thick (table 1). Soils have stage III (locally stage IV) carbonate morphology one-half meter or more thick. Unit Qfo_1 forms a flat-topped alluvial deposit that extends for several hundred meters from the fault scarp back into the range, where it fills old valleys to depths of more than 10 m. The fault scarp along the Arco segment is formed mostly by Qfo_1.

At the site of the trench excavated across the fault scarp (fig. 1; Malde, 1971 and 1985), alluvium of the next oldest unit, Qfo_2, was deposited on the downthrown side of the fault, presumably in response to stream grade

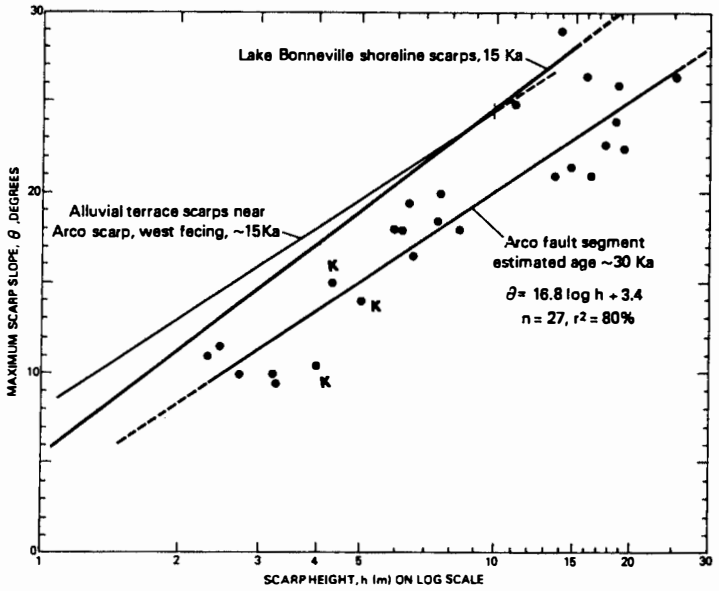

Figure 2. Scarp morphology of the Arco segment of the Lost River fault. Regression line for the maximum slope against the log of scarp height has a coefficient of determination of 80 percent. K, scarp displacing unit Qfm_1 on King Canyon fan. This plot, and especially the scarps marked "K" suggest the scarp of the Arco segment is older than two other scarps which are dated about 15 ka (see text).

changes in response to faulting. A few tens of meters south of the trench, carbonate coats from unit Qfo_2 average 5 mm thick (table 1), and occur above a calcic soil-horizon 1/4 m thick with stage IV carbonate morphology. Loess exposed near the bottom of the trench beneath gravels of unit Qfo_2 contains two volcanic ashes. The upper ash has a chemical composition similar to ashes from the Yellowstone area (G. A. Izett, pers. commun., 1982), which indicates an age no younger than 70 ka, the age of the youngest erruptions from Yellowstone (Christiansen and Blank, 1972). N. D. Naeser (written commun., 1981) obtained a fission-track age of 76 ± 34 ka on glass shards of the upper ash. This age might only be a minimum one, for fission-tracks can anneal in glass, particularly for samples more than a million years old. But both the cold climate and young age of the ash may make the effect of annealing neglible compared to the large 34 ka uncertainty in the age determination.

At the King Canyon fan, units Qfm_1 and Qfm_2 bracket the youngest displacement on the Arco segment. Unit Qfm_1 is offset 2-3 m and has carbonate coats that average 2.0 mm thick, whereas unit Qfm_2 is unfaulted and has coats that average 1.6 mm thick (table 1).

Unit Qfy lies across the trace of the fault in many places, but is not faulted along the Arco segment. These gravels have carbonate coats about 1.0 mm thick (table 1) and a calcic soil horizon about 1/4 m thick having stage I-II carbonate morphology. Aerial photographs show well-preserved braided channel morphology on the surface of unit Qfy (Pierce and Scott, 1982, fig. 7). Based on regional studies, the surfaces of these alluvial fans are considered to be of late Pleistocene age, estimated to be about 15 ka (Pierce and Scott, 1982).

$^{230}Th/^{234}U$-ISOCHRON DATING OF THE CARBONATE COATS

In addition to using the thickness of carbonate coats as an age indicator, layers from the carbonate coats were separated and $^{230}Th/^{234}U$-isochron dated. The carbonate coats are layered forming a miniature stratigraphic aequence that increases in age from the outer to the inner part of the coat, a relation that is analogous to a stalagmite formation. Carbonate coats were removed from stones and 2-3 layers from a given locality dated by John Rosholt (written commun., 1980; table 2).

When deposited as a chemical precipitate, $CaCO_3$ will have a very low ration of thorium to uranimun, but some contaminating thorium is likely to be present in any detrital material such as clay or silt incorporated in the coat. The dating (table 2) involves an isochron technique described by Szabo and Rosholt (1982) which is similar to that used by Ku and others (1979) and employs separate isotopic analyses of the soluble and insoluble phases in order to correct for contaminant thorium in the insoluble phase. For the dated samples, this correction was small, decreasing the age by no more than 30 percent of the apparent age based solely on the $^{230}Th/^{234}U$ ratio of the soluble phase.

Plots of the Th/U ages versus coat thickness can be used to estimate the time when deposition of the coat started and thus the time of stabilization of the fan surfaces (table 2). Such a plot from the thickness and age data in Table 2 defines an age of 160 ± 35 ka for stabilization of the surface of unit Qfo_1 from a site at the upper end of the trench (fig. 1).

Carbonate coats from faulted unit Qfm_1 at King Canyon yielded older ages for the outer coat than for the inner coat (table 2), which is incompatible with their sequence of deposition. Also, the ages of the outer coats from unit Qfm_1 (98 and 42 ka) are much older than the dates for the stratigraphic-

TABLE 1. Thickness of carbonate coats from soils on alluvial fans along the Arco segment and on deposits to the north of the Arco segment. Each mean and standard deviation is based on 25 or more coats measured at a site. For a few sites discussed in the text, averages of several means given in bold type beneath short line. Vertically aligned "ƒ", line of youngest faulting, King Canyon fan.

LOCATION	STRATIGRAPHIC UNIT AND ESTIMATED AGE							
	Holocene 0-10 ka	Qfy 15 ka	Qfo_2 25 ka	Qfm_1 30 ka	Qfo3y ?	Qfo_2 80 ka	Qfo_1 160 ka
DEPOSITS ALONG THE ARCO SEGMENT						Qfo (undivided)	
King Canyon fan		0.9 ± 0.3	1.7 ± 0.5	1.5 ± 0.7		6.9 ± 2.6	
		1.1 ± 0.4	1.6 ± 0.4	2.0 ± 0.6		6.2 ± 2.1	
		1.0 ± 0.2	1.5 ± 0.5	2.1 ± 0.7			
		1.0	**1.6**	ƒ 2.2 ± 1.0			
				ƒ 2.3 ± 1.0			
				2.0			
Anderson Canyon fan	0.8 ± 0.3						
Section 35 fan (area of fault trench, of Weide, 1971).	0.3 ± 0.3	0.9 ± 0.4	1.7 ± 0.7		3.3 ± 1.3	5.0 ± 2.4	10.1 ± 5.4
		0.8 ± 0.8	1.5 ± 0.5		2.3 ± 1.5	5.1 ± 1.4	
			1.2 ± 0.6		3.2 ± 1.5	5.1 ± 1.4	
					4.3 ± 2.1	**5.2**	
Section 11 fan	0.4 ± 0.3		1.4 ± 0.7			7.7 ± 1.6	
			1.7 ± 0.9			5.4 ± 2.9	
						4.8 ± 2.8	
Section 2 fan						7.3 ± 2.1	
DEPOSITS SOUTH OF THE ARCO SEGMENT							
Newberry Canyon fan		1.2 ± 0.4		2.6 ± 1.5			
(Pierce and Colman, in preparation)		1.3 ± 0.5		2.0 ± 0.5			
		1.1 ± 0.4					
		1.3 ± 0.4					
		1.0 ± 0.3					
		1.0 ± 0.2					
Willow Creek (see Scott and others, 1985)							
Pinedale-age fan		1.3 ± 0.2					
Pinedale-age outwash		1.0 ± 0.4					
Pinedale-age end moraine		1.4 ± 0.4					

Table 2. $^{230}Th/^{234}U$ isochron ages of stratigraphic layers separated from carbonate coats in soils on deposits adjacent to the Arco fault segment. Age determinations by J. N. Rosholt (written commun., 1980).

LOCATION, STRATIGRAPHIC UNIT (FIELD NUMBER), AND COAT LAYER, (THICKNESS AND SAMPLE LETTER)	$^{230}Th/^{234}U$ ISOCHRON AGE (ka, 1000 YRS)	RATE OF CARBONATE COAT DEPOSITION (mm/10ka)***
Section 11 fan, Qfo_1 (P75-64)		
Outer (4.3 mm, c, inc. pendants)	17 ± 3	
Middle (4.2 mm, b)	67 ± 12	
Inner (3.6 mm, a)	133 ± 33	
Estimated initial age	160 ± 35	0.63
King Canyon fan, Qfo (P7922B1)		
Pendants (2.8 mm, not dated)	------	
Outer (2.2 mm, r)	24 ± 4 *	
Middle (1.5 mm, s)	31 ± 6	
Inner (1.85 mm, u)	92 ± 20	
Estimated intial age	105 ± 30 **	0.62
King Canyon fan, Qfm_1 (P7922F)		
Pendants (0.8 mm, not dated)	------	
Outer (1.2 mm, o)	98 ± 25 *	
Inner (0.8 mm, p)	30 ± 5	
Estimated initial age	40 ± 10 **	0.50
King Canyon fan, Qfm_1 (P7922E1)		
Pendants (1.3 mm, not dated)	------	
Outer (1.3 mm, y)	42 ± 8 *	
Inner (1.2 mm, x)	23 ± 4	
Estimated initial age	30 ± 5 **	0.67
		Average = 0.60 mm/10ka

* Age considered to be too great, most likely due to leaching of uranium.

** Estimated age based on age of inner coat and constant rate of carbonate coat deposition.

*** Based on estimated age and average thickness of carbonate coats measured on local stratigraphic unit

ally correlative outer coat from the Section 11 fan, as well as for the estimated 15-ka age for the equivalent thickness of coats on glacial outwash of the last glaciation. The old age for these outer coats probably results from leaching of uranium late in the history of the sample. For the King Canyon deposits, stones with carbonate coats from unit Qfm_1 were collected from natural fluvial scarps cut into these fans and those from Qfo were collected from the surface. Leaching was currently taking place at both these locations. The inner layers of all the coats yielded ages that appear reasonable, probably because they are less affected by recent leaching because the inner layers are denser then the outer layers and they are buffered by the outer layers.

PRELIMINARY HISTORY OF THE ARCO SEGMENT

The Quaternary stratigraphy and associated dating information permit the following reconstruction of the history of faulting along the Arco segment from the present to about 160 ka. The Arco fault scarps do not cut unit Qfy, which on some fans in the Lost River Valley can be traced to Pinedale glacial moraines (table 1; Pierce and Scott, 1982). Dating of glacial deposits in the region (Porter and others, 1983) and correlation of unit Qfy with other fan deposits which can be related to the 15 ka Bonneville shoreline indicate the surface of unit Qfy is also about 15 ka (Pierce and Scott, 1982). Along the Lost River fault about 60 km north of the Arco segment, the surfsce of unit Qfy on the Willow Creek fan was offset about 2 m prior to 1983 faulting (Rait and Scott, 1978; Vincent, 1985).

Based on faulted and unfaulted deposits at the King Canyon fan (fig. 1), the most recent displacement on the Arco segment occurred about 30 ka. Unit Qfm_1 is faulted 2-3 m and has carbonate coats 2 mm thick (table 1). Unit Qfm_2 is not faulted and has coats 1.6 mm thick. Dates on the inner parts of carbonate coats from unit Qfm_1 suggest an age of 30 ka and 40 ka for the start of coat deposition (table 2), as does the overall rate of carbonate coat buildup of about 0.6 mm/10ka. In addition, these coats are twice as thick as the 1 mm coats on unit Qfy, suggesting an age twice the estimated 15 ka age of unit Qfy, or also about 30 ka.

At and near the trench (fig. 1), the surface of unit Qfo_1 is offset 19-20 m (fig. 3D), or possibly more. About 50 m south of the trench on the downthrown side of the fault, a combined backhoe and auger excavation successively penetrated the following: 1) gravelly fault-scarp colluvium, 2) eolian sand, and 3) gravelly soil with carbonate coats at a depth of 5.2 m. Assuming the gravelly soil is the top of downfaulted unit Qfo_1, the total offset in the past 160 ka is 18 m. These coats may be from a soil developed on the top of downfaulted unit Qfo_1. Excavation in the bottom of the trench exposed a pebbly silt colluvium overlain by loess that contains two volcanic ashes (fig 3D). The pebbly silt and loess have an observed thickness of 3 m. Two soils within the colluvium each have carbonate coats that average 1.0 mm thick, each implying as much time in their deposition as the 15 thousand years for the coats on unit Qfy. The dips of these buried scarp colluviums in relation to the fault plane suggest the top of unit Qfo_1 is less than 2 meters below the base of the trench. If so, unit Qfo_1 has been offset 19-20 m (fig. 3D), an amount that is consistent with the 18 m of offset determined 50 m to the south.

At the time of deposition of the upper volcanic ash, unit Qfo_1 was displaced at least a little more than the thickness of the colluvium on the lower half of the scarp, or a minimum of 4 m (fig. 3B). A estimate of the maximum displacement of unit Qfo_1 can be based on the decrease in slope of the

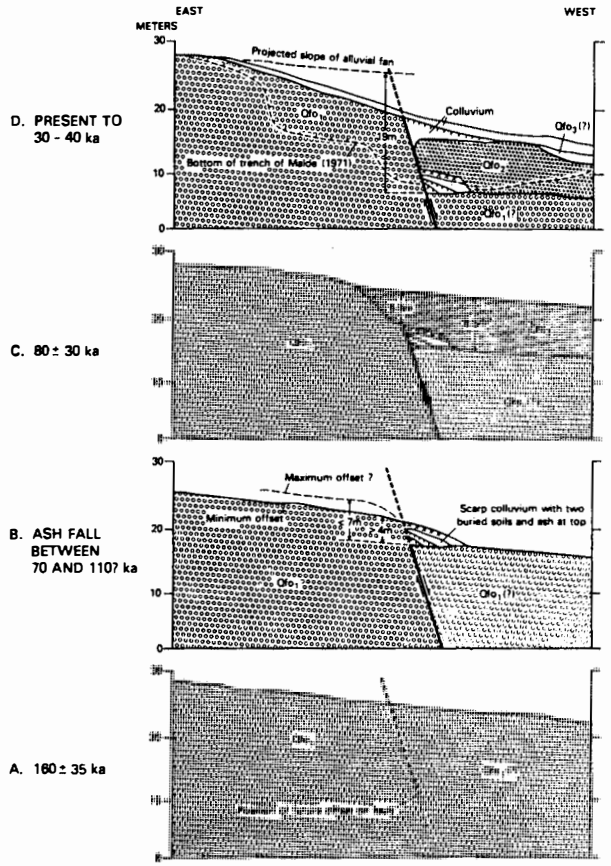

Figure 3. Schematic cross sections showing progressive displacement during the past 160 ka on the Arco segment. Cross sections modified from trench diagram of Malde (1971) combined with dating and other information described in the text.

colluvial deposits that grade upward into the loess containing the volcanic ashes (fig. 3B). At the time of ash deposition, offset of unit Qfo_1 was was probably no more than 7 m, for bedding is nearly horizontal in this deposit which was deposited immediately downslope from the fault. If the scarp were higher than that shown shown by the curved dashed line in Figure 3B, which represents a 7 m offset of unit Qfo_1, the slope of bedding in these scarp deposits would not be so gentle (Fig. 3B).

An estimate of the offset at a time intermediate between 30 ka and the time of ash deposition can be determined by from unit Qfo_2, which has 5-mm thick carbonate coats (table 1). Based on a rate of coat deposition of 0.6 mm/10 ka (table 2), unit Qfo_2 has an estimated age of 80 ± about 30 ka. On the upthrown side of the fault, Qfo_2 did not aggrade higher than and thus bury Qfo_1 (fig. 3C). Thus by the time Qfo_2 was deposited, at least 8.5 m of displacement had occurred to accomodate the thickness of Qfo_2 on the downthrown side of the fault (fig. 3C). After deposition, unit Qfo_2 was itself displaced. Assuming unit Qfo_2 extended eastward across the fault as shown in Figure 3C, the amount of truncation of unit Qfo_2 by the fault (fig. 3D) requires at least 5.5 m of displacement of unit Qfo_2.

For the Arco segment of the Lost River fault, seven constraints can be applied to the history of age versus displacement (fig. 4, shaded rectangles and solid boxes). For the overall history during the past 160 ka, the apparent slip rate averaged about 0.12 m/ka. Between about 160 and 30 ka, the rate was higher- about 0.15 m/ka. The detailed history of individual displacements is not known, and a variety of pathways through the 7 constraints shown on figure 4 are possible. Offsets of 2 m are arbitrarily assumed for the purposes of illustration (fig. 4). During the Borah Peak earthquake, offsets as great as 2.7 m occurred, but average offset was 0.8 m (Crone and others, 1985).

One pattern of offset veraus age assumes buildup of strain is constant and faulting occurs at intervals directly related to the amount of displacement so the resulting stairstep pattern has a slope similar to the overall slip rate (fig. 4, solid line). If strain accumulation is assumed to be constant, about 4 m of strain has accumulated since the last movement on the fault about 30 ka ago. Based on typical offsets of about 1 m during the Borah Peak Earthquake (Crone and others, 1985), this amount of strain is four times that expected to be released in a single faulting event. Assuming a model with constant accumulation of strain, renewed surface faulting should have occurred about 10-20 thousand years ago.

A second pattern of offset versus age assumes grouping in time of multiple displacements separated by intervals of quiescence (fig. 4, dashed line). R. E. Wallace (1984) suggests displacement on a given fault in the Great Basin Province may be spaced quite unevenly in time with intervals of multiple movements separated by intervals of quiescence. A history showing such temporal grouping of activity is shown by the dashed line on Figure 4. This line better fits the apparent constraints provided by the quiescence for the past 30 ka as well as the age of the volcanic ash, assuming annealing is not an important problem. Thus, if temporal grouping of activity on the Arco segment is valid, prediction of future activity is quite uncertain, for the quiescence of the past 30 ka may either continue for many thousands of years, or may soon be broken by a new episode of activity.

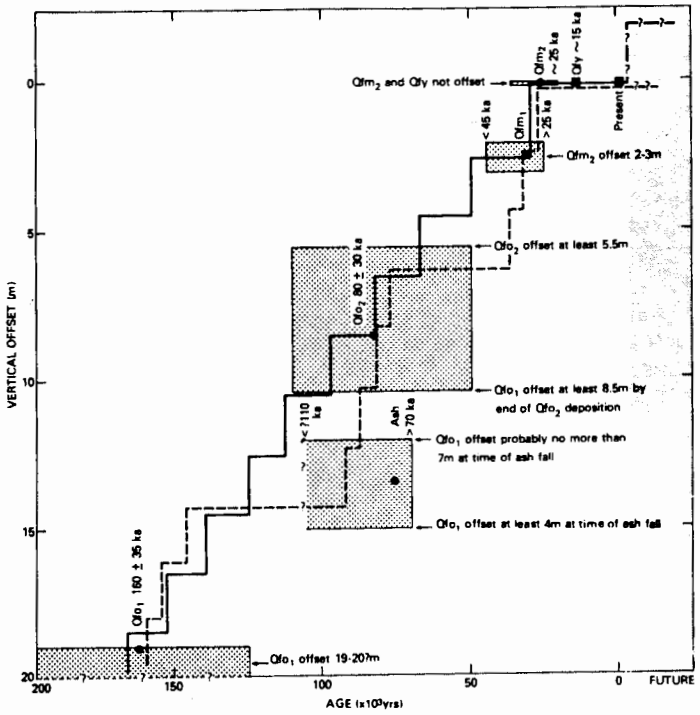

Figure 4. Apparent constraints in history of faulting along the Arco segment of the Lost River fault and two contrasting patterns of offset versus age that fit these constraints. Solid line is constant strain accumulation model, which implies that another displacement is long overdue. Dashed line is model of clustering of offsets in time separated by intervals of quiescence, which is compatible with either continued quiescence, or with renewed offset. To simplify this illustration, individual offsets are arbitrarily assumed to be 2 m.

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Ken Pierce

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

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Volume A

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3 - 6 October 1984

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OPEN-FILE REPORT 85-290

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W009

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1 D. Boggs

3/3/88

Dr. Clay Nichols
Dept of Energy
785 DOE Place
Idaho Falls, ID 83402

RECEIVED
MAR 7 1988
SIS Project Office

Dear Dr. Nichols,

I would like to go on record for opposing the SIS at INEL and in Idaho. I don't believe the SIS is necessary, and I feel it is an unhealthy degree, at the site and across Idaho roadways. I would like to urge you to keep the SIS out of Idaho.

1.1
4.15.4
5.24.30
5.29.95

Sincerely,
Lisa M. Davis
1007 N. 15th Boise, 83702

009

W010

1- T Hill
→ 1- Chron File
1- D Bagpiad

March 2, 88

Dear Dr. Nichols,

1.1 With all my heart I ask that we NOT build the SIS here in IDAHO — or any where ~~else~~ else, for that matter.

4.13 Please let us stop the chain - we don't need more weapons! The money that is going to be used - $One billion - can be used to help further our childrens educations, house the poor etc. Im just a plain old housewife with 3 young children - Id like ~~the~~ to show them that we can all get along together as a family, country & world. I've never felt so strongly about any cause - Please think of our childrens future.

Thank you

Pamela Barnett
3574 Minuteman Way
Boise Id 83706

W011

1- CRN
1- T. Hill
1. P. Phelps
→ 1- File
1. D. Bagpiad

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being. 5.24.23

Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state.

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities. 5.27.6.1 5.27.15.1

SIS would be welcomed by the pioneering people of Idaho! 1.1

Sincerely,

Frank M. Westerman

011

W012

Allied Steel Erectors, Inc.

SUBSIDIARY GATE CITY STEEL CORPORATION

1- T Hill
1- Rpnse file
1- D Bagget

2206 N. MAIN, POCATELLO, IDAHO 83204
PHONE (208) 232-2345

March 3, 1988

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

1.1 As an industrial and commercial construction company, doing business in Southeastern Idaho for the past thirty-five years, we feel that the INEL is ideally suited for the SIS project - a position that is also shared by the local businesses. The Southeastern Idaho economy is in need of new developments and is capable to supporting such a project with an existing, trained and stable professional work-force.

5.27.11.1 The Pocatello area is capable of providing contractor support, manufacturing and University level educational and training functions. Additionally, buildings, facilities, new sites, adequate housing and many modes of transportation, are readily available.

As a Pocatello native and forty-six year resident of Southeastern Idaho, I support the INEL as the site for the SIS project.

Very truly yours,
ALLIED STEEL ERECTORS, INC.

Robert A. McLaughlin
Manager

RAM/mlh

012

37

W013

1- T. Hill
1- D Bagget

MARCH 3, 1988

VICKEY BABAYCO
BOX 512
SUN VALLEY, ID. 83353

RECEIVED
MAR 7 1988
SIS Project Office

CLAY NICHOLS
U.S. DEPT. OF ENERGY
785 DOE PLACE
IDAHO FALLS, ID 83402

DEAR MR. NICHOLS:

THIS LETTERS' PURPOSE IS TO SERVE AS A NO VOTE AGAINST THE SIS PROPROSAL. 1.1
AS A IDAHO CITIZEN AND A MEMBER OF THE HUMAN RACE ON THIS PLANET, I ASK ONLY ONE QUESTION: IS THIS FOR THE ULTIMATE GOOD OF THE PLANET EARTH? I CANNOT CONCEIVE ANY RESPONSE BUT A NO ANSWER.

THERE ARE ALREADY ENOUGH BOMBS AND WEAPONS EXISTING TO ANNIALATE THIS 4.13
ENTIRE PLANET AND THE WASTE MATERIALS

013

013

5.30.3.1 FROM NUCLEAR EXPLORATION HAVE ALREADY SEVERELY DAMAGED THE LANDS AND THE ATMOSPHERE.

FURTHERMORE, IT APPEARS THESE WARPED AND GREEDY HUMANS RESPONSIBLE FOR THIS DESTRUCTION ARE ONLY THINKING IN TERMS OF THE "NEAR FUTURE". SINCE THEY WON'T BE HERE TO EXPERIENCE THE DAMAGE THEY SHARE IN CREATING, THEN MAYBE THEY ARE ASSUMING THEIR CHILDREN CAN REPAIR THEIR DAMAGES? UNFORTUNATELY,

6.5.5 NOT THEIR CHILDREN, OR THEIR CHILDRENS CHILDREN, NOR THEIR CHILDREN CAN MEND THE DAMAGE. THE NUCLEAR CONTAMINATION IS HERE TO SHARE FOR WELL OVER A THOUSAND YEARS ALREADY... AND NOW, MORE HUMANS WANT TO ADD TO THAT?

AS A MEMBER OF THE HUMAN RACE, I AM CO-RESPONSIBLE FOR THE EARTH'S KARMA, ALONG WITH EVERY OTHER SEGMENT OF THE WHOLE - INCLUDING YOU! SINCE

I AM POWERLESS ALONE TO CHANGE THE MINDS OF LESS COMPASSIONATE INDIVIDUALS, I HOPE MY NO VOTE ADDS SOME WEIGHT TO THE SIDE FOR THE PRESERVATION OF WHAT'S LEFT OF THIS PLANET EARTH.

SINCERELY,
Vicky Babayco

March 3, 1988

Clay Nichols
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

1- T. Hill
1- D Baggett
Response file

Dear Mr. Nichols:

I want to register my opposition to the proposed SIS project at the INEL. First, the further development of nuclear weapons is abhorrent, but I realize that these weapons will probably never be used and only do bring jobs. But the more immediate danger is environmental. The INEL 1.1 5.30.4.1 is already hot with nuclear contamination — including, I understand it, some of the waste material from the Three Mile Island disaster. Do we want to increase the probability of radiation seeping into our environment or face the wide-spread contamination resulting from some breakdown? I say no.

Please accept this letter as a voice against the SIS project.

Sincerely,
Michael P. Healy
Box 205
Hailey, Idaho 83333

W015

1- CPN
1- T Hill
1- File
1- P. Phelps
1- D. August

March 4, 1988

Dear Mr. Nichols:

1.1 I am writing to voice my opposition to the proposed SIS project to be located near my hometown of Ketchum.

4.13 Manufacturing fuel for nuclear bombs is totally unacceptable to me. The leaders of the super powers have recently agreed, in principle, to reduce the threat of nuclear holocaust by reducing the numbers of nuclear bombs in their inventories. Is this how we show our sincerity?

4.14 Saying "no" to this project is not a vote against nuclear energy. It is simply an expression of intolerance for the hypocrisy of manufacturing more nuclear bombs as we profess to the world that we desire to rid the earth of these weapons.

6.2 It is immoral for us to place a higher priority on creating a few hundred jobs than we give to the health of ourselves, our children and our children's children.

Please just say "no" to the SIS.

Sincerely,

Daniel L. Alban

RECEIVED
MAR 7 1988
SIS Project Office

015

39

W016

1- T. Hill
1- D. Bennett
1- File (response)

RECEIVED
MAR 8 1988
SIS Project Office

5 March 1988

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Id 83402

Dear Dr Clayton:

I would like to take this opportunity to express my support for the SIS Project as proposed for the Idaho National Engineering Laboratory in Southeast Idaho. 1.1

As a concerned resident of Idaho, I have taken some time to consider the objections of the opposition to this proposed project, and have come to the conclusion that the risks to the environment are not nearly as dramatic as they (and specifically the Snake River Alliance) would like us to believe. In that regard, I suspect that there are other environmental issues in this state which could be addressed by this or other groups except for the fact that these issues don't have the national exposure and sex appeal that they require to draw attention to themselves. 6.2

The moral issue regarding the use of the plutonium which will be produced by the SIS Project is another matter for all of us to consider. Taken to the extreme, I doubt that anyone with a social conscience slightly more sensitive than that of Dr. Strangelove really admires the implications of nuclear weapons. As a practical matter, however, this is not a consideration to be addressed in the context of the decision to locate SIS in Idaho. 2.7.8

What is important to me, and I expect to the majority of people living in Idaho, is the tradeoff between the environmental risks and the expected economic benefit to be derived from this project. From the DOE point of view, you have to consider both the politics and the economics involved in deciding on a location for your project. From the political side, I doubt that the resistance indicated in this state is no more or less than that would be experienced in any other state. Viewed from the economic side, I believe that Idaho has alot more to offer than any other location. 5.27.6.1

As you are well aware, the State of Idaho is in dire need of some type of new industry, particularly in the southeast portion of the state. This argument could also be used by almost any rural agricultural area of the country today. However, the existance of the INEL, and the infastructure already existant here, precludes the consideration of almost any other area.

There are also a number of very positive arguments for locating the SIS here in southeast Idaho. Among those are:

1. There exists in this part of the state an abundance of extremely affordable housing. People moving into this area are going to be pleasantly surprised when they discover the variety of properties available and the prices for which these properties can be obtained. In the 5.27.11.1

016

Pocatello area - with which I am most faciliar - there are for example a number of ranch type properties in hillside and valley locations which could not be purchased for several times price in other areas of the country.

5.27.11.1 2. Also in this area are a number of existing commercial buildings and facilities available for either government use or for private companies necessary to support the SIS project over the long term.

{ In this regard, there are those who contend that SIS will look to out-of-state contractors to provide the goods and services necessary to support the project. Obviously, there may be elements of the project that cannot be adequately provided by companies that exist, or could be established, here. However, I think that all of us would like to see indications by DOE that we would be given the opportunity to either expand on our current 5.27.7.4 capabilities here in this area, or bring in new industry to this location, to provide as such of the supporting systems as is practical. There can be no long term economic benefit from this project without that committment from the government.}

5.27.11.3 3. There exists here in this area a stable labor pool which can be utilized for any number of requirements that the project may have. Where specialized training may be required, we have the capabilities of Idaho State University at our disposal as well.

{Here again, some concern has been expressed that a labor force will be brought in from other locations, thereby denying jobs to present local area residents. My personal view is that this is a rather shortsighted position. Bringing in technically qualified people to this area can only have a positive impact on the region. The assumption should be that additional jobs will be created as a result of the support systems provided by the local community. Moreover, if this community is given the opportunity to provide these support systems, certain industries may evolve which find a market outside the INEL and outside the state boundaries as well to provide additional jobs and additional income for the region.}

5.27.7.4 4. As an active member of the local Chamber of Commerce, and as an independent businessman, I am aware of a concerted effort by this community and this region to support the SIS project in both the short and the long term. I am convinced that both the Department of Energy and the State of Idaho will benefit by the location of SIS in this area.

In summary, I fully support the location of SIS in southeast Idaho and look forward to this eventuality.

Sincerely,

Richard F. Erickson
Owner
Western Computer Products
1926 N. Mink Creek Road
Pocatello, ID 83204

W017

LETTER 017

Letter could not be located after exhaustive search.

W018

1 - CRN File - Wagoner
1 - K. Hill
1 - D. Bergquist

2389 Malibu Dr.
Idaho Falls, ID 83404
March 7, 1988

Mr. Clay Nichols
Dept of Energy
785 DOE Bl.
Idaho Falls, ID 83402

RECEIVED
MAR 8 1988
SIS Project Office

On the Hearing Record

Dear Mr. Nichols:

Although this hearing is particularly for the purpose of considering the environmental impact of the SDS on southeast Idaho I believe there is also the larger question of it's impact on the United States as a whole.

4.13 The United States and Russia already have many thousands of nuclear weapons. If the two countries ever exploded even one tenth of them in a nuclear exchange there is a great possibility that almost every living thing would eventually die. I find it impossible to believe that we need more. We have a huge national debt and have started the process of reducing the number of nuclear warheads through treaties with the Russians. I believe it is wrong to spend millions of dollars to produce more weapons grade plutonium. 4.3 4.13

I am opposed to having the SDS built in any location whatsoever. 1.1

Sincerely,
Dolores G. Hill

→1- T Hill
1- Site region
1- D Bergquist

FROM THE DESK OF:
JAMES P. SPECK

3/7/88

Dear Mr. Nichols -

1.1 I will be unable to attend public hearings on the SIS. I am adamantly opposed to any such operation in Idaho. Please consider this.

Thank you,

James P Speck

RECEIVED
MAR 8 1988
SIS Project Office

019

HOGUE, SPECK & AANESTAD
120 EAST AVENUE
POST OFFICE BOX 987
KETCHUM, IDAHO 83340
(208) 726-4421

HAILEY OFFICE:
16 WEST CROY STREET
SUITE K
POST OFFICE BOX 460
HAILEY, IDAHO 83333
(208) 788-3567

A Member of the Sears Financial Network
COLDWELL BANKER
EAGLE ROCK

576 3RD STREET
IDAHO FALLS, ID 83401
BUS. (208) 529-4663

→1- CRN File
1- T. Hill

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being. 5.24.23

Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state. 5.27.9.1

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities. 5.27.6.1 5.27.15.1

SIS would be welcomed by the pioneering people of Idaho! 1.1

RECEIVED
MAR 14 1988
SIS Project Office

Sincerely,

020

W021

Naegle Realty Investment Inc.
REALESTATE · INSURANCE · PROPERTY MANAGEMENT · APPRAISALS
PHONE: 523-6060
862 So. Holmes Ave — P. O. Box 2427
IDAHO FALLS, IDAHO 83401
REALTOR®

1-T. Hill
1- File

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls,ID 83402

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5.27.15.1 for our families through better educational opportunities.

1.1 SIS would be welcomed by the pioneering people of Idaho !

Sincerely,

Keith H. Smith

RECEIVED
MAR 14 1988
SIS Project Office

021

43

W022

Naegle Realty Investment Inc.
REALESTATE · INSURANCE · PROPERTY MANAGEMENT · APPRAISALS
PHONE: 523-6060
862 So. Holmes Ave — P. O. Box 2427
IDAHO FALLS, IDAHO 83401
REALTOR®

1- T. Hill
1- File

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Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls,ID 83402

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SIS would be welcomed by the pioneering people of Idaho ! 1.1

Sincerely,

Elizabeth B. Berridge

RECEIVED
MAR 14 1988
SIS Project Office

022

W023

Naegle Realty Investment Inc.
REALESTATE · INSURANCE · PROPERTYMANAGEMENT · APPRAISALS
PHONE: 523-6060

862 So. Holmes Ave — P. O. Box 2427
IDAHO FALLS, IDAHO 83401

REALTOR®

I. T. Hill
I-File

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls,ID 83402

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In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

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5.27.15.1 for our families through better educational opportunities.

1.1 SIS would be welcomed by the pioneering people of Idaho!

Sincerely,

RECEIVED
MAR 14 1988
SIS Project Office

023

W024

Naegle Realty Investment Inc.
REAL ESTATE · INSURANCE · PROPERTY MANAGEMENT · APPRAISALS
PHONE: 523-6060

862 S. Holmes Ave — P.O. Box 2427
IDAHO FALLS, IDAHO 83403

REALTOR®

I-T Hill
I-File

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls,ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

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SIS would be welcomed by the pioneering people of Idaho! 1.1

Sincerely,

RECEIVED
MAR 14 1988
SIS Project Office

024

W025

3-11-88

SIS Project Manager
Mr. Clay Nichols:

RECEIVED
MAR 14 1988
SIS Project Office

1-T.Hill
1-File

Dear Sir:
I Personally Want to thank the D.O.E. for the 2nd Chance of speaking or writing in regards to the "SIS Project."
The Wonderful Summary compiled into the book I received, Nothing was left out.

1.1 If People would stop and think, what this could Mean, Why shouldn't Ida get this, instead of Hanford or Savannah their economy is wide Rulad. Ida has the work forces of all trades.

5.27.11.3

5.27.6.1 Federal Money into Schools, Univ. Hospitals, Banks, All Business's ETC.

What this Means to Me, My Husband would have work for Years to come & We could remain in Ida for rest of our lives.

5.27.4.5 I have seen too Many Couples loose their homes, No jobs.
We Will Participate in the Parade Mar 19th in the Greater Ida Falls Area.
Thank you,
Dorothy J. Heard
P.O. Box 741
Blackfoot, Ida 83221

025

PHo. 785-0741

45

W026

Dwight Jensen
2230 Gail Drive
Pocatello, Idaho 83201

March 9, 1988

1 - Tom Hill
1 - File

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Id 83402

Dear Sir:

As a long time resident and businessman of Southeast Idaho I would like to voice my support for the SIS project to be located at the INEL Site. 1.1

I believe the INEL site to be the most favorable for this project. Southeast Idaho has the construction workforce available for such a project. We have the necessary transportation, energy, education and local goverment infrastructures available for this project. 5.27.11.1 5.27.11.3

The Pocatello-Chubbuck area has available sites, buildings, and an efficient workforce for component manufacturing and contractor support.

The economy in Southease Idaho is in a depressed state and such a project would be a big boost to a much needed increase in our economy. 5.27.6.1

The environmental, health and safety issues would be strictly regulated under current regulations and would not pose a threat. 5.24.22

I strongly support the SIS project at the INEL site.

Very truly yours,

Dwight Jensen

DWIGHT JENSEN

RECEIVED
MAR 14 1988
SIS Project Office

026

205 S Walnut
Just like always —

Dear Clay,

What a way to find you & Annie again - I hope that you are just the recipient of pros & cons to SIS and not someone who feels the manufacture of plutonium for what ~~[illegible]~~ ever purpose is to the States advantage - Be that as it may I hope if you ever have a free moment while in Boise you'd

270

Call & say hello —

I'm married to a pleasant person & I'd love to also have a few get togethers - The attached should be part of the record -

Best

Kathy Worth

270

1-CRN
1-File
1-T. Hill

To Be Included In Testimony Presented At The Department Of Energy Hearing of the Special Isotope Separator.

I am Katherine H. Troutner, 205 South Walnut Street, Boise, Idaho 83712.

I wish to go on record as a strong opponent of the Special
4.13 Isotope Separator. I would hate to see our state (or any
other state) allow this lethal program. The United States
5.30.4.1 already has enough warheads to produce a catastrophic end
for the world. We are currently faced with waste from INEL
5.29.85 contamination of our Snake River acquifer. Do we need more
waste? Do we need trucks on our highways carrying this
6.2 cancer producing material? Temporary economic benefits are
not worth the distaff effects of an S.I.S. project!

It is time the people of Idaho realize the horrors involved. Let us keep Idaho as unpolluted as possible. Now and for future generations!

1.1 Please register my negative opinion regarding the S.I.S..

Thank you,

Katherine H. Troutner

RECEIVED
MAR 14 1988
SIS Project Office

027

47

W028

1-CRN file
1-T. Hill

March 11, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

My name is Wendy Hammond and I live at 10 S 655 West, Blackfoot, Idaho. I am employed at Idaho Power Co and have lived in Idaho for 25 years.

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

5.27.6.1
4.15.4

Sincerely,

Wendy Hammond

1.1

RECEIVED
MAR 14 1988
SIS Project Office

→ 1- File
1- T. Hill
1- D. Bergquist

MARCH 10, 1988
Rt 4 Box 7349
Twin Falls, IDAHO 83301

Mr. Nichols

I WISH MY WRITTEN TESTIMONY TO BE included in the record of public hearings on the proposed Special Isotope Separation
1.1 facility. ~~I wish to~~ I wish to go on record in OPPOSITION TO THIS FACILITY WHERE EVER IT IS BUILT.

4.13 I am opposed to this project because we don't need anymore weapons which require plutonium. We already have more
4.15.2 than enough plutonium with more on the way. According to a March 14th 1988 NEWSWEEK article the nation currently has over 100 tons
4.4.6 of plutonium around with more to come with returning warheads under the INF agreement. more than enough to destroy the planet several
4.13 times. We don't need anymore. Why waste the money. Put the money into research grants at Universities which will provide
6.3 spinoff industries which will boost employment in non military industries.

5.12.1 A second main ~~area~~ concern is safety — anywhere, ~~but~~ but above an aquafer

According to the same Newsweek article 3.2.9
the Savannah River plant has been plagued with problems which also is above an aquafer. The National Academy of Science has found serious problems with the facility — maybe this is why the
DOE want to build a new one. Also 3.2.21
lets not forget the Karen Silkwood episode at the Kerr-McGee plutonium facility in Oklahoma. Once again safety violations, contamination of individuals and property. All nicely swept under the rug/or Terminated with an suspicious autoaccident.

You folks always tell the same old tired stories. It's SAFE. For what, who, when where?) It is well known that a millionth of a gram will induce cancer. You can't handle your waste — don't know what to do 5.30.3.1
with it. ~~But~~ Putting it in drums and 5.24.27
ponds won't get rid of a 24,000 year problem.

Do not concerned the DOE and it bed 3.2.2
waste big businees give a shoot about safety or necessity — only big ~~bucks~~. Put your dollars ~~not~~ into good energy — solar and
6.3 education. Not ~~bombs~~ weapons and the pockets of the fat cats.

Thank you.

Sincerely
James L Barta

JAMES L. BARTA
29A

W030

1- File
1- T Hill
1- Q Bryquist

Idaho Falls, Idaho
March 11, 1988

Dr. Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

By now, you are probably fighting your way out of a sea of paper, yet I hope you will have the endurance to read through this letter.

I am the daughter of an Idaho farmer who loved the land as I do. I have lived in the Snake River Valley for over 60 years, experiencing floods, droughts, three-week blizzards, deaths of new born babies, and a smallpox epidemic - - then finally, the devastating loss of my parent's farm, livestock and home. My father's spirit was broken for a long while, but he carried on, working for other farmers, and for the Bonneville Sportsmen's Pheasant Farm until his death in 1957. My mother, who will be 94 on April 1, will always call Idaho Falls her home.

In 1974, in answer to my letter, DOE sent me an 8-10 lb. book, explaining why Idaho would make a good waste repository for "temporary" storage of nuclear waste. (I realize some of the material I am enclosing is outdated, but the geological formation remains the sa me).

49

5.10.4 I would like to insert here a quote from Encyclopedia Brittanica, Vol.3, p. 212. "...Basalts may be broadly divided on a chemical and petrographical basis into two main groups - the calc-alkali and the alkali basalts. Basaltic lavas are frequently spongy and pumiceous, especially near the surface; and the steam cavities become filled with secondary minerals as calcite, chlorite and zeolites. Calc-alkali basalts which include the theolites (basalts with lime-poor pyroxene) predominate among the lavas of orogenic belts and their flows may build enormous plateaus as in Washington and Oregon of the U.S., in the Parana Basin in So. America, and in the Deccan of India...." The Snake River Plain is also mentioned on p.107, Encyclopedia Brittanica, Vol. 23.

I add this material for two reasons: First of all, my parents used to haul cedar wood from the lavas, where the INEL now sits, as did many of our neighbors. (Haul cedar, that is.) After a picnic lunch, my sister and two smaller brothers would run, dance and jump on the lava beds, fully cautioned of the dangerous fissures. (We were all aware that uncle Rosco's horse had stumbled right over there, and he had to be shot because of a broken leg. He rolled down into the fissure which became his grave.) We'd bring home a sirup bucket of broken lava pieces and toss them into the garden ditch to watch them float. Are some forms of lava light weight and foamy? Do men like apple pie?

5.12.1 The second reason is this: I was fortunate enough to have a researched, illustrated article, "America's Moonscape", published in the June, 1970 issue of Travel Magazine (as it was then known). The contents concerned the Craters of the Moon Nat. Monument. From then on, I had more and more

5.6.9 doubts about the "site" having been placed over the Snake River Aquifer.

RECEIVED
MAR 14 1988
DOE Project Office

030

My father, always the adventurer, was fascinated with Gieger counters in the 50's, and for three autumns, he borrowed one and traveled alone to some secret spot in the Lost River Mountains. Supposedly, he was deer hunting - successfully, too, but told his family later that the Geiger counter "went a little crazy" in one special area. He spent many hours digging and perhaps irradiating himself. We cannot know, but he died from bone cancer at age 63, weighing 85 lbs., after 18 months of cruel pain.

Three years ago, my eldest daughter, who lives in Tacoma, but was born and lived here for 22 years, developed a malignant tumor on her right cheek (Parotid gland). During surgery, they also removed the right Salivary gland. She refused chemotherapy, opting to diet and take her chances. She has had no cancer recurrence, although she now battles diabetes. 5.13.13

You yourself are aware of the countless cancer deaths in this area. Perhaps it has touched your family. I cannot fail to mention the many bizarre, unexplainable allergies and skin disorders we now endure here.

I could write a chapter on my son-in-law, an ex-navy submarine man, who served on the Nautilus and Sea Wolf. In 1968-69, at the height of the fury of the Vietnam struggle, my son served the year as an Army combat Engineer. That speaks for itself. The words, "uranium, strontium-90, cesium, plutonium, napalm, Agent Orange and M-16's" are anathema to me.

So, dear friend, I am saying "NO!" to SIS. God has been generous with His gifts to Idaho. It is our moral duty to protect them for our children and our grandchildren. Even now, the great-great grandchildren are singing songs of Friendship and Peace. 1.1

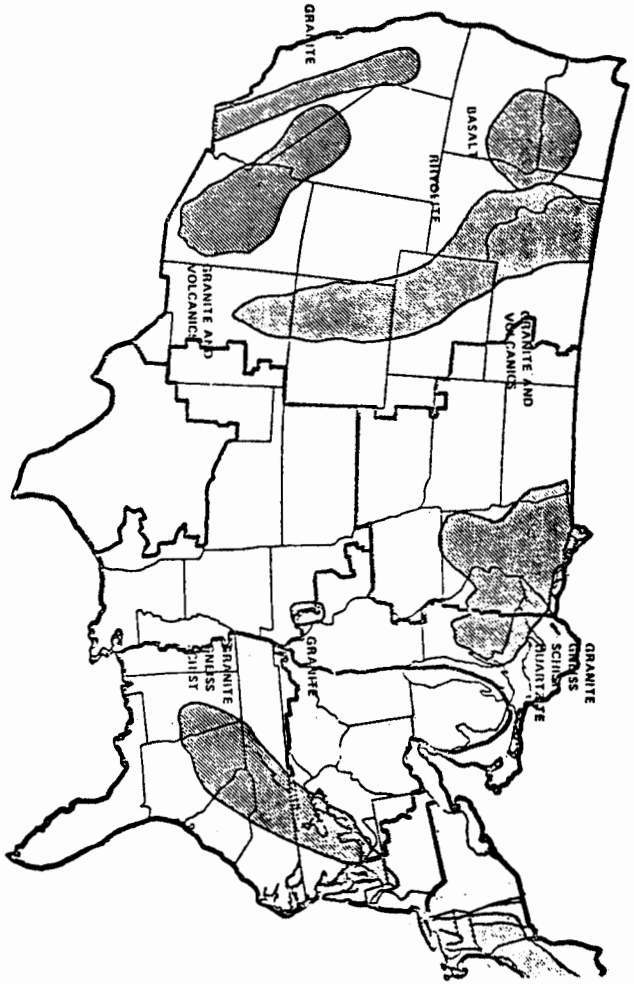
While we strive to benefit humanity, let it not be in a destructive way. Let it be for life!

Mrs. Evelyn K. Leonardson
525 Walnut #18
Idaho Falls, Idaho 83402
Mrs. Evelyn K. Leonardson

P.S. Kindly excuse my typing errors and erasures. As my doctor says: "You're not a spring chicken any more."

E.K.L.

30A



CRYSTALLINE FORMATIONS IN UNITED STATES

The present ERDA program for management of radioactive waste can be conveniently discussed in three parts differing in basic objectives. Terminal storage or disposal of waste, development of processes for preparation of waste for disposal and the development of a Generic Environmental Impact Statement in support of the overall waste management program.

Terminal Storage Program

By law and regulation[3] the Federal Government through ERDA is charged with construction and operation of a facility for disposal of high-level waste. Pending rulemaking by NRC is expected to extend this obligation to wastes containing transuranic wastes, viz plutonium americium, etc.

The present program is based on the prior work of the AEC of the past 15 years. I think it is of interest to point out that since the mid-1950's, the guidance of the National Academy of Sciences/National Research Council has been provided. The first chart (Figure 1) shows the flavor of their findings over the years.

Emplacement in deep, stable geologic formations has been identified as the most practical, environmentally satisfactory disposal method reasonably available in the mid 1980's for high-level and transuranic wastes. Of course the final evaluation from an environmental standpoint will not be complete until completion of the GEIS this year.

3. Energy Reorganization Act of 1974 and Appendix F to 10 CFR 50 of the NRC Regulations.

Three types of geologic formations are believed to be satisfactory for a repository--salt, crystalline rock (such as granite or basalt) and the argillaceous rocks (such as shales). The following charts (Figures 2, 3 and 4) show the location of major formations of each of these rock types. Some 45 of the contiguous 48 states are associated with at least one of these major formations.

The present ERDA terminal storage program provides for the location of sites for 6 repositories with the first two receiving waste in 1985 (Figure 5). The others are expected to follow at about two or more year intervals. Because of the extensive experience with salt in the past AEC programs, the first two repositories are expected to be in salt formations. The four following sites are expected to be in both crystalline rock and argillaceous formations. Suitable formations of each type are now known so the basic thrust of the program is the location of suitable local examples of the formation free of local defect, e.g., free of circulating water with potential for reaching the biosphere, free of major cracks, appropriate seismic prospects, etc.

The major schedule milestones for the program are shown on Figure 6. Two repository sites are scheduled for selection about the end of 1978, with initial licensed operation of the facilities to begin in 1985.

Figure 7 is an artist's concept of what a permanent disposal repository might look like. Our present planning provides for three distinct phases in the history of such a repository. The first would be a test phase in which the waste would be kep readily retrievable, with a design criterion of being able to remove the waste at about the same rate with which it was

300

W031

1 - T Nill
1 - File
1 - D Baggett

March 11, 1988

Clay Nichols
785 DOE Pl.
Idaho Falls, ID 83402

Dear Mr. Nichols:

I am writing to express my position regarding the Special Isotope Separation plant, proposed for construction at the Idaho National Engineering Laboratory, because I will be unable to attend the hearings.

It is economically irresponsible to build another weapons grade plutonium refinery when existing plants can meet the demand for the next twenty-five years. 5.2.11

It is environmentally irresponsible to locate the SIS over Idaho's major source of water, the Snake River aquifer, and near a major fault in the earth's crust. It is also unreasonable to construct SIS without a solution to New Mexico's underground nuclear waste storage problems. 5.12.1 5.10.7

I agree that Idaho needs jobs. I am an apprentice electrician, and the electrical industry needs all the help it can get. Unfortunately, in this case, the cost and risks exceed the benefit. 5.30.2.1 6.2

Sincerely,

Susan K. Alvarez

Susan K. Alvarez
4910 Gage St.
Boise, ID 83706

RECEIVED
MAR 14 1988
SIS Project Office

W032

→ 1-CRN
1-T. Hill
1-Fred Blair
1-L. Kennedy
1-D Bergquist

BE ALL YOU CAN BE:
WORK FOR TRUTH,
PEACE & JUSTICE

COPY

P.O. Box 7564 - Boise - Idaho 83707 - USA

Dear [Lt./Rev.] Larry [Jones, Criminal Investigation Division Boise PD]:

Greetings, Peace and Blessings ! Hope that all your constructive efforts are going well and that God continues to confer upon you His abundent grace.

This time, please permit me a retrospective look at the conditions surrounding our first meeting and to offer that I am, hopefully, as much of an avid opponent of any abuses of civil powers as you are of satanism and of ethnic supremacy. So, would you consent to receiving a brief information and suggestion ? Well... here goes :

42 United States Code § 1983 specifically treats the subject of the liability at law, suit in equity or other proper proceeding for redress in instances where persons "who, under color of any statute, ordinance, regulation, custom or usage... subjects, or causes to be subjected, any citizen of the United States... to the deprivation of any rights, privileges, or immunities secured by the Constitution." Inclusive, of course, of the First Amendment of the Constitution of the United States. 28 U. S. C. § 1343 (3) provides the authority for such compleints as might issue from § 1983 violations to be heard in federal court, including grievances involving any act, form of intimidation or harassment, threat or other means intended to or having the effect of inhibiting the lawful exercise of free speech.

More often than not public figures refuse to respond to citizens who criticize their moral views and their improprieties of service -- choosing, rather, to delegate their concerns to law enforcement authority. Providing, thereby, at least a tacit -- though quite public -- assertion that they regard such constitutionally-guaranteed expressions as potentially criminal. I will not argue the case (not yet !) that this is a form of fascism, my friend, though I am quite inclined to think that it is.

Being the one who delegates has its distinct advantages, by the way. The law requires that civil rights defendants be limited to those with "direct personal involvement in the constitutional violation." That they, themselves, commit the unlawful act or that they, themselves, be present when such acts occur. Thus -- as an example -- a mayor or a federal bureau manager or even a chief of police might be personally immune from such suits because their direct participation cannot be shown, whereas the person acting in their "names" would be liable, even if following a direct order. Thus, the rules for § 1983 and those for soldiers in combat under the Geneva Convention are quite different.

Well, I can absolutely assure you that, the next time any of the players in the February 26th scenario try to test *me* again on First Amendment issues, § 1983 gets put to work.

And I sincerely hope that, if they do press me, you are not any part of it. So why not consider letting your boss do the deeds, himself ? Or even Dirk. Or Dr. Clay.

Shalom.

Сергей

RECEIVED
MAR 14 1988
SIS Project Office

032 bcc:

52

W033

1-T. Hill
1-File
1-D Bergquist

1-CRN
1-File
1-D. Bergquist

Kathy O'Brien
555 N. 13 Ave.
Pocatello, ID 83201
March 9, 1988

Dr. Clay Nichols
DOE
785 DOE Place
Idaho Falls, ID 83402

RECEIVED
MAR 14 1988
SIS Project Office

Dear Dr. Nichols:

I am writing to express my opposition to the proposed SIS project at INEL. I am opposed both in principle and for practical reasons. I do not want a facility built which will help to produce nuclear weapons. We have enough nuclear weapons. 1.1 4.13

I have reviewed the draft EIS and find several problems with it. The issue of need should have been addressed since the DOE has stated that the present plutonium stockpile is sufficient to meet the demand. The amount of plutonium which would be fired up by the INF treaty is also not addressed. There is no need for the SIS. 4.3

The draft EIS also does not address the problem of security related to SIS technology. It is a very dangerous technology which has the potential to turn every nuclear power plant into a weapons factory. It ought not to be developed. 5.22.6

The draft EIS also does not address the problem of leaks at the waste repository in New Mexico. It is likely that waste will not be shipped there, but remain at INEL. 5.30.2.1 5.30.2.5

033

5.27.3.3 I do not want a bigger waste dump here. The effect on tourism alone would be disastrous.

3.2.1 The draft EIS asks us to trust the DOE's safety measures in regard to waste management, accidents and transport. Because of this, the entire DOE safety record should be included. It is not a good one, I find it impossible to trust the DOE. Let us not play God. Nature can always find a way to destroy our best structures. The problems at the waste repository are but one example.

Finally, I believe the SIS is totally wasteful. The expenditure far exceeds any gains. The jobs created are negligible for such a huge sum of money. This is not the kind of "economic development" our area needs. I want jobs we can be proud of.

53

5.27.6.1 I do not want our economy held hostage to the production of

6.2 bombs.

The SIS is an expensive, unnecessary and extremely dangerous project. I completely oppose its construction here or anywhere else.

Sincerely,

Kathy O'Brien

→ 1- File
1- T. Hill
1- D. Biggins

1.1

WE, THE UNDERSIGNED, OPPOSE THE CONSTRUCTION OF THE S.I.S. AT INEL ON MORAL AND ENVIRONMENTAL GROUNDS. WE CALL ON THE DEPARTMENT OF ENERGY TO RECONSIDER ITS DECISION TO PLACE THE SIS IN IDAHO.

NAME	ADDRESS	CITY	PHONE	written	oral	I WISH TO TESTIFY	2pm	7pm
Judith Heath	Rt 2	Buhl Ida	537-6518	✓				
Ulahwti	437 Jackson	T.F., ID	734-9365		✓	✓	✓	✓
Jim Barta	844 Box 7349	T.F. ID	754-4010	✓				

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MAR 14 1988
SIS Project Office

Please mail to: Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

034

W035

March 9, 1988

1 - file
1 - T. Hill
1 - D Bergquist

TO: Public Hearing on SIS Project
FROM: Mary Jane Hogan
2053 Barton Road
Pocatello, Idaho 83201

1.1 I wish to express my negative reservations about the SIS proposal, specifically the lack of adequate waste disposal and the lack of concern for social and

5.30.3.1

2.7.2 psychological aspects of nuclear weapons production

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MAR 14 1988
SIS Project Office

035

54

W036

FOR THE HEARING RECORD 3/8/88

1-T. Hill
1-File
1-D Bergquist

Mrs. William Brudenell
10892 Bridgetower Drive
Boise, Idaho 83709

RECEIVED
MAR 14 1988
SIS Project Office

Dear Dr. Nichols,

Thank you for the opportunity to address this important issue on the SIS project.

I am opposed to the development and stockpiling of nuclear weapons. Our nation is in the process of ratifying a treaty which will decrease the needs for more nuclear weapons. I disagree with the D.O.E. decision to proceed with the S.I.S and urge the President and congress to not authorize or appropriate funds for the S.I.S, whose only purpose is to refine plutonium into nuclear weapons. I think it would be a mistake to proceed with this project at any site. 4.13 4.3 1.1

However, I have reviewed the D.E.I.S. It appears to be thorough, but several concerns are not fully addressed. First, transport from the Hanford Site to any of the proposed locations and then to the Rocky Flats Plant. My concerns center on hazardous material handling and accidents, security, available medical Resources to deal with a plutonium accident in transit. Since the S.I.S. project is using plutonium the most aggressive monitoring, decontamination and education program for employees, their families and Residents near or adjacent to the facility must be ensured. All of the best precautions are necessary, but the S.I.S. project Does NOT Need to be built. 5.29.87

The economic impact is not offset by the threat of continued nuclear armament or the possible and real danger of plutonium. 6.2

Sincerely,
Ingrid Brudenell

036

W037

LETTER 037

(Copy of 039)

55

W038

Greater Pocatello
The Chamber.
Chamber Of Commerce

February 29, 1988

TO: Directors and Members
Greater Pocatello Chamber of Commerce

FR: Dick Conroy, Economic Affairs VP

RE: SIS PROJECT SUPPORT

The proposed SIS Project at INEL is of vital economic concern to the region. The Chamber strongly supports this project and needs your help to express that support at the SIS draft Environmental Impact Statement hearings in Idaho Falls on Friday, March 25. I'd like to request that you tesitfy, either orally or in writing, at the hearings. To do this, you must submit a written request by March 18 for time on the agenda for oral testimony or submit your written testimony to: 1.1

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Oral testimony will be taken at the University Place building which is on the corner of University Place and Science Center Drive in Idaho Falls. The hearings will be held in two sessions, from 2-5 p.m. and from 7:00 p.m. to whenever necessary for completion on Friday, March 25. Individuals will be limited to five minutes of testimony and organizations (such as the Chamber) to ten minutes by a single speaker representing the organization. (Our President, Dick Sagness, should make this presentation for us if he can.)

If you choose to submit written testimony, I have been assured that it will receive equal consideration with oral testimony by the review panel. Written testimony will be accepted by DOE from February 22 through April 21. It is important, however, that we get as many witnesses to testify as possible because the number of submittals, both oral and written, on each side of the issue will have some impact on the final decision.

This project carries enormous potential for Southeast Idaho. The Environmental Impact Statement compares the relative impacts of constructing and operating the project at INEL (DOE's preferred site) versus construction at Hanford, Washington, or Savannah River, Georgia, or taking no action (i.e. do not construct a new project anywhere). The project is scheduled for construction from 1989 through 1993 with startup in 1994. During construction, about 400 temporary jobs will be created. During operation, about 390 permanent jobs will be filled. The project will require total construction

038 7 North Main, Suite A • P.O. Box 626 • Pocatello, Idaho 83204 • (208) 233-1525
038

costs of about $50 llion. Operating costs are e mated to be about $50 million per year after startup in 1994, of which about $17 million in salaries and benefits and another $10-15 million in supply and service costs will flow directly into the Southeast Idaho economy. If we can cause some of the manufacturing facilities, contractor headquarters, and construction and operating personnel to locate in the Pocatello-Chubbuck area, a very favorable increase in our tax base will result. We intend to pursue these opportunities vigorously if the project is approved.

Your testimony should be based on your own phrasing of any or all of the following topics (if you, indeed, support the project):

1. That the environmental, health, and safety impacts at the INEL which are described in the draft Economic Impact Statement appear to be equal or less than those projected for the other two alternative sites and, in any location, appear to be minimal and nonthreatening.

5.24.22

2. That the Southeastern Idaho economy is in great need of a major new development and is fully capable of supporting such a project with existing transportation, energy, educational, and local government infrastructures; the economic benefits to the regional economy will far outweigh any environmental or social risks inherent in the technology.

5.27.11.1

3. That, as a long-term resident (mention how many years you have lived in this area) and Idaho business person (indicate the name of your business or employer), you feel that the INEL is ideally suited for this project and that the local business community is strongly supportive of the INEL site.

4. That the Pocatello-Chubbuck area is now capable of providing sites, buildings, and an extremely well-trained and stable work force for component manufacturing and contractor support functions; we have major educational and training facilities at ISU for specialized work force needs; and we have a large and reasonably priced private home inventory available for project employees.

5. Any other comments that you consider to be pertinent to support the project.

If you wish to look at the draft EIS, we have a copy available at the Chamber office.

Please inform the Chamber of Commerce of your intentions. If we have enough people to testify orally, we can look into chartering a bus to take us to Idaho Falls. Please call Mary at the Chamber office (233-1525) and tell her if you will submit written or oral testimony.

Thank you for helping the Chamber Economic Growth Council support this project, and I look forward to seeing you at the public hearing in Idaho Falls on March 25.

Very truly yours,

A.R. Conroy
Chairman, Greater Pocatello
Economic Growth Council

38A

56

W039

POCATELLO CARDIOLOGY ASSOCIATES
A Professional Association

(208) 234-2001

Lloyd S. Call, M.D.
Fellow American College of Cardiology
Diplomate American Board of Internal Medicine
Noninvasive Cardiology

Benjamin F. Call, M.D.
Board Certified in Cardiology
Invasive and Noninvasive Cardiology

1352 E. Center
P.O. Box 4516
Pocatello, Idaho 83205

L T. Hall
1- File

March 9, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RE: SIS Project

Dear Dr. Nichols:

This letter is in strong support for the SIS project at INEL. Several items are significant. One is that the environmental health and safety impacts have been adequately evaluated. As an individual who professionally does some work in nuclear cardiology, I am moderately familiar with the problems that are associated with nuclear projects such as SIS. It is my hope that minimal attention will be paid to the uninformed, partially informed, and less-than-logical testimony that will surface.

1.1

The Southeast Idaho economy is capable of supporting this project with minimal additional stress to the economy. The benefits to Southeast Idaho's regional economy far outweigh any other problems. In addition to this, the economy does need such a major development.

5.27.11.1
5.27.6.1

I have lived in Idaho throughout my lifetime. I was born in Rigby, reared in Pocatello, and returned here for medical practice after having attended university, medical school, and some time in the Navy. I feel very competent in submitting testimony that the INEL is suited for this project and that the general business community as a whole is very supportive of the INEL site.

Being a resident of Pocatello, I feel it is only reasonable to reinforce that the Pocatello area is capable of providing additional sites, buildings, and that we do have a capable and stable work force here which would have a substantial effect on the long-term success of the SIS. Idaho State University has the support of the area and the state for developing projects that may be needed and of additional research projects that may be of value.

5.27.11.1

I would encourage your support of this proposal.

Very truly yours,

Lloyd S. Call, M.D.

LSC/cc

cc: A. R. Conroy
039 Chairman, Greater Pocatello Economic Growth Council

RECEIVED
MAR 14 1988
SIS Project Office

W040

GERRY MERRELL
RELOCATION DIRECTOR
Box 2803
Idaho Falls, ID 83403
Residence phone: (208) 529-2601

MICKEY MERRELL, BROKER
(208) 522-6801

An association of independent brokers

1- T. Hill
1- File

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls,ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

5.24.23 We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being.

5.27.9.1 Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state.

5.27.6.1 SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities.

5.27.15.1

1.1 SIS would be welcomed by the pioneering people of Idaho!

Sincerely,

Gerry Merrell

RECEIVED
MAR 15 1988
Idaho Operations Office

040

W041

MICKEY MERRELL, BROKER
414 Shoup Avenue
Idaho Falls, ID 83402
(208) 522-6801
Residence phone: (208) 529-2601

An association of independent brokers

1- T Hill
1- File

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls,ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being. 5.24.23

Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state. 5.27.9.1

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities. 5.27.6.1 5.27.15.1

SIS would be welcomed by the pioneering people of Idaho! 1.1

Sincerely,

Mickey Merrell

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MAR 15 1988
Idaho Operations Office

041

57

W042

1- T. Hill
1- File

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

19 Goodwin Drive
Blackfoot, Idaho 83221
March 14, 1988

Dear Mr. Nichols:

5.27.6.1 My name is Ellen Turvey, and I live at 19 Goodwin Drive, Blackfoot, Idaho. I am employed by Dr. Glenn McMinn, and have lived in Idaho for 21 years.

4.15.4 The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the

1.1 location of the project at the I.N.E.L.

Very truly yours,

Ellen Turvey

RECEIVED
MAR 15 1988
SIS Project Office

042

58

W043

1- T. Hill
1- File

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

19 Goodwin Drive
Blackfoot, Idaho 83221
March 14, 1988

Dear Mr. Nichols:

My name is Harold Turvey Jr., and I live at 19 Goodwin Drive, Blackfoot, Idaho. 5.27.6.1
I am employed at Idaho Power Company, and have lived in Idaho for 22 years.
The SIS is a program vital to the economy of Idaho, as well as being a project 4.15.4
necessary to the defense of our country. I sincerely urge the location of the
project at the I.N.E.L. 1.1

Very truly yours,

Harold Turvey Jr.

RECEIVED
MAR 15 1988
SIS Project Office

043

W044

W045

1.1

5.27.6.1

RECEIVED
MAR 15 1988
SIS Project Office

1. T. Hill
→ 1-File

"Yes on SIS"

We, citizens of Southeast Idaho who are concerned about the economy in our area and feel there is need for commercial growth in the entire region, support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory. We believe the SIS program will serve to enhance the economy in all of the communities surrounding the INEL by encouraging growth of local businesses to serve the needs of the program.

NAME (print)	Signature	Mailing Address	Date
MARK E. KESEN		1731 W. Falcon Circle So	3-9-88
S.B. Morton		1046 Sharlene	3-9-88
J.R. Ivy	J.R. Ivy	1770 Kraft Rd	3-9-88
Rulon Anderson	Rulon Anderson	1109 C Poplar	3-9-88
William Orchard	William Orchard	1730 West Quinn 1st	3-9-88
D.D. Ness		692 Washington Poc. Id.	3-9-88
L.D. Smoot	L.D. Smoot	1355 G W. Marble	3-9-88
Arnold Appleby	ARNOLD APPLEBY	PO 165 FT HALL	3-9-88
Wayne R. Lewis	Wayne Lewis	8306 N. Pocks	3-9-88
J.P. LASLEY	J.P. Lasley	RT 1 Chilkin	3-9-88
Ron Remark	Ron Remark	3930 Sandpiper Poc	3-9-88
Chris C. Hugus	Chris C. Hugus	R+2 Box 48 Poc	3-9-88
Fred C. OLDS	Fred C. Olds	Rt. 1 Morgan Rd	3-9-88
Robert D. Housley	Robert D. Housley	1331 y c Stewart	3-9-88
Billy K Bird	Billy K Bird	227 Hyde	3-9-88
MAURICE King	Maurice King	POB 576 Aberdeen	3-9-88
Chas Fentelman	Charles Fentelman	925 E WALNUT Poc	5-9-88
TONY MENDIVIL	Tony Mendivil	671 Rich 671 Richmond Poc	2-5712

Please send this petition to Clay Nichols, Idaho Operations Office, U.S. Department of Energy, 785 D.O.E. Place, Idaho Falls, Idaho 83402 By March 21st

044

1. T. Hill
→ 1-File

"Yes on SIS"

We, citizens of Southeast Idaho who are concerned about the economy in our area and feel there is need for commercial growth in the entire region, support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory. We believe the SIS program will serve to enhance the economy in all of the communities surrounding the INEL by encouraging growth of local businesses to serve the needs of the program.

NAME (print)	Signature	Mailing Address	Date
STEVEN L. OSBURN	Steven L. Osburn	1642 Harvard Dr. Seattle, Wa	11 March 88
MARLIN L. NEMMIRE	Marlin L. Nemmire	1500 W Quinn #25 Pocatello	3-11-88
Lee Hargrove	Lee Hargrove	84 S Henry St. Shelley	3-11-88
Roger Heath	ROGER Heath	108 N. 700 W. Blackfoot	3-11-88
Sam V. Sanchez	Sam V. Sanchez	339 So. 5 Pocatello, Id.	3-11-88
Robert D Hale	Robert D Hale	1457 Jensen Poc, Id.	3-11-88
George D Malley	George D Malley	537 W Whitman Poc, Id.	3-11-88
ALICE WHITMAN	Alice Whitman	Box 213	3-11-88
LEE T CRANE	Lee T Crane	879 W Bryan Poc Id	3-11-88
DALLAS Johnston	Dallas Johnston	1860 So. 3rd Poc.	3-11-88
Randy Howerton	Randy Howerton	4923 Redfish Pl	3-11-88
John Santillanes	John Santillanes	771 Cherry St Poc.	3-11-88
ELVIN CUDABACK	Elvin Cudaback	Box 159 INKOM, ID.	3-11-88
KELLY ANDERSON	Kelly Anderson	121 E Lavine Poc. Id	3-11-88
WADE KELLER	Wade Keller	40 Oakwood Ct Pocatello	3-11-88
Keith Halverson	Keith Halverson	698 Channel Ct Chub Ft	3-11-88
Richard Bell	Richard Bell	5071 Marie, Chub	2-8595

Please send this petition to Clay Nichols, Idaho Operations Office, U.S. Department of Energy, 785 D.O.E. Place, Idaho Falls, Idaho 83402 By March 21st

045

W046

1-T Hill
1-file

RECEIVED
MAR 15 1988
SIS Project Office

"Yes on SIS"

1.1

5.27.6.1

We, citizens of Southeast Idaho who are concerned about the economy in our area and feel there is need for commercial growth in the entire region, support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory. We believe the SIS program will serve to enhance the economy in all of the communities surrounding the INEL by encouraging growth of local businesses to serve the needs of the program.

NAME (print)	Signature	Mailing Address	Date
MARION E HAMMONS	Marion E Hammons	156 Dornick Ln Chubbuck Ida 83202	3-8-88
Edward K Aldrich	Edward K Aldrich	780 Balsam Pocatello Idaho 83201	3-9-88
John G Hansen	John G Hansen	1100 curtis Pocatello Idaho 83201	3-9-88
ROBERT E. REYNOLDS	Robert E Reynolds	930 Broadway Pocatello Idaho 83204	3-9-88
Ralph M. Wilkey	Ralph M. Wilkey	1018 Wingate Dr. Pocatello Idaho 83201	3-9-88
Edwin C Cox	Edwin C Cox	2458 Adrianne Way Mtn. Falls Ida.	3-8-88
Gary L Archibald	Gary L Archibald	351 Briscoe Rd. Chubbuck Idaho, Pocatello 83202	3/9/88
Jerry D Rowe	Jerry D Rowe	788 Callie Chubbuck Idaho	3-9-88
NORMAN D. GARDNER	Norman D. Gardner	140 Henderson Blackfoot 83221	3-9-88
RAY D. Coles	Ray D Coles	1385 SEMRO POCATELLO ID 83204	3-9-88
Allen L Jorgensen	Allen L Jorgensen	1255 N. Hayo Pocatello	3-9-88
Jerry H Southwaves	Jerry H Southwaves	256 Henry Chubbuck	3-9-88
Paul H. Armstrong	Paul H Armstrong	5786 Lucky Pocatello 83202 Idaho	3-9-88
JEFF L. HANSEN	Jeff L Hansen	190 N. 8th Pocatello 83201	3-9-88
Kent C Rockwell	Kent C Rockwell	2815 Mt Borah Pl. Pocatello ID 83201	3-9-88
Jesus Acosta	Jesus Acosta	150 Taft Poc, ID	3-9-88
William L Cowhouse	William L Cowhouse	1900 W Quinn #23 Poc, ID	3-9-88
[illegible]	Byron McBride	13629 N Rockview Ln Pocatello ID	3-9-88

Please send this petition to Clay Nichols, Idaho Operations Office, U.S. Department of Energy, 785 D.O.E. Place, Idaho Falls, Idaho 83402 By March 21st

[illegible] G Dilly David G Dilly 125 Wastella Poc 3-9-88

(over)

NAME	SIGNATURE	ADDRESS	DATE
Vern P Steele	Vern P Steele	1113 - 3rd ave Pocatello	3-9-88
DUANE PACKER	Duane Packer	370 McKinley Pocatello	3-9-88
VIRGINIA PONCE	Virginia Ponce	121 FAV 126 Jan Hall Dr 83203	3-9-88

60

W047

RECEIVED
MAR 15 1988
SIS Project Office

1-F. Hall
1-File

Dear Sir:

1.1 As a long time resident of Southeast Idaho, I would like to voice my support of the SIS project to be located at the INEL Site.

5.27.6.1 The Southeastern Idaho economy is in a depressed state and is in great need of a new development to boost the economy. We have the necessary construction workforce available for such a project without getting people from out of state.

5.27.11.1 The surrounding areas of the INEL Site are able to offer necessary housing, education and training for any specialized needs. The businesses in these areas are also in favor of this project.

6.1.2 All the issues of the proposed site would be under strict guidlines and regulations and would be minimal and non-threating to the environment. I strongly support the SIS project being located at the INEL Site.

Very truly yours
Bill D. Haddon
Ironworker Local #732

047

61

W048

RICHARD "LOG HOME" STOPOL
LOG CONSTRUCTION SPECIALIST

1-T. Hill
1-File
1-D. Bengaint

FOR THE HEARING RECORD

March 12, 1988
Dr. Clay Nichols
Dept. of Energy
785 DOE Place
Idaho Falls, Idaho 83402

1.1 My name is Richard Stopol. I live and operate a small business in Hailey, Idaho.

5.30.3.8 I am against bringing the Special Isotope Seperator (SIS) project to INEL in Idaho Falls.

4.13 I don't want any more radioactive waste, plutonium or any other hazardous materials brought into this state under any conditions.

I am against building any more nuclear weapons. I do not want my home state to be part of the weapons building process.

4.15.5 Even if I was in favor of building and using more nuclear bombs, the government has announced there is an abundance of plutonium to meet the demands for new weapons.

I don't care if the project will produce 750 jobs or 750,000 jobs, these are not the kinds of jobs we need to help Idaho grow.

5.27.7.17 The two places I hear most frequently mentioned in conjunction with the SIS are Hanford and Rocky Flats. Next to Three Mile Island, these are two of the most paluted places in this country. Lets not connect Idaho Falls with these two wasted zones.

5.12.1 On top of the Snake River aquifir, south of millions of acres of the most pristine forests in America, you have got to be kidding. This is madness.

There isn't one single good reason to build the SIS from what I've heard.

It seems to me there is something drastically wrong with the leadership in Idaho for the politicians to be aupporting this project.

People who are concerned about the degredation of the environment in Idaho, in America and all around the planet are becomming stronger and more united all the time. We will do everything necessary to defeat this insane project and others like it.

Idaho is the greatest of all 50 states. That is why I live here. Let's not poison it.

Thank you,

Richard Stopol

RECEIVED
MAR 15 1988
SIS Project Office

048

(208) 788-0479

W049

Greater Pocatello
The Chamber.
Chamber Of Commerce

1-T. Hill
1-File

March 14, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I would like to register Richard L. Sagness to testify at the Special Isotope Separator project hearing in Idaho Falls on March 25. Dr. Sagness will testify in favor of the project on behalf of the Greater Pocatello Chamber of Commerce. 1.1

I am cognizant of the fact that times to testify cannot be assigned; however, if it does not cause you undue inconvenience, it would be very helpful if Dr. Sagness could be scheduled in the afternoon.

Thank you for your consideration in this matter.

Sincerely,

Dawn Hatch
Executive Assistant

sh

cc: Dr. Richard L. Sagness

RECEIVED
MAR 15 1988
SIS Project Office

049

427 North Main, Suite A • P.O. Box 626 • Pocatello, Idaho 83204 • (208) 233-1525

62

GENERAL CONTRACTING
Mailing Address — P.O. Box 1082
Idaho Falls, Idaho 83402
Phone (208) 529-0290

1- T Hill
1- File

March 9, 1988

Open Letter in Support of SIS Project

1.1 The staff and employees of C & H Construction, Inc. wish to take this opportunity to voice our support of the anticipated SIS project.

5.24.23 We have been involved in construction at the INEL for ten years and have seen, and have had hands-on experience with the operations at the INEL. Through this experience we have gained confidences in the programs and personnel operating the programs at the site. Not only is there a very high level of technical expertise, the safety track record has been unsurpassed by any industry. Therefore, concerns for public safety should be nil.

5.27.6.1 Furthermore, the jobs created by the SIS project would be a much-needed economic boost to the area, and to the entire state of Idaho. Also, technology gained through the laser and fiber optics research will be far reaching to 6.4.1 aid local universities, and make an important contribution to medical breakthroughs.

4.15.4 It seems very apparent that if the INEL is to maintain its current and future work force, we must pursue new programs. This project can help secure that future, and play an importatn part in the National Defense.

6.2 All of the attributes of the project far outweigh any concerns brought to light by a very, very small contingent of people, who look at Idaho as a nice place to spend a couple of carefree weeks on vacation, or who come to Idaho as an independently wealthy, concerned citizen.

Idaho is a great state with recreation and employment for all - if we have the foresight to look to the future and build a stable economy. Projects such as SIS can do this for us.

In closing, both Idaho and the INEL need the SIS project.

Sincerely,

Clayne A. Hanson

RECEIVED
MAR 11 1988
SIS Project Office

CAH/ts

cc: file

050

63

LETTER 051

Letter could not be located after exhaustive search.

W052

1- T. Hill
1- Hearing File
1-CRN

School District Number Twenty-Five

Bannock County, Pocatello, Idaho

ADMINISTRATIVE OFFICES / EDUCATION CENTER / 3115 POLE LINE ROAD
P.O. BOX 1390 / (208) 232-3563
POCATELLO, IDAHO 83201

RECEIVED
T. J. HILL
MAR 14 1988

March 7, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Please accept this written testimony regarding the proposed SIS Project at INEL.

1.1 First, I would like to support the location of the SIS Project at INEL as opposed to other alternative sites. The beneficial impact to our economy is needed and desirable. The people of Southeast Idaho have generally accepted nuclear technology and the operations which are currently present at INEL.

5.24.23

Second, I have read the Draft Environmental Impact Statement - DOE/EIS-0136, and would like to direct the major portion of my comments to the impact of the proposal upon the public schools located in School District No. 25, in the Pocatello - Chubbuck area. The draft, under Routine Nonradiological Operational Impacts - Socioeconomic Impacts, includes the statement that "...peak 2-year period of hiring might contribute to overcrowding of selected schools;..." It is my assumption that this statement is directed to Idaho Falls Public Schools. I assume this because it is my opinion, as Superintendent of Schools in School District No. 25, that no adverse overcrowding would occur in School District No. 25 schools. In fact, a strong case can be made for locating some of the manufacturing facilities, contractor and construction facilities in the Pocatello area. Several hundred children can be added to the schools in District No. 25 without any serious overcrowding. Our current projections show that we will have a slight decrease in students in our schools over the next few years unless some change occurs. I have attached a copy of our enrollment projections.

5.27.11.6

64

052

School District No. 25 has a strong record of quality student performance. One measure we use to compare our results with other school systems is standardized national tests. Each year selected grade levels are tested and results give an indication of how well our students have mastered basic subject matter. Enclosed you will find a three year history of our test results for certain grade levels. Our graduates are capable of competing at any level and perform as well as graduates across the country.

As I view the possibilities in the Pocatello-Chubbuck area, I am confident that the needs required to locate the SIS Project at INEL can be met very well. Our area provides good building opportunities, both for business and residential housing. Idaho State University should be considered an excellent tool to give extended educational opportunities to site employees.

5.27.11.1

5.27.15.1

My contacts with the business community in our area lead me to believe that our community is anxious to have the SIS Project at INEL. The impact will be welcome and positive.

5.27.6.1

Sincerely,

David A. Peck
Superintendent of Schools

52A

PUPIL ENROLLMENT PROJECTION

SCHOOL DISTRICT 25 COHORT PROJECTION 1988-89 (Based upon Nov. 3rd week enrollments.)

SCHOOL YEAR	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	
BIRTHS-)	1625	1605	1644	1548	1477	1440	1367	1355	1214	1117	1100	1080	1050	1030	1000	980	
BIRTH YEAR-)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	*1988	1989	1990	1991	1992	1993	88-89 %
							:—)—Projections—)				*Births for following years are estimates.						Predictor
K	1172	1198	1293	1253	1204	1186	1119	1073	1058	953	878	861	847	823	808	784	0.777 (1)
1	1103	1149	1163	1235	1187	1134	1137	1069	1021	1006	907	838	820	806	784	769	0.959 (2)
2	1056	1099	1107	1120	1171	1150	1098	1095	1028	982	971	874	806	790	777	755	0.968 (2)
3	963	1040	1066	1077	1070	1152	1119	1066	1063	998	957	944	849	784	768	755	0.973 (2)
4	893	964	994	1040	1037	1038	1121	1083	1034	1030	968	928	915	823	760	745	0.973 (2)
5	958	887	944	987	995	1024	1019	1098	1061	1010	1010	949	909	896	806	745	0.982 (2)
6	953	945	879	927	967	964	1005	1000	1075	1038	987	990	928	889	876	789	0.982 (2)
7	989	993	970	938	941	999	999	1041	1037	1109	1074	1022	1024	961	920	907	1.037 (2)
8	942	986	959	969	887	914	975	971	1013	1003	1077	1044	993	994	933	893	0.976 (2)
9	902	944	991	943	935	868	902	959	951	991	985	1058	1024	973	975	915	0.987 (2)
10	830	844	910	934	873	900	821	855	906	899	941	932	1002	969	922	924	0.946 (2)
11	748	790	818	848	880	839	856	781	810	861	856	894	886	952	922	877	0.951 (2)
12	741	736	781	770	776	859	806	819	742	771	826	818	854	845	909	881	0.961 (2)
SELF- K-6	75	77	94	93	96	91	88	90	92	92	91	91	90	91	91	91	0.963 (3)
". 7-9	51	49	48	42	49	50	48	48	47	47	48	48	48	48	48	48	0.963 (3)
. ALTER	11	8	4	14	14	10	10	10	10	11	11	10	11	11	11	11	1.017 (3)
C.A.C. 10-12	51	50	43	45	41	42	45	44	43	44	43	44	44	44	44	44	1.079 (3)
SP ED TOTAL	188	184	189	194	200	193	191	192	193	194	194	193	193	193	193	193	SUMMARY

SUMMARY (Includes Self-Contained Special Education)

K	1172	1198	1293	1253	1204	1186	1119	1073	1058	968	926	882	844	807	772	738	SUMMARY
1-6	6001	6161	6247	6479	6523	6553	6586	6500	6374	6156	5892	5612	5319	5080	4862	4649	SUMMARY
7-9	2895	2980	2972	2906	2826	2841	2934	3029	3058	3162	3195	3182	3099	2987	2886	2774	SUMMARY
10-12	2370	2420	2552	2597	2570	2640	2529	2499	2502	2575	2667	2689	2786	2810	2796	2725	SUMMARY
GRAND TOTAL	12438	12759	13064	13235	13123	13220	13170	13101	12993	12861	12680	12364	12048	11684	11317	10886	SUMMARY

(1) Five year ave. "k"/births.
(2) Five year ave. of carryover from one grade to next.
(3) Five year average of Sp. Ed. enrollment in District.

School District No. 25
IBA Achievement Testing

The planning and use of effective educational measurement and evaluation has become increasingly important in today's schools. Teaching in the public schools has become more complex and difficult. This task has contributed to the growing concern about student's mastery of the basic skills and their ability to function adequately in society. The standardized norm-referenced tests of the IBA Achievement Series make available a wealth of information for comparing the progress of an individual student or a group with that of students in the sample population who are at the same grade level throughout the United States.

The following is a list of national percentile scores of School District No. 25 for the school years 1985-1986, 1986-1987, National percentiles range from 1 to 99. These scores indicate what percentage of students tested have scores that are equal to or lower than the individual student obtained. Some students are not evaluated in the fall of 1987 to advance to grade 1. The birth year (1982) was given.

DISTRICT-WIDE REPORT OF NATIONAL PERCENTILE SCORES
1985-1986-1987 SCHOOL YEARS

Gr.	Composite 1985	1986	1987	Reading 1985	1986	1987	Math 1985	1986	1987	Language Arts 1985	1986	1987	Study Skills 1985	1986	1987	Social Studies 1985	1986	1987	Science 1985	1986	1987
K			99			99			99			99			99			99			99
1	72	71	99	71	69	99	71	69	99	71	69	99	71	69	99	71	69	99	71	69	99
2	74	67	99	71	67	99	71	67	99	71	67	99	71	67	99	71	67	99	71	67	99
3	67	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
4	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
5	72	72	99	72	72	99	72	72	99	72	72	99	72	72	99	72	72	99	72	72	99
6	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
7	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
8	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
9	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
10	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
11	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99
12	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99	69	69	99

52B

W053

1- [illegible]
1- T. Hill
D Baggett

2330 Miller
Burley, Id., 83318
March 8, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Dept of Energy
785 DOE Place
Idaho Falls, Id, 83402

Dear Mr. Nichols,

I will not be able to attend the public hearing in March concerning the draft EIS for the Dept of Energy's Special Isotope Separation Project.

1.1 Please note I oppose any site in Idaho for a plutonium refining plant; or any use of
4.13 our facilities to further promote the progress of development of more nuclear weapons.

Sincerely,
Viola Black

RECEIVED
MAR 10 1988
SIS Project Office

053

99

W054

1- T Hill
1- file
1- [illegible]

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being. 5.24.23

Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state.

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities. 5.27.6.1 — 5.27.15.1

SIS would be welcomed by the pioneering people of Idaho! 1.1

Sincerely,
[signature]

RECEIVED
MAR 10 1988
SIS Project Office

054

W055

1- KN hearing file
- Hill
1. Baggett

A.Clark Wellard
1375 City Creek Rd
Pocatello, Idaho 83204

March 10, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Sir:

1.1 I strongly support the SIS Project for this area. I have been a resident of Southeast Idaho for over 45 years and feel that such a project is badly needed.

5.27.6.1 Our economy in this area has steadily declined in the past few years with the closing of several large companies. This project would be a great boost to our economy at this time.

5.27.11.1 5.27.15.1 We have the necessary workforce for such a project and would not have to bring in a large number of new workers. We have excellent educational facilities available for any needed training.

6.1.2 The environmental issues would all be taken care of under current regulations and would not be a threat. The economic impact on the area would far outweigh any environmental risks.

6.2 I have been a businessman in this area for the last ten years and as a businessman and a citizen I strongly pledge my support of the SIS Project.

Very truly yours,

A. Clark Wellard

A. CLARK WELLARD

RECEIVED
MAR 10 1988
SIS Project Office

055

67

W056

→ 1- Hearing File
1- T Hill
1- D Baggett

IDAHO IRON, INC.
DeKay Road, Tyhee
P.O. BOX 5370
POCATELLO, IDAHO 83202
(208) 238-0681

STEEL ERECTION, REBAR
RIGGING, WELDING
GENEREAL INDUSTRIAL MAINTENANCE
CRANE RENTAL

STEEL BUILDING SYSTEMS
COMMERCIAL — INDUSTRIAL
RESIDENTIAL

March 10, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Sir:

1.1 5.27.6.1 5.27.11.3 As a business in Southeast Idaho we would like to give our support to the SIS Project. Southeast Idaho is and has been for sometime depressed economically. This project would give us the boost badly needed for this area. We have enough available construction workers in this and surrounding areas so that a large influx of construction personnel would not be necessary.

6.1.2 All environmental issues, including exposures to radioactive, hazardous or toxic materials and discharge of wast water, would be under regulations and would not be a threat.

We feel that this project is very much needed in this area and strongly give our support to it.

Very truly yours,

IDAHO IRON, INC.

Jack R Woods

JACK R. WOODS
President

JRW/dw

RECEIVED
MAR 10 1988
SIS Project Office

056

W057

1- A.R.N
1- Hearing File
1- T Hill
1- D. Berggquist

AIKEN COUNTY

Telephone: (803) 642-1500

Assistant County Administrator
Garry R. Smith

828 Richland Ave., West
Aiken, South Carolina 29801

March 1, 1988

Dr. Clay Nichols
Idaho Operations Office
United States Department of Energy
785 D.O.E. Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Thank you very much for the letter dated February 11, 1988, from Don Ofte, Manager of the Department of Energy, Idaho Operations Office.

This letter is to inform you that Aiken County, South Carolina has no official comment to make at this time on the special isotope separations project draft and environmental impact statement. Official comment is reserved for a later date.

I am

Respectfully,

Garry R. Smith
Assistant County Administrator

cc: Mr. Cliff Webb, U.S. Department of Energy, Externai Affairs, c/o Savannah River Plant

GRS/src

L301883

RECEIVED
MAR 10 1988
SIS Project Office

AIKEN COUNTY DOES NOT DISCRIMINATE ON BASIS OF RACE, COLOR, NATIONAL ORIGIN, SEX, RELIGION, AGE, AND HANDICAPPED STATUS IN EMPLOYMENT OR PROVISION OF SERVICES.

057

68

W058

1- T. Hill
1- P. Phelps
1- D. Berggquist
1- File

March 2, 1988

Susan Alban
Box 1131
Ketchum, Id. 83340

Mr. Clay Nichols
U. S. Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Mr. Nichols:

I would like to go on record and express my opposition to the proposed SIS project. I feel that the boost to Idaho's economy and job market is far over-shadowed by the risk to our health and environment. 1.1 6.2

We can not take the risk of a possible accident. Even a rumor of radioactive leakage would ruin our resort's reputation. Idaho will loose in the end. 5.27.2

Stop the SIS project!

Sincerely,

Susan Alban

Sussan Alban

RECEIVED
MAR 4 1988
SIS Project Office

058

W059

LETTER #059

Letter could not be located after exhaustive search.

69

W060

1- T. Hill
1- File

6900 W Portneuf Rd
Pocatello, Idaho 83204
March 11, 1988

Dr Clayton Nichols
SIS Project Manager
U S Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr Nichols:

I am writing this letter as a concerned citizen of Southeastern Idaho.

I feel that the enviornmental, health and safety impacts at the INEL as described in the draft Economic Impact Statement appear to be equal or less than those projected for the other sites. In any case, I see no threat to the environment, to health nor to our safety. 6.1.2

Southeast Idaho is truly in need of a major development. The area is fully capable of supporting a project of this nature. We have adequate energy, transportation, and our educational system is equal to the challenges. Certainly the economic benefits to the region far outweigh any possible risks. 5.27.11.1 6.2

I have lived in Pocatello for thirty years and worked in Pocatello for twenty six years. I feel that INEL is ideally suited for a project of this type. It is my opinion that the business community strongly supports the INEL site for the SIS Project.

The Pocatello-Chubbuck area has an extremely well-trained and stable work force and ideal sites for component manufacturing. There are buildings and building sites available. Our training facilities at Idaho State University are capable of supplying specialized training in many areas. 5.27.11.1 5.27.15.1

Pocatello is a great place to live. There is a large number and reasonably priced homes available for project employees.

I would be delighted to see a project of this magnitude in Southeastern Idaho and I emphasize my strong support of it. 1.1

Sincerely,

Beth Hill

Beth Hill

RECEIVED
MAR 16 1988
SIS Project Office

060

W061

1-T. Hill
1-File

ASH GROVE CEMENT WEST, INC.

INKOM, IDAHO 83245
(208) 775-3351

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 Doe Place
Idaho Falls, Idaho 83402

March 14, 1988

Dear Dr. Nichols:

1.1

The purpose of this letter is to strongly support the INEL as the proposed site for the SIS project.

5.24.23
2.2.1
2.1.1
5.27.6.1
5.27.4.5
5.27.11.1

1) The safety record at the INEL has been exceptional, especially when you consider most of the projects have been experimental in nature.
2) The expertise which the D.O.E. has developed the last 30 years at the INEL has got to be a valuable plus for the site selection.
3) The environmental, health, and safety concerns which have been addressed in the impact statement again point to the INEL as the best location for the SIS.
4) Idaho's present economic condition is such that the SIS will give Southeastern Idaho that much needed influx of employment & capital.
5) The State of Idaho has experienced an out migration in population of 4800 between 1986 & 1987. We need the SIS to turn this alarming trend around.
6) Southeastern Idaho is prepared and willing to accept the responsibilities which are part of a project the size of the SIS.

In conclusion, I have been a resident in Bannock County for the past 13 years and employed by Ash Grove Cement West, Inc. as District Sales Manager, responsible for the sale of Portland Cement produced at the Inkom Idaho plant.

We have been forced to ship our product to neighboring states, due to the continued sagging economy in Idaho. I find it refreshing that we now have a project like the SIS which has the distinct possibility of turning Idaho's dismal economy around

Yours truly.

Leonard F. Beitz

061

RECEIVED
MAR 16 1988
SIS Project Office

70

W062

1-T. Hill
1-File

March 12, 1988
153 South Byron
Shelley, Idaho 83274

Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols,

The United States has enough plutonium. The nuclear weapons we now have will defend us, in my opinion.

4.15.5

Additional nuclear weapons would increase the chances of their use because our enemies would feel provoked.

Our existing talents and materials, with the help of Providence, will adequately defend us. We need the strength to trust in that.

4.13

For this reason I oppose the Special Isotope Separation (SIS) Project. The needs of our country and of peace, in my opinion, do not require it.

1.1

Let's separate fear from our judgment This will be the wisest course.

Sincerely,

Mike Hoffman

Mike Hoffman
Citizen, Educator

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MAR 16 1988
SIS Project Office

062

W063

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MAR 10 1988
SIS Project Office

1- T. Hill
1- File

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls,ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

5.24.23 We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being.

5.27.9.1 Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state.

5.27.6.1 SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities.

5.27.15.1

1.1 SIS would be welcomed by the pioneering people of Idaho!

Sincerely,

Cathy Anderson

063

71

W064

15 March 1988

1- T. Hill
1- File

TO: Dr. Clayton Nichols
SIS Project Manager

Dear Sir:

Just a note telling you of my support for this important Project. In my opinion this is probably the most important thing we can do for the economic concerns of our area & a good shot in the arm of our National Defense. 1.1 5.27.6.1 4.15.4

Thanks for your hard work.

Sincerly,

Gary R Neal
784W 250N
Blackfoot, Idaho
83221

RECEIVED
MAR 16 1988
SIS Project Office

064

W065

1- T. Hill
1- File

INTERMOUNTAIN GAS COMPANY
169 WEST SECOND SO. · SODA SPRINGS, IDAHO 83276 · (208) 547-3356

03/14/88

Mr. Clay Nichols
Idaho Operations Office
U.S. Dept. of Energy
785 D.O.E. Place
Idaho Falls, ID 83402

Dear Mr. Nichols,

My name is Robert L. Rigby and I live at 215 River Drive, Soda Springs, Idaho 83276.

I am employed by Intermountain Gas Co. 169 W 2nd S., Soda Springs Idaho. 5.27.6.1

I have lived in Idaho for 53 years and I feel the S.I.S. project is a program vital to the economy of Idaho and to southeastern Idaho in particular. I also feel that the project is necessary to the defense of our country. 4.15.4

I sincerely urge that this project be built at the I.N.E.L. site west of Idsho Falls, Idaho. 1.1

Sincerely,
Robert L. Rigby
Robert L. Rigby
215 River Drive
Soda Springs ID 83276

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MAR 16 1988
SIS Project Office

065

72

W066

1- T. Hill
1- File

Magic Valley Distributing, Inc.

Divisions:
Coors of Magic Valley
Golden Beverages
P.O. Box 1825
TWIN FALLS, ID 83303-1825

March 15, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Location of the Special Isotope Separator (SIS) at the INEL facility would be a very positive step for all of us in Idaho. 6.4.1

The contributions to Idaho by the INEL have been beneficial to Idaho and our nation.

I fully support and urge all others to support locating the SIS in Idaho. 1.1

Sincerely,

Dick Burwell

RECEIVED
MAR 16 1988
SIS Project Office

066

W067

PICABO LIVESTOCK CO., Inc.
BOX 688
PICABO, IDAHO 83348

1-T. Hill
1-File

March 15, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nicholas:

I have owned and operated a ranch at Picabo, Idaho and a ranch near the Creators of the Moon for almost 50 years. During that time I have been somewhat knowledgeable about the activities at the INEL.

1.1 I would like to voice my support for the location of the Special Isotope Seperation Project at the INEL, Idaho Falls.

4.15.4 From a study of the information I have been able to read, this project is essential to the Nation's Defense System, and is enviromentally sound. As the Department of Energy selected the INEL as the prefered site, I would hope this project will move ahead as planned.

Idaho needs the jobs and the advantage of the technological expansion that will result from this project.

Sincerely,

L. N. Purdy, President

RECEIVED
MAR 16
SIS Project Office

067

73

W068

PACKHAM MORTUARY
A Home for Funerals

1-T. Hill
1-File

March 15, 1988

Dr. Clayton Nichols
SIS PROJECT MANAGER
U.S. Department of Energy
Idaho Falls, ID 83402

RE: Written Testimony on SIS Project

Dear Dr. Nichols:

As a private businessman and also as a member of the Blackfoot City Council, please accept this letter as written support for the proposed SIS Project at the Idaho Nuclear Engineering Laboratory site. Having lived all my life (42 years) in Blackfoot, I am somewhat familiar with the INEL site and the surrounding communities. I have heard nothing but support for the idea of locating the Project in this area. 1.1

I know that our City Council has talked favorably about the positive economic benefits that would come from the construction and operation of the project. And we feel certain that the Greater Blackfoot area is NOW able to provide the stable work force, housing, and contractors you would need. And with Idaho State University so close, we have excellent educational and training facilities close at hand. 5.27.6.1 5.27.11.1

Although some may worry about environmental impact, the draft impact statement appears to favor this site over the Washington and Georgia alternatives. My family and I would welcome this new technology into the area, and feel that economic benefits far outweigh any supposed risks.

Please look favorably on the construction of the SIS, and then know most assuredly that we'd like to have that Project in Idaho! 6.2

Sincerely,

Dean A. Packham
Owner/Manager
...and
Councilman, City of Blackfoot

DAP/dp

RECEIVED
MAR 16 1988
SIS Project Office

068

MEMBER
NATIONAL FUNERAL DIRECTORS ASSOC.

W069

BETSY ALBINSON
Manager

NAMPA CHAMBER OF COMMERCE
P.O. Box A
Nampa, Idaho 83653

THE CHAMBER

1-T. Hill
1-File

June 3, 1987

TO: The Board of Directors and general membership of the Greater Idaho Falls Chamber of Commerce

From: The Board of Directors and general membership of the Nampa Chamber of Commerce

Re: Support of the I.N.E.L. S.I.S. Project and Superconducting Super Collider Project

1.1 The Nampa Chamber of Commerce Board of Directors went on record in unanimous support of the S.I.S. Project and the Superconducting Super Collider Project being located at the Idaho National Engineering Laboratory in Idaho Falls.

Enclosed is a copy of the resolution by Mayor Winston Goering presented to Department of Commerce Director Jim Hawkins at the Chamber's Annual Banquet February 19, 1987.

069

LAB

RESOLUTION # 2-1987
SUPERCONDUCTING SUPER COLLIDER PROJECT

A JOINT RESOLUTION OF THE CITY OF NAMPA, IDAHO; THE NAMPA CHAMBER OF COMMERCE; AND THE NAMPA INDUSTRIAL CORPORATION EXPRESSING SUPPORT FOR IDAHOS' EFFORT TO RETAIN THE SUPERCONDUCTING SUPER COLLIDER PROJECT AT THE IDAHO NATIONAL ENGINEERING LABORATORY.

WHEREAS, the Idaho Department of Commerce is seeking that the Idaho National Engineering Laboratory near Idaho Falls be designated as the site for the national Superconducting Super Collider Project.

WHEREAS, the Superconducting Super Collider Project would bring significant employment and economic opportunities to State of Idaho.

WHEREAS, the Superconducting Super Collider Project would recognize institutes of higher education within the State of Idaho.

NOW THEREFORE, BE IT RESOLVED, that the Mayor and City Council of the City of Nampa, Idaho, the Nampa Chamber of Commerce; And the Nampa Industrial Corporation hereby support Idahos' effort to retain the national Superconducting Super Collider project at the Idaho National Engineering Laboratory near Idaho Falls.

DATED this 17th day of February, 1987.

CITY OF NAMPA:

Winston K Goering
Mayor

Camille Greenbier
Attest: City Clerk

NAMPA CHAMBER OF COMMERCE:

Fred Clark
President

NAMPA INDUSTRIAL CORPORATION:

Dr. W. E. Hawkins
President

74

W070

L. T. Hill
1-File

"Yes on SIS"

1.1
5.27.6.1
4.15.4

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families.

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	Richard Rapp	Richard Rapp	Chubbuck	3/14/88
2.	Bill Betts	Bill Betts	Pocatello	3-14-88
3.	Ken Murdock	Ken Murdock	Poc	3-14-88
4.	Arlen Svenkeris	Arlen Svenkeris	Pocatello	3/14/88
5.	Roger J Frey	Roger J. Frey	Pocatello	3/14/88
6.	Pablo Gunn	Pablo Gunn	Pocatello	3/14/88
7.	Lavane Taylor	Lavane Taylor	Pocatello	3/14/88
8.	Jacque Frandsen	JACQUE FRANDSEN	Pocatello	3-14-88
9.	James H Riley	JAMES H RILEY	Poc	3/14/88
10.	John A. Bailey	John A. Bailey	Poca.	3/14/88

RECEIVED
MAR 16 1988
SIS Project Office

070

W071

L. T. Hill
1-File

"Yes on SIS"

1.1
5.27.6.1
4.15.4

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families.

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	JAN HARRIS	Jan Harris	Poc.	3/9/88
2.	Blair Gilbert	Blair Gilbert	Poc.	3/9/88
3.	Lacey Swanson	Lacey Swanson	Poc.	3/9/88
4.	MEMBER HAWAII	Herbert Hawley	Poc	3/9/88
5.	[illegible]	David C Porter	Poc	3/9/88
6.	Tom G Horton	Tom G Horton	Poc	3/9/88
7.	KARENE FRAZIER	Karene Frazier	Poc	3-9-88
8.	DIANA Murdock	Diana L Murdock	Poc	3-9-88
9.	DELLA MAHEEN	Della M. Maheen	Poc	3-9-88
10.	Judy Hadley	Judy Hadley	InK	3-9-88

RECEIVED
MAR 16 1988
SIS Project Office

071

W072

1- T. Hill
1- file

"Yes on SIS"

1.1
5.27.6.1
4.15.4

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families.

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	John Purce	John W Purce	Pocatello	3-6-88
2.	BRENT FACER	Brent Facer	Pocatello	3-9-88
3.	Kenny Griggs	Kenny E Griggs	Pocatello	3-9-88
4.	JEFF HANSEN	Jeff Hansen	Pocatello	3-9-88
5.	JERRY JONES	J. L. Jones	POCATELLO	3-9-88
6.	Randy Jones	Randy S Jones	Pocatello	3-9-88
7.	John W. Bullock	John W. Bullock	Pocatello	3-9-88
8.	RALPH COTANT	Ralph Cotant	Chubbuck	7-8-88
9.	KENNETH THURM	Kenneth R. Thurm	Pocatello	3-9-88
10.	STEVE LaROCCO	Steve LaRocco	CHUBBUCK	3-9-88

RECEIVED
MAR 16 1988
SIS Project Office

072

W073

1- T. Hill
1- file

"Yes on SIS"

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families.

1.1
5.27.6.1
4.15.4

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	Mike Poppleton	Mike Poppleton	Poc	3-9-88
2.	Roby Oliphant	Roby Oliphant	Poc	3-9-88
3.	Lori Landon	Lori Landon	Poc	7-8468
4.	MARK CARTER	Mark Carter	Poc	3-9-88
5.	Wild Hobson	Wild Hobson	Poc	3-9-88
6.	NORM Hayhill	Norm Hayhill	FORT HALL	3/9/88
7.	JEFFERY JONES	Jeffery Jones	Poc	3/9/88
8.	EDWARD BARNES	Edward Barnes	Poc.	3/9/88
9.	Harold R. Smith	Harold R Smith	Poc.	3/9/88
10.	Sandra Lewis	Sandra Lewis	Poc	3-9-88

RECEIVED
MAR 16 1988
SIS Project Office

073

76

W074

1- T. Hill
1- File

"Yes on SIS"

1.1 We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS
5.27.6.1 program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President
4.15.4 and the Congress of the United States of America, and most of all for our families.

Sponsored by the
Idaho Citizens for the SIS Committee

Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	VERNON CHAPMAN	Vernon J. Chapman	Pocatello Idaho	3/9/88
2.	RICK MILLWARD	R. J. Millward	POCATELLO	3/9/88
3.	Joni Millward	Joni Millward	Pocatello	3/9/88
4.	Bonnie J. Michel	Bonnie J. Michel	Pocatello	3.9.88
5.	Sharon Bowden	Sharon Bowden	Pocatello	3-9-88
6.	Glen E. Bucher	Glen E. Bucher	Pocatello	27402
7.				
8.				
9.				
10.				

RECEIVED
MAR 16 1988
SIS Project Office

074

77

W075

1- T. Hill
1- File

H. JACK SATTERFIELD
2489 SO. FAIRWAY DRIVE
POCATELLO, IDAHO 83201

March 14, 1988

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 Doe Place
Idaho Falls, Idaho 83402

Dear Dr. Nicholls: Re: SIS PROJECT

I am a businessman here in Pocatello, Idaho and am a native of Pocatello having been born here and residing here all of my life thus far. I have been engaged in my business here for 45 years and thus have seen and been somewhat effectual in developing and augmenting the growth of Pocatello and thus Eastern Idaho. My business is and has been the Real Estate and Insurance business. Have participated in the development of 40+ subdivisions.

This SIS project, from all that I have read and listened to, is one that would be ideally suited in the INEL site. As a citizen of this area of Idaho I am completely aware of the impact that the INEL site and its workings has had upon our business and economy. Being a state that is quite large but with a small population such projects engenders a thrust of economic stability for our area and the state. 5.27.12.4 5.27.11.1

Having watched and being involved with this area I know we are capable of providing sites, buildings, and well-trained and reliable working corp of people for component work force. We are fortunate in having the Idaho State University here that can provide training and major educational and facilities if specialized needs are required.. 5.27.15.1

I feel as do many people in this area that we are fully capable of supporting such a project with existing transportation, energy, educational and local government infrastructures. I do feel that the environmental, health and safety impacts at the INEL appear to be something that are nonthreatening and of a minimal nature. 5.27.11.1

In conclusion permit me to sum up my feelings and testimony and thoughts by expressing the view that it seems apparent that this project is needed and the government is going to pursue it. The INEL site is an excellent facility, it has an excellent safety record, and it would mean such an increment and compliment to Idaho and especially to this part of the great state in which I have lived all my life. I so recommend to you that your most judicious and perceptive insight be given to this project and my personal endorsement. 5.24.23 1.1

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MAR 1 6 1988
SIS Project Office

Very truly yours,
H. Jack Satterfield

HJS:j

075

W076

February 26,1988

1- T. Hill
1- F/I/O replies
1- Fred Blel (Original)
1- D Bergquist

Secretary John Herrington
United States Department of Energy
1000 Independence Ave.
Washington D.C. 20585

Dear Secretary Herrington;

1.1 How can the DOE even consider locating a plutonium producing plant like the Special Isotope Seperation, that requires high security, at the Idaho National Engineering Laboratory?

In 1986, INEL management,DOE Inspector General and the FBI condoned and concealed a vicious, fraudulent, slanderous 4 year campaign by INEL employees to obtain business secrets. The INEL employees used conspiracy, fraud,slander.bribery and extortion to obtain information. These INEL employees had high security clearances.

5.25.6 In 1987 the same INEL employees managed to steal proprietery information from a DOE program. The proprietery information was in the possession of and the responsibility of the federal government so the INEL employees actually stole the information from the federal government. The INEL employees still have the high security clearances

In 1988 the INEL employees have criminal federal law violations against them and will under go FBI investigation. These INEL employees still have the high security clearances.

All of this was condoned and concealed by INEL management, DOE Inspector General and the FBI.

How can the government claim that it protects the national interest when it issues high security clearances to protect secrets then turns around and condones and conceals the stealing of secrets by the same people who are issued the clearances?

Your fox took 4 years to raid my chicken coop across the street do you really think that your's is safe with him in it?

The INEL has shown continuous irresponsibility in joining with other federal agencies to violate everything that stands for national security.

Sincerely,
William Hyde

Copies to:
Senators McClure and Symms
Represenative Stallings
FBI Director Sessions
DOE; Idaho Operations Office, for inclusion in SIS environmental impact statement.
National Security Agency

Note; I know that at least one of the INEL employees is employed by Westinghouse Idaho Nuclear Company which is the INEL prime contractor for the SIS project.

076 DOE/EIS 0136 FEB 1986

SECTION 4.1.5 PAGE 4-36 & 4-37

78

W077

Hunter Construction, Inc.
Construction • Consulting • Engineering and Design
1487 North Cole Road • Boise, Idaho • (208) 376-4095

1 - T. Hill
1 - File

RECEIVED
MAR 18 1988
SIS Project Office

March 15, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I want you to know how strongly I believe we need the S.I.S. in Idaho. 1.1

I started contracting at the I.M.E.L. in 1956. My old company still contracts there. I was at one time or another involved in every area out there in Construction, Design, Design Construct and the negotiated assembly of ZPPR and other reactors for Argonne.

I know the impact this work has on the entire area from Salt Lake to Montana, and Wyoming to Oregon.

The safety record is second to none, and as the old cliche' goes, there is more bang for the buck here than at any site in the United States. 5.24.23

I will continue to pull for you locally and nationally.

Very truly yours,

Joe W. Hunter

JWH/lgw

077

W078

1-T. Hill
1-File

RECEIVED
MAR 18 1988
SIS Project Office

TO: Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

FROM: Sandy Glover
3810 Mountain View Dr.
Boise, ID 83704

DATE: March 17, 1988

SUBJ: Testimony for SIS hearing

I am writing to register my concern about the SIS project in general and placing it in Idaho, specifically.

5.30.5.10 My concern in general is for the wastes and products of this project. You have heard the concerns before: the wastes and products of this project will be with the earth for what seems like forever to me.

I am most concerned for Idaho. Besides the storage of wastes there will be increases in the potential for radiation exposure during transportation. I have looked at the draft environmental impact statement and many times it is stated that the potential threat to humans and their environment is below what is considered hazardous to humans. This statement is made many times.

5.29.87 What about the cumulative effect of all of the negligible hazards?

5.29.83 Idaho's roads are some of the poorest in the nation. Their condition will add to the potential for accidents during transport.

5.29.63 Please weigh all of these factors carefully. Don't carry the project any further, anyplace; but most of all not in Idaho.

1.1 Respectfully submitted,

Sandy Glover

Sandy Glover

79

078

W079

1. T. Hill
1-File

RECEIVED
MAR 18 1988
SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Ralph David and I live at 581 Terrace Dr., Idaho Falls, ID Idaho. I am employed at WINCO-INEL and have lived in Idaho for 55 years.

5.27.6.1
4.15.4
1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Ralph m David

Signed

079

W080

1-T. Hill
1-File

RECEIVED
MAR 18 1988
SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

My name is Anita David and I live at 581 Terrace Dr. Idaho Falls, Idaho. I am a housewife and have lived in Idaho for 50 years.

5.27.6.1
4.15.4
1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Anita K. David
Signed

080

W081

GEM STATE MUTUAL LIFE INSURANCE CO.

"Service Unexcelled"

365 South Arthur
Box 1787
POCATELLO, IDAHO 83204-1787
Phone 232-6051

1-T. Hill
1-File

RECEIVED
MAR 18 1988
SIS Project Office

March 17, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho
83402

Dear Dr. Nichols:

Gem State Mutual supports the proposed SIS Project at INEL and feels that this project is economically important to Southeast Idaho. We realize that there are many concerns in regards to this project and wish to bring up the following points in support of the INEL site. 1.1

1. Environmental Impact - In the Environmental Impact Statement, which compares the relative impacts of constructing and operating the SIS Project at the three proposed sites, the impact on the environment appears to be minimal and nonthreatening; and the INEL site appears to be equal or more favorable than the other two sites. 6.1.2

2. Economic Benefits - Southeastern Idaho is in great need of the economic benefits that would arise from the construction and operation of this project and has the resources needed to support this project. 5.27.6.1

3. Project Support - The Southeastern Idaho business community, including Gem State Mutual, supports the SIS Project and feel that the INEL site is ideally suited to this project. Also Southeastern Idaho, because of the INEL site, already has the educational and training facilities for specialized work force needs. 5.27.15.1

Southeast Idaho is looking forward to having the SIS Project at the INEL site and willing to work towards that goal.

Sincere regards,

GEM STATE MUTUAL

Lowell R. Allen
President

LRA/sw

081

W082

M&M Magnuson, McHugh & Company, P.A.
Certified Public Accountants

1-T. Hall
1-File

RECEIVED
MAR 18 1988
SIS Project Office

March 16, 1988

Dr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 Doe Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I wish to support the location of the Special Isotope Separator in Idaho. This is an important project for all Idaho because it adds to the employment and tax base, and expands the research capacity at this site.

If there is anything else I can do to signify or reinforce my support, let me know.

Sincerely,

JOHN W. MCHUGH, PRESIDENT

fa

81

1.1
5.27.6.1

P.O. BOX 1379, 1121 MULLAN AVE • COEUR D'ALENE, ID 83814 • (208) 667-2591
P.O. BOX 1595, 222 MAIN STREET • SANDPOINT, ID 83864 • (208) 265-4662

W083

1-T. Hall
1-File

Suggested format for written or oral testimony at the SIS hearings:

RECEIVED
MAR 18 1988
SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Jim Johnstone and I live at 349N 500W Blackfoot, Idaho. I am employed at Idaho Power Co and have lived in Idaho for 36 years. 15 of which have been in the Pocatello-Blackfoot area

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Signed Jim Johnstone 3-18-88

5.27.6.1
4.15.4
1.1

W084

T. Hall
1-File

Route 5, Box 189
Blackfoot, Idaho 83221

MODERN MILLS
Rockford, Inc.

Telephone
(208) 684-4436

RECEIVED
MAR 18 1988
SIS Project Office

March 17, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1 6.2 5.27.6.1 5.27.11.1 I am writing to you in reference to the SIS Project. I am currently the Manager and part owner of Modern Mills Rockford, Inc. in Rockford, Idaho. I have lived in this area for 46 years and feel the INEL is ideally suited for the proposed SIS Project. I feel, after careful consideration, that the benefits to our local economy will by far outweigh the environmental, health and safety risks the project might have. Our economy is in great need of new development. We have many assets and I feel we are capable of meeting all the needs this project has from transportation to energy to education.

5.27.4.5 As a past president of the Blackfoot Chamber of Commerce, I am very concerned about all the very talented and effecient people who, against their wishes, are forced to leave our area and, in alot of cases, the state due to the lack of work and opportunities we can offer them. We have major educational facilities to train in specialized areas and I would like to see some of the great talent and resources we produce stay in our area.

Thank you for your attention in this matter.

Sincerely,

L. Ray Carlson

L. Ray Carlson,
Manager

LRC/vl

084

82

W085

1- T. Hall
1- File

RECEIVED
MAR 18 1988
SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Lawrence M Beesley and I live at 1034 Hwy 26, Blackfoot, Idaho. I am employed at Idaho Chemical Process Plant and have lived in Idaho for 47 years.

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL. 5.27.6.1 4.15.4 1.1

Very truly yours,

Signed

085

W086

March 18, 1988 Re: SIS

Dear Mr. Nichols, → 1-T. Hill 1-File

My family, along with many others in Idaho, believe that the SIS should not be placed in Idaho or any other part of the country. We ask that our receipt be included in the hearing record and

1.1 call for NO ACTION ALTERNATIVE.

Thank you. Sincerely, James T. Jongl

086

W087

from: John & Daryl Alagier [redacted]
815 Kempton, Apt. #6
Boise, Idaho 83712-2850

1-T. Hill 1-File

3-17-88

Dear Dr. Clay Nichols,

Happy St. Patrick's Day!

This note is to express my opinion on the S.D.S. coming to Idaho. I understand that it is a plutonium ~~disposal~~ Separator. 5.29.85
P.D.S. is a bitter acronym. I object to the transportation, storage etc. of any toxic waste products. The need for plutonium is 5.30.3.8
not a significant need as is balancing the budget & the rest of gov't. funds on 6.3
& for the direct benefit of the people - issues such as poverty, domestic violence, drug problems need to be a higher priority than weapons production & related activities. Count the weapons - do we or don't we have enough for world destruction? 4.13
of creating jobs is a benefit here - lets create them around helping people become productive citizens.

THANK YOU. D Alagier

087

83

MAJIC, INC.
LICENSEE OF
nutri/system®
weight loss centers

1246 YELLOWSTONE, BUILDING C 4
POCATELLO, IO 83201-2902
208-237-1522

d/b/a NUTRI/SYSTEM WEIGHT LOSS CENTER

1 - T. Hill
1 - File

March 15, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols,

5.27.6.1 As a small-business owner, I am very interested in the SIS project as it affects us in this area.

After hearing the negative comments re environmental or social risks, I am convinced that the positive effect would far outweigh the above mentioned problems. We in Southeastern Idaho so badly need a boost to our economy. 5.27.11.1

Our area is certainly capable of providing not only excellent sites, buildings, etc. but by utilizing the tremendous benefits provided by Idaho State University, this is a prime location. We will all benefit. 5.27.15.1

Sincerely,

Joan Moller

Joan Moller
Owner

RECEIVED
MAR 18 1988
SIS Project Office

84

088

1 - T. Hill
1 - File

March 14, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

My wife and I wish to take this opportunity to voice our strong objections to the SIS project. 1.1

First and foremost, we fundamentally disagree that war is made less likely or political stability made more certain by the existence of nuclear weapons of destruction. 3.4

Secondly, we do not believe that it has been adequately demonstrated that such a facility is necessary for the maintenance of the current national level of nuclear armaments. 4.1

Thirdly, we feel that the government has established a record of shortsightness in regard to the environmental impact and the safe operation of nuclear facilities, and has still not adequately dealt with the disposal of wastes generated by nuclear facilities. 3.2.2

Please put us on record as opposing the SIS project in general, and in particular of situating it at the Idaho National Engineering Laboratory. 5.30.4.14

Sincerely,

Charles R. Ferguson

Rosalie M. Ferguson

Charles R. Ferguson
Rosalie M. Ferguson
250 10th STREET
IDAHO FALLS, ID.
83401

RECEIVED
MAR 18 1988
SIS Project Office

089

W090

Simplot

J.R. SIMPLOT COMPANY / P.O. BOX 912 / POCATELLO, IDAHO 83204
(208) 232-8620 (PLANT) / (208) 233-7500 (DIVISION OFFICES)

MINERALS & CHEMICAL DIVISION

1- T Hall
1- File

March 21, 1988

Mr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

My name is Wendall R. Bosen and I live at 659 Fairway Drive, Pocatello, Idaho. I am employed at J. R. Simplot Company and have lived in Idaho for over 50 years.

5.27.6.1
4.15.4
1.1

The SIS is a program vitsl to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Sincerely,

Wendall R. Bosen
Engineer

WRB:ll

RECEIVED
MAR 21 1988
SIS Project Office

090

W091

CIRCLE A CONSTRUCTION
Incorporated

P.O. Box 8
TWIN FALLS, IDAHO 83303-0015
Phone (208) 734-5533

1- T. Hall
1- File

March 16, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Re: Special Isotope Separator

Letter Of Support:

I highly support locating the SIS, Special Isotope Separator, in Idaho. Because of the economy in the state today this project would benefit greatly.

1.1
5.27.6.1

Concerned Idahoan,

Marvin Aslett

MA/bd

RECEIVED
MAR 18 1988
SIS Project Office

091

85

W092

Bret & Lori Berier's

Topnotch

FINE FURNISHINGS

1-T. Hill
1-File

March 16, 1988

AN OPEN LETTER TO THE INEL
PRESENTED THROUGH THE SNAKE RIVER ALLIANCE

Clay Nichols
785 Doe Place
Idaho Falls, ID 83402

To Whom it does concern in the INEL:

1.1 4.1 4.7.1 5.30.1.13 3.2.1 2.7.2

Please put me on record as entering a strong opposition to the Special Isotope Separation Project. being considered for the INEL.

There is no adequate proof of need for the SIS project. Justifications and rational for the SIS, based on "redundancy & Flexibility" are redundant and superfluous. There is no evidence that we need to increase production of Plutonium for weapons. I am against the SIS because the issue of waste disposal is not nearly adequitly addressed. I am against the SIS because of the poor safety record of the D.O.E., and the psycological detriment posed by the impending and constant threat of contamination of our air, ground, and aquifer.

Please, and a most definitly don't place us in a position of liability for no other reason than "Redundancy and Flexibility".

Sincerely

Bret Berier
President / CEO

bb

RECEIVED
MAR 18 1988
SIS Project Office

620 Sun Valley Road · Box 2250 · Ketchum, ID 83340 · (208)

092

W093

1-T. Hill
1-File

RECEIVED
MAR 18 1988
SIS Project Office

"Yes on SIS"

We, citizens of Southeast Idaho who are concerned about the economy in our area and feel there is need for commercial growth in the entire region, support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory. We believe the SIS program will serve to enhance the economy in all of the communities surrounding the INEL by encouraging growth of local businesses to serve the needs of the program. 1.1

NAME (print)	Signature	Mailing Address	Date
M.W. Ferguson	M.W. Ferguson	507 Bannock Ave., American Falls, Id. 83211	3/8/88
HAROLD REII	Harold Reil	P.O. Box 724 American Falls (83211)	3-8-88
Allen Phillips	Allen Phillips	3956 Wilson Ln Am Falls	3-8-88
John Newport	John Newport	4998 Bailey Rd Arbon	3/8/88
Donnidw Carlson	Donnidw Carlson	3170 Whitetail Rd	3-8-88
Melma And Elmo	Melma Anne Elmo	675 Gifford American Falls	3-8-88
Carolyn Thorson	Carolyn Thorson	352 Lee St Am Falls	3/8-88
Melba J Ferguson	Melba J Ferguson	507 Bannock Am Falls	3/8-88
Evelyn Roper	EVELYN ROPER	P.O. Box 246, Am Falls	3/8/88
Bill Edmonds	Bill Edmonds	103 Howard St A.F. Ida	3/8/88
Yvonne Edmonds	Yvonne Edmonds	103 Howard St A.F. Ida	3/8/88
Howard P Sprague	Howard P Sprague	430 Tyhee Am. Falls Id.	3/8/88
L W Sorensen	L W Sorensen	385 Lincoln Am Falls	3/9/88
Jay Phillips	William J Phillips	305 Hayes Am. Falls	3-9-88
Brett Crompton	Brett Crompton	305 Jefferson, Am. Falls	3-16-88
Tony Newman	Tony Newman	859 Eisenhower AF	3-16-88
Lorin R. Rosebu	Lorin R. Rosebu	170 Barwick A.F.	3-16-88
Ben Cammess	Ben Cammess	895 Fillmore Am Falls Idaho	3-16-88

Please send this petition to Clay Nichols, Idaho Operations Office, U.S. Department of Energy, 785 D.O.E. Place, Idaho Falls, Idaho 83402 By March 21st

093

W094

WM. A. HON REAL ESTATE
COMMERCIAL SPECIALISTS - DEVELOPERS - INVESTMENTS

(208) 343-7514
BOX 828
BOISE, IDAHO 83701

I-T. Hill
I-File

March 16, 1988

Dr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RE: Special Isotope Separator project

Dear Dr. Nichols,

87

1.1

5.27.6.1

This is to advise you that I am strongly in favor of the above project. It would be a shame if the project should be stopped or delayed after all the work that has been done on it. The INEL site must be the best location for this facility in the United States. The good that it will do for the State of Idaho is obvious.

Sincerely,

WM. A. HON REAL ESTATE

Wm. A. Hon

WAH/nc

RECEIVED
MAR 18 1988
SIS Project Office

094

W095

I-T. Hill
I-File

IDAHO FALLS SCHOOL DISTRICT #91

690 JOHN ADAMS PARKWAY IDAHO FALLS, IDAHO 83401 TEL. 522-7490
Administrative Office

March 17, 1988

LCRN File
I-T. Hill

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

The Board of Trustees for Idaho Falls School District #91 has considered the implications of locating the Special Isotope Separation (SIS) Project at the Idaho National Engineering Laboratory (INEL). Idaho Falls is the host community for the major contracting agencies that conduct the research and provide the services at the INEL, and this school district provides the educational settings and services to many of the children of the families that are employed there.

As with any business that elects to locate in this area, the local school system responds with facilities and services to any growth that might occur. Idaho Falls is growing now, and the district's schools are operating at capacity. To serve the growth we have been experiencing, classroom additions have been added to existing buildings. IF new housing additions require the construction of new schools, the District has ample bonding capacity to pay for those buildings. Historically, the community has supported bond issues identified for new school construction.

5.27.11.6

We note that the Draft Environmental Impact Statement projects the need for a construction work force of 440 personnel, most all of whom are available within a 50 mile radius of the INEL. It goes on to state that, "it is not anticipated that a significant number of construction personnel will migrate into the region", should this assumption be correct.

After construction the environmental study indicates, "Operation of SIS facilities would require a workspace of about 440 personnel . . . The population growth that would be associated with in-migrating operating personnel is not expected to have major impacts on local governmental services and community infrastructures."

RECEIVED
MAR 18 1988
SIS Project Office

095

"Whatever may be the limitations which stifle inquiry elsewhere, we believe that the school should ever encourage curiosity and inquiry, being mindful that imagination is as important as knowledge."
The Quest

Dr. Clayton Nichols

We also note that hiring of the operating and technical staff will occur over a two year period and impact selected schools. The two year period should give the District sufficient reaction time to secure the additional staff and housing.

As Trustees we recognize our responsibilities to provide a strong program of instruction to the students of this District, and to support the economic growth of this community.

Sincerely yours,

H. Ray Hart, Chairman

Clyde Toole

Marjorie Miller

Gerald Mill

Paul Coltrin

J. T. Hill
1-File

Littletree Inn

March 17, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

As a concerned citizen of Idaho Falls and the state of Idaho, I wish to express my support for the location of the Special Isotope Separator project at the Idaho National Engineering Laboratory. 1.1

The scientific and economic benefits to southeast Idaho, directly, and the state of Idaho, indirectly, would be tremendous for the thirty-year life of the facility and beyond that far into the future. The advanced technology involved in the project would attract great industrial and educational spin-offs for Idaho. 5.27.6.1

Economically the impact of 800 new jobs and estimated annual operating expenditures of over $50 million, in addition to the some 400 jobs and one-half billion dollar costs involved in the initial development/construction phase will greatly help to snap Idaho out of the economic doldrums in which we have lived in recent years. 5.27.9.1

The SIS project is a tremendous opportunity for Idahoans to show their support for expanding and stabilizing their economic and employment base. We are excited about this project and will do whatever we can to insure its location at the I.N.E.L. 5.27.12.5

RECEIVED
MAR 21 1988
SIS Project Office

Sincerely,

David Hand
General Manager
Littletree Inn - Idaho Falls

096

aho Falls • 888 N. Holmes • Idaho Falls, Idaho 83401 208-523-5993 • 800-521-5993

W097

Albertsons®

→ 1- File
1- T. Hill

March 18, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

RE: Special Isotope Separator (SIS)

Dear Dr. Nichols:

1.1 Albertson's, Inc., would like to go on record in strong support of the SIS project in Eastern Idaho. We feel this project would provide a vital stimulative to the economy of Eastern Idaho, with an infusion of jobs and income to help keep that part of the state economically progressive.

5.27.6.1

We hope that this program is successful, and if we can provide any additional assistance to you, please let us know.

Very truly yours,

Gerald R. Rudd
Senior Vice President
Human Resources

GRR/mdc

RECEIVED
MAR 21 1988
SIS Project Office

097

W098

→ 1- T. Hill
1- F. File

Called To Tom Hill for Hearing List 3/21/88

James R. White Consulting
2100 BELMONT AVE.-IDAHO FALLS, ID 83401
(208) 524-5464

RECEIVED
MAR 18 1988
SIS Project Office

Dr. Clay Nichols
SIS Project Manager
U. S. DOE - Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

March 18, 1988

Dear Dr. Nichols,

I reviewed the Draft Environmental Impact Statement for the Department of Energy's Special Isotope Separation Project, and I would like the following comments:

1) I found the report to be well organized and informative. The persons who prepared the report should be commended. 2.1.1

2) As I understand it, the objective of the preparation of the Draft Environmental Impact Statement is to provide environmental input into a USDOE decision on the proposed construction and operation of a SIS project and on the selection of a site for such a project. I feel that an environmental consideration has been ignored which could significantly influence the decision on the selection of a site for the SIS. This consideration is the consequences of a nuclear war. 2.7.8

Currently, the INEL probably would not be a prime target in a nuclear exchange. What I would like to see in the EIS is the incremental probability the INEL would become a target in a nuclear war, compared with the other proposed sites. I would also like to know what the incremental human consequences of the INEL being a target is, versus the other proposed sites, given the current population distribution around the sites and the prevailing wind patterns. I suspect that the incremental probability the other sites would become targets is small - they are probably already targets. As a result of the smaller incremental probability, the human consequences of locating the SIS at these sites, given a nuclear war, could be significantly smaller than locating the SIS at INEL. 2.7.10 2.7.8

I feel that the probability of an all-out nuclear war occurring within the lifetime of the proposed project is significant. I feel this probability is much greater than other events considered in the Draft EIS, including seismic events, volcanic events, dam failures, tornados, etc. One of the reasons I choose to live in Idaho Falls is that I feel that the odds of surviving a nuclear exchange is greater in Idaho Falls than almost anywhere else in the United States. The SIS could change that. If the SIS were located at INEL, then Idaho Falls would be a much less desirable place for me to live. 2.7.10

098

5.27.12.8 3) The economic benefits to the local community of locating the SIS at INEL is probably less than the if the SIS were located elsewhere. The local DOE office, through its contractors, has historically avoiding doing business with local spin-off companies. This is not the case at other DOE sites. The local engineering companies do much more work for other DOE locations than for the local DOE office. It is interesting to note that the Draft EIS itself was done by NUS corporation, rather than by a local firm.

2.2.1 4) It is not made clear in the Draft EIS why the INEL is the preferred site. From an environmental standpoint, other sites offer less consequences. The community surrounding the Hanford site has recently undergone a severe economic downturn due to the shutdown of the N-Reactor and the cancellation of the BWIP project. The SIS project is needed more at the Hanford site than at INEL. I suggest that the report

1.1 be modified to indicate the basis the INEL site was chosen over the other locations.

5.24.25 5) The DOE has operated the INEL in the past in a manner that has caused little environmental consequences. This has not been the case at other DOE installations, notably Rocky Flats and Hanford. What guarantees do we have that the INEL will continue to be operated in a

3.2.28 prudent manner? If DOE had to comply with current NRC requirements, it would have long since lost its licence to operate nuclear facilities. I think an independent review agency should be designated to monitor DOE activities in the nuclear area prior to starting anything new. If citizens are required to obey NRC rules and regulations, why not another government agency?

2.6.3 6) Several reports were referenced in the Draft EIS which are not available for public review since they are classified documents. I feel that a report written for public review and comment should only reference publicly available documents. Traditionally, the DOE has cloaked its operations in secrecy. Referencing classified documents in the Draft SIS is not a good sign.

2.9 7) In the list of organizations receiving copies of the Draft EIS, many public libraries were included. These included three public libraries near the Hanford plant and four public libraries near the Savannah River Plant. No public libraries were included in the vicinity of the INEL. The Idaho Falls Public Library was not included, nor were any public libraries in Pocatello, Blackfoot, Rigby, Arco, Ririe, Shelley, Burley, Rupert, Twin Falls, or any community within 200 miles of the proposed location of the SIS. This looks very suspicious.

I would also like to have an opportunity to make a brief statement at the March 25, 1988 Idaho Falls hearings. Please let me know if there is any question concerning this material.

Yours truly,

2p.m. James R. White

James R. White
Consultant

98A

06

W099

City of Chubbuck

5160 Yellowstone Avenue
CHUBBUCK, IDAHO 83202
(208) 237-2400

CHUBBUCK CITY PRIDE

March 17, 1988

1- T. Hill
→ 1- File

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Re: SIS PROJECT SUPPORT

Dear Dr. Nichols:

I am enclosing a copy of a resolution the Chubbuck City Council unanimously adopted March 1, 1988.

If we can do anymore in this regard, please advise.

Thank you for your efforts.

Sincerely,
Ron C. Conlin
Chubbuck City Clerk

099

CITY OF CHUBBUCK, IDAHO

RESOLUTION #1-88

WHEREAS, the Idaho National Engineering Laboratory (INEL) is a major facility and employer in southeastern Idaho;

WHEREAS, the continued viability of the Idaho National Engineering Laboratory is deemed by the Mayor and City Council of the City of Chubbuck to be in the best interests of the residents of the City of Chubbuck;

WHEREAS, the INEL has been proposed as the site for location of the Special Isotope Separation Project.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the City of Chubbuck that the Mayor and the Council do unanimously support the Special Isotope Separation Project and further support the construction and operation of the SIS production facility at the Idaho National Engineering Laboratory.

The Mayor and Council do further urge that all citizens of Chubbuck support the project and its location at the INEL facility.

PASSED BY THE COUNCIL AND APPROVED BY THE MAYOR ON MARCH 1, 1988.

John O. Cotant, Jr., Mayor

ATTEST:

Ron C. Conlin, City Clerk

COUNCIL MEMBERS:

Boyd Fullmer

Leroy Quick

Steve England

David Landon

1.1

91

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99B

W100

SNAKE RIVER HYDRO POWER

IDAHO POWER COMPANY

Box 460
Blackfoot, Idaho 83221
March 18, 1988

1-CRN File
1-T. Hill

Dr. Clay Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Sir,

2.5.3 2.1.1 I have examined the SIS-EIS. I'm firmly convinced that the report was completed by a group of very qualified and reputed people. The report objectively evaluates the impacts on the environment of using the latest laser technologies in separating desirable isotopes (including those of Plutonium) at a more economical rate than the presently used process while at the same time providing technological diversity in achieving the crucial and desired product.

4.15.4 We have absolutely no new source of plutonium in the U.S. with our decreasing plutonium stockpile the construction of the SIS is imperative to the National defense of this country.

5.24.23 The Idaho National Engineering Laboratory (INEL) is an excellent facility, and has widespread public support. INEL has been producing nuclear power since 1951 and has the best safety record among the Department of Energy facilities.

5.27.7.3 The SIS project will create 400 construction jobs within Idaho and 750 permanent jobs. This project carries enormous potential for Southeast Idaho, which we need.

1.1 I have been a resident of the State of Idaho for 45 years. I am employed with Idaho Power Company and have been for 30 years, and I feel that the INEL is ideally suited for this project. The local business community and myself is strongly supportive of the INEL site.

Very truly yours,

John J Harbison

John J Harbison
2064 Highland Dr.
Blackfoot, Idaho 83221

RECEIVED
MAR 21 1988
SIS Project Office

100

W101

1-T. Hill
1-File

RECEIVED
MAR 21 1988

March 18, 1988
Box 91, S. Valley, Id.
83353

To: Hearing Officer SIS Project Office SIS DEIS

We the undersigned request that No Action be taken on the SIS project explained for the following reasons: 1.1

① There is no need to new plutonium of weapons-grade. Recycle the existing plutonium 4.15.5
[illegible] in "retired" warheads.

② We do not want radioactive waste on our highways, or stored "temporarily" at the INEL 4.4.6
site – geologically active + over our aquifer. 5.29.97

③ Accident, either in transportation or on the site, 5.30.3.8
will critically damage our agricultural [illegible] 5.10.4
tourism + agriculture. 5.12.1

④ This is not peaceful application of nuclear 5.27.2
technology and therefore not appropriate for the INEL. 3.3.1

Thank you. We
are residents of
Snake River Valley, Idaho.

Signed
Kenneth L Baker (Kenneth J. Baker)
Thelma C. Baker (Thelma A. Baker)

101

W102

BEST AVAILABLE COPY

[redacted]

1.1 For the hearing record 3/16/88 for SIS.

4.13 I do not wish that SIS should be placed in Idaho or anywhere else in the country. I know not the answer to the worlds problems, but I know nuclear weapons will end the planet earth.

Mary Wells

102

W103

1- File
1- T. Hill

103 March 30, 1988

(Okay)
I can't make the meeting so have attached a copy of a letter I sent to Gov. Andrus.
If you are keeping a tally of opposition, consider this as my opinion, vote, or testimony, whichever is appropriate. Bill Paddock

93

Box 511
Challis, Idaho 83226
February 17, 1988

1- T. Hill
1- file

Dear Sir:

Regarding the proposed SIS plant construction at the INEL Site, I'd like to express a layman's opinion. I don't support the project at INEL, or anywhere, mainly for two reasons.

1.1

4.1

1. I don't agree that the case has been made for the need for more plutonium.

5.12.7

2. I don't feel confident that the deadly wastes, that will be created, can be safely disposed of, not on top of that big aquifer.

4.3

With arms reduction agreements in the wings, and the need to cut spending and reduce our federal deficit, and in view of the two reasons I listed above I don't think it makes sense to do it.

4.15.2

Regarding turning INEL into a leading clean research lab, I understand that SIS would transform INEL into a nuclear weapons production site.

3.3.1

103A

1. Regarding a boost for Idaho's economy, I think we should support a couple of Idaho's strongest industries, tourism and agriculture, and not threaten them with this. At best, it's a boom and bust proposition in the long haul.

5.27.5.2

5.27.10

In summary, I don't think, at this point, that we need SIS, nor am I convinced we can handle it. Maybe I don't completely trust DOE. I respectfully request that you withhold your support of the project.

3.2.2

Thank you,
W. R. Paddock

103B

W104

95A

Suggested format for written or oral testimony at the SIS hearings:

1-T. Hill
1-File

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

5.27.6.1 My name is KAREN McGee and I live at Pocatello, Idaho. I am employed at City of Pocatello - city council woman and have lived in Idaho for 7 years.

4.15.4 The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

1.1

Very truly yours,

Karen A. McGee
Signed

95

RECEIVED
MAR 21 1988
DOE Project Office

104

W105

From EICIE 3/11/88

Suggested format for written or oral testimony at the SIS hearings:

1-T. Hill
1-File

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is K.C. McGee, M.D. and I live at Pocatello, Idaho. I am employed at self-employed physician and have lived in Idaho for 7 years. 5.27.6.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL. 4.15.4

1.1

Very truly yours,

K.C. McGee
Signed

RECEIVED
MAR 21 1988
DOE Project Office

105

W106

HARRISON'S JEWELERS

Member, American Gem Society
Idaho's Oldest Jewelers

1-T Hill
1-File

March 19, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Mr. Nichols:

My name is Lex L. Harrison and I live at 13 Cedar Hills, Pocatello, Idaho. I own Harrison's Jewelers and have lived in Idaho for 37 years. My family Ancesters go back to the late 1800's in the Pocatello area.

5.27.6.1
4.15.4
1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Lex L. Harrison

RECEIVED
MAR 21 1988
SIS Project Office

106

103 S. Main Street • Pocatello, Idaho 83204 (208) 232-2354 Pine Ridge Mall • Chubbuck, Idaho 83202 (208) 237-9788

96

W107

Suggested format for written or oral testimony at the SIS hearings:

1-T. Hall
1-File

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Morris DSBorne and I live at Idaho Falls, Idaho. I am employed at Westinghouse Idaho Nuc. and have lived in Idaho for 5 years.

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

5.27.6.1
4.15.4
1.1

Very truly yours,

Signed

RECEIVED
MAR 18 1988
SIS Project Office

107

W108

ested format for written or oral testimony at the SIS hearings:

1-T. Hill
1-File

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Lisa Smith and I live at Pingree, Idaho. I am employed at WINCO and have lived in Idaho for 29 years.

5.27.6.1
4.15.4
1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Lisa L Smith
Signed

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MAR 18 1988
SIS Project Office

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97

W109

Suggested format for written or oral testimony at the SIS hearings:

1-T. Hill
1-File

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is PAUL C. DUNLAP and I live at 3430 W. ELSWOOD I.F., Idaho. I am employed at WINCO ICPP and have lived in Idaho for 4 years.

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

5.27.6.1
4.15.4
1.1

Very truly yours,

Paul C. Dunlap
Signed

RECEIVED
MAR 18 1988
SIS Project Office

108
109

W110

Suggested format for written or oral testimony at the SIS hearings: 1-T. Hall 1-file

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Kenneth J Taylor and I live at Idaho Falls, Idaho. I am employed at WINCO and have lived in Idaho for 19 years.

5.27.6.1
4.15.4
1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Kenneth J Taylor
Signed

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MAR 19 1988
SIS Project Office

110

W111

Suggested format for written or oral testimony at the SIS hearings: 1-T. Hall 1-file

. Clay Nichols
aho Operations Office
S. Department of Energy
5 DOE Place
aho Falls, ID 83402

ar Mr. Nichols:

name is Lucy B. BALLESTEROS and I live at BLACKFOOT, aho. I am employed at WINCO - FRP and have lived in aho for 14 years.

5.27.6.1
4.15.4
1.1

e SIS is a program vital to the economy of Idaho, as well as being a project cessary to the defense of our country. I sincerely urge the location of the oject at the INEL.

Very truly yours,

Lucy B. Ballesteros
Signed

RECEIVED
MAR 19 1988
SIS Project Office

111

98

W112

1- T. Hill
1- file

Suggested format for written or oral testimony at the SIS hearings:

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is R. G. Knighton and I live at 588 N 600 E Firth Idaho. I am employed at WINCO and have lived in Idaho for 26 years.

5.27.6.1
4.15.4
1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Richard G Knighton
Signed

RECEIVED
MAR 19 1988
SIS Project Office

66

112

W113

1- T. Hill
1- file

4939 Elizabeth
Pocatello, ID 83202
March 17, 1988

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Id 83402

Dear Sir:

1.1

As a long time resident of Southeast Idaho, I would like to voice my support of the SIS project to be located at the INEL site.

6.1.2

The environmental, health and safety impacts of the INEL would not be any more or less than those projected at the other two alternative sites. All these issues would be under strict guidlines and regulations and would be minimal and nonthreatening.

5.27.6.1
5.27.11.3

The Southeastern Idaho economy is in a depressed state and is in great need of a new development to boost the economy. We have the necessary construction workforce available for such a project.

5.27.11.1

The surrounding areas of the INEL Site are able to offer necessary housing, education and training for any specialized needs. The businesses in these areas are also in favor of this project.

I strongly support the SIS Project being located at the INEL Site.

Very truly yours,

Dorthy Kirkpatrick
Dorthy Kirkpatrick, L.P.N., R.C.

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MAR 19 1988
SIS Project Office

113

W114

1-T. Hill
1-File

WELDING, SAFETY, MEDICAL GASES & SUPPLIES

1121 W. Amity Road • Boise, Idaho 83705 • (208) 336-1643

March 17, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols,

1.1 After investigating all of the information, pro and con, regarding the location of the Special Isotope Separator in Idaho, I wish to strongly endorse this program for our state. Idaho desperately needs the type of activity that will attract the quantity and quality of people this program will bring to our state.

6.1.2 I moved from Boston to Boise so my family could share in the environmental life that Idaho offers. No one is more concerned about keeping our environment safe. After investigating the impact of the S.I.S. program on the environment, I am convinced it will be a strong contribution to making our state an even safer area in which to raise our children!

TO KEEP IDAHO GROWING WE NEED S.I.S. !

Sincerely,

L.M. Kissler
President

RECEIVED
MAR 18 1988
SIS Project Office

114

BRANCH OFFICES

Burley, Idaho 83318 198 N. Overland (208) 678-8558
Nampa, Idaho 83651 2501 Caldwell Blvd (208)467-3070
Twin Falls, Idaho 83301 588 Addison Ave. W (208) 734-9330
Twin Falls, Idaho 83301 203 S. Park Ave. W. (208)733-8171
Kalispell, Montana 59901 2555 Hwy #2 East (406) 752-4804
Missoula, Montana 59801 2850 Stockyard Rd (406) 728-8362
Bend, Oregon 97701 101 N.E. Greenwood (503)382-2362
La Grande, Oregon 97850 2908 Wallowa Lake Hwy (503)963-8494
Ontario, Oregon 97914 366 SE 1st Avenue (503) 889-9327
Redmond, Oregon 97756 229 S.W. Franklin (503) 548-1044

W115

1-T. Hill
1-File

VALLEY BANK
501 BROADWAY • IDAHO FALLS, IDAHO 83402 • TELEPHONE (208) 525-8228

THOMAS G. MINOW
SENIOR VICE PRESIDENT
TRUST OFFICER

March 17, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

RE: Special Isotope Separation

Dear Sir:

I support the location of SIS in Idaho. My observations are that the majority of Idahoans also support this project. It will have a major on going effect on the economic stability for our state. 1.1

People of our community have resisted those who may be negative to anything relating to the INEL during the past forty years - Idaho needs this project. 5.27.6.1

Sincerely,

Thomas G. Minow

TGM/bw

3980y

115

RECEIVED
MAR 18 1988
SIS Project Office

100

W116

City of Pocatello

POCATELLO, IDAHO 83205-4169

1-T. Hall
1-File

MUNICIPAL BUILDING
P.O. Box 4169
902 E. Sherman

RECEIVED
MAR 18 1988
SIS Project Office

March 17, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Reference: Public Comment to Draft EIS for Special Isotope Separation Project

Dear Mr. Nichols:

1.1 I want to express strong support for the proposed SIS Project at the INEL. As a native Idahoan, born and raised in Pocatello, I believe I represent a large majority of our residents who also endorse the proposal.

6.1.2 Having reviewed the Draft EIS, I fail to see any unusual or significant dangers for our citizens, even in a worst-case scenario.

The beneficial impacts cannot go unnoticed and I urge the DOE to favor the site selection at the Idaho facility.

5.27.11.1 The Pocatello area can provide sites, buildings, and an extremely well-trained and stable work force for component manufacturing and contractor support functions; we have major educational and training facilities at ISU for specialized work force needs; and we have a large and reasonably priced private home inventory available for project employees.

5.27.11.3

The Special Isotope Separation Project is a good project for southeast Idaho and I give it my wholehearted support.

Sincerely,

Dick Finlayson

RICHARD S. FINLAYSON
MAYOR

RSF/plm

116

Office of the Mayor (208) 234-6163

101

W117

MAR. 21, 1988

1-File
1-T. Hall

DR. CLAY NICHOLS
SIS PROJECT
785 DOE PLACE
IDAHO FALLS, ID. 83402

GENTLEMEN:

THIS LETTER IS IN RESPONSE TO THE PROPOSED SIS PROJECT FOR OUR AREA. I AM IN FAVOR OF THIS PROJECT IF WHAT I UNDERSTAND IS CORRECT. 1.1

IF THE RADIOACTIVE WASTE MATERIAL IS WELL WITHIN THE LIMITS SET AND IT WOULD BRING MORE JOBS TO OUR AREA, IT WOULD SEEM THAT IT IS A GOOD BUSINESS OPPORTUNITY FOR IDAHO FALLS. 5.27.6.1

5.30.5.7

ONE COMMENT MADE TO ME WAS THAT SUCH WASTE WILL BE BROUGHT FROM ALL OVER THE COUNTRY TO BE PROCESSED HERE. I'M NOT SURE THAT I FEEL VERY GOOD ABOUT THAT BUT AM DEPENDING ON THOSE PEOPLE MORE KNOWLEDGABLE THAN ME NOT TO JEOPARDIZE THE ADVANTAGES OF THOSE LIVING IN THIS AREA. 5.29.34

I HAVE CONFIDENCE THAT THOSE WORKING ON THIS PROJECT WILL PUT IN PLACE A PROGRAM BOTH GOOD ECONOMICALLY FOR US AS WELL AS SAFE. 3.2.2

RESPECTFULLY YOURS,

Mary Jayne Rigby

MRS. MARY JAYNE RIGBY
2324 NO. 26TH. WEST
IDAHO FALLS, ID. 83402

RECEIVED
MAR 22 1988
SIS Project Office

117

W118

1 - File
1 - T. Hill

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Id 83402

Dear Sir:

1.1 As a long time resident of Southeast Idaho, I would like to voice my support of the SIS project to be located at the INEL site.

6.1.2 The environmental, health and safety impacts of the INEL would not be any more or less than those projected at the other two alternative sites. All these issues would be under strict guidlines and regulations and would be minimal and nonthreatening.

5.27.6.1 The Southeastern Idaho economy is in a depressed state and is in great need of a new development to boost the economy. We have the necessary construction workforce
5.27.11.1 available for such a project.

5.27.11.3 The surrounding areas of the INEL Site are able to offer necessary housing, education and training for any specialized needs. The businesses in these areas are also in favor of this project.

I strongly support the SIS Project being located at the INEL Site.

Very truly yours,

Arthur B Bjornberg
Elaine Bjornberg
Lora Bjornberg
John Bjornberg
Jolene Frederick
Todd Bjornberg
Heather Bjornberg

RECEIVED
MAR 21 1988

118

102

W119

RECEIVED
MAR 18 1988
[illegible] Project Office

524 West Halliday
Pocatello, ID 83204
March 16, 1988

1 - T. Hill
1 - File

Dr. Clay Nichols
Department of Energy
Special Isotope Separator Hearing
785 Doe Place
Idaho Falls, Idaho 83402

Dear Sir:

I submit this letter to be entered into the record on the hearings about locating the S. I. S. project in Idaho. 1.1

I do not want the S. I. S. project to be built in Idaho for three reasons:

1) These types of projects reek havoc on our local economy. They are boom followed by bust. First come the civil workers, earth movers, concrete and rebar workers. By-in-large, they move here or move back here, work for 18 months then go on unemployment while searching for another place to invade. They are replaced by the armies of pipefitters, millwrights, etc., to be followed by the electricians and instrumentation specialists. They all put a drain on our schools and other community services. Like renters who do not have respect for property in which they do not have equity, some of these transients do not respect our environment. The permanent workers who man the finished plant don't buy the construction worker's trailer houses. The permanent workers number represent 20% of the construction work force. The remaining residents must bear the burden of paying for the expanded community services. Idaho does not have the economic inertia to absorb this size bump without negative reactions. 5.27.10

2) I do not trust the information that the engineers are giving the public. Remember that these are the same engineers who convinced the local building officials to change the seismic zoning in the Uniform Building code. I experienced the Challis earthquake of 1983. I do not believe that the INEL is in Zone 2 anymore than I believe that the zone boundary makes a 90 degree turn at the Idaho-Utah border and follows it for 50 miles or so. (See the enclosed excerpt from UBC) 3.2.2 5.10.6

119

4.2.1

3) Lastly, I have enclosed an article from NEWSWEEK dated March 14, 1988. I would like that article to be entered into the record in its entirety. Please note the sub-heading and please re-evaluate the need for S. I. S.

Sincerely yours,

Paul Aschenbrenner
(208) 232-6823

103

119A

TECHNOLOGY

The Plutonium Factor

We're awash in the stuff—so why risk problems?

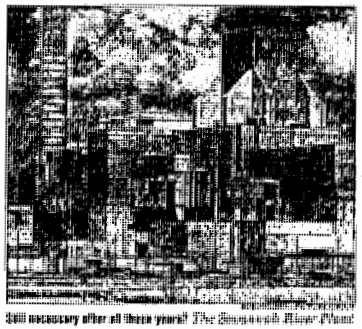
The situation might be comical—if it weren't so expensive and so potentially dangerous. The subject is plutonium, the man-made element used in the bomb dropped on Nagasaki and in most modern warheads. Ronald Reagan ordered a major increase in U.S. plutonium production in the early 1980s as part of his proposed arms buildup. But Congress did not give Reagan all the MX missiles and other weapons he wanted. Now the nation is awash in plutonium, and U.S.-Soviet arms-limitation agreements will reduce the need still further.

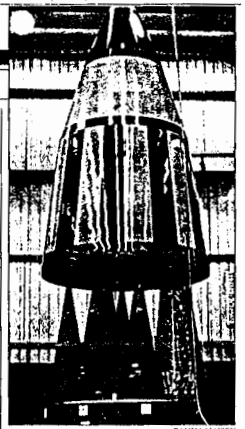
At the same time, safety concerns have forced all but one of the Department of Energy's aging plutonium-producing reactors to shut down. The remaining plant, Savannah River in South Carolina, has been plagued with problems. Last month officials there reduced operating-power levels for the third time in 15 months, after scientists for Du Pont, which runs the facility for DOE, discovered yet another error in the heat calculations. "It was a clear signal," said one government investigator, "that they are concerned down there about the ability of the emergency core cooling system to contain a catastrophic accident." Given the plutonium surplus, critics say it is time to put the facility out of its misery and shutter it as well. Instead, DOE wants to spend $89 million repairing the Savannah River Plant and is pressing for another weapons-production reactor as well.

DOE officials insist that the Savannah River reactors are safe and that the power reductions simply reflect prudent operating policies. But they acknowledge that the plant is laden with serious operational problems that were uncovered by a National Academy of Sciences team last year. Some repairs are already under way, and DOE hopes that the plant will be operating at full power by 1990. Even then, critics say, the Savannah River facility may be susceptible to a serious accident—in part because it does not have a concrete containment dome to trap released radiation, like those required at commercial nuclear plants. Just last week the plant suffered one more public-relations blow when a puff of radioactive tritium, another element used in weapons production, escaped into the atmosphere, though DOE said it posed no health danger.

Short of a complete disaster, Savannah River is causing problems to the local ecology. Environmentalists say that low-level radioactive waste and toxic chemicals placed in shallow, unlined seepage basins since the 1950s are leeching into the soil and ground water. Critics are particularly concerned that contamination could reach the vast underground Tuscaloosa aquifer that supplies drinking water for South Carolina and several other states. Pat Whitfield, DOE's assistant manager for environment, safety and health at the plant, says that danger is "remote." Still, DOE estimates that it could cost as much as $7 billion to completely clean up the Savannah River facility. "It will do precious little good to protect ourselves from the Soviets if, in the process, we poison or irradiate our own people," says Sen. John Glenn, one of several lawmakers seeking tighter controls at the DOE plants.

Slow decay: Does the nation really need the plutonium Savannah River is producing? DOE supply-and-demand figures are classified. But Thomas Cochran, coauthor of the Nuclear Weapons Databook, estimates that U.S. production more than doubled between 1980 and 1985, at a time when U.S. stockpiles of nuclear weapons actually decreased 3 percent. What's more, plutonium decays so slowly that it can be recycled from obsolete weapons, giving DOE a vast additional supply. Cochran calculates that the nation currently has 90 tons of plutonium stockpiled in weapons, 10 more tons in storage and an additional 10 tons in available scrap. Retiring about 500 warheads under the INF agreement could supply 2 more tons; the START accord could yield yet another 15 tons. By contrast, the Savannah River reactor provides only about one-quarter of a ton annually.





GAMMA LIAISON

The end product: *Warheads for an MX*

DOE officials say their real concern in preserving Savannah River is to insure adequate supplies of tritium, several grams of which go into each warhead to increase its explosive yield. Unlike plutonium, tritium decays quickly and must be replaced every few years. DOE is pressing for a new tritium-producing reactor, which could be converted to produce plutonium if necessary. But cost estimates range as high as $10 billion—and critics say even tritium may not be so critical if arms-reduction efforts continue. In fact, Paul Leventhal of the Nuclear Control Institute, a private research center, has proposed a novel "tritium factor" approach to arms control: if both sides stopped producing the radioactive isotope, about 6 percent of their warheads would automatically become obsolete each year—the rate at which tritium naturally decays.

MELINDA BECK *with* DOUGLAS WALLER in Washington

119B

1985 EDITION

23-1

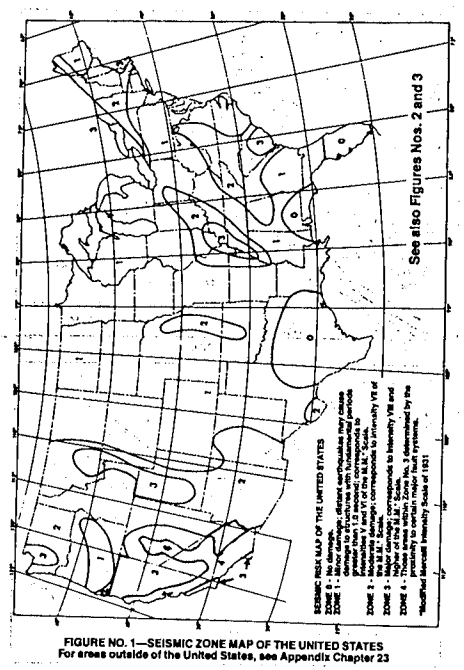


FIGURE NO. 1—SEISMIC ZONE MAP OF THE UNITED STATES
For areas outside of the United States, see Appendix Chapter 23

135

1976 EDITION

23-1

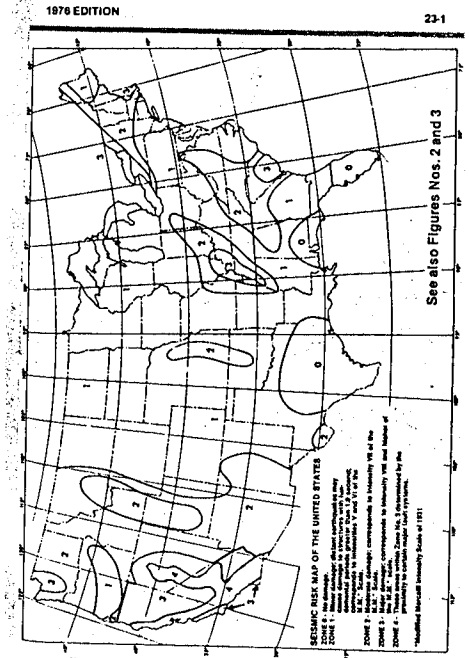


FIGURE NO. 1—SEISMIC ZONE MAP OF THE UNITED STATES
For areas outside of the United States see Appendix Chapter 23

149

W120

1-T. Hill
1-File

ROY F. MILLER, SR.
755 West Center St.
P. O.Box #1090
Pocatello, Idaho 83204

March 17, 1988

Mr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Pla ce
Idaho Falls, Idaho 83402

Here is statement in favor of the SIS which I should like to present at the hearing on March 25 at the 2PM hearing if possible.

Sincerely
Roy F. Miller Sr
ROY F. MILLER, SR.

105

RECEIVED
MAR 18 1988
SIS Project Office

120

W121

RECEIVED
MAR 18 1988
Project Office

ROY F. MILLER STATEMENT SIS HEARING IDAHO FALLS, IDAHO

I am Roy F. Miller, Sr. of Pocatello, Idaho. I have been a resident of Pocatello most of my life. I have been in business in Pocatello since 1935. I am in favor of SIS because of the impact it will have on the economy of this area. It is going to built; so Southeast Idaho should have the benefits. 1.1

There is a great deal of minsinformation being peddled about the SIS project. As a lay person I am not going to correct this. The scientific community can very well set the record straight. The opponents of SIS would have us believe we should live in a riskless society. There is no such thing. 5.27.6.1

These same opponents are obsessed with a phychology of fear. They are afraid of new technology. They do not understand that human kind makes no advance when they are dominated by fear. A great president once said "You have nothing to fear but fear itself."

In today's world there is a fundamental truth that the security of ourselves and our children is non existent when it rests on the goodwill of totalitarians. The only genuine security is a defense against the aggressor--a defense backed by the will to resist and the capacity to win. Such a defense is the ultimate deterrent for it threatens the aggressor, not with retaliation, but with failure. A defense that defends does not need the approval of the aggressor. 3.4

Currently we are basking in the Euphoria of world peace sold to us by the signing of the recent arms reduction treaty by our president and leader of the Soviet government. But under this treaty we did not barter away our defense posture.

The SIS is part of this country's arsenal of defense and must be built if we are to maintain our defense system. 4.15.4

The opponents of the SIS have not learned the main lesson of history which is that men do not learn its lessons. Many of the opposition forces need to be reminded of the words exclaimed in the headlines, when Neville Chamberlain, Prime Minister of Great Britain, in 1938 on returning from the Munich meeting with Adolph Hitler exclaimed,"See here is a paper that bears his name."

There was great jubilation over the preservation of peace, but in that period when most of the leaders of the free world thought all was well, Winston Churchill stood up in the House of Commons and said:"What I find unendurable is this sense of our existence becoming dependent upon their goodwill and pleasure...This is only the first sip, the first foretaste of a bitter cup which will be proffered to us year by year unless by supreme recovery of moral health and martial vigor, we arise again and take our stand for freedom as in olden times."

It is high time we receognize the facts of life and that unless we wish to become an appeasing weakling, we arise and stand for freedom. In this stand for freedom we should maintain those items of our defense of which SIS is one of great importance.

The SIS will be built--the economics of the whole situation makes the INEL site the logical location.

Roy F. Miller Sr
ROY F. MILLER, SR.

121

W122

1-T. Hill
1-File

March 10

Ed Bamberry
B.A. Local #732

Dear Ed-

This letter is to inform that I am in favor of the Special Isotope Separation Project (SIS). 1.1

I will not be able to give an oral statement but feel free to use this letter as my strong statement that Idaho needs this project.

Sincerely,

Clarence Reimer

RECEIVED
MAR 19 1988
SIS Project Office

122

W123

RECEIVED
MAR 19 1988
SIS Project Office

Blackfoot, Idaho
March 11, 1988

1-T. Hill
1-File

Dear Sir:

We have been residents of Southeastern Idaho most of our lives. We strongly support the SIS being located and built at the INEL site. 1.1

We can see no problems concerning health or safety from this project. We are sure all concerned will use all possible technology to study and observe all parts of the project. These will have to be strict regulations and we are very sure they will be enforced and obeyed. 6.1.2

Southeastern Idaho needs this

123

123

5.27.6.1 project with the employment it will provide, to help strengthe our very depressed economy.

5.27.11.1 Our area will be able to provide housing and any special
5.27.11.3 education and transportation needed. We have the skilled workers for the construction parts.

The local business and Chambers of Commerce strongly support the project being built at the INEL site.

Sincerely
Larry J. Duncan
Iron Worker Local 732
Jeraldine Duncan

123A

107

W124

"Yes on SIS"

I-T Hill
I-7/1e

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families. 1.1

RECEIVED
MAR 1 8 1988
SIS Project Office

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	Maxm Sykes	Maxm Sykes	Pocatello	2-29-88
2.	Joel Denny	Joel Denny	Pocatello	2-29-88
3.	Richard Shoemaker	Richard Shoemaker	Pocatello	3-2-88
4.	Lloyd Morris	Lloyd Morris	Pocatello	3/3/88
5.	Willis Norton	Willis E. Norton	Pocatello	3-3-88
6.	Tracy Curas	Tracy Curas	Pocatello	3-4-88
7.	Willis Norton	Willis E. Norton	Pocatello	3-7-88
8.	Jan Price	Jan Price	McCammon	3-7-88
9.	LeGrande Morgan	LeGrande Morgan	Arimo, ID	3-7-88
10.	Frank Masak	Frank Masak	Pocatello	3-7-88

We welcome your testimony for the SIS at the SIS Hearing. Watch your local newspaper and listen to the radio for schedule and place. We ask you to sign the petition only if you are 18 years of age, or older. Also to prevent duplication, please sign only one petition. Also return your signed petition as soon as possible to your petition coordinator, or mail to:

124

Dane Watkins, Chairman
2242 S. Boulevard
Idaho Falls, ID 83402

Wendell Miller
628 Brentwood Circle
Idaho Falls, 83402

Frank Murdock, CPA
232 Brookside Dr.
Idaho Falls, ID 83404

W125

"Yes on SIS"

1-T. Hall
1-File

1.1

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families.

RECEIVED
MAR 18 1988
SIS Project Office

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	Charles Cole	Charles Cole	Pocatello	2/25/88
2.	KEN Evans	Ken Evans	Pocatello	2-26-88
3.	Gordon Ellis	Gordon W Ellis	Pocatello	2/26/88
4.	Barry Beckstead	Barry Beckstead	Pocatello	2/26/88
5.	Mike Larkin	Mike Larkin	Pocatello	2/26/88
6.	Robert Peterson	Robert A. Peterson	McCammon	2/26/88
7.	Edwin Norton	Edwin J. Norton	Pocatello	2/26/88
8.	Don Sams	Don Sams	Pocatello	2/29/88
9.	Ron Allen	Ron Allen	Blackfoot	2/29/88
10.	Ross Jensen	Ross Jensen	Pocatello	3/1/88

We welcome your testimony for the SIS at the SIS Hearing. Watch your local newspaper and listen to the radio for schedule and place. We ask you to sign the petition only if you are 18 years of age, or older. Also to prevent duplication, please sign only one petition. Also return your signed petition as soon as possible to your petition coordinator, or mail to:

125 Dane Watkins, Chairman, 2242 S. Boulevard, Idaho Falls, ID 83402
Wendell Miller, 628 Brentwood Circle, Idaho Falls, 83402
Frank Murdock, CPA, 232 Brookside Dr., Idaho Falls, ID 83404

W126

"Yes on SIS"

1-T. Hall
1-File

1.1

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families.

ECEIVED
MAR 18 1988
SIS Project Office

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by March 7, 1988

	Name (Print)	Signature	City	Date
1.	Richard E Bardun	Richard E Bardun	Pocatello	3/8/88
2.	Clyde S Beverlund	Clyde S Beverlund	Ross	3-11-88
3.	Douglas Evans	Douglas K Evans	Pocatello	3-11-88
4.	Dick Boardman	Dick Boardman	Wapk Foot	3-11-88
5.	Ed Bomberry	Ed Bomberry	Black Foot Id.	3-16-88
6.	Michelle Mogolid (Michelle Masola)	Michelle Mogolid	Pocatell	3-17-88
7.				
8.				
9.				
10.				

We welcome your testimony for the SIS at the SIS Hearing. Watch your local newspaper and listen to the radio for schedule and place. We ask you to sign the petition only if you are 18 years of age, or older. Also to prevent duplication, please sign only one petition. Also return your signed petition as soon as possible to your petition coordinator, or mail to:

126 Dane Watkins, Chairman, 2242 S. Boulevard, Idaho Falls, ID 83402
Wendell Miller, 628 Brentwood Circle, Idaho Falls, 83402
Frank Murdock, CPA, 232 Brookside Dr., Idaho Falls, ID 83404

W127

1-T. Hill
1-File

4939 Elizabeth
Pocatello, ID 83202
March 17, 1988

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Id 83402

Dear Sir:

1.1 As a long time resident of Southeast Idaho, I would like to voice my support of the SIS project to be located at the INEL site.

6.1.2 The environmental, health and safety impacts of the INEL would not be any more or less than those projected at the other two alternative sites. All these issues would be under strict guidlines and regulations and would be minimal and nonthreatening.

5.27.6.1 The Southeastern Idaho economy is in a depressed state and is in great need of a new development to boost the economy. We have the necessary construction workforce available for such a project.

5.27.11.3 The surrounding areas of the INEL Site are able to offer necessary housing, education and training for any specialized needs. The businesses in these areas are
5.27.11.1 also in favor of this project.

I strongly support the SIS Project being located at the INEL Site.

Very truly yours,

John R. Kirkpatrick
Journeyman Ironworker
Local 732

RECEIVED
MAR 18 1988
SIS Project Office

127

109

W128

C-T. Hill
1-File

445 South Cleveland
Blackfoot, Idaho 83221
March 17, 1988

RE: SPECIAL ISOTOPE SEPARATION PROJECT

U. S. Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
MAR 18 1988
SIS Project Office

Gentlemen:

S.I.S. No! No! No!

I've read many newspaper articles stating positive results for the area, if only INEL is awarded the construction of the SIS project. 5.27.10
It is always the needs for higher employment and greater economic growth that win the praise. You have the support of all the Chambers of Commerce in the area. Have they considered the boom and bust effect after eight years of SIS operation on the local economy? Have they listened to the Hanford, Washington people tell of their devastation since they have lost their jobs? Have they read of the pollution from radioactive by-products at the Savannah River Plant? I am enclosing an article from the Blackfoot News by Jack Anderson. 3.2.2

During the years when the AEC first came to Idaho Falls we were told it would be "Atoms For Peace." I'm sorry to know we have the waste from Three Mile Island. Now it is weapons grade plutonium! 3.3.1

I was pleased to read that north Idaho held the Do It Yourself SIS Hearing. I have understanding for the protesters near Mercury, Nevada to Reclaim the Test Site. 5.30.3.8

Thank you for the Draft Environmental Impact Statement. Also, you have a very fine Public Relations staff. We thank you for the tour at the site.

In closing, I would ask that "No Action" be taken on the Special Isotope Separation Project. I will attend the hearing March 25, 1988. 1.1

Sincerely yours,

Myrna Hayward
Myrna Hayward

Encl.

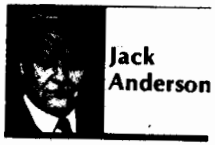
128

1258A

4A — THE MORNING NEWS, BLACKFOOT, Idaho, Tuesday, March 15, 1988

—OPINION—

No awards for DOE



Jack Anderson

WASHINGTON — Three auditors who uncovered problems at America's weapons-manufacturing nuclear reactors have paid for their candor. When Rep. John Dingell, D-Mich., recommended that the Energy Department publicly recognize the courage of the trio, the three were rewarded in a curious fashion and in varying degrees.

One is slated for a transfer, one was laid off, and the third was transferred before Dingell got involved. At this year's Energy Department awards ceremony, the honors went to others.

Now Dingell's subcommittee on oversight and investigations for the House Energy and Commerce Committee may hold a hearing to look at the way the three were treated. While nothing is final, a subcommittee staffer told us hearings were a "distinct possibility."

Dingell has long been interested in safety and security lapses at the plants where U.S. nuclear weapons are built. We piqued his interest in 1982 when we hired a helicoptor to fly one of our associates back and forth over the Savannah River Plant in South Carolina. No one challenged the helicoptor, showing how vulnerable the nuclear reactor would be to a terrorist attack.

Our reports prompted Dingell's subcommittee to examine security in 1983. In the process, Dingell turned up what he called "a curious reward and punishment system" for employees who make mistakes or who uncover the mistakes of others.

The recent treatment of the trio of auditors may show that little has changed for employees who blow the whistle.

The three auditors, Casey Ruud, James Simpkin and Mark Hermanson, appeared before Dingell's subcommittee last October to testify about what they thought were serious safety problems at the complex of nuclear reactors in Hanford, Wash. It is their job to audit the plants, but they said their concerns were ignored by the private contractors operating the plants. The Department of Energy is supposed to oversee those contractors.

After hearing their stories, Dingell wrote to Energy Secretary John Herrington, nominating them for public recognition. "Such recognition would serve notice that the department is serious about improving its health and safety program," he wrote.

Undersecretary Joseph Salgado wrote back more than two months later. He gave Dingell some information the congressman had requested for his investigation, but made no mention of awards.

One week before that, Herrington had already given the DOE's highest award, the Secretary's Gold Medal, to Raymond Romatowski, the manager of DOE's Albuquerque Operations Office. He is a 30-year veteran who twice last year appeared before House subcommittees to answer questions about problems in his jurisdiction. In one case, he was required to answer charges that his office had done little safety training and that its oversight of contractors was spotty.

Our reporter Lane Williams asked Salgado's office why Dingell's suggestion to honor the three auditors was disregarded. Salgado's press secretary said the letter to Dingell was "carefully considered" and said everything Salgado wanted to say about the subject.

One of the auditors, Simpkin, told us that he was transferred to a less sensitive job after his audit at Hanford. But since Dingell's congressional inquiry began, Simpkin said he has felt less pressure on himself.

Before Dingell's hearing, the second auditor, Ruud, was transferred from the reactor at Hanford to a proposed nuclear waste storage site in Washington state. But the location was not chosen as the nuclear dump, and Ruud was laid off.

The third auditor, Hermanson, was hesitant to comment on his case, but our sources say he is slated for a transfer. In his case, the new job will bring an increase in pay.

W129

RECEIVED
MAR 18
SIS Proj

1-T. Hill
1-File

To Whom it may Concern

As a resident and construction worker of Southeastern Idaho I would like to support the SIS project located at the INEL Site. 1.1

The environmental, health and safety impacts of the INEL would not be any more or less than those projected at the other two alternative sites. All these issues would be under strict guidlines and regulations and would be minimal and nonthreatening. 6.1.2

The surrounding areas of the Inel Site are able to offer necessary housing, education, and training for any specialized needs. The businesses in these areas are also in favor of this project. 5.27.11.1

The Southeastern Idaho economy is in a depressed state and is in great need of a new development to boost 5.27.6.1

129

the economy. We have the necessary construction work-force available for such a project.

Very truly yours
Bill D. Haddon
Ironworker Local #732

111

Century 21
SAYER REALTY, INC.
403 First Street (P.O. Box 1606)
Idaho Falls, Idaho 83403-1606
Business (208) 529-2101
Residence (208) 529-2414

NANCY THORSEN
Associate Broker
Residential/Investment Specialist
#1 Agent in Eastern Idaho

Each Office is Independently Owned and Operated

Residential/Investment Specialist

130R

1. T Hall
1. File

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being. 5.24.23

Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state. 5.27.6.1

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities.

SIS would be welcomed by the pioneering people of Idaho! 1.1

Sincerely,

Nancy Thorsen

130

W131

1. T. Hill
1. File

Resolution

5.27.6.1 Whereas, the Department of Energy has designated the INEL as the preferred sight for the construction of the SIS project, and

Whereas, the INEL has been a good neighbor and a principle economic foundation in Eastern Idaho for nearly 40 years, and

Whereas, the Southeastern Idaho economy is in great need of a major new development and is fully capable of supporting such a project with existing transportation, energy, educational and local government infrastructures, and

Whereas, the INEL is preeminent as the scientific Laboratory facility serving the priorities of this nation, and

6.1.2 Whereas, the INEL has long and effectively served in the areas of scientific advancement and National Defense, and

Whereas, the Department of Energy has concluded that the SIS Project would have very small environmental consequences from its construction and normal operation at the INEL.

1.1 NOW THEREFORE, be it resolved, that the Mayor and Council of the City of Blackfoot, Idaho, hereby strongly reaffirm its long standing support for construction and operation of the SIS project at the INEL and urge the Department of Energy and the Congress of the United States to go forward with funding and construction of the project, forthwith.

C. Dean Hill, Mayor

Stan Arnell, Councilman

Terry Hawley, Councilman

Lynn Bales, Councilman

Dean A. Packham, Councilman

RECEIVED
MAR 23 1988
SIS Project Office

131

112

W132

1. T. Hill
1. File

J. D. Smith
1990 Steven
Pocatello Idaho
83201

RECEIVED
MAR 23 1988
SIS Project Office

Dr Clay Nichols
SIS Project Manager

Dear Sir

I have just read another scare message in the local paper, Idaho State Journal. The letter gave me your address to write if I was not in favor of the SIS. Well sir I assure you I am not easily frightened and I have seen this tactic too many times. I believe having been living in Pocatello for 40 years that the Site has only done us good. The pursuit of knowledge is what separate us from our competitors. I work for EG&G and I believe the SIS will do this town and the surrounding area a great deal of good. Therefore, please do not allow the fear expressed by a few prevent you from seeing the rest of our area in a favorable light

Sincerely
J. D. Smith

1.1

132

W133

J. T. Hill
1-File

HARPER - LEAVITT ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
800 W. Judicial • P.O. Box 866
Blackfoot, Idaho 83221-0866
(208) 785-2977

RECEIVED
MAR 23 1988
Project Office

March 22, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

My name is John J. Harper and I live at 675 South Adams, Blackfoot, Idaho. I am employed at Harper-Leavitt Engineering,Inc., and have lived in Idaho for 47 years..

5.27.6.1
4.15.4
1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very Truly Yours,

John J. Harper, P.E.

113

133

W134

J. T. Hill
1-File

595 S. Fisher, #6
Blackfoot, Idaho 83221
March 21, 1988

RECEIVED
MAR 23 1988
Project Office

Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

Yes, Southeastern Idaho's economy does need a boost and, yes, we do need more jobs but I do not believe SIS is the answer. I am writing this letter to express my opposition to locating the SIS project at the INEL site. I am also requesting that a Congressional hearing be held before any decision is made on where to locate the SIS, and determine if it is even necessary. I am opposed to the SIS for the following reasons: 1.1 4.9.2

1. A responsible decision looks at not only what may be good at the moment but also must look at what's good in the long run. Providing jobs for seven or eight years may have immediate benefits, but what is there in seven or eight years? Also, do the immediate benefits justify the long term hazards and risks? 6.2
   a. Plutonium is one of the most hazardous materials known. 4.15.5
   b. The shelf life of plutonium goes into thousands of years.
2. There is no need for more plutonium.
   a. There is already an adequate stockpile of plutonium to meet the national defense needs. 4.13
   b. The U.S. already has more than enough nuclear weapons.
   c. The INF treaty is an attempt to reduce nuclear weapons - the SIS project does not support this. 4.14
3. INEL programs and projects up till now have been to benefit the human race and improve the quality of life. The production of plutonium for nuclear weapons is a project for the potential destruction of mankind.
4. The Draft Environmental Impact Statement does not adequately address waste disposal. Currently, there is no site completed, such as the Waste Isolation Pilot Project, for storage of nuclear waste. Will the INEL continue to be a "temporary" storage site even though it has already experienced some contamination of its sediment beds? Storage of nuclear waste at the INEL is unacceptable because: 3.3.1 5.30.1.13
   a. It sits on top of the Snake River aquifer.
   b. The INEL is in a geologically active area.
5. Accidents do happen, as evidenced by Three Mile Island and Chernobyl. Also, trucks do wreck and trains derail. The SIS project would cause large volumes of hazardous material to be transported across Idaho. I don't believe we are currently prepared to handle a major catastrophic accident, and this is not addressed in the DEIS. 5.30.2.1 5.30.2.5
   I also do not believe construction should begin on any SIS site until a demonstration facility has been operated successfully. 5.12.5
6. I question the safety record of the DOE since it's a self-regulating agency and requires no outside review. 6.1.3
7. I believe in the long run the SIS would be a detriment to Idaho's economy. It definitely will not be a drawing card for the tourism industry. It will not be a promoter of the finer qualities that Idaho represents. Locating the SIS in Southeastern Idaho may further hurt rather than help our economy in the long run because other businesses and industries may choose not to locate in an area close to where nuclear weapons are produced. 2.2.4 3.2.18
8. The people and businesses in Idaho can be and need to be more creative in bolstering the economy. I believe Idaho can have a strong economy by building on its strengths, focusing on industries that better the quality of life, and working to promote industries that do not pose major risks to people and the environment. 5.27.5.3

134

9. I personally w[illegible] the fine quality of life offe[illegible] by Idaho currently - and the chance for life - to be there for the next generation, and the next and the next....

10. I strongly believe, and strongly urge, that many of the unanswered questions in the Draft Environmental Impact Statement need to be addressed and resolved before a decision is made on the SIS. I again request a Congressional hearing. 4.9.2

I hate to see money and jobs be the only factor truly considered in this major decision that has such a long term impact on our state and on our future.

Sincerely,

Mary Spinner

Mary Spinner

W135

RECEIVED

MAR 23 1988

SIS Project Office

Dear Sir.

I've only been a Idaho resident for a year. I strongly support the SIS being located & built at the INEL site. 1.1

I can see no problems concerning health or safety from this project.

We are sure all concerned will use all possible technology to study & observe all parts of the project. There will have to be strict regulations & we are very sure they will be obeyed. 6.1.2

South eastern Idaho needs this project, with the employment it will provide, to strengthen our very depressed economy.

Our area will be able to provide housing & any special education & transportation needed for this project. 5.27.11.1

The local businesses & Chambers of Commerce strongly support the project being located at the INEL site.

Sincerely

Gloria [illegible] 3/88

135

1. T. Hill
1-File

RECEIVED
MAR 23 1988
SIS Project Office

Dear Sir:

1.1 I have been a resident of Southeastern Idaho most of my life. I very strongly support the building of the S.I.S. on the INEL site.

6.1.2 I can see no problems concerning health or safty from this project. I am sure all concerned will use all possible technology to study and observe all parts of the project. There will have to be strict regulations and I am sure they will be obeyed.

5.27.6.1 Southeastern Idaho needs this project, with the employment it will provide, to strengthen our very depressed economy.

5.27.11.1 Our area will be able to provide housing and any special education and transportation needed for this project.

The local businesses and Chambers of Commerce strongly support the project being located at the INEL site.

135A

Sincerely
Douglas C. Hoff

W136

I. T. Hill
I. File

3/21/88

Ly Clay Nichols
Chairman SIS Project
DOE
1109 Plaza
Idaho Falls, Idaho 83402

RECEIVED
MAR 23 1988
SIS Project Office

1.1 Please enter my written support for the project. As a resident and teacher I am sick of little or good economic growth for money to make our schools better.

5.27.3.3 The SIS will not cause tourist to stay away, and of all DOE sites there is only one place for this project and that is here at the INEL.

5.28.6 One of the forgotten benefits of this project is the production of isotopes for the high grade diagnose x-ray and scanners. The medical uses are just as just as important and a jewel of a project as connection to the military weapon production.

Alexis Myler
1253 Horton
Idaho Falls
Idaho 83402

136

136A

136B

116

W137

Northern Engineering and Testing, Inc.

1 - T. Hill
1 - File

370 Benjamin Lane
P.O. Box 7867
Boise, Idaho 83707
(208) 377-2100

March 21, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1 As a Idaho based business with 10 offices located in the Pacific Northwest we want to take this opportunity to indicate our support for locating the Special Isotope Separator (SIS) in Idaho.

3.3.1 The SIS project will enhance the environment of our Idaho National Engineering laboratory and will compliment that facility. We fully support such environmentally sound and safe industries to be brought into Idaho to help increase the economic base and utilize our experienced and qualified

5.27.6.1 manpower pool. The SIS project would provide economic diversification and expansion and help develop a more stable revenue and employment base for Idaho.

We want to go on record of supporting the SIS location in Idaho.

Very truly yours,

Richard T. Kanemasu
President

RTK/ijt

117

137

W138

1 - T. Hill
1 - File

March 21, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

I am writing concerning the 1.1
Spical Isotope Separation (SIS) Project
Hearings. I am requesting that
the DOE take the "No Action
Alternative" because I believe the
SIS should not be placed in
Idaho or any other part of the
country. My reasons for filing this
way are the following: 4.15.5

1) We already have enough
plutonium in this country. In fact, 4.3
as much as 4,400 pounds of plutonium
could become available from over 400
decommissioned nuclear warheads
once the INF treaty is ratified

2) Due to this decreasing yield as 4.15.2
outlined above, it would be a
waste of billions of taxpayers' dollars
to build SIS.

3) The jobs made available
through SIS construction would be 6.2
at a high cost in increased
radioactive waste which no one 5.30.3.1
knows what to do with, contamination

1- T. Hill
1- File

of yet another area of our country and an economy based on the war machine.

For these reasons, please take the "No Action Alternative" to the project. I am also requesting that this letter be included in the hearing record for the SIS.

Sincerely,

Sheryl L. Merrell
812 Wallace
Coeur d'Alene, Idaho 83814

138A

I'm writing to say I would like the DOE to take the "NO ACTION ALTERNATIVE". I do not believe the "SIS" should be placed and place - specifically Idaho at this point in time. The dangers are contaminated ground water, dangerous releases of radioactivity and an economy based on an unstable industry. Idaho needs jobs but we must consider future possible outcomes & resist the present temptation. The decision to shut down Hanford should be a clear message about our future plutonium needs. Please include my letter in the hearing record for the SIS. Thankyou!
Debbie Dlouhy

3-17-88

Debbie Dlouhy 818 7th A Ida ID 83214

Julia Ward Howe

Clay Nichols
785 DOE Place
Idaho Falls, ID. 83402

RECEIVED
MAR 23 1988
SIS Project Office

139

1.1
6.1.7
6.2
4.6

26

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W140

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
MAR 23 1988
SIS Project Office

1-T Hill
1-File

Dear Sir,

My name is David Rapp. I am 37 years old, middle income, high school graduate and some college background. I have been following this SIS project since it was just thought of in Idaho. I am writing to you to give my total support for the SIS. I do believe the best defence is a healthy offence and Idaho is a very natural and ideal location for this project. Please show your support for the SIS in Idaho -

1.1

3.4

David L. Rapp
5095 Marie
Pocatello, Id 83202

140

W141

1-T Hill
1-File

March 22, 1988

Dr. Clay R. Nichols, Assistant Deputy Manager
Projects and Energy Programs
Idaho Operations Office - DOE
785 DOE Place
Idaho Falls, ID 83402-1133

SIS SITING - CAA-34-88

Dear Dr. Nichols:

I think whether there is to be an SIS or not is no longer the question. The question is where best can the SIS be sited for the good of the country. As a citizen of Idaho and the U.S.A., I feel the INEL provides the ideal location as well as the necessary technical expertise to ensure the success of that project. For me it is Yes, Yes, SIS.

1.1

5.24.23

Very truly yours,

C. A. Aquilina
Idaho Citizen

gk

RECEIVED
MAR 23 1988
SIS Project Office

W142

→ 1- Rgltr file
1- T. Hill

COMMENTS ON THE SPECIAL ISOTOPE SEPARATION PROJECT

I am Robert Wilson, a 13 year resident of Idaho Falls and an engineer at the INEL. Safety of INEL facilities and related transportation is a professional and personal concern to me as one who works some 230 days a year at the site and whose family lives nearby.

5.1.17 The operation of the Special Isotope Separation (SIS) facility will increase the quantity of plutonium handled at the INEL. Plutonium is a hazardous material and needs to be handled carefully. With 40 years of experience with plutonium, the technical community has developed safe handling methods that involve a very small risk to the employees and essentially no risk to the public during normal operations. The hypothetical major risks in abnormal operations appear to be a fire or a criticality accident. The design criteria for the proposed plant will assure these accidents will have a very low probability and if they nevertheless occur the effect will be limited to those a few yards from the accident.

5.24.31 My special field is nuclear criticality safety. My dissertation and industrial experience have been in this area. The design criteria for the SIS facility (triple contingency) should preclude a criticality accident. If it happens anyway, the expected energy release could cause the death of employees within some 10 feet of the material if no radiation shielding was present. Ten feet is close to the lethal distance from many accidents such as an exploding home furnace or car gas tank. A criticality accident with plutonium in the 1950's caused the only known death due to handling this material. I'm not aware of deaths due to biological uptake, although thousands of employees were directly exposed to plutonium during the 1940's and 1950's and some five tons of plutonium were distributed in the environment during weapons testing. However, plutonium is a toxic material and must be handled with care. Safe practices for materials like lead, gasoline, chlorine, pesticides and plutonium have been developed and need to be applied when used.

5.1.34 The SIS facility needs to be designed, constructed and operated in accordance to sound and known safety principles but need not be a risk to employees beyond normal industrial hazards and need not involve a true risk to the public. The alternative to the SIS would be nuclear reactor plutonium production which would involve the production, handling, and long term storage of additional fission product waste.

Robert Wilson
524 11th Street
Idaho Falls, Idaho 83404

W143

1438

1-CRN file
1- D. Bergquist
→ 1- T. Hill

3/17/88

BERT MILLER
PO BOX 8622
I.S.U.
POCATELLO, IDAHO
83209

CLAY NICHOLS
DOE IDAHO
785 DOE PLACE
IDAHO FALLS ID 83402

DEAR MR. NICHOLS;

I HAVE A QUESTION CONCERNING THE UPCOMING HEARINGS ON THE S.I.S. PROJECT.

I HAVE RECIEVED AND READ A "DRAFT ENVIRONMENTAL IMPACT STATEMENT" I RECIEVED FROM YOUR OFFICE.

ON PAGE 1-4 UNDER THE HEADING "PROPOSED ACTION AND ALTERNATIVES"

1438

THERE ARE 4 ALTERNATIVES LISTED.

1) BUILD SIS AT INEL
2) BUILD SIS AT HANFORD
3) BUILD SIS AT SAVANNAH RR.
4) TAKE NO ACTION.

MY QUESTION IS THIS: I AM PLANNING TO GIVE TESTIMONY AT THE HEARINGS. A PUBLIC HEARING NOTICE WAS PLACED IN THE IDAHO STATE JOURNAL 3/16/88. (I HAVE ENCLOSED A COPY FOR YOUR INSPECTION). THE PUBLIC HEARING NOTICE PLACED IN THE JOURNAL ONLY LISTS 3 OF THE 4 ALTERNATIVES.

1) CONSTUCT SIS AT INEL
2) " " AT SRP
3) " " AT HANFORD

COULD YOU PLEASE TELL ME IF THE FOURTH ALTERNATIVE "TAKE NO ACTION" (over) →

WILL BE DISCUSSED AT THE HEARINGS? I CHECKED FOR A CORRECTION IN THE 3/17/88 JOURNAL BECAUSE THIS PUBLIC HEARING NOTICE APPEARS TO ME TO BE IN ERROR BUT I CAN FIND NO CORRECTION. 2.8.4

IF THE FOURTH ALTERNATIVE LISTED IN THE EIS IS NOT TO BE DISCUSSED AT THE HEARINGS COULD YOU PLEASE EXPLAIN WHY?

PLEASE LET ME KNOW AS SOON AS POSSIBLE WHAT IS TAKING PLACE. IF THERE IS NO CORRECTED NOTICE PRINTED AND THE FOURTH ALTERNATIVE IS TO BE DISCUSSED I WILL FILE A FORMAL PROTEST WITH THE DOE AS IT IS NOT PROPER TO PRINT A PUBLIC NOTICE OF A GOVERNMENT HEARING WHICH DOES NOT LIST ALL EIS ALTERNATIVES. TO LIST ONLY PART OF THE ALTERNATIVE LIST IS MISLEADING TO THE PUBLIC.

THANK YOU FOR YOUR ASSISTANCE IN THIS MATTER. SINCERELY,

Burt 1430

PUBLIC HEARING NOTICE

TO OBTAIN PUBLIC INPUT ON THE U.S. DEPARTMENT OF ENERGY'S DRAFT ENVIRONMENTAL IMPACT STATEMENT TO CONSTRUCT AND OPERATE A SPECIAL ISOTOPE SEPARATION FACILITY

The Department of Energy (DOE) will hold three (3) Public Hearings on whether to construct a Special Isotope Separation (SIS) Facility at either the Idaho National Engineering Laboratory (INEL) near Idaho Falls, Idaho; Savannah River Plant (SRP) near Aiken, South Carolina; or the Hanford Site near Richland, Washington.

The hearings will solicit public comment on the draft Environmental Impact Statement (DEIS), prepared by the DOE to evaluate any potential environmental impacts connected with the proposed action. The DOE encourages members of the public to attend one of these hearings scheduled for:

FRIDAY, MARCH 25, 1988, UNIVERSITY PLACE
1776 SCIENCE CENTER DRIVE
IDAHO FALLS, IDAHO, AT 2 P.M. AND 7 P.M.

SATURDAY, MARCH 26, 1988, CITY HALL
150 NORTH CAPITOL BLVD.
BOISE, IDAHO, AT 2 P.M. AND 7 P.M.

MONDAY, MARCH 28, 1988, BEST WESTERN CANYON SPRINGS
1357 BLUE LAKES BLVD. NORTH
TWIN FALLS, IDAHO, AT 2 P.M. AND 7 P.M.

Individuals desiring to make an oral presentation at a hearing should notify Dr. Clay Nichols, SIS Project Manager, by march 18, 1988, stating preferred dates and sessions, so that the DOE may arrange a schedule for the presentations, or individuals may register at the door. Individuals making oral presentations at the hearings may turn in a written copy of their statement for the hearing record.

To register to make an oral presentation or to receive a copy of the DEIS, contact:

DR. CLAY NICHOLS
U.S. DEPARTMENT OF ENERGY,
IDAHO OPERATIONS OFFICE
785 DOE PLACE
IDAHO FALLS, ID 83402-1133
TELEPHONE (208, 526-0306

122

143

W144

→ 1-T. Hall
1-File-Replies

March 22, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

My name is George W. Brookshier Jr and I live at Route 3 Box 46, Blackfoot, Idaho. I am currently disabled and have lived in Idaho for thirty years.

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

1.1
4.15.4

Very Truly Yours,

George W. Brookshier Jr.

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MAR 24 1988
SIS Project Office

144

W145

1 - T. Hill
1 - File

HARPER - LEAVITT ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
800 W. Judicial • P.O. Box 866
Blackfoot, Idaho 83221-0866
(208) 785-2977

March 22, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

1.1 My name is Kim H. Leavitt and I live at 775 North 450 East Firth, Idaho. I am employed at Harper-Leavitt Engineering,Inc and have lived in Idaho for 35 years.

4.15.4 The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,
Kim H. Leavitt, L.S.

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MAR 24 1988
SIS Project Office

145

W146

1 - T. Hill
1 - File

851 S. 5th Avenue
Pocatello, Idaho 83201

March 20, 1988

Dr. Clay Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1 I want to voice my support for the construction of the Special Isotope Separation (SIS) Project and for its location in Idaho.

My life has benefited greatly from nuclear science and technology. I spent three and one half years in nearly continuous combat in the Pacific from 1941 to 1945. It was a war that the United States neither wanted nor started, yet when our defenses were relaxed, it was thrust upon us. In August, 1945, we were preparing for an invasion of Japan, knowing that it would cost at least tens of thousands of American lives - perhaps mine. The atomic bomb quickly and effectively ended that war and saved those American lives.

My wife is alive today because nuclear science and technology for the diagnosis and treatment of cancer saved her life. We are proud that many of the materials used for such treatments were first developed and refined right here in Idaho.

5.24.23 I appreciate and strongly support nuclear science and technology, both for our national defense and for the other technologies that preserve and enrich our lives. I believe that the SIS will be a benefit to Idaho and our nation. I support its construction and operation right here in Idaho by people whom we know and who have already established our confidence through 40 years of safe operation and development of high technology at the Idaho National Engineering Laboratory.

Sincerely,

John H. Dial, Owner
Elmer's Pancake and Steak House

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MAR 24 1988
SIS Project Office

146

W147

BRANDT AGENCY

REAL ESTATE - FARM MANAGEMENT

PHONE 466-7821
203 - 11TH AVENUE SOUTH
NAMPA, IDAHO 83651

1-T. Hall
1-File

March 15, 1988

De Clay Nichols
Idaho Operations Office
United States Department of Energy
785 Doe Place
Idaho Falls, Idaho 83402
P.O. Box 389
Boise, Idaho 83701

Dear Mr. Nichols

1.1 This is in support of the Special Isotope Separation Project, which according to informaiton we have received from Senator Steve Symms and others is needed, is safe, and has possiblity of many industrial and educational spin-offs. The I.N.E.L. development near Idaho Falls is the ideal location for this project.

5.27.9.1 Please investigate fully and view the situation impartially and we believe you will agree with our opinion that here is the place for the project.

Very truly yours.

John H. Brandt

JHB:dcb

cc: Idaho Association of Commerce and Industry
Senator Steve Symms

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MAR 24 1988
SIS Project Office

147

Serving Nampa's Real Estate Needs Since 1936

124

W148

1-T. Hall
1-File

Douglas A. Werth
P.O. Box 653
Hailey, ID 83333

March 23, 1988

Clay Nichols
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

I am writing to express my opposition to placing the proposed SIS plant near INEL in Idaho. I am not against nuclear energy, and I believe that nuclear weapons are necessary to ensure America's safety. However, in an arid state like Idaho, where our water is such a precious commodity, it seems somewhat foolhardy to place a facility such as the SIS on top of the Snake River aquifer. Please put the SIS somewhere else if you choose to build it. 1.1 5.12.1

Very truly yours,

Douglas A. Werth

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MAR 24 1988
SIS Project Office

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W149

1-T. Hill
1-File

March 10, 1988

For the Hearing Record.

Dr. Clay Nichols
Dept. of Energy
785 DOE Place
Idaho Falls, Idaho 83402

1.1 I am writing to voice my Complete opposition to the Special Isotope Separator Project being proposed to take place at the INEL facilities. While I am totally against the project in general, I am especially angry that it could

6.2 take place in my own back yard. I think this project is a blatant waste of taxpayer's money and has potential for such immense environmental damage as to be ridiculous.

Please register my vote as NO SIS!

Sincerelly,

Michael A. Hayes
Box 1534
Hailey, Idaho 83333

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MAR 24 1988
SIS Project Office

149

W150

1 - Hill
1 - File

HARPER - LEAVITT ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
800 W. Judicial • P.O. Box 866
Blackfoot, Idaho 83221-0866
(208) 785-2977

March 22, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

My name is Marvin J. Harper and I live at 622 South Adams, Blackfoot, Idaho. I am employed at Harper-Leavitt Engineering,Inc., and have lived in Idaho for 22 years. 1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL. 4.15.4

Very truly yours,

Marvin J. Harper, P.E.

RECEIVED
MAR 24 1988
SIS Project Office

150

125

W151

Don Clark Radio Communications, Inc.

Specialists in 2-Way Radio Sales and Service

550 W. Pacific St.
Blackfoot, Idaho 83221
Phone (208) 785-1430

1- T. Hill
1- File

18 March, 1988

Dr Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Sir;

1.1 I wish to go on record as being FOR the SIS at INEL. We very much need the job opportunities that this project would bring forth. I was born in Blackfoot sixty-two years ago. I have operated a radio business in this town for forty-five years. I have six sons, three of them associated with me in my business. 5.27.7.16 In the last five years we have lost over 30% of our customers and over 60% of our sales due to farm prices. Most of our customers are farmers and the going has been rough for them. In return, their plight has caused local businesses like myself to be in poor shape too.

I don't understand who the people are who are against this SIS project. I wish you would require anyone who gives you testimony to identify themselves and how long they have lived in this area.

A few years ago, we had a company that wanted to locate in Bingham County. (Noranda Mining Company.) They wanted to build a plant to process ore. They were required, as you are, to hold public meetings. At these meetings, I was amazed to find many people against this. I recognized only about two people. I stood up and requested that anyone giving testimony be required 2.10 to give their address and how long they had resided there. It was interesting to find out that they were not residents of the County and some were not even from the State of Idaho!

I wish I knew who finances these people who come to testify. If I did, I would help run them out on a rail!

Thank you in advance.

Sincerely yours,

Donald R. Clark

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MAR 24 1988
SIS Project Office

151

126

W152

1- T. Hill
1- File
1- D Baggett

410 Parkway Drive
Boise, ID 83706
March 23, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S.Dept of Energy
785 DOE Place
Idaho Falls, ID 83402

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MAR 24 1988
SIS Project Office

re: Environmental Impact Statement
Special Isotope Separation Project

Sir:

Have you seen a REAL mushroom cloud? I have. I was present for the first H-Bomb test at Eniwetok Atoll in 1952. Two Japanese fishermen were "accidentally" and fatally irradiated from this test. An island was vaporized and biological mutations continue in the ocean, there. 2.5.4

I was a natural resource scientist(Ph.D.) and researcher for over 30 years. I consider the EIS-SIS a research project to evaluate the environmental consequences of the SIS Project.

I believe the Draft EIS for this project to be incestuous and, most likely, fraudulent.

Incestuous because the references cited are all essentially from the "agency family". My experience tells me that when researchers cite only their own works the research is suspect. 2.5.1

Fraudulent because the vested interests want the picture painted to be rosy and therefore misleading of the public. I find a complete lack of data from qualified non-dependent sources. Why are there no significant references cited for a non-involved individual or agency for the last ten years?

Why is there no reference to the well documented accounts (Science Magazine) for the late 1950's accident in the Ural Mountains of the USSR. Thousands irradiated. Entire communities vacated: Good-bye Idaho Falls; Good-bye Pocatello; Good-bye Aiken; Good-bye Hanford; Good-bye Arco. 5.1.12

I find too much computer simulation without efforts to get real live/dead data. Calculated EDE and whole body dosages are not adequate. Leave the dumb computers(garbage in - garbage out) and go into the communities where real live and hurting people live and die. What about the reported high cancer incidence around Hanford, around INEL, around Murray, Utah? Where are those non-rosy studies cited? 5.23.22 5.13.9

152

5.30.4.9 Other "flag's" I found during my research career were the "absolutes": will, not, do, don't. "...Plutonium will not reach the Snake River Plain Aquifer." (p.4-15) On the face of it, this statement is suspect.

5.14.1 No mention is made of the HLW(High level waste) disposal, an implied "no". Does this mean that, although working with some of the most radioactive material known to man, no HLW will be generated for disposal? Come, now.

5.20.10 Why aren't the OSHA Right-to-Know regulations applicable to these facilities? Why are the contractor's exempt from State Taxes? Why are miltary weapons being made at an "Atoms for Peace" facility (fraud, again)? Why are military weapons
3.3.1 being made by a civilian DOE (fraud, also)?

In conclusion, I find the Draft Environmental Statement for the Special Isotope Seperation Project to be totally
6.4.7 inadequate. A sophomorish attempt at best and, in all likely hood, a fraudelent attempt to deceive the taxpayers of Idaho, Washington and South Carolina -- and the U.S.

3.1.3 If Project Managers would allow such an inadequate
2.1.1 publication to even appear, how can they be allowed to manage such an undertaking. All credibility is gone!

3.2.2 Sincerely,

Dale O. Hall

Dale O. Hall, Ph.D.

127

1- T. Hall
1- file
1- CRN

Mr Clay Nichols, SIS Project Manager
US DOE, Idaho Operations Office
785 DOE Place, Idaho Falls, ID 83402

Dear Sir:

As a member of the Idaho American Nuclear Society, I am responding to a call for informed persons To present testimony regarding the Draft Environmental 2.10
Impact Statement (DEIS) for the Special Isotope Separation (SIS) Project. When presenting Testimony, I believe Credentials should accompany said Testimony. Mine are as follows:

Member of American Society of Civil Engineers
Member of National Society of Professional Engineers
Licenced To Practice Engineering in California
Licenced To Practice Engineering in Idaho
Member of American Nuclear Society

In addition, I have been employed at INEL for 20 years in varying positions of management responsibility including: Manager of Facilities for the Loss of Fluid Test (LOFT) Project; Engineering Manager for development of the INEL Radioactive Waste Management Complex (RWMC); Manager for INEL GPP and Line Item Project; and currently on assignment with the Princeton Plasma Physics Laboratory. During this period, I was constantly aware that "Nuclear Projects" required safety analysis in greater detail and documentation than any other technical process of this time. As a result, we in the nuclear industry have a safety record unsurpassed by any other industry, yet we get little credit for this accomplishment.

The Snake River Alliance has publicly stated that they will have 200 persons ready to testify against the SIS project. I would suggest that all persons presenting oral testimony be required to provide credentials which prove their competence To testify - pro or con. Movie stars,
153 theatre and celebrities should present credentials, or not be allowed to present oral Testimony. Too often

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MAR 24 1988
SIS Project Office

worth ~~cost~~ while projects have been defeated by a highly organized vocal minority / projects approved by the silent majority but not enthusiastically endorsed.

Having suggested some techniques which might prevent the un-informed from overpowering (by numbers) the informed, Let me state some of the scientific and technical advantages which will accure to the State of Idaho if the SIS were to be located at INEL. These statements are not self-interest motivated, since I am currently retired from INEL and am a self-employed consultant to the Princeton Plasma Physics Laboratory.

5.24.23 • Advantages for Locating the SIS Project at INEL
- The INEL enjoys a proven capability to do difficult nuclear projects safely and well.

5.27.9.1 - The SIS project will have many technologically beneficial spin-offs.

- Plutonium production technology is beneficial for peaceful use of plutonium as a resource fuel (Mixed oxides uranium/plutonium fuel for power reactors.

- SIS technology is well developed and offers many significant spin-off benefits to non-nuclear processes.

- The INEL has the technical people resources.

- The INEL is a scientific and technical organization of professional scientists and engineers.

3.3.1 - The INEL has always enjoyed a mix of military and civilian programs. Never has the mix become endangering to Idaho, as the SIS detractors indicate.
  - INEL has the NRT Program - Military
  - INEL has the FAST Program - Military
  - INEL has the EBR-II Breeder Reactor using plutonium as fuel.

• Disadvantages of the SIS Project at INEL

- The DEIS indicates insignificant environmental impact. Note: The SRA claims to have read the DEIS, and disagree, stating there would be significant environmental impact to the Snake River Aquifer. However, their claims have no scientific backing. 6.1.2

- Addition of a military production capacity to the INEL Site. Note: INEL already has a nuclear fuel processing facility (FAST) which processes Navy nuclear fuel to recover uranium and plutonium. 3.3.1 2.10

- INEL could be Targetted by soviet missiles due to SIS. Note: Not Likely, soviet missiles would Target many more important sites. After a nuclear exchange between US & USSR, SIS would mean nothing to the outcome. 2.7.10

- INEL should remain a research laboratory and not engage in military production projects. Note: Too Late, INEL has a significant participation in the military program.

- Other sites such as Hanford or Oakridge have site advantages Note: Not according to the DEIS.

Sincerely Yours

R C Commander

W154

1-T. Hill
1-File

March 22, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Departmentof Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

1.1 My name is Marilyn Brookshier and I live at Route 3 Box 46 Blackfoot, Idaho. I am employed at Harper-Leavitt Engineering,Inc., and have lived in Idaho for twenty five years.

4.15.4 The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very Truly Yours,
Marilyn Brookshier
Marilyn Brookshier

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SIS Project Office

154

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W155

1-T. Hill
1-File

THE AMALGAMATED SUGAR COMPANY

FIRST SECURITY BANK BUILDING • BOX 1520 OGDEN, UTAH 84402
PHONE (801) 399-3431

March 21, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1 As a major Idaho industry, we are pleased to note that INEL is being strongly considered as the site for the Special Isotope Separator Project.

5.27.6.1 This project will involve spending millions of taxpayer dollars for labor and supplies and it needs to have sound administrators who have demonstrated productive performance and fiduciary responsibiliy in the past.

5.24.23 INEL has been a steady, progressive employer, and a national leader in technological advancements. It has certainly demonstrated its expertise in the scientific community, and is a sound choice to head up this project.

Sincerely yours,

THE AMALGAMATED SUGAR COMPANY

Ralph C. Burton
Vice President Agriculture

RCB:ntk

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MAR 24 1988
SIS Project Office

155

W156

REALTOR® – is a registered mark which identifies a professional in real estate who subscribes to a strict Code of Ethics as a member of the NATIONAL ASSOCIATION OF REALTORS®

1-T. Hill
1-File

Mr. C. R. NICHOLS:

Dear Sir:

1.1 I would like to state that I am in favor of seeing the SIS project being located at the INEL.

1. The increase of job opportunities for myself, friends, and neighbors.

2. The financial benefits that the community will derive.

5.27.6.1 3. The increased tax base that will come with more people and new industries.

4. Higher education that will be needed to support a project of this kind.

5.27.9.1 5. The newest state of the art technologies that will come to the INEL with the SIS project.

6. I like Idaho and I wish to stay in Idaho. The SIS project will insure that I and my family will be able to do just that.

These are only a few of the reasons that I would like to see the SIS project come to the INEL. Please include this letter with those in favor of seeing that the SIS project comes to the INEL.

David W. Falkingham
4145 Lance Street
Idaho Falls, Idaho 83401

RECEIVED
MAR 24 1988
SIS Project Office

156

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W157

NATIONAL ASSOCIATION OF REALTORS®

REALTOR®

Pocatello Board of REALTORS® Inc.
P.O. Box 2562, Pocatello, Idaho 83206
Telephone (208) 233-1200

1-T. Hill
1-File

March 22, 1988

Mr. Lee Gagner, East District Vice President
Idaho Association of REALTORS®
RE/MAX Homestead
1301 East 7th, Suite #1
Idaho Falls, ID 83401

Dear Lee:

On behalf of the membership, the Board of Directors of the Pocatello Board of REALTORS® voted unanimously to support the proposed SIS Project. 1.1

The Southeastern Idaho economy is in great need of a major new development, and is fully capable of supporting such a project with existing transportation, energy, educational and local government infrastructures. The INEL is ideally suited for this project, and the Board, as part of the local business community, is strongly supportive of the INEL site. 5.27.11.1

You may use this letter of support as part of your testimony at the SIS draft Environmental Impact Statement hearings to be held in Idaho Falls on Friday, March 25, 1988.

Sincerely yours,

Stephen A. Steele
President

SAS:pj

cc: Greater Pocatello Chamber of Commerce

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MAR 24 1988
SIS Project Office

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W158

J. R. SIMPLOT COMPANY ONE CAPITAL CENTER 999 MAIN STREET SUITE 1300
P.O. BOX 27 BOISE, IDAHO 83707 (208) 336 2110 TELEX 368432

CORPORATE HEADQUARTERS

1 - T. Hall
1 - File

March 22, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. DEPARTMENT OF ENERGY
758 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1 Please place the J. R. Simplot Company on record in support of locating the Special Isotope Separation (SIS) Project at the Idaho National Engineering Laboratory.

3.3.1 Our company, with 5,400 employees in Idaho, has long recognized the important role of INEL in support of national energy and defense programs. We believe the SIS is a worthwhile addition to the nation's security and scientific base.

5.27.6.1 We also recognize the importance of this project to the economy of the Idaho Falls area and the state of Idaho. The jobs, taxes and commerce SIS will generate represent one of the few opportunities presently available for meaningful economic expansion in the state.

The SIS should be built in Idaho.

Sincerely,

A. Dale Dunn

A. DALE DUNN
President and
Chief Executive Officer

ADD/cas
0405s

131

158

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MAR 24 1988
SIS Project Office

W159

March 20, 1988

1 - T. Hall
1 - File

Dear Dr Clayton:

Please add my name to the list of those who vote yes for the S.I.S. Project 1.1

I have lived in Blackfoot for seventy years and watched it grow - and struggle with the times and I know that the S.I.S. Project will be a Great Blessing to the Area - as well as the fact the I.N.E.L. In My opinion is the best site for the project By far —

May I suggest that Someone in this Area invite persons from outside our area to allow us here to determine whether we accept a Project or not - and to weigh the facts and from our own decisions as to whether We feel S.I.S. is too dangerous for us to tolerate etc — It Isn't. It would be a big asset to our Communities in so many ways - Like a Golden Goose getting Ready to lay many Large golden eggs for us yet there are those who would Shoot that Goose for the mere thrill of the Kill —

Enough is said — I Vote yes and I do hope the "Ayes" Win 2.10

Sincerely
Arthur M. Clark
as One Way
Blackfoot, Idaho

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MAR 24 1988
SIS Project Office

W160

1 - T. Hill
1 - File

WACKERLI REALTY, INC.
POST OFFICE BOX 2263
IDAHO FALLS, IDAHO 83403
TELEPHONE: (208) 522-7784
REALTOR

March 21, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1 This letter is in support of the SIS Project regardless of the location, but I sincerely hope it will be an I.N.E.L. facility..

I was born and raised in the Idaho Falls area and returned in 1971 to enjoy the scenic wonders and the countless benefits I cherish. These include a lifestyle that nurtures the highest quality of life for all ages. I could never consider supporting a project that I felt had the remotest chance of endangering this special place in the world.

2.5.3 I believe in the credibility of the impact statement because it was prepared by specialists without a conflict of interest.

I am unable to find anything rational in the conerns that are so emotionally expressed by the self-serving opponents except perhaps for one. That is their assertion that we do not need plutonium and since the answer is "classified" and must remain so for national security reasons, and the opponents know it. Consequently I must consider this frivilous and believe it should further blemish their credibility.

5.27.9.2 I am excited over the much needed economic boost the project would bring, I am thrilled over the unimaginable benefits humaity will enjoy from the high tech laser knowledge to be gained from the research and development the project offers. I submit that the by-product is more important than the product. It is like the tail is wagging the dog.

The majority of Idahoans are progressive, intelligent, trusting and rational in accepting the decisions recommended by our leaders. The same opponents will be vocal and visable no matter where the hearings are held.

Idaho wants and deserves to be honored with the SIS Project.

Thank you for accepting my testimony.

160 Joe Clayton

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MAR 24 1988
SIS Project Office

161

132

W161

1 - T. Hill
1 - File

March 22, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

My name is Mark Watts and I live at 907 N. 2500 E Idaho Falls, Idaho. I am employed at Harper-Leavitt Engineering,Inc., and have lived in Idaho for 30 years. 1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL. 4.15.4

Very Truly Yours

Mark Watts

RECEIVED
MAR 24 1988
SIS Project Office

W162

Sun Valley

1-CRN
1- T. Hill
1- D. Bengquist
1- file
1- P. Phelps

March 1, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

Dear Sir:

1.1 SIS is not the way to improve Idaho's economy.

Very truly yours,

5.27.6.9

Michael W. Riedel
Publisher

MWR/po

133

RECEIVED
MAR 2 1988
SIS Project Office

162

P.O. BOX 2950 • KETCHUM • IDAHO 83340 • PHONE (208)726-9666

W163

LETTER 163

Letter could not be located after exhaustive search.

W164

3/28/88

From the desk of
MARIA ESCHEN

Dear Dr. Nichols

I did not have a typed copy of my 3/26/88 testimony to give the hearing officer, but here it is. The editorials I partially quoted are appended.

Thank you for including my remarks in your records against building the S.I.S. Sincerely, Maria

Maria Eschen, Ph.D.
115 Provident Dr.
Boise, ID 83706

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1 - T. Hill
1 - File

S.I.S. TESTIMONY BY MARIA ESCHEN, PhD — 3/26/88 — BOISE

I am Maria Eschen. Boise has been my home for the last ten years. My PhD degree is in public health and human ecology. My hat's off to those of you who oppose the S.I.S.

I see no greater threat to the health of the human species than the nuclear arms race. Using probability theory alone, we can calculate that the chances of an accidental nuclear confrontation increase every year and with every new method we design to produce weapons grade plutonium. Likewise, the probability of accidents with plutonium: your E.I.S. section 4.1.3.3. on RADTRAN III does not include cumulative risks over 20 years and into the future because your methodology uses only annual calculations. 2.7.8 5.1.36 5.29.14

How foolish to take these risks and to produce new plutonium when DOE now admits our stockpile already meets existing needs!

I favor NO ACTION. I OPPOSE the construction of the S.I.S. in Idaho or anywhere. In the first place, I oppose the insanity of building and testing weapon systems knowing that: 4.15.5

- there are only 2300 cities on planet earth with population in excess of 100,000;
- using the arsenals of the US and USSR and giving 2 nuclear weapons to each city, every city could be destroyed; 1.1
- and we would still have 20,000 strategic weapons left over;
- to say nothing of the 35,000 tactical weapons we would never use. 4.13

Never has humankind held in its control the means for the extinction of the species.

Secondly, other states have experience to share with us regarding the DOE. THe Little Death Valley Gateway Gazette published two weeks ago has some information to help us plan for the future of our state as we do business with the DOE. Mr. Lowes said in his editorial on the Yucca Mountain Nuclear Waste Dump: "It seems to us that DOE owes both the governor and the public some straight answers to a lot of unanswered questions in the months ahead." And the editors of the Las Vegas Sun had this to say on March 9, 1988:

> **DANGLED FED NUCLEAR BAIT, JUST MORE BROKEN PROMISES** (headline)
> Gov. Richard Bryan has appealed to President Ronald Reagan to hand over reports critical of Yucca Mountain becoming the country's high-level nuclear dump. Those who think that's far-fetched should take a look at New Mexico.
>
> Bryan requested government studies criticizing Nevada's volcanic mountain after he unveiled a Department of Energy report in January that said Yucca's cracks might force water inside the repository to corrode nuclear casks.

164A

Then he wrote to Energy Secretary John Herrington and asked for any other studies critical of Yucca Mountain's ability to contain radiation for 10,000 years, but Herrington didn't send documents or an explanation as required under the Nuclear Waste Policy Act.

So Bryan sent his request to the president, ant there was a similar request from Gov. Garrey Carruthers of New Mexico.

Carruthers threatened to sue the federal government, delaying the opening of the Waste Isolation Pilot Plant project near Carlsbad if federal administrators didn't stop their squabbling about who's paying for roads and land.

(Full text of editorials attached.)

3.2.15 Idaho should proceed with utmost caution knowing what has happened to other western states.

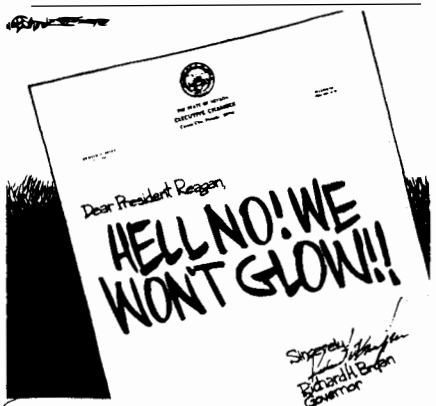
Thirdly, your E.I.S. statement is woefully deficient in its socio-economic analysis as mentioned by others. Additionally, Section 3.1.5.3. fails to list the human species as one of those threatened and endangered.

5.27.1.1 Finally, I have deep personal concern. At this exact time two weeks ago I was sitting in a bus in handcuffs. I and about 1300 others were under arrest for non-violent civil disobedience at the Nevada Nuclear Test Site. Our charge was trespassing on federal property.

I and many other will continue to risk our personal comfort to cast our votes against the means of nuclear war. We will speak up again, and again, and again until our government hears us.

Thank you.

Maria Eschen, PhD



Dangled Fed Nuclear Bait, Just More Broken Promises

Gov. Richard Bryan has appealed to President Ronald Reagan to hand over reports critical of Yucca Mountain becoming the country's high-level nuclear dump. Those who think that's far-fetched should take a look at New Mexico.

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Carruthers threatened to sue the federal government, delaying the opening of the Waste Isolation Pilot Plant project near Carlsbad if federal administrators didn't stop their squabbling about who's paying for roads and land.

Ten years ago, New Mexico refused to give in to federal demands to put intermediate nuclear wastes into salt caverns near the famed Carlsbad caves, then reluctantly agreed. In 1981, that state signed an agreement with the feds for the WIPP project. In turn, New Mexico was guaranteed 206.9 miles of road at $60 million, plus compensation for Bureau of Land Management acres withdrawn from public use.

Not once since the agreement was signed has the president's budget contained [illegible] for WIPP roads or land.

So Bryan sent his request to the president, and there was a similar request from Gov. Garrey Carruthers of New Mexico.

Carruthers threatened to sue the federal government, delaying the opening of the Waste Isolation Pilot Plant project near Carlsbad if federal administrators didn't stop their squabbling about who's paying for roads and land.

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Not once since the agreement was signed has the president's budget contained money for WIPP roads or land.

The Department of Interior has been told to pay BLM land compensation out of its own federal mineral leasing royalties and the Department of Energy must pay for road improvements. The Department of Transportation doesn't have the bucks in its budget.

Of course, none of the Cabinet secretaries is willing to pay for New Mexico's improvements.

Of the $60 million dangled before New Mexico for roads, only $17 million has been spent paving a couple of miles from major highways to the repository.

And, the federal government was committed to seek funding for bypasses around Hobbs, Carlsbad, Artesia, Roswell and Santa Fe and a new road from Santa Fe to Los Alamos.

To date, none of those bypasses have been built.

Even with the help of Republican Sen. Pete Domenici, New Mexico hasn't received money for its roads or lands — and the dump opens in October.

After eight years of being nice guys, New Mexico has returned to the hard-line approach in dealing with the federal government. That's a lesson Nevada needs to learn befor officials and others cuts deals behind the scenes with DOE.

Nevada became the designated host for the country's first commercial nuclear repository after Sens. Bennett Johnston and James McClure guided a bill through Congress that left the Silver State holding the radioactive wastes. In the bill, Nevada was promised up to $100 million a year when the repository is operational.

But — no surprise to people like Governor Bryan — Jonston's aide, Ben Cooper, announced in Tucson, Ariz., last week that there's no extra money after building the dump in Nevada. Nevada's street won't be paved with gold and silver, and if New Mexico is any example, Nevada's roads may not be paved at all.

When it comes to nuclear waste in Nevada, Bryan has not and will not be Mr. Nice Guy to the federal government.

Las Vegas Sun 3/9/88

Gazette Letter Policy

The *Gateway Gazette* welcomes letters from responsible readers. All letters, if possible, should be typed and double spaced and must be signed with the writer's full name and address. Names will be omitted from publication upon written request; however they must be included to verify the authenticity of the writer. Please limit letters to 350 words or less. The *Gazette* reserves the right to edit all letters to conform with space and style requirements of the newspaper.

The view expressed in Lowes Line are those of the editors and publishers of the *Death Valley Gateway Gazette*. All other opinions expressed on these pages are those of the artist or author indicated.

LOWES LINE

The competition, editorially, around these parts is getting tougher and tougher, and being a weekly doesn't help. Our friends at the *Review-Journal* and the *Sun*, have a seven-day-a week publishing advantage over us, and have been beating us to the punch with some excellent editorials on Yucca Mountain and Bullfrog County — a number of which have been reprinted in the *Gazette* with the permission of those respective publishers.

For example, the *Sun's* Wednesday editorial, "Dangled fed nuclear bait just more broken promises," reprinted on this page, appeared just two days before our own deadline.

And, even without the daily advantage, our friend Jack McCloskey, editor and publisher of the *Mineral County Independent-News* up Hawthorne way, has been banging out some heavy column comments in his inimitable tradition on recent Nye County issues, i.e. Bullfrog County and SB 463. In fact, those referenced columns on two local issues with statewide significance have been picked up and reprinted in newspapers across the state, ours included, making McCloskey probably the most quoted journalist in Nevada, a title he rightfully deserves.

And, speaking of Jack, here's an unpublished quote from him you won't see anywhere else. It's exerpted from his recent get well card to this editor — there we go breaking our promise not to bore you with further details on our recuperation — "...at least, you have proved you can land on your a.ss and suffer no brain damage."

While there are some that might not agree with his conclusion, that quote has got to go up on the wall along with the recent column comment by former Gov. Mike O'Callaghan, now of of the *Sun* and *Henderson Home News*, who in wishing me a speedy recovery couldn't resist making the comment that he numbered himself among those who still believe we really did break our hip while delivering papers on the icy streets of Tonopah.

With St. Patrick's Day rapidly approaching, we couldn't resist sharing those two bits of Irish wit with our loyal and long-suffering near famous toads, refugees from the now defunct Bullfrog County, attempting to view the distant nuke dump by telescope from the new Beatty information center.

Actually, her cartoon should give some of our more enterprising Beatty friends an idea for a money-making concession in a private-public partnership with the DOE.

Nothing against Beatty, after all, this newspaper was established there in the geographical center of Nye County and we spent the first four happy years of our existence in that mid-county community before our growth required moving our offices to both ends of the county — it's just not, in our opinion, the best location for a Yucca Mountain information center.

Besides, Beatty is going through a mini-boom of its own with the new St. Joe gold mine in Rhyolite.

We're sure that DOE's new nuclear waste manager Carl Gertz, who replaced Don Vieth to quarterback this political football to a touchdown at the department's favored location in Nevada, has a lot more to worry about than where to put an information office. Dick Bryan's already on his back for some straight answers on some questionable reports on the geological and environmental suitability of Yucca Mountain as the location for the nation's first high-level nuclear waste repository.

Maybe we are getting cynical, but it makes one wonder about the judgemental powers currently calling the signals at DOE. If they can't put their information office in the right place, how can we be expected to trust their judgement on where to store the nation's nuclear wastes for the next 10,000 years or so?

It seems to us that DOE owes

readers. With that aside, it's now our turn to 'scoop' the dailies, not to mention McCloskey, on the much maligned Department of Energy's latest boondoggle — the new location of its Yucca Mountain information center.

While Gov. Dick Bryan gets the credit for having exposed the DOE for its alleged "cover up" of a departmental report on Yucca Mountain earthquake faults, a topic which has received broad media coverage, no one — until now, that is — has commented editorially about the DOE setting up its Yucca Mountain Information Center in Beatty, some 30-miles from the site, when there's more than ample acreages of public and private land available at Lathrop Wells within a stone's throw of the proposed nuclear dumpsite.

And, not to be outdone by the big city editorial cartoonists, our own Ruth Von Ronk, takes poised pen in hand to illustrate one of her

both the governor and the public some straight answers to a lot of unanswered questions in the months ahead.

Under the Nuclear Waste Policy Act, the governor has the power to close down work at the proposed Nye county repository, unless government officials respond to his requests for these critical studies of the Yucca Mountain site, which we just learned he did — at least in part.

Late Wednesday afternoon, the governor received a two-inch high stack of documents revealing possible deficiences in the Yucca Mountain site.

According to DOE, the delay in responding to the governor's request, which went all the way up to the president, was tHe result of their having to research some 2,000 to 3,000 separate reports on Yucca Mountain. From that research, DOE determined there were only two documents that directly questioned the suitability of the site for a nuclear dump.

We're yet to hear whether the governor will be satisfied with the two reports, but you can bet that DOE, from Energy Secretary John Herrington on down, hopes they will lay the issue to rest.

Judging by the ominous beep of our computer, we are about to run out of our alloted space, and we've only briefly mentioned the approaching St. Patrick's Day, and haven't had a chance to even comment on the results of Super Tuesday, the sweeping victory of Republican VP George Bush, the pullout of Democratic hopeful Jack Kemp and the surprising strong Nevada showing of the Rev. Jesse Jackson.

Guess we'll have to save that for a future column, but we would be more than remiss if we didn't mention a very special anniversary before we close. Slim Simes, our bard of Goldfield, marked his fourth anniversary this week as a *Gazette* columnist and resident-humorist. Some of those columns, such as the one about the homing instincts of his mail order lady bugs, have become classics in their own time and may one day be reprinted in an anthology of Slim's many words of wisdom.

Strange how time flys when you are having fun.

Here's a t... a tax tip.

W165

Dear Mr. Nichols—
Since we are
unable to attend any
of the SIS hearings
would you please take
note — and add
our testimony AGAINST
to the public record —
Sincerely
Mrs. Davies

1.1

3/24/88

165

1-T. Hill
1-File

Mrs. James M. Davies
Box 392 • Ketchum, Idaho 83340

24 March

Dear Governor Andrus,

1.1 As twenty-year residents of the
3.3.2 State of Idaho we are writing you to beg you NOT to allow the S.I.S. project
5.12.1 to be installed in our beautiful state. We are appalled that you, as ex-secretary of the Interior are even considering this option. The I.N.E.L.
4.14 as a scientific laboratory causes Idaho residents no problem, but building a weapons plant could be a major disaster to the Snake River aquifer, and defeats the U.S. Peace Plan of reducing nuclear weapons.

6.2 The short-term benefits of jobs and funding for Idaho are far outweighed by the dangers of a plutonium factory. Please vote "No" on the S.I.S. project.

Thank you —

Sincerely,
Patricia P. Davies
James Davies

165A

1-T. Hill
1-File

Re Clay Nichols

I, like most Idahoans, am completely against the special isotope separation project. 1.1

I cannot be at any of the scheduled meetings but would like to voice my no vote for the project in Idaho.

Sincerely
John P. Kearney
Box 1132
Ketchum Idaho
83340

166

W167

1- T. Hill
1- 7114

March 24, 1988

Mr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

4.15.4 My name is Charles Vetsch and I live at 2644 Surrey Lane, Idaho Falls, Idaho. I work Monroc, Inc., and have lived in the State of Idaho for the past 13 years.

1.1 I believe that SIS is a program that is vital to the economy of Idaho in addition to being necessary to the defense of our country. I sincerely urge that the SIS project be located at the Idaho National Engineering Laboratory.

Sincerely yours

Charles Vetsch

Charles Vetsch

RECEIVED
MAR 3[illegible] 1988
SIS Project Office

167

W168

1- T. Hill
1- 7114

3/24/88

To Whom It May Concern,

I have read the Pros and Cons of having an SIS facility built in Idaho. My family and I are strongly opposed to it being built here or for that matter anywhere else. It is simple unjustifiable. Please record 3 strong NO's. 1.1 4.15.4

Sincerely
John Griffith
Box 1919
Ketchum Id 83340

RECEIVED
MAR 28 1988
SIS Project Office

168

139

W169

1-T. Hill
1-File

3-25-88

To whom it may Concern,
The SIS is a big NO.
It is ridiculous at the
1.1 time of disarmament talks.
4.14 We have enough War heads
to take human life 5 000 times
over.
We human have caused
enough harm to Gods gift of
4.13 creation lets pull togithre
and do possitive things like
clean up our acts and
respect & revere life all life
No SIS

Patti Hardman

RECEIVED
MAR [illegible]
SIS Project Office

169

W170

1 T. Hill
1 File

Alan Reynolds
P. O. Box 1474
Ketchum, ID 83340

March 25, 1988

RECEIVED
MAR [illegible]
SIS Project Office

Mr. Clay Nichols
United State DE
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

Please enter this statement in the hearing record for the proposed SIS plant at the INEL in southeast Idaho.

I am a county commissioner for Blaine County and a real estate broker in Sun Valley. I am very strongly opposed to the proposed plant for the following reasons: 1.1

1. The plant would produce plutonium which is used only in nuclear weapons. This is a major change from INEL's present purpose. 3.3.1
2. The present supply of plutonium is more than adequate, and with INF retirements there will be a surplus in supply. We are talking a long shelf life. 4.3
3. Our present supply of nuclear weapons is already a grotesque parody of the concept of deterence. 3.4
4. The Secretary of Energy has admitted we already have more than enough plutonium. 4.2.1
5. The facts indicate that this project is a classic "pork barrel".
6. The promise of many jobs is a cruel joke on the working man of Idaho. I have seen these promises evaporate because of cheaper and more skillful transient labor, boom-and-bust cycles, and the all-too available trained supply of workers from the Hanford layoffs. Idaho people will not get the good, lasting jobs. 4.15.2 5.27.7.4
7. Tourism and agriculture are the main industries of Idaho. Any leak, rumor of leak, transportation accident or terrorist threat will severely impact these relatively stable producers, while the plant may only have a seven-year viability. 5.27.7.1 5.1.38
8. INEL sits over the main acquifer of the whole Northwest. Any accident could contaminate all of that water for 200,000 years! 5.12.1

5.27.7.17

9. Idaho does not need the radioactive blood of the world on its hands, especially for the false promise of a few jobs for a very short time.

10. Our real estate business has already been negatively affected by the possibility that the project may go through. People do not want to live or travel near this ticking bomb.

5.27.17

11. The proponents of this boondoggle ought to be closely examined for their intelligence, motivation, and grasp of its consequences.

Don't let this terrible mistake happen.

Sincerely,

Alan Reynolds

Alan Reynolds

141

70A

1-T. Hill
1-File

March 24 1988

RECEIVED
MAR 28 1988
SIS Project Office

Mr Nichols!

I am writing to register my opposition to the SIS 1.1

Some say we need jobs here in Idaho but the building of an SIS facility here is a very stupid answer. 5.27.7.17

There are no guarantees as far as safety is concerned. Transporting dangerous materials across Idaho is pure folly. 5.29.94

We must protect our aquifers and this project cannot accomplish that. 5.12.5

Please say no
Support jobs for peace

Marika Davidson
Boise, Idaho

171

W172

2514 W Barberry Lane
Idaho Falls, ID 83402
March 24, 1988

L. T. Hill
1-File

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1 As an Idaho Citizen, I hereby submit for the Draft EIS Hearing Record, my statement on the SIS Project.

4.9.4 I fully support the construction and operation of the SIS Project at INEL for reasons stated below:

5.24.21 1. The President of the United States and our U.S. Congress have determined that there is a need for the SIS facility for national defense reasons.

3.3.1 2. The SIS facility will be a new facility. The responsible management personnel, scientists, engineers, and the various talents are being pooled to ensure that the facility meets all local, state and federal requirements of environmental protection, safety and health. INEL is a national laboratory and that INEL's response to meet defense needs is proper and necessary.

4.15.4 3. I believe that a strong America means world peace and that a bilateral disarmament can be achieved through our strength. Until then we must maintain our deterring capability and preferably take a cautious approach in disarmament of conventional and nuclear weaponry.

5.27.6.1 4. The general economic health of our local communities, including businesses, hospitals, churches, charity and community service organizations, schools, recreational facilities, etc. is significantly depended on the earnings, spending and donations of site workers. We want to avoid the frantic situation now being experienced at communities around Hanford.

5.27.9.1 5. We welcome new technology and its spin-offs; these are compatible undertakings by the professional and trade skills of the site and local industrial workers.

5.27.4.5 6. It is very important to us, as parents, that our children and grandchildren who do want to live in the Idaho Falls area have the opportunity to do so instead of having to move out of state for employment.

Thank you for the opportunity to submit my statement.

Yours truly,
TK Tamashiro
T. K. Tamashiro

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MAR 28 1988
SIS Project Office

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142

W173

Rexburg Chamber of Commerce
51 North Center / Rexburg, Idaho 83440 / Phone (208) 356-5700

L. T. Hill
1-File

March 24, 1988

RE: Rexburg Chamber of Commerce Support Of SIS Project

To Whom It May Concern:

1.1 At its monthly board meeting held March 4, 1988, the Rexburg Chamber of Commerce Board of Directors resolved that our Chamber would support the Special Isotope Separation Project at the INEL site in Southeastern Idaho.

We are pleased to support this project and request your consideration for the selection of the INEL site for its construction and operation. We feel that the project will contribute significantly to the stability and growth of both the regional and state economics. We are proud that Southeastern Idaho can 5.27.6.1 contribute to the growth and strength of our great nation.

The Rexburg Chamber of Commerce Board of Directors is made up of business people, agriculturalists, homemakers, and professionals and the resolution was passed unanimously.

Thank you for allowing us the opportunity to express our support for the project.

Sincerely,

David L. Pincock
President

DLP/ke

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MAR 28 1988
SIS Project Office

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Let the record show that I, I am for
1.1 the S.I.S. project being built at I.N.E.L.
I don't think anybody can argue the fact
that the project will be benifical for our
economy. The state of Idaho needs a
financial boost. Our mining industry is
not at a peek. Our timber industry is
5.27.6.1 not booming. We cannot survive off
of tourism alone. Our schools could
use the tax revenue to better our
childrens education. You cannot trade
minimum wage dollars back and forth
and expect state growth. We need ~~to~~
new dollars in Idaho and S.I.S. will
provide that. The economic boost is
definetly a benifit. But there are
other questions which have been brought
up, such as transportation of the
5.29.84 plutonium, safety in plant operations, and
the need for weapons grade plutonium. We
already have the plutonium. It is going to
be transported to someplace and where ever
it is stored is probably top secret. We
have produced, stored, and transported
plutonium for many years without incident.

Now that we have the newest technology
just looking for a place to be built I 5.28.1
would like the state of Idaho to be able
to boast of ~~and~~ world leading technology.

As far as the transportation aspect, I
personaly feel that you could drag a
the transporting cask behind a truck 5.29.41
from coast to coast and not have a
problem. The casks are designed to
contain the cargo in case of an accident.
I wish we could say the same for the cargo
containers and track record of our toxic
chemicals.

Jim Cahoon
734 N Hwy 91
Firth, Id 83236

W175

1-T. Hall
1-File

Dear Sir,

I was to speak at the hearings in Idaho Falls but was unable to attend Please accept this as my written statement

Thank you
Jim Cahoon

RECEIVED
MAR 28 1988
SIS Project Office

175

175

W176

3/24/88

1-T. Hill
1-File

Dear Mr. Nichols,

IN regards to the proposed construction of the SIS project at the INEL - I am in total agreement that the storage of plutonium waste generated by the SIS, would not ever enter the aquifer system - I am confident after I have seen how careful the Doel is storing the waste already contained at the site - In my opinion, the people downstream of the aquifer in Twin Falls, are not in any danger due to waste leakage at the INEL - Yes To SIS 5.30.4.1 1.1

Thank You
Allen I. Stevo
426 W. 350. N.
Blackfoot, Idaho
83221

RECEIVED
MAP 28 1988
SIS Project Office

176

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W177

March 25, 1988

1-T. Hill
1-File

273 North Ridge Avenue
Idaho Falls, Idaho 83402

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1 5.24.22 It was not possible for me to testify at the SIS hearings on Friday due to business obligations. I did want to express my support for the SIS project. My family has lived in Idaho Falls for three generations. We have seen the benefits of the INEL in our community as well as the tremendous safety record achieved at each site location.

Given the choice of having the technology of SIS here at our location or sending it somewhere else because of fear of what might happen given this senario or that, I can easily choose to request that the SIS project be located here at the INEL site.

This community is friendly towards to SIS project. We welcome the technology, jobs, and the fine people it will bring to our community.

5.27.12.5 Everything necessary to make the Special Isotope Separation Project a complete success exists here at the INEL location. As a community leader, local business man, father, and citizen I strongly urge you to continue through with the DOE plans to locate the project at INEL.

Sincerely,

R. Marlowe Wood

R. Marlowe Wood

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RECEIVED
MAR 28 1988
SIS Project Office

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W178

1-T.H.C
1-File

RECEIVED
MAR 28 1988
SIS Project Office

STATEMENT ON LOCATING SIS IN IDAHO
March 25, 1988

Please enter the following statement in the official records of the Twin Falls hearings being held on March 28th. I am a resident of Sun Valley, Idaho, but am unable to attend these hearing due to a serious accident in the family:

I am a retired chemist who worked in the nuclear field from 1951 to 1981 and a Fellow of the American Nuclear Society, an engineering society of over 15,000 scientists. I am well acquainted with waste management practices at all major DOE sites and knowledgable about plutonium. It is in part due to the continued distortion of technical facts about SIS that I feel compelled to express my personal views for the SIS hearings

1.1 Like many other citizens, I want to eliminate nuclear weapons, but I am convinced that the USA needs the SIS. With the N-reactor closed at Hanford and Savanah River reactors operating far below capacity due to their age, the USA needs some way to upgrade existing plutonium stockpiles. I had the opportunity to visit nuclear research facilities in the USSR, Praque, and Budapest on a People-to-people Goodwill tour in 1987. From this, I learned that the USSR has 20 Chernobyl-type reactors in operation. 5.2.11 They've allowed none of this type to be built in other Iron-Curtain countries. These 20 USSR electric generating reactors are all weapons production-type reactors similar (but technologically very different) to those built for plutonium production in the U.S.A. I believe that Gorbachev is sincere in his disarmament efforts. But if the political control shifts in this totalitarian country, the operation of these 20 reactors can be changed overnight to produce weapons-grade plutonium instead of electricity.

5.28.6 The key function of the SIS facilities is to remove small quantities of impurities from the bulk of the Plutonium-239 by the use of laser technology. A major criticism is it's limited life and usefulness. Not only can SIS clean up the materials currently on hand, but I believe it can also be used to clean up plutonium after it has degraded with time. This could be very useful in purifying plutonium from discarded weapons for use in generating electricity. The plutonium-239 isotope needs to be quite pure to calculate criticality parameters accurately. For this reason SIS is also important in making nuclear weapons safer for USA military personnel to handle during storage or use. In addition, the spinoff in laser technology from SIS will certainly 5.27.9.2 be valuable in the future. It is a known fact in engineering that considerable changes and improvements must be made to go from a demonstration size plant to a production size plant. For all of the above reasons, I believe that SIS will benefit Idaho

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MAR 28 1988
SIS Project Office

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for a good many years to come.

5.24.23 I am totally confident in the ability to manage plutonium safely at INEL.

The high quality of the technical personnel at INEL, and particularly at Westinghouse, is well known among nuclear scientists throughout the world. The environmental record at INEL attests to this, and the efforts of the Snake River Alliance and others testifying here to prove otherwise have failed.

3.2.2 Current publicity on TV, radio, and in print by opponents of SIS would lead you to believe they support other nuclear projects at INEL. On the contrary, many of the same people have been trying to close this valuable Idaho facility for years. The mis-information and emotional rhetoric which they peddle about plutonium, transportation and waste management may indeed have a psychological impact on the public. I fault the federal

2.13.8 government for not spending more time and effort on publicity and education for the public so they would have the facts, not fiction, about the INEL and SIS.

Sincerely,

Bernice E. Paige

Bernice E. Paige
P.O.Box 1629
Sun Valley, ID 83353

146

W179

1-CRN File
1- T. Hill

March 24, 1988

Dear Mr. Nichols;

As a long time political and environmental activist, I am writing you to voice my OPPOSITION to either the Superconductor or the SIS programs in Idaho. Knowing that the SIS would add to already hazardous activities at INEL I ask you WHY, when our Nation is the highest debtor country in the world now, that a few temporary (7 years) jobs in our pristine state is your reasoning to spend money our National Treasury doesn't have?!? Both programs, SIS in particular, (I thought we are winding down the nuclear arms race!) are, in my view, totally unnecessary. They should be cut from the budget. Pork Barreling MUST stop, and, or, along with special interest spending by the Congress, our economy will collapse -- and, YOU, as well as millions of innocent bystanders, will be out of jobs! Let's lower the deficit, not inflate it!

1.1

4.15.4

6.3

Also, I would like to know why no controlled health studies have been done on those Idahoans (and Utahans and Nevadans) downstream and downwind from the INEL (Little Lost River and Snake River aquifers) since the 1950's when the first radioactive pollution of the above aquifers began. I expect there would be some sad, startling, and revealing facts show up! Please answer this concern to me!

5.13.19

INEL disposal compliance has fallen way short of regulations of same (i.e., mercury, tritium, and other waste contaminating) and proper monitoring has not been forth coming since the 1950's.

5.30.3.4

For those of us who care about the QUALITY of Idaho's future, I again ask for your cooperation in not voting for SIS or Superconductivit for Idaho. After all, we live here to be apart from pollution and degradation.

Thank you -

Most Sincerely,

Amb. Marquita Moseley Maytag

(Nepal 1976-77) Amb. Marquita M. Maytag
P.O. BOx 528
Driggs, Idaho 83422
208-354-8278

179

RECEIVED
MAR 29 1988
SIS Project Office

W180

/- File
/-T. Hill

March 27, 1988

Clay Nichols
Idaho Operations Office
DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 This letter is written in opposition to the Special Isotope Separation Project. My name is Christine Isaacs. I am a psychologist in private practice in Boise having moved here from Montana in July, 1987. I made a very deliberate decision to move to Idaho primarily because of the quality of life I thought would
5.27.7.3 be afforded me in this great state. I find it very difficult to be faced with the possibility of the SIS project becoming a reality in Idaho. I have tried to understand both sides of the argument: It seems to me that the arguments fall on two issues - jobs versus the health of people and the environment. In making personal decisions I try to weigh the pros and cons realizing that in making any decision there will be some losses along with the gains. In my opinion, there would be negligible gains to the
3.4 SIS project, adding only a few hundred primarily temporary jobs. The costs to this project are of grave concern to me. To begin, I find it difficult to promote the US nuclear arsenal in any way since we already have enough nuclear bombs to obliterate the people of the world probably several times over, especially at a time when our country is beginning to finally make gains at disarmament. The SIS project can only be viewed as a move to undermine these peace efforts and should not be approved.
6.2 Secondly, the potential risks associated with this project have been consistently minimized by the people with an economic development outlook while experts in the area of nuclear technology tell of us the disastrous consequences of this project should there be a human or naturally caused error at the INEL plant. Should we take such grave risks for the benefit of mainly temporary jobs? While I fully understand the need to improve the economic picture in Idaho, in our haste to find a short-term solution we are using poor judgment that could have long-range and long-term consequences that none of us could withstand. I
6.1.1 plead with the supporters of this project to consider the health and well-being of <u>all</u> our citizenry and seek far more benign proactive solutions to the economic problems of our state even if that means taking a stance that is in opposition to our elected officials who, in my opinion, do not represent the majority of Idahoans on this project. I am puzzled that our elected leaders have so uniformly stated support for this project primarily on the grounds of economic development and have chosen to ignore the information provided by experts who advise against it.

In closing, I encourage the decision makers to oppose the SIS project.

Sincerely,
Christine D Isaacs

Christine D. Isaacs, Ph.D.
312 Eiden Road
Boise, ID 83705

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MAR 29 1988
SIS Project Office

180

147

W181

1-T. Hill
1-File

1939 N.W. 10th
Meridian, Idaho 83642
March 27, 1988

Dr. Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
MAR 29 1988
SIS Project Office

re: SIS

Dr. whom it may concern:

Recently it was suggested that DOE add the SMC to its hazardous waste sites. It was estimated that to clean up the waste at

5.30.3.1 SMC would take thirty years and cost $30 million. If the SIS is added & the SMC how much will dispose of the waste? Will that waste add more years and more millions of dollars?

I know we must better programs in need of these millions and our sacred desert need additional pollution.

5.27.7.17

Please enter this int the DEIS of the Special Isotope Separator.

Yours truly,

Norma K. Justice

181

181A

148

W182

March 25, 1988

L. T. Hill
1-File

Dr. Clay Nichols
U.S. Department of Energy Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402-1133

Dear Dr. Nichols,

1.1 WE OPPOSE the Special Isotope Separator project proposed for the Idaho National Engineering Laboratory site in Idaho for the following reasons:

5.30.3.1 * It is a matter of WHEN not IF our land and water would be contaminated. The very fact that there is a disclaimer in the Environmental Impact Statement is proof enough of this.

2.3 * The jobs created by-and-large would not go to Idaho residents but would go to highly specialized technicians brought in from elsewhere.

5.27.7.4 * Energy Secretary John Herrington has been quoted as stating that the United States is "awash with plutonium" pointing up the obvious - there is no need for additional plutonium.

4.2.1 Idaho cannot afford the Special isotope Separator. We OPPOSE this project.

Please consider this testimony as part of the official record.

Thank you.

Very truly yours,

Dorothy M. Christensen

Fred A. and Dorothy M. Christensen
316 Davis Avenue
Nampa, ID 83651

xc: Symms
McClure
Andrus
Craig
Stallings

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MAR 29 1988
SIS Project Office

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149

W183

L. T. Hill
1-File

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Id 83402

Dear Sir:

As a long time resident of Southeast Idaho, I would like to voice my support of the SIS project to be located at the INEL site. 1.1

The environmental, health and safety impacts of the INEL would not be any more or less than those projected at the other two alternative sites. All these issues would be under strict guidlines and regulations and would be minimal and nonthreatening. 6.1.2

The Southeastern Idaho economy is in a depressed state and is in great need of a new development to boost the economy. We have the necessary construction workforce available for such a project. 5.27.7.16

The surrounding areas of the INEL Site are able to offer necessary housing, education and training for any specialized needs. The businesses in these areas are also in favor of this project. 5.27.11.1

I strongly support the SIS Project being located at the INEL Site.

Very truly yours,

Elaine Jones

RECEIVED
MAR 29 1988
SIS Project Office

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W184

1- T. Hall
1-File

RECEIVED
MAR 29 1988
SIS Project Office

2002 Twelfth Street
Idaho Falls, Idaho 83404
March 27, 1988

Dr. Clay Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1 I am a professional in the field of nuclear energy with twenty years of experience in naval propulsion, civilian electric energy production, high level waste repositories, and the recycling of government reactor fuel. Over the past twenty years, I have followed the changes in our
4.15.4 country's defense, as well as the evolution of intervention activities directed towards various types of large projects. I feel compelled to speak out with my opinions and desires relative to the SIS project, as a
5.2.11 result of observing the steady decline in our country's ability to advance any significant capital project.

I believe our country needs SIS. Within a handful of years, there will be no source of plutonium for our defense. The success of the interveners and the bent of the politicians in Washington State will permanently
5.2.1 remove the Hanford Reservation as a defense production resource. The aging Savannah River reactors will be retired as well.

SIS represents a state of the art project for providing plutonium to replace these facilities. SIS also offers an economic boost to an area which strongly favors its purpose and location at INEL.

2.10 I am very concerned about the very vocal minority which wants unilateral nuclear disarmament for our country. This effort, which is fighting SIS regardless of location, receives far more coverage by the media, and as a result of the SIS siting process, far more of the hearing testimony time than their numbers justify. Additionally, the interveners are allowed to make statements without proof or justification to sway the public to their cause. Over the past twenty years, I have read and listened to many hours and pages of lies, distortions and half-truths from these groups.

184 It is up to you to provide an honest summation of the facts gleaned from the hearing process so that our national leaders can provide the concurrence necessary to commence SIS. I urge you to recommend INEL as the location for SIS, and that the project be expedited so that the aging Hanford and Savannah River reactors can be retired.

Respectfully,

Wallace G. Kellner

150

W185

Joan Fauci
759 S. Arthur Ave.
Pocatello, Id. 83204

March 28, 1988

1 - T. Hill
1 - File

Dr. Clay Nichols
785 DOE Place
Idaho Falls, Id. 83402

Dear Dr. Nichols,

1.1 This is my letter of testimony for the DEIS for the proposed SIS project. Please have this letter included. I will keep a backup copy just in case this letter is lost.

5.27.4.4 "My name is Joan Fauci and I represent myself. As a citizen of Southeastern Idaho I am very concerned about the possibility of the SIS project being located so close to where I live. (Actually I do not wish to see it become a reality at any location.) If the SIS does come to INEL, I will probably move to Utah.

4.13 I personally do not feel there is any need for the United States of America to produce any more nuclear weapons. We already have more than enough to wipe out the human race. It makes much more sense to use the money elsewhere. I do not want my tax dollars being spent on nuclear weapons that are not needed for National Security.

5.7.12 What training do any of our Firefighters and Rescue Crews have in the area of nuclear accidents? I do not believe our Emergency Response crews are well trained at containing nuclear accidents. Do they even have the proper clothing with which to protect themselves? I am most concerned about the possible

5.29.41 accidents that may occur on the highways and in rural communities. By the time trained Cleanup Crews can get there, the whole town, possibly even rivers, may be contaminated.

Something that I just learned about which also concerns me is the lack of an adequate storage container. None of the current containers have passed inspection/approval. That makes me question how safe it will be to transport this material.

5.12.1 The INEL plant is located directly above our local aquifer. There is always risk. If there was some kind of explosion, spill, or earthquake, the Snake River Aquifer could become unsafe forever. Idaho Power wants to raise their rates as it is now. If we do not have an aquifer, the rates will be exorbatant. With those kinds of prices, most Idahoans will probably not be able to afford water. Just another reason for people to leave the state."

Sincerely,
Joan Fauci
Joan Fauci

185

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W186

1 - T. Hill
1 - File

D.V.H. ENTERPRISES INC.
International Marketing

3-28-88

Mr. Clay Nichols,
Hearing Commissioner for D.O.E.
785 Doe Place
Idaho Falls. Id
83402

Mr. Nichols.

This is my letter of Support for No Action alternative, Not to 1.1
construct and operate the SIS project in Idaho.

Don't let us make this tragic mistake.

Sincerely,
David Heimbach

186

DAVID V.V. HEIMBACH P.O. Box 2762 Sun Valley, Idaho 83353 U.S.A.
Telephone: (208)726-8535 Telex 6974412-DVH-UW

W187

1-T. Hill
1-File

Dr. C. R. Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols,

1.1 I strongly support the Special Isotope Separation Project. I feel that the Draft Environmental Impact

2.1.1 Statement has satisfactorily addressed and provided answers to all questions and issues.

Sincerely,

Merle D. Jackson
1728 Claremont Lane
Idaho Falls, Idaho
83404-7455

RECEIVED
MAR 29 1988
SIS Project Office

187

W188

1-T. Hill
1-File

Mar. 4, 1988

To Mr. Clay Nichols,

Attached is a letter I wrote and sent to the Idaho State Journal. I am not a member of any opposition movement, but I am very much opposed to the construction of SIS anywhere — but especially in Idaho. 1.1

Please consider what I have to say. 5.30.3.8

We do not need 220 tons per year more radioactive waste. We don't need to produce such a deadly, dangerous thing — weapons, grade plutonium. 4.15.5

Sincerely,
K. L. Chaffee

188

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W189

1-T. Hill
1-File (Replies)

1001 N Sixteenth Street
Boise, ID. 83702
March 26, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Hearing

Subject: Special Isotope Separation Project

Of the alternatives considered in the Draft EIS, I urge you to select alternative (4) no action, or not constructing and operating SIS Project. 1.1

It appears that the project would be potentially dangerous to the environment, public health andsafty because of radiation exposure. The tables included in the impact study, fail to allay these concerns. 5.24.30

Ruth Herrington

Ruth Herrington

3.4 Thank you Marianne Donnelly for Sunday's quietly rational, well thought-out comments concerning the proposed SIS construction(ISJ,Mar.20, 1988). I have listened to both sides of this argument and have made my decision.

I became concerned about the seemingly instantaneous and automatic support given the SIS by the city fathers and the Chamber of Commerce at a time when leaders of great nations(ours included) and great religeous forces are assuring us that finally the time is right for talks on nuclear disarmament, saying all peoples of the earth must work to halt the nuclear arms race. Our own local politicians and some businessmen say its OK for now to ignore world politics and concerns, if it means a few jobs for a few years to the Southeast corner of the state of Idaho, USA. These leaders seem to be saying, "We want peace,sure, but not if it's inconvenient to us at the time. We'll think about the ramifications of the real issue later, when we've made our few dollars and can say we promoted a few jobs."

No one is opposed to more jobs, but are we so out of sinc as to want to promote the building of "fuel grade plutonium for nuclear weapons" as our answer to the unemployment problem?

5.27.7.3 Our local politicians and the Chamber seem to forget(or perhaps have not done their research) that there are many other ways to promote jobs at INEL. The federal government tells us that INEL is very elligible for many peaceful projects,the foremost of which is helping to solve the biggest problem facing

5.30.5.1 the Nuclear Age: how to dispose of nuclear waste without creating a potentially toxic environment. Solving this dilema would require more federal money, provide more jobs for a much longer period of time snd every nuclear nation in the world would be INEL's market. Tslk about broad based support!!

EVERY nation capable of using nuclear power seems to be faced with

5.30.3.1 this problem that becomes more critical and blatent every year:what to do with nuclear waste. No one wants a nuclear waste dump in their backyard, though some places lack the political power to stop such from happening to them.

INEL can be and indeed should be a world leader in pioneering more research to help solve this critical problem. INEL can continue to be a leader in the peaceful uses of nuclear research. This research would be for the long haul-long term benefits,jobs, incomes,fed dollars and economic stability for many years. As opposed to a few jobs for a few years, the old boom and bust cycle again.

Many Things I have learned from INEL promoters and workers and teachers of the sciences. I am not swayed by the cheer leading slogans of either side

5.27.10 of this issue. It is too serious to be treated like a homecomming parade. But after considerable thought, reading and listening to both sides in a reasonable manner, I have come to the conclusion that SIS is not good for Idaho... SIS is not good for the World.

K. Phillips
Pocatello, Idaho

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MAR 29 1988
SIS Project Office

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W190

Idaho State University
Pocatello, Idaho
83209-0009

Department of Economics

RECEIVED
MAR 1988
SIS Project Office

March 24, 1988

1-T. Hill
1-File
1-C.R.N

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho, 83402

Dear Mr. Nichols,

I was expecting a more thorough document than the DEIS I examined. My comments will be restricted to the socioeconomic aspects of the document and the general question of needs. My overall opinion of the draft is that it needs to be seriously overhauled. If the entire document is as poorly and inaccurately researched as are the few pages dealing with the socioeconomic impact of the SIS the document is fatally flawed and a new draft should be presented for public scrutiny. By consistently interpreting figures, without question, which best support the story that can be summarized "what DOE wants to do" the report is one of the most blatant examples of dishonest scholarship I have seen. Unless NUS prepared this DEIS free of charge for the DOE it makes the DOD $600 toilet seats look like a bargain.

In the remainder of this letter I will enumerate various issues which must be dealt with in the final EIS.

1. Need for (weapons grade) plutonium The need for weapons grade plutonium has not been documented. I refer you to page 67 of the March 14, 1988 Newsweek which states, among other things, "Now the nation is awash in plutonium."

2. Need for the SIS The stated arguments for building the SIS are: a) redundancy of production capacity, b) diversity of production technology, and c) timely response to potential increases in future demand. For a federal government with an annual deficit upwards of $150 billion the SIS built for the above reasons is a luxury that is not presently affordable. Construction of the SIS must be justified on some other basis. The most likely method of demonstrating the benefits of the SIS would entail a detailed explanation of the cost reductions associated with the operation of the SIS in addition to the costs of construction already included in the DEIS. The SIS project is justified only if the present discounted value of the project, present value of the future cost savings less present value of the cost of construction, is positive.

3. Why new construction? The DEIS does not make clear why new construction is needed since the anticipated operating lifespan of the project is but seven years. While not an option at the time of writing the DEIS, perhaps there is sufficient room at the now shut down Hanford site to locate the SIS laser facilities without significant construction and its associated costs.

4. Jobs The economic impacts of the SIS on eastern Idaho are overstated. The DEIS is to be commended for not suggesting that the SIS will lead to spin offs and increased employment opportunities as Idaho vendors supply parts and services for the machinery to be installed. Almost 40 years of the INEL have shown that Idaho vendors have yet to make a significant inroad in the provision of parts and materials for the INEL site projects and this fact is unlikely to change now. However, the employment outlook presented in the DEIS is overly rosy. The following points should be addressed:

a) The employment multiplier used (pages 4-3, 4-7) is too high. The multiplier cited was part of study assessing the economic impact of the INEL on eastern Idaho. Multipliers are generally constructed from historic, though recent, data. The numbers used in that study come from a time when expansion of the INEL necessitated expansion of facilities (i.e. housing, schools, retail outlets, etc.) in the six county area surrounding INEL. Such conditions no longer exist. Increased employment at the INEL from operation or construction of the SIS can readily be accomodated by existing facilities in the six county area, thus secondary employment will be far less than is indicated in the DEIS. Some adjustment to the multipliers used should be undertaken.

b) The direct job creation of the operation of the SIS is overstated. A significant number of individuals are already employed at the INEL site for SIS related projects. When (if) the SIS commences operation these individuals will become part of the operating personnel, thus new employment will be approximately half the stated figure of 440 (page 4-6). Employment at the SIS can not be analyzed in a vacuum. Rather one should look at employment at INEL. The SIS will add but few, if any, jobs to the total employment at INEL.

c) The EIS should address the types and quality of the secondary jobs to be created by the construction and operation of the SIS. If your employment figures are correct and the BEA, Bureau of Economic Analysis, income multipliers for Idaho are correct my calculations reveal that the secondary jobs created will provide an average salary approximately equal to the poverty level. This is hardly the type of job now needed in eastern Idaho. The EIS should further analyze the type and quality of jobs to be created, hopefully disproving the income figures I suggest.

5. Lifestyle/Moral Standards The DEIS fails to address the particular lifestyle chosen by residents of eastern Idaho. Many residents are here in spite of the lower salaries due

4.1
4.2.1
4.15.2
4.12
4.15.2
5.22.2
5.2.9
5.27.9.6
5.27.1.5
5.27.7.4
5.27.7.1

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2.7.2 to an appreciation of the high moral standards of the community. If the operating personnel in-migrating to the area possess moral standards below the average here, and it seems quite likely those persons who choose to work in a weapons production facility will have lower moral standards than the community as a whole, then the average moral standards of the community will fall. Having been near weapons test sites I can readily attest to the fact that "undesirable" elements are plainly present near such facilities. Eastern Idaho may no longer seem an attractive place to live for many families once moral standards fall. As a result either an exodus from the area or a demand for higher wages to compensate for the decrease in the areas quality of life may ensue. Either of these results will be detrimental to eastern Idaho. The EIS should address the likely impact on the moral standards of the community. Further a survey should be conducted to determine the likely outcome of a decline in community standards.

5.27.4.3 6. Migration Figures The in-migration from construction and operation will be more significant than reported in the DEIS (pages 4-2, 4-6 - 4-7). As a frame of reference the migration figures are compared to the average increase in population from 1970 to 1980. The chosen years, while they do have the advantage of the accuracy of census data, are a poor choice. The 1970's were a decade wherein the Idaho economy performed better than the United States as a whole. However, since 1980 the Idaho economy has performed significantly worse than the national economy. The six county area has in fact seen population decreases in several of the last few years.

5.22.4 7. Shut down The DEIS lacks any serious discussion of the effects of shutting down the facility after approximately seven years of operation. Areas that should be addressed in the EIS include but are not limited to the following.

5.5.2 a. The socioeconomic effects of shutting down the SIS should be analyzed.

b. The decommissioning costs presented in the DEIS (page 4-66) seem unrealistically low for clean up of the facility. The EIS should include estimates of the eventual costs to clean up the facility in a more thorough and comlete manner than is found in the DEIS. In fact, the present discounted value of these costs should be included when performing the calculations suggested in section 2.

5.22.2 c. It is not clear to me why, if built, the SIS would be shut down after 7 years operation. The EIS should expound on this as well. In some ways it seems DOE may have no intention of shutting down the SIS after seven years but is proposing this to avoid potential opposition to the project. A possible scenario would be that seven years exploits the stockpile of plutonium at Hanford. At that time, given the SIS has been in operation, DOE initiates shipments of plutonium from Savannah River to the INEL for processing into weapons grade plutonium. Obviously the risk associated with the transport of plutonium from SRP to INEL are much greater than the risk involved in transporting plutonium

5.22.5 from Hanford to INEL. I would like to see my fears allayed here as generally the DOE initially implements the most innocuous of its proposals and after gaining approval to operate increases the riskiness of the project. 5.1.39

8. Accidents While the likelihood and severity of accidents and the resulting contamination are addressed, the DEIS fails to assess the economic impacts on eastern Idaho from any major or minor accident. This must be remedied in the EIS. 2.11.10

9. Sloppy research While the DEIS is only a draft there are several errors that can only be attributed to sloppiness. One such example follows. When a research project is used and cited five times (pages 4-3, 4-7, RF-4) the name of the principal author should be spelled correctly (Hofman, not Hoffman).

10. Mission and purpose of INEL The SIS project appears to be inconsistent with the mission and purpose of INEL as stated on page 3-1. 3.3.1

Sincerely,

Charles Scott Benson

Charles Scott Benson Jr.

155

W191

1- CRN
1- T. Hill
1- File

25 March 1988

Marden R. King
623 Cleveland Street
Idaho Falls, Idaho 83401

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Sir:

2.3 I am writing to tell you what my feelings are concerning the proposed SIS project. I was at the hearings as they began in Idaho Falls today. I came to one conclusion after listening to the first hour and ten minutes of testimony. That conclusion is that there is a lot of information being given out, and I do not know who or what to believe.

I agree with the idea that more jobs would be good for Idaho, but what is the cost of those job? I am concerned over the claim that are flaws in the DEIS. Mr. Nichols, your own counsel (DOE'S) admitted that the disclaimer which is in both the Summary and the DEIS may be a mistake. If that is the case, how much can one rely on the DEIS?

4.1 One fact came out today that really was rather a shock to me. That is there seems to be some question as to whether or not we even need a facility to produce more plutonium. Can the facts concerning the actual needs for plutonium substantiate the necessity for building any SIS type facility whatsoever?

2.1.1 Another subject of concern to me, that was mentioned, is an apparent inconsistency between the dirth of information given in the DEIS and the realities of what the effects could be on Southeast Idaho in the event that a leak of rediation should be reported by the media. I might add this could even be an imaginary leak.

5.27.2 I also noted the report makes no mention as to how long the facility is expected to operate, and what the commissioning and decommissioning will do to the economy of Southeast Idaho.

I am concerned about the above matters. I am hopeful that we might somehow get the facts in this matter. I would appreciate any straight answers I can get on the above matters.

5.22.2 I would also appreciate, if possibls, a copy of the final EIS when it is completed.

RECEIVED
MAR 30 1988
SIS Project Office

Sincerely,

Marden R. King

Marden R. King

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156

W192

1- Tom Hill
1- File

March 29, 1988

RECEIVED
MAR 30 1988
SIS Project Office

Dear Mr. Nichols,

I wish to express my c[illegible] about the possibility of the SIS Project being constructed here in Idaho. I feel this poses a very unnecessary hazard to our state. I also feel there is no need to waste tax dollars to add to our supply of Weapon Grade Plutonium, especially in light of the N I F Treaty. Until there is a guaranteed safe way of producing, storing, transporting & disposing of this material it seem ridiculous to continue to produce it. Therefore, I am opposed to construction of the SIS Project anywhere in the United States. Please submit this for consideration in the DEIS.

5.24.30

4.3

5.24.25

1.1

Sincerely,
Janet Rosettter
4320 Libby St.
Boise, ID 83705

192

W193

1-Jon Hill
1-File

March 1988

RECEIVED
MAR 30 1988
SIS Project Office

Dr. Clay Nichols
SIS Project Mgr.
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, Id 83402

1.1 After careful consideration, I signed the pro SIS petition. The SIS project means continued jobs and chances for our community. Many of my customers are site workers, other businesses also benefit from the site.

Our community - the mayor, Chamber of Commerce, labor - is solidly behind the SIS.

4.15.4 I value our freedom and believe in negotiating a genuine peace through strength. SIS will be good for the nation.

Thunderbird Car Wash
Merlin Gifford
750 North 5th
Pocatello, Id 83201

193

157

W194

1-Jon Hill
1-File

INSURANCE
TRAVEL
BANK CARDS

On...wis Clark Plaza
P.O. Box 538, Lewiston, ID 83501
(208) 799-9000

RECEIVED
MAR 30 1988
SIS Project Office

AVA SERVICES CORPORATION

March 25, 1988

Dr. Clay Nichols
Idaho Operations Officer
U.S. Department of Energy
75 DOE Place
Idaho Falls, ID 83402

Re: SIS Project at the Idaho
National Engineering Laboratory

Dear Mr. Nichols:

Although we are located over 250 miles away from Idaho Falls, we strongly support locating the Special Isotope Separation Project in Idaho Falls, at the Idaho National Engineering Laboratory. The project is necessary for the defense needs of the country; the site is preferred by many experts; and the location is politically acceptable and economically beneficial to citizens of this state. 1.1

We in Idaho are serious about economic diversification, economic expansion and developing a more stable revenue employment base in the state. This SIS project promises to attract additional industrial and educational spin-offs for the state of Idaho and surrounding states and provides Idaho an opportunity to share in the expenditures of the Department of Defense over the next several years. 5.27.9.1 3.2.7

The Idaho Falls reservation area provides the ideal location and infrastructure for this needed project. Safety precautions are above the Department of Energy's standards and the risk of radiation during normal operation is virtually nil. None of the waste of the project will be in liquid form so there is virtually no risk to any population in the event of accidents relating to the use of the plant or during transportation of materials to and from the site. Those who oppose the location, a very tiny, but vocal minority, are really opposed to the project itself and do not understand the defense needs of this country. 5.28.2 2.10

I, this firm, and the people of Lewiston support the location of the SIS project at the Idaho National Engineering Laboratory.

Sincerely,

R. John Taylor

RJT/br

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W195

1-Tom Hill
1-File

RECEIVED
MAR 30 1988
SIS Project Office

Robert K. Sherwood
Environmental Consultant
P.O. Box 2702
Idaho Falls, Idaho 83403
208-529-8319

SUBJECT: Draft Environmental Impact Statement, Special Isotope Separation project.

Clay Nichole
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

The DEIS does not adequately address waste disposal from the resulting from SIS operation. There is not currently available an acceptably designed shipping cask.

5.30.2.1 Adequate disposal facilities are not presently available for TRU wastes. There is no postulated alternative to the as yet unconstructed Waste Isolation Project in New Mexico.

Safe transportation of plutonium and waste from conversion processes are not guaranteed.

5.29.97 Support for the position that operating impacts and accident impacts are fully controllable and public safety guaranteed thereby is based on oncomplete data.

5.1.2 The DEIS does not adequately address local economic impacts resulting from construction and operation of the SIS. It implies a prosperity that it will not deliver to the area and makes no mention of the detriment imposed on those in the area not employed by the facility or in its construction.

5.27.11 A strong position is made for the absolute safety regualtion under which this monster is to be operated. No chance of accident, we are told. Yet one of the justifications offered for constructing it at the INEL instead of at Hanford is that less life is here to be lost in case ofaccident. I

6.5.1 urge you, consider quality rather than quantity in this case, and build the SIS elsewhere. Hanford is a far more logical choice of construction site.

5.31.12 I join the others in protest of building this facility anywhere, and doubly protest its construction in the State of Idaho.

1.1

Sincerely,
Robert K. Sherwood
Robert K. Sherwood

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W196

1-Tom Hill
1-FILE

RECEIVED
MAR 30 1988
SIS Project Office

March 26, 1988

Dr. Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

Dear D. Nichols,

I am very distrubed at the proposal to ship tons of plutonium feedstock from Hanford to INEL in Idaho to fuel a plutonium refining (SIS). These shipments will go through my home town of LaGrande, Oregon which sits astride Interstate 84 and I-5. Both the railway and railroad industries have appalling records of mishaps in this area. The railroad has a record of derailments including a recent one in the rail yards in the center of LaGrande! Local Oregon and Oregon forest service officials are extremely concerned as the track bisects sections of I-5 in the winter. Truck accidents on slick roads are very frequent occurences. The odds of a major accident in the vicinity of LaGrande are so great I sincerely consider shipping plutonium through there on a regular basis.

5.29.63

I do not see how the SIS can be justified in the first place. The U.S. has adequate stockpiles of weapons grade plutonium especially in light of recent nuclear arms agreement. If a plant has to be built, I think Hanford is the only logical choice.

4.15.5

DOE has a poor record of safe operations. Serious contamination problems exist at Hanford, Savannah River, Rocky Flats, Fernald, Los Alamos, Oak Ridge, and Livermore. I do not have the confidence

1.1

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5.29.87

I believe that DOE can ship tons of plutonium through the Blue Mountains of northeast Oregon without serious risk of a catastrophic accident.

I request that this letter being entered into the public record of hearings for the DEIS for the SIS project.

Sincerely,

Mark Daugherty
9003 E. Fir
La Grande, Or. 97850

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1-TOM HILL
1-FILE

Dear Sirs:

Let me start by saying I am 100% in FAVOR of the SIS. All this bull people hear on TV about nuclear waste is just that bull. Nuclear waste would be handled in a safe & cheaper way than nuclear reactor waste because the process does not involve nuclear reaction. All of the negative talk & money about the SIS is coming from outside of the State of Idaho.

1.1
5.30.5.10

Its about time Idaho got out of the dark ages. Its the working people of Idaho that support the State & pay taxes not farmers. Its time the State of Idaho understands the people who work for wages support all types of business. The SIS is just one thing that can provide our children the opportunity to stay & work in Idaho.

2.10

5.27.4.5

The INEL in Construction, Operations & Production Employees have produced safety statistics which are superior to the National Averages. The positive effect of the SIS in our State will provide business opportunities educational studies, and jobs the Idaho workers need. Also a sizable tax base.

3.2.7

PLEASE SAY YES TO SIS.
GO FOR IDAHO.

Thanks You
Carl Loney
McCammon, Idaho
83250

196A

W198

W199

1-TOM HILL
1- FILE

Box 418
Bellevue, Idaho
March 23, 1988

RECEIVED
MAR 30 1988
SIS Project Office

Dr. Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, Idaho

LETTER DELETED AT AUTHOR'S REQUEST

Dear Dr. Nichols:

1.1 We would like to add our names to the list of people who are against building the SIS in Idaho. I was born in Idaho and have lived here most of my life. My children were born here and I did import my husband from California 25 years ago.

6.1.2 We feel that the quality of life in Idaho and the world is threatened by the building of these facilities. Our only hope for our children is PEACE. The radioactive vapors, the radioactive waste, the hazardous waste and the transportation of plutonium through Idaho put this beautiful state and it's good people at risk.

I also feel that we do not have enough information at this time and that there is too much secretiveness.

2.6.1 The job opportunites must be considered, but I think that our future is in tourism and the jobs it will bring. Idaho will not be desirable should there be another "accident".

5.1.42 Can we afford to take all these chances?

Yours truly,

Sharon Parker

Sharon Parker

Jack Parker

Jill Parker

Sam Parker

Sam Parker

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W200

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MAR 30 1988
SIS Project Office

THOMAS C. DROUGAS

P.O. Box 1596
Sun Valley, Idaho 83353

1-Tom Hill
1-File

March 29, 1988

Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 Please add this letter to those opposing the proposed installation of the SIS plant at INEL. As the Secretary-Treasurer of the Ketchum/ Sun Valley Chamber of Commerce, I share the opinion of most of the business people in this
5.27.3.4 area that the SIS plant would be detrimental to the tourist business in Idaho, as well as a potential threat to the agricultural business in the state.

Further, I do not feel the DOE has adequately addressed the issue of need for more plutonium, particularly within the context of the INF agreement and the likelyhood
4.3 of a START agreement forthcoming this summer.

Sincerely,

Thomas C. Drougas

W201

BOISE STATE UNIVERSITY • 1910 UNIVERSITY DRIVE • BOISE, IDAHO 83725

1-Tom Hill
1-File

RECEIVED
MAR 30 1988
SIS Project Office

March 27, 1988

Dr. Clayton R. Nichols, Acting Project Mgr.
SIS Project Office
DOE, Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I am engaged in sociological research on the nuclear weapons debate in Idaho and you are in a position to facilitate my work.

I understand that transcriptions of testimony delivered to the SIS EIS scoping hearings delivered around the state last March 1987 are available for review upon request. Would you please forward a complete set to me? 2.8.11

I would also appreciate receiving a copy of the transcripts of the current SIS DEIS testimony when available. Would you please forward a complete set as soon as possible?

I might also be able to use the videotapes DOE has collected on these two sets of hearings. Are copies available?

Your support in this project would be greatly appreciated. Please advise.

Sincerely Yours,

MICHAEL J. BLAIN
ASSOC. PROF. OF SOCIOLOGY
DEPARTMENT OF SOCIOLOGY

W202

1-Tom Hill
1- FILE

March 23, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

1.1 My name is Bryce D. Jolley and I live at 791 East 600 North Firth, Idaho. I am employed at Harper-Leavitt Engineering, Inc. and have lived in Idaho for 33 years.

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

Very truly yours,

Bryce D. Jolley

Bryce D. Jolley, L.S.

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MAR 25 1988
SIS Project Office

W203

1-TOM HILL
1- FILE

March 23, 1988

Dr. Clay Nichols
U.S. Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

As per your request, I am submitting my testimony on the SIS project in writing due to the overload of people offering testimony and the shortage of time. 1.1

I strongly support the SIS project at the INEL. It will mean an influx of jobs and stabilize our economy. It will also keep the INEL on the cutting edge of technology and preserve our future in the area of research and development. 5.24.23

As a life-long resident of Idaho, I feel that the INEL has had a very safe record, and I am not afraid of the claims of some that bringing this project to Idaho will endanger our future. My future is endangered everytime I drive my car to a much larger degree than it will be with the SIS project!

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, and equally important, a brighter future for our families through better educational opportunities. The advantages of bringing SIS to Idaho far outweigh any possible disadvantages that have been discussed. 5.27.7.16

I work in Pocatello and live in Blackfoot and I see a much needed stronger economic base for both communities if the SIS project is brought to the INEL. The question is not will there be an SIS, but where it will be located. I strongly support YES! YES! SIS for the INEL! 6.2

Sincerely yours,

Larrie Thorne

Larrie Thorne
755 N. Main
Pocatello, ID 83201

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MAR 25 1988
SIS Project Office

W204

#204 1-TOM HILL
1-FILE

3701 Crescent Rim Dr #104
Boise, Idaho 83706
3-23-88

Dear Dr. Nichols and Staff,

While I heartily applaud and support basic research, I feel we do NOT need to spend billions for bombs-overkill-at any stage, and accordingly oppose the Special Isotope Separator. We do need to spend dollars and energies to save our social fabric, we improve our schools, do basic research, keep clean water and quality survival for all. NO SIS Space or other Research YES. Sincerely

Marjorie D. Brickenden

4.13

1.1

Q04A

W205

1-Tom Hill
1-File

3-20-88

Dear Sirs,

my family and I are very much against the SIS Project in Idaho. We will be very upset if this project is allowed to be constructed.

1.1

Thank you,
John & Jane McGrew
Hailey, Id

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MAR 25 1988
SIS Project Office

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W206

1- Tom Hill
1- File

STEPHAN, SLAVIN, KVANVIG & GREENWOOD
ATTORNEYS AT LAW

FRANK L. STEPHAN 1886-1952
DANIEL A. SLAVIN 1936-1987

ROBERT W. STEPHAN
RUSSELL G. KVANVIG
RICHARD D. GREENWOOD
LAIRD B. STONE

TWIN FALLS BANK AND TRUST CO. BUILDING
TWIN FALLS, IDAHO 83303-0083
P. O. Box 83
TELEPHONE 208/733-2722

OFFICE ADMINISTRATOR
ESTHER BOPP

March 24, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Re: SIS Project

Dear Dr. Nichols:

1.1 As a resident of the State of Idaho and a member of the Twin Falls Chamber of Commerce I am 100% in favor of locating the Special Isotope Separation Project (SIS) at the I.N.E.L. site. I do so based on the following information:

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3.2.2 1. For nearly 40 years, the I.N.E.L. has been an important asset for Idaho, ranking as one of the state's larges and steadiest employers and a national leader in technological advancement. It deserves the support of business and the citizenry for its contributions to the economy and our tax structure.

5.27.6.1 2. The proposed SIS Project will add more jobs, new taxes, and new educational opportunities to our state at a critical time. Our agriculture-based economy remains depressed and the infusion of the construction dollars plus the 800 new jobs and annual operating expenditures of $50 million will come at a most opportune time. It will also provide Idahoans the opportunity to prove that we are serious about economic diversification and the development of a more stable revenue and employment base.

3. Additional economic benefits include the possibility of many industrial and educational spin offs, a share of national defense expenditures, the trickle-down effect of the creation of more than a thousand projected support jobs, and the slowing down of: (a) population loss; (b) a diminishing tax base; and (c) the failure to provide our children the opportunity to stay and work in Idaho.

Sincerely yours,

STEPHAN, SLAVIN, KVANVIG & GREENWOOD

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Russell G. Kvanvig

Russell G. Kvanvig

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MAR 25 1988
SIS Project Office

RGK:dmg

cc: Senator James McClure

W207

1- Tom Hill
1- File

BETSY ALBINSON
Manager

NAMPA CHAMBER OF COMMERCE
P.O. Box A
Nampa, Idaho 83651

THE CHAMBER

March 22, 1988

To: Dr. Clay Nichols, Idaho Operations Office
U.S. Department of Energy

From: The Board of Directors and general membership of the Nampa Chamber of Commerce

Re: Support of the Idaho National Engineering Laboratory (I.N.E.L.) Special Isotope Separation (S.I.S.) Project

The Nampa Chamber of Commerce Board of Directors went on record June 3rd of 1987 in unanimous support of the Special Isotope Separation (S.I.S.) Project being located at the Idaho National Engineering Laboratory in Idaho Falls, Idaho. 1.1

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W208

1-Tom Hall
1-File

March 24, 1988

Dear Dr. Nichols:

1.1 6.2 This letter is a statement of my opposition to the proposed SIS program at the INEL. It seems to me that when one takes a long-range view of this project, there are few benefits and many, many negatives. I have tried to follow the stories about the SIS and to become as well informed as possible for a layman, but also a citizen. My opposition seems to come down to scientific, financial, and moral grounds.

5.27.2 5.30.4.12 First, the scientific. Plutonium is a heavy duty health hazard. Any kind of accident would be a major disaster. Such could occur on the site or on the truck routes bringing in the raw materials. If any plutonium leaked into the Aquifer, the leak would affect communities all the way to the Pacific Ocean. And a spill along the highways could affect any number of cities in our state. Recently there has been talk of adding the INEL site to the Super Fund. So it does seem that there already exists a problem even before this new project begins. I also have the fear that Idaho will become a long-range disposal site, given the problems with the New Mexico caverns. In a nutshell, the scientific risks are more than I care to risk.

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5.30.2.5 4.13 4.3 6.3 Second, the financial. We are talking about at least $1 billion. Surely our budget problems are so serious that every cent needs to be spent wisely. We already have 27,000 nuclear warheads, when only 200 at the most would do a 100% job on this planet. We also have 100 metric tons in storage. Add to these numbers the plutonium freed up when the European missiles are brought home. And now this morning it looks as if we can reach another treaty on long-range missiles, perhaps up to another 50% cut. It was reported in the newspaper recently that a government official figured that the country already has plenty of plutonium. These facts seem to add up to a pretty good case to cancel the entire plan and spend the money where it is really needed. Also, I realize the short-run benefits to the Idaho economy. There will be construction money and some jobs. I believe you said yourself, however, that we are talking about only 250-300 new positions and a project life of merely 8 years. I just cannot see the absolutely vital benefit to our economy in this state.

6.2 4.13 3.3.1 Third, the moral. We seem to be entering an era of cooperation with the Soviet Union. We have concluded one treaty and begun another. Our top officials are talking directly on a daily basis. Surely one of the benefits of this new spirit is a chance to re-evaluate our military spending. I am not saying to completely disarm or do anything crazy, but just consider whether major new programs are still needed. I think it is way past time to try a bit more trusting approach to the world scene. The INEL was built to conduct peaceful nuclear research, and now you want to convert it into a bomb factory. I do not want my home state to become involved in weapons production. It is obvious to me that 40 years of the arms race have produced no lasting peace. I would support scaling back on new facilities and trying a new approach. Nuclear weapons clearly are immoral. It is very sad they are needed at all. But President Reagan in the past months seems to be determined to bring some control to the madness. And now, just when we have new treaties, it is proposed to spend all this money on a new bomb factory. Somewhere our priorities have gotten crossed. For many years after the founding of our beloved country, we held the moral high ground throughout the world. Sadly, we no longer do. We may well be better than some or even better than most, but I want us to be again The Best. This project provides a chance to exert moral leadership and just, say no!

208A

Dr. Nichols, thank you for the chance to testify. This proposal concerns me very deeply, as it does all kinds of folks. It really is not a political issue. Idaho should not trade its moral conscience for a handful of new jobs. We can bring clean industry to this state, as the recent Micron decision proved. But I not only do not want the SIS in this state, I do not want it built anywhere. It is wrong for scientific, financial, and moral reasons.

Sincerely,

Philip S. Nicholson

Philip Sinclair Nicholson, B.S., MBA, Ph.D.

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MAR 25 1988
SIS Project Office

W209

1-Tom Hill
1-File

IDAHO BUILDING CONTRACTORS ASSOCIATION

11120 Executive Dr. Boise, Idaho 83704 (208) 377-3552

March 15, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RE: SPECIAL ISOTOPE SEPARATOR (SIS)

The Idaho Building Contractors Association supports location of the Special Isotope Separator at the Idaho National Engineering Laboratory in Idaho Falls, because of:

1. The remoteness and security of the site;
2. Economy of operation because of reactor work done at the INEL site;
3. Quality of the INEL work force; and
4. Construction and operation of SIS will create more jobs for Idaho.

Idaho Building Contractors Association has over 850 members statewide made up of light commercial and residential builders/developers, subcontractors, manufacturers, suppliers, financial institutions and realty companies.

Art Elliott
President

cjs

ART ELLIOTT, President
STEVEN L. BOUSELL, 1st Vice President
REG DORSE, Vice President-Treasurer
LARRY TURPEN, Vice President-Secretary
LYLE F. FRAZIER, Immediate Past President
CARL MIZELL, Associate Vice President
CHARLES CLIPTON, Associate Vice President
JERRY NEMEC, Regional Representative
KRISTEN MITCHELL, Local Association Director
PAUL R. FUREY, Executive Director

Affiliated with

1.1

5.27.6.1

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"Building For The Quality of Life"

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MAR 25 1988
SIS Project Office

W210

1-Tom Hill
1-File

Patti & Jim Moran
414 Resseguie
Boise, Id.
83702

Dr. Clay Nichols
U.S. Dept. of Energy

Dr. Nichols,

We are unable to attend the hearings on Sat. concerning the S.I.S. but wanted our input to reach you. 1.1

We are very much against locating the S.I.S. in Idaho or anywhere for that matter. To begin with there are more weapons stockpiled in this country and the world than anyone could possibly need and which could destroy the world many times over. We need to start getting rid of what we have not making more. 4.13

Next, there are many, many other ways that the money could be spent, which is earmarked for the S.I.S., which could create jobs for Idahoans and Americans. We don't want Idaho to be

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identified with the creation of substances used only for destruction and death. Give us clean, socially responsible industry.

Last, no one who is really being honest or has any intelligence really believes that producing these substances is ecologically safe for the environment or the human race. The long range impact of any accident or problem with the S.I.S. is beyond imagination.

6.1.1

These are only a sample in minimal detail of the reasons we oppose the S.I.S. Morally, ecologically, and economically we feel ~~out~~ this is a bad project. Please listen with an open mind to those who are opposed.

Patte + Jim Moran
Boise, Id.

210A

167

W211

1-Tom Hill
1-File

March 23, 1988

Mr. Clay Nichols
Idaho OperationsOffice
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

My name is Frank Sykes and I live at 189 Doud Street Blackfoot, Idaho. I am employed at Harper-Leavitt Engineering,Inc., and have lived in Idaho for ten years. 1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL. 4.15.4

Very truly yours,

Frank Sykes

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RECEIVED
MAR 25 1988
SIS Project Office

W212

1- Tom Hill
1- File

Dennis O. Donnelly
56 Tulane Avenue
Pocatello, ID 83201

March 20, 1988

Mr. Clayton R. Nichols
Acting Project Manager
United States Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

Enclosed are my comments on the Draft Environmental Impact Statement, Special Isotope Separation Project. I hope and expect that the final version of this document will respond formally to each issue which I discuss.

Sincerely,

Dennis O. Donnelly

Dennis O. Donnelly

Statement of: Dennis O. Donnelly
56 Tulane Avenue
Pocatello Idaho 83201

This commentary will be arranged in three parts. First, I point out two major inconsistencies in the information presented, and ask you to resolve these. Second, I will again discuss the issues I raised at the scoping meeting in February, 1987, and will ask you to address these in the final document. Third, I will comment on this draft EIS in general.

I. Major inconsistencies

On page 2-41, you state the atmospheric emissions of plutonium from routine operations will be less than 14,000 microcuries per year. On page 4-12, you state the routine atmospheric emissions of plutonium will be 0.14 microcuries per year. There is a factor of a million difference between these estimates. 2.11.9

On page 2-47, you state that less than 220 metric tons of transuranic wastes will be routinely generated by SIS operation. On page 4-15, however, you state that the maximum transuranic wastes will be 440 tons per year. There is a factor of two discrepancy between these estimates. 5.30.1.12

I ask that you resolve these inconsistencies and also provide enough background on how these numbers are generated that the public has good assurance that you are not just plucking numbers out of the air. Also, the different units of measure used are confusing. You should list both the weight and the radioactive content of these waste streams. 2.1.1

II. My comments from the scoping meeting.

The Department of Energy held a public meeting to consider the scope of this Environmental Impact Statement in February, 1987. I presented formal commentary at that meeting. I have a letter from Mr. Carl Gertz stating "Your comments to date, along with those from other interested parties and from the public scoping hearings, will be given due consideration in the EIS process as DOE complies with the National Environmental Policy Act."

That sounds very responsible. This draft EIS, however, ignores almost totally the issues that I requested it to include. Since these issues are directly related to the environmental impacts of the proposed plant, I again request that these issues be discussed, in detail, in the final version of the document. If you are not prepared to do this, I suggest this EIS be withdrawn as inexcusably incomplete. 2.13.4

At the scoping meeting, I said: "Given that this plant has the potential for a great deal of radioactive material to be shipped to INEL, I feel that the EIS should carefully assess the radiological inventory of shipments to be expected over the life of this plant. Expected efficiencies of product recovery should be stated, and both product and 5.8.10

212A

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5.29.35 wastes should be assessed as to their fate in the environment... ."

2.13.4 Nowhere in this EIS can I discover how much plutonium this plant is going to bring to Idaho, in total. Nowhere can I find how much plutonium this plant is going to leave in Idaho, or ship out as product for the military to disperse worldwide, or ship out as packaged waste to the WIPP facility. Instead, I hear disturbing rumors of water entering the WIPP facility which would threaten to leave all your plutonium right over our aquifer. Is this so? In this event, the EIS should address the leaching of the plutonium long after the concrete buildings out there have crumbled.

5.30.2.5 To your credit, you did treat the combination of a plutonium fire with total filter bank failure, which I had requested. T here is another consequence which you should discuss. A serious accident of this type would have the real economic effect of ruining the marketability of our agricultural products. If "Famous Potatoes" can become known as "Famous Hot Potatoes" then you should discuss this fairly.

5.27.2 At the scoping hearing, I said: "Given the volcanic nature of INEL and Hanford sites, and our inability to predict the resumption of active vulcanism, I feel that all product and waste radionuclides should be shipped somewhere where they can be safely disposed." This EIS mentions on page 3-11 that explosive eruptions are possible at INEL, but aside from noting that fact, does nothing to consider the consequences of such an event or to respond rationally to such a threat.

5.10.21 I demand serious treatment of this issue. This is, after all, the reason why INEL cannot be considered as a nuclear waste disposal site-- and yet you keep sending more radioactive wastes here, and planning to add to the existing flow.

5.30.2.1 At the scoping meeting, I said: "I particularly question the DOE's past practice of partitioning the wastes into "transuranic" and "nontransuranic" categories, then leaving the "nontransuranic" wastes forever at INEL despite [their content of] significant inventories of transuranic nuclides. I feel this practice should be reassessed and its scientific justification carefully explained by this EIS."

5.30.1.18 Instead of reassessing and explaining the justification of this partitioning, this draft EIS has actually raised the partition-limit, from ten nanocuries per gram to a hundred nanocuries per gram, since the original INEL waste management EIS, ERDA-1536, was issued. This little change will have the practical consequence that a great deal more of your wastes will get left behind in Idaho than would have been the case if ERDA-1536 rules were followed. How much plutonium does this plant and this plan propose to leave here in Idaho? I demand

2.1.4 that this EIS answer this question clearly, both in pounds and in curies. Then this EIS has the clear duty to discuss the environmental impacts of this course of action.

5.30.1.14 Do not forget the famous promise, quoted in ERDA 1536, by the chairman of the Atomic Energy Commission to Idaho's Senator Church and Governor Andrus. This promised to remove the nuclear wastes, all of them, from INEL. This EIS should discuss the performance under this promise.

At the scoping meeting, I noted that the purpose of the SIS plant is the production of the ingredients for nuclear weapons. I therefore asked that this EIS assess the environmental effects, both locally and globally, of the actual wartime use of the weapons for which this plant is designed. The potential environmental effects of such an event are so serious that you cannot avoid the issue in this EIS. 2.7.8

At the scoping meeting, my closing remark was to note the polite assumption at INEL that these weapons will never fly. I requested then and request now that you consider your work in the absence of such an assumption.

III. Comments on this draft document. 2.1.1

This document is not just incomplete-- it carries the concept of stonewalling to new heights. In addition to the dodging of the major issues mentioned above, even simple questions are obscured, such as "How deep will the design-base flood be when the Mackay Dam lets go?", "How high are you going to raise the whole plant to avoid this?", "Where are you going to take the soil from to do this?". You should clarify these incomplete thoughts in this document. 5.8.7

To support some minimal level of rationale in the Department of Energy's decisionmaking process, this document should note factually that since the volcanic, seismic, and flood threats are much less at the Hanford site, and the plutonium is already there to begin with, it therefore appears wise to refine the plutonium there, if at all. 5.10.17

Finally, I feel strongly that you should publish the content of comments from public officials and the public, as has been the practice of past Environmental Impact Statements... not just the names of people who submitted comments. You should then respond fully and professionally to the issues and concerns raised. 1.1 2.10

W213

1- T. Hill
1- File

DICK SHOTWELL
546 Grandview Drive North
Twin Falls, Idaho 83301

To: Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Subj: Testimony On SIS Project

Dear Mr. Nichols,

1.1 I am in favor of locating the Special Isotope Separation project at the INEL site in Idaho.

5.27.12.3 Even though the economic impact on the Magic Valley area would be minimal compared to the eastern Idaho area, I believe we will experience some of the benefits from the project. History has shown that since it's beginnings in Idaho, the "site", now known as the INEL, has had significant and positive economic impact on the state.

4.15.5 I do not think that the production of nuclear weapons should continue. In fact, I firmly believe that nuclear weapons reduction must occur if the world population is to ultimately survive. But until nuclear weapons reduction agreements are in place and working, we have no choice but to properly fuel those weapons. Since that must be done, let Idaho reap the economic

5.27.9.1 benefits of the fuel production. Further, I believe that there will be spinoffs from this project that will lend additional and future economic growth to Idaho.

3.2.27 Without doubt, we must insist that every safeguard known now and developed during construction, be applied to this project. We must leave nothing to chance, in spite of possible additional cost, in protecting our fragile environment. The design and construction phase must be monitored by experts not associated with the project to be sure that the citizens of the state and our environment are protected. I am confident that this can be accomplished.

Let's move ahead with the SIS in an intelligent, informed and unemotional manner.

Dick Shotwell

RECEIVED
MAR 30 1988
SIS Project Office

213

I70

W214

1- T. Hill
1- File

Suggested format for written or oral testimony at the SIS hearings:

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is LARRY E PIZER and I live at 2385 So Blvd Idaho Falls, Idaho. I am employed at INEL and have lived in Idaho for 51 years.

1.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

5.27.6.1

4.15.4

Very truly yours,

Signed

RECEIVED
MAR 16 1988
SIS Project Office

214

W215

1-T Hill
1-File

Suggested format for written or oral testimony at the SIS hearings:

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 My name is GEORGE J BRUHA and I live at 4365 Lincoln Rd, Idaho Falls, Idaho. I am employed at ICPP and have lived in Idaho for 21 years.

5.27.6.1

The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

4.15.4

Very truly yours,

Signed

RECEIVED
MAR 16 1988
SIS Project Office

215

W216

1-T. Hill
1-File

ROBERT J. LANE
PRESIDENT AND CHIEF EXECUTIVE OFFICER

March 16, 1988

Dr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear. Dr. Nichols:

I would like to express both my personal and corporate support for the location of the Special Isotope Separator at the INEL Site. 1.1

It goes without saying that Idaho needs to look for additional ways of broadening its resource-based economy. All of Idaho business regards further development of the INEL facility, for such uses as the SIS project, as being clearly in the best interests of our economy as well as our ecology. At the same time, the existing resources and economic justifications for the INEL location are clearly evident and should help further solidify the decision. 5.27.6.1

We believe you'll find the business community and the citizens of Idaho supportive and 100% behind the selection of Idaho as the "right choice."

Thank you for the opportunity to express our commitment.

Sincerely,

Robert J. Lane
President & CEO-IFNB

RJL:dsk

RECEIVED
MAR 17 1988
SIS Project Office

216

THE IDAHO FIRST NATIONAL BANK • ADMINISTRATIVE OFFICES • P.O. BOX 8247 • BOISE, IDAHO 83733
AFFILIATE OF MCORE FINANCIAL GROUP

171

W217

1- T. Hall
1- File

INTERMOUNTAIN FILM PRODUCTIONS

15 March 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Re: SIS Project

Dear Sir:

4.15.4 This purpose of this letter is to express support for the Special Isotope Separation Project at the Idaho National Engineering Laboratory.

The production of weapon-grade plutonium is a must if our nation is to provide and maintain a strong national defense.

1.1 After review of "Executive Summary from the Draft Environmental Impact Statement - DOE/EIS-0136" it appears that the best location for the SIS Project is in Idaho.

In as much as it will not be possible for me to attend the up coming hearings, please enter this support on my behalf.

Regards,

Paul Jenkins
Producer

PJ/lj

RECEIVED
MAR 17 1988
SIS Project Office

217

Route 1, Box 453 • 2895 North Ammon • Idaho Falls, Idaho 83401 • Phone (208)529-2588

W218

SEXTY'S JEWELERS • 901 WEST BANNOCK STREET • BOX 2792 • BOISE, IDAHO 83701-2792

SEXTY'S
208/336-3410

1- T. Hall
1- File

March 16, 1988

Dr. Clay Nichols
Idaho Operation Office
U.S. D.O.E.
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Please enter my name as one who totally supports the location at the INEL site of the Special Isotope Separation Project. 1.1

In spite of the various arguments against the project, it is obvious to me that the project is vitally needed, and will most certainly be built - and Idaho is obviously the right place to build it. 4.15.4

I hesitate to think what Idaho would be like now, if we had not had the INEL projects for the past 40 plus years, to boost our economy and benefit our State. The SIS project would continue on in that same vein. 5.27.12.4

I'm for it.

Sincerely,

Jay Robinson

RECEIVED
MAR 17 1988
SIS Project Office

218

MEMBER AMERICAN GEM SOCIETY

172

W219

P.O. BOX 1587
KETCHUM, IDAHO 83340

1- T. Hill
1- File

March 15, 1988

Mr. Clay Nichols
785 Doe Pl.
Idaho Falls, ID. 83402

Dear Mr. Nichols:

Your name was given to me over the phone since I cannot attend the March 28 hearing.

Would you please be kind enough to have my testimony included in the hearing record. It is enclosed.

Thank you.

Sincerely,

Hildegard R.

Hildegard Raeber

P.O. BOX 1587
KETCHUM, IDAHO 83340

1- T Hill
1- File

March 15, 1988

RE: SIS

May I please submit my written testimony before the SIS Hearing March 18, 1988 in Idaho Falls. 1.1

I am vehemently opposed to the production of weapongrade plutonium for warheads. 4.13

Reason: We don't need more warheads.

Plutonium is highly toxic and remains deadly for thousands of years. 5.24.27

We don't need this danger here in Idaho nor anywhere else in our country or anywhere else in the world.

To give the INEL the green light for this project would severely jeopardize our legacy to our children and all future generations which is already questionable. 6.5.5

Thank you for your attention.

Sincerely,

Hildegard Raeber

Hildegard Raeber

W220

1- T. Hill
1- File

Melissa H. Hixon
Post Office Box 697
Sun Valley, Idaho 83353

March 15, 1988

Dr. Clay Nichols
U.S. Department of Energy
Idaho Operations Office
785 Doe Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1 I am horified by the proposed Special Isotope Separation facility for the refinement of plutonium at the Idaho National Engineering Laboratory.

4.15.4 I feel that this proposal is behind the times, unnecessary, and a slap in the face of common sense! This proposed burden to taxpayers would also pose a great danger to our treasured Idaho environment.

6.1.1 Sincerely yours,

A Registered Voter

Melissa H. Hixon

MHH/jlg

★ For the hearing record ★

RECEIVED
MAR 17 1988
SIS Project Office

220

174

W221

1- ~~CEH~~ T. Hill
1- File

HIGGINS AND RUTLEDGE INSURANCE

Quinn Office Building
1661 Shoreline Drive
Suite One Hundred
P.O. Box 8567
Boise, Idaho 83707
(208) 343-7741

March 15, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Sir:

We wish to expreaa our full support of the Special Isotope Separation Project (SIS) at the Idaho INEL site. 1.1

Our State has a great need for additional economic diversification and economic expansion which in turn develops more employment and will increase our tax base.

We are gifted with a State of large areas devoted to Forestry, Agriculture and Mining. As we all know, these industries are experiencing depressed markets and no growth and can no longer support the needs of the State. 5.27.6.1

This project is indeed very important to the State of Idaho and to us as a part of the business community.

Very truly yours,

Bert Higgins

HIGGINS & RUTLEDGE INS., INC.

HLH:ld

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MAR 17 1988
SIS Project Office

221

W222

1 - ~~T. Hill~~
- File

REALTY WORLD TRI-STAR
966 LINCOLN ROAD
IDAHO FALLS, IDAHO 83401

REALTY WORLD TRI-STAR
966 LINCOLN ROAD
IDAHO FALLS, IDAHO 83401

REALTY WORLD TRI-STAR
966 LINCOLN ROAD
IDAHO FALLS, IDAHO 83401

3/15/88

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

5.24.23 In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now know as INEL.

5.27.9.1 5.27.6.1 We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, environment, and personal well-being.

Not only would the establishment of the SIS program at INEL keep this laboratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be 5.27.15.1 derived personally, as a community, as well as a state.

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better educational opportunities.

1.1 SIS would be welcomed by the pioneering people of Idaho!

RECEIVED
MAR 17 1988
SIS Project Office

Sincerely,

REALTY WORLD TRI-STAR
966 LINCOLN ROAD
IDAHO FALLS, IDAHO 83401

REALTY WORLD TRI-STAR
966 LINCOLN ROAD
IDAHO FALLS, IDAHO 83401

REALTY WORLD TRI-STAR
966 LINCOLN ROAD
IDAHO FALLS, IDAHO 83401

175

222

W223

1 - T. Hill
1 - File

Shamrock Real Estate Corporation
3149 Old Castle Lane
Idaho Falls, Idaho 83403
Phone
(208) 524-1847

March 15, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

In the past thirty-seven years the people of Eastern Idaho have worked hand-in-hand with the various governmental agencies (DOE being the latest) to develop a premier Engineering and Research facility, now known as INEL. 5.24.23

We are greatly impressed with the record established at this facility and with the concern demonstrated, by the Department of Energy, for our community, enviroment, and personal well-being. 5.27.9.1

Not only would the establishment of the SIS program at INEL keep this labratory on the cutting edge of technology, which we have toiled long and hard to achieve, but we must look to the benefits to be derived personally, as a community, as well as a state. 5.27.6.1 5.27.15.1

SIS will bring our state long and short term employment, a larger revenue base for state and local taxes, but most of all, a future for our families through better education opportunities.

SIS would be welcomed be the pioneering people of Idaho!

RECEIVED
MAR 17 1988 1.1
SIS Project Office

Sincerely,

223

W224

1 - T. Hill
1 - File

Mountain Bell
A US WEST COMPANY

C. E. (Gene) Hill
Idaho Vice President and
ChiefExecutive Officer

Post Office Box 7888
Boise, Idaho 83723
Phone (208) 385-2628

March 14, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

I will not be able to attend any of the hearings related to the Special Isotope Separator project considered for location in Idaho.

I strongly support moving forward with the SIS and equally, vigorously support locating the facility in Idaho. I feel perfectly comfortable concerning the environmental impact and believe the encouragement of economic stimulation in Idaho far out weights any risk of which I am aware. I, therefore, urge and encourage moving forward with the project as rapidly as practical. 6.2 1.1

Yours truly,

C. E. Hill

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MAR 17 1988
SIS Project Office

W225

1 - T. Hill
1 - File

First Security Bank

Mahlon S. Park
Executive Vice President

March 15, 1988

Dr. Clay Nichols
Idaho Operations Office
U. S. Dept. of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I am writing this letter to you to express my support of locating the Special Isotope Separator (SIS) in Idaho. I support the site because the INEL project is already situated in this same location and these two functions will go hand in glove and should be part of the same common location. In 1986, the Department of Energy selected Idaho Falls as the preferred site and I fully endorse their selection. 3.3.1 1.1

Yours truly,

Mahlon S. Park
Executive Vice President
Commercial Banking Group

MSP/kd

RECEIVED
MAR 17 1988
SIS Project Office

First Security Bank 119 North 9th Street P.O. Box 7069 Boise, Idaho 83730

W226

→ 1- T. Hall
1- File

Suggested format for written or oral testimony at the SIS hearings:

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

5.27.6.1 My name is Clyde Hammond and I live at 725 W 16th St, Idaho. I am employed at Retired FBI & C and have lived in Idaho for 60 years.

4.15.4 The SIS is a program vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

1.1

Very truly yours,

C E Hammond
Signed

177

RECEIVED
MAR 17 1988
SIS Project Office

W227

→ 1- T. Hall
1- File

Suggested format for written or oral testimony at the SIS hearings:

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Wauneta Hammond and I live at Buffalo Meadows Ranch, Idaho. I am employed at Hammond Ranches, Inc. Retired and have lived in Idaho for 52 years. Florida

5.27.6.1

The SIS is a program vit l to the economy of Idaho, as well as being a project necessary to the defense of our country. I sincerely urge the location of the project at the INEL.

4.15.4

1.1

Very truly yours,

Wauneta Hammond
Signed

RECEIVED
MAR 17 1988
SIS Project Office

W228

Pocatello Regional Medical Center

Richard M. Cagen, Administrator

→ Fille. T. Hill

RECEIVED
MAR 17 1988
SIS Project Office

March 14, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 D.O.E. Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1 I apologize for my inability to be in attendance at the Environmental Impact Statement Hearing in Idaho Falls on Friday, March 25, 1988 in reference to the SIS project. However, I would like to voice my support and do so in this written testimony. It is my hope that this written testimony will receive equal consideration by the review panel as the oral testimony would have.

6.2 As I am sure you are certainly aware, the Southeastern Idaho economy is in great need of major new development and is fully capable of supporting such a project with existing services. It is my impression that the economic benefits to this region will far out weigh any environmental or social risks which may be inherent in the technology. Being in the healthcare field, I can assure you that a decline in the local economy has a tremendous impact on the healthcare industry and I would also like to assure you that the capacity exists in the healthcare facilities in Southeastern Idaho to support any new major development in this region. There would also be a tremendous economic benefit to the community if the healthcare utilization in this area increased and healthcare utilization can only increase with an increase in the economic support by projects and programs such as the SIS project.

5.27.11.2 I have lived in Southeastern Idaho for six years as Administrator of Eastern Idaho Regional Medical Center and currently and for the last three and one-half years as Administrator of Pocatello Regional Medical Center. I feel that the INEL is ideally suited for this project and that local businesses in the community are strongly supportive of the INEL site. Additionally, it is important to point out that with two Regional Medical Centers in Pocatello and one in Idaho Falls, we have the medical expertise and the facilities to handle the medical needs of the employees and families involved in this project.

Hence, I support the project functionally as well as seeing the need and the benefit for the project for the region as a whole.

I appreciate the opportunity to give this written testimony and again hope it is received with the same support that any oral testimony would be received.

Sincerely,

Richard M. Cagen
Administrator

cc: Richard Clay, Chairman, PRMC Board of Trustees
Peter Groom, M.D., Vice-Chairman, PRMC Board of Trustees
June Heilman, M.D., Chief of Medical Staff

178

228

229 → 1- T. Hill 1- File

RECEIVED
MAR 17 1986
BLS Project Office

1.1 I wish to make a statement regarding the placement of the SIS Project here in Idaho.

I am against the placement of this project here in Idaho or anywhere for that
5.29.95 matter, because I feel that the transporting of waste materials is too dangerous and I feel this project would be a detriment to the enviironment.

5.30.5.12 I am the mother of 3 children and I wish for them A safe, clean world to live in.

I am not a scientist or a politician. My husband and I are just middle income working people who do not want the SIS Project in our home state.

Sincerely
Mr & Mrs Randy Bekkedahl
523 Atkins
Twin Falls Id.
83301

179

W230

W231

180

Clay Nichols
785 Doe Place
Idaho Falls, Id. 83402

FROM Raymond Whelan 1-T. Hall 1-711C
409 Wall ST. Box 1507
Ketchum, Id. 83340

SUBJECT

DATE 3/16/88

MESSAGE Dear Sir;

I'm very opposed to

1.1 the SIS Project for Idaho.

Sincerely,
Ray Whelan

RECEIVED
MAR 17 1988
SIS Project Office

SIGNED

REORDER NO. 45 468
POLY PAK (50 SETS) 45468

☐ NO REPLY NECESSARY ☐ REPLY REQUESTED - USE REVERSE SIDE

230

Monument, Idaho
Mar. 15, 1988

1-T. Hall
1-711C

Idaho Operations Office
U.S. Department of Energy
785 D.O.E. Place
Idaho Falls, Id. 83402

Dear Sirs;

I wish to go on record as being opposed to the construction of the S.I.S. Facility at the I.N.E.E.L. 1.1

I am opposed to the construction of this Facility at any location until there is more proof of need. 4.1

at such time that need is proven it should be built at a place where a large share of this material is available, so as to eliminate transporting this material across country. 5.29.31

The D.O.E. has admitted to Ground Water Pollution, and we know there has been plenty of untold Air Pollution. We do not need more of this. 5.30.4.14

There are many other reasons that I oppose this Facility, but these are the critical ones

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MAR 17 1988
SIS Project Office

231

A Concerned Senior Citizen
Melburn Hawker Jr.

W232

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MAR 31 1988
SIS Project Office

Dr Clay Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Testimony on the Special Isotope Separation Project
March 30, 1988

1.1 My name is Dale Cresap and I live at 991 7th Idaho Falls, ID 83401. I am submitting this testimony on the proposed Special Isotope Separation Project for the record. Having heard the testimony some Christians opposed to this project, I want to make it clear that not all Christians are opposed to SIS. I am a Christian in favor of SIS. I have examined the Enviornmental Impact Statement, and assume that the decision to build SIS was based on valid, if confidential, data. I also assume that the selection of the INEL as the preferred site was based on an objective, unbiased evaluation of what was in the best interest of all America. I would not be ashamed or afraid to have Idaho involved in the weapons system. Nuclear weapons are neither more or less moral than other
4.13 weapons. The morality of military strength is determined only by the principles of those who control it. We have moral enemies who do not respect our ideals of freedom and the value of individual lives. They despise our freedom of conscience and our inalienable rights which are endowed not by our government but by our Creator. Our enemies respect our strength alone. I also pray for peace. If SIS enhances my security to do so and to live according to my conscience, then I say yes to SIS for America and the INEL.

Dale Cresap

Dale Cresap
991 7th
Idaho Falls, ID 83401

W233

RECEIVED
MAR 31 1988
SIS Project Office

STATEMENT

TO THE SIS EIS HEARINGS

Prior commitments to participate in a scout outing, as Assistant Scoutmaster, will prevent me from offering oral testimony to the public hearings on the draft EIS. I was grateful of the opportunity I had at the preliminary hearing in Idaho Falls. I would like to offer the following thoughts for the record: 2.13.1

First: The EIS process, including preliminary hearings, drafting and promulgating statements, more hearings, review, and oft times litigation, is in compliance with the National Environmental Policy Act (NEPA). The intant of this legislation is to force decision making to be based on sound consideration of environmental factors. The act requires a lengthy and expensive ceremony which often delays the decision and allows inflation to increase a project's costs, even more than the EIS process itself does. 2.8.1

If the people thus achieve improved decisions on the part of their government, then the EIS process may be worth the cost and delay. I have not observed many cases of flawed decision making prior to NEPA, nor any examples of improved decisions under NEPA. Anyway, if Congress, in its wisdom, thought decision makers needed to more carefully consider environmental impacts, they could have required such consideration in a much less encumbering and more efficient way. The NEPA is bad law. This EIS ceremony is wasteful. Good decisions can and would be made even in the absence of all this falderal. As a taxpayer I simply must protest this waste of my tex monies.

Second: I am appalled and discouraged by the fact that the political considerations must impact planning, funding and citing decisions of the Government to a far greater degree than any other considerations, such as cost, feasibility or need. This is true today to a far greater extent then ever before. Several factors contribute to this, including: 2.10

1. The modern news media abuses its license. It hunts for and feeds on controversy. It exagerates controversy, even to the extent of searching out and providing a forum for even one person who opposes any policy, project, act or decision.

2. There have always been people who, by their dispositions, are going to be opposed to any new idea or project. But the era of the '60s and '70s have given rise to the organization of those opposed. These new organizations generally are created to protect something valuable, but soon the excitement of the opposition process sweeps them into opposing something else, and something else again. The "forces against" are now organized as never before.

3. The "Forces Against" have succeeded in abusing the privilege of easy access to the courts to badger, delay and increase the costs of any project they take a dislike to. Indeed, the courts have led the way, in many cases. For instance, by courts requiring the first environmental impact statements.

4. The NEPA and the EIS process stimulate opposition. The public review is a forum for opposition which creates an ideal public circus for media attention, which thereby advertises for more opposition.

Due to the environment of political and litigeous opposition to projects, officials must now plan projects and citing decisions to minimize opposition, rather than to minimize costs or to maximize utility. We, the people, and even the "Forces Against," are shooting ourselves in the foot, and in the pocketbook. 4.10.2

Third: The quantities of special nuclear materials required to maintain a viable nuclear defense capability are classified, and should be. The vulnerability of the production facilities to various potential loss scenarios is likewise not appropriate for public discussion. Therefore, I cannot assess the need for the SIS, as a practical matter.

But let me offer this: The US is dependent on a long, single chain of supply for these materials. With the N Plant shut down, there are only three production reactors available. All three are located in the same place, structurally defective and needing to be decommissioned as soon as possible. There is only one Fernald, feeding to only one Rocky Flats, in turn feeding only one assembly plant. Perhaps a bit of redundancy, and separation of facilities, would be worthwhile in order to increase the security of the our nation. I suspect so. 4.15.4 2.2.15

Fourth: Spent nuclear fuel is a nasty material, and a significant disposal problem. Any recycling, such as the SIS will provide, is a positive contribution to the nation's environment.

Fifth: The development of the laser isotope seperation process is so potentially valuable, that the facility should be built, even if it isn't needed for the contemplated purpose. The technology must be developed to industrial application levels. The U.S. must lead the way in this technology! 5.27.9.1

Sixth: The Savannah River Plant poses a greater threat, however slightly, of contamination of the world's water resources than the other two sites. The Draft EIS mentions the supporting facts, but then fails to reach this conclusion 5.30.4.14

Seventh: The "Forces Against" (political opposition) in the Hanford area and Washington State have grown so strong that it appears no longer a viable alternative site for any projects involving the word "nuclear." While that should not be allowed to matter, as discussed above, it does. Citing the SIS at Hanford would ignite an onslaught of political opposition and court manuevers designed to delay or defeat the project. This would result in useless delay and cost.

Eighth: The INEL is as environmentally sound as any site on the planet. It is politically eager to welcome the project. The people here have the experience and capability to build and operate such a facility in a safe and cost effective manner. The electrical power required would be cheaper at Hanford, but is available at the INEL at nearly the same low cost. The stable construction labor climate and experienced construction contractor community evidence the ability to construct the SIS at the INEL for much less than anywhere else. 3.2.7

Conclusion: If the SIS is needed, to provide redundancy and to recycle available materials, then the INEL provides the best choice of site. Senators McClure and Symms and Congressman Stallings, who will be sent copies of this statement, should introduce legislation to repeal the National Environmental Policy Act, or to modify its scope into a directive to officials to adequately consider environmental impacts, but without all this wasteful ceremony and falderal. Checks and balances are fine, but how much time and money must we waste on this kind of thing? 1.1

Thank you for your consideration of these remarks.

Very truly yours,

Dale V. Kemp

Dale V. Kemp
2260 Baltic
Idaho Falls, ID 83404

W234

RECEIVED

MAR 31 1988

SIS Project Office

Engineers
Planners
Economists
Scientists

March 29, 1988

B241.A0

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1 6.2 As Manager of CH2M HILL's Boise Region, I wish to express our company's support for the location of the Special Isotope Separator project at the Idaho National Engineering Laboratory. The INEL is an important economic and technological resource to the state which we wish to maintain and strengthen in the future. The location of the INEL between Hanford and Rocky Flats and the distance from populated areas are important advantages that the INEL site offers to the project.

5.27.7.16 5.27.9.1 Existing facilities at the INEL can be utilized by the SIS. This minimizes the project cost on a national basis as well as benefitting the region by maintaining employment levels at INEL and in the communities supporting those workers. The project's expected operating employment of 440 and the approximately 600 indirect jobs in the community generated by the project workforce would enhance employment opportunities in southeastern Idaho. Perhaps most important, the existence of advanced laser technology at the SIS could stimulate scientific research and related technology development in the region that could have a much greater future economic affect on the state than the SIS project itself. The environmental impacts of locating the SIS project at the INEL appear to be considerably lower than at the alternative sites .

6.1.2 There are certain risks to the people of Idaho that will result from the SIS project, although the probability of occurrence is extremely low. Quite clearly the risks of greatest concern are accidents during transport of hazardous waste and materials, impacts of accidents on site workers, and pollution of the Snake River Plain aquifer by low level

CH2M HILL Boise Office 700 Clearwater Lane, P.O. Box 8748, Boise, Idaho 83707 208 345 5310

radiation waste. We believe there is good technology available to minimize these risks, and therefore urge the DOE to develop and implement the best protective measures.

Sincerely,

David K. Bennion
Vice President and Regional Manager

BOC4/090/jmc

183

W235

DENNIS E. WHEELER
President

Coeur d'Alene Mines
CORPORATION

400 Coeur d'Alene Mines Building
505 Front Avenue/P.O. Box I
Coeur d'Alene, Idaho 83814
(208) 667-3511

March 25, 1988

Dr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1
5.27.7.16

I am writing to state that I support locating the Sepcial Isotope Separation Project in Idaho Falls. It is my opinion that Idaho's employment base can not afford to pass up the chance to support a project that will expend approximately $50 million annually.

I urge you to support locating the SIS in Idaho.

Thank you.

Regards,

Dennis E. Wheeler

Dennis E. Wheeler

DEW/me

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MAR 31 1988
SIS Project Office

184

W236

1- T. Hill
1- File
1- D. Bergquist

Duplicate Original

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MAR 30 1988
SIS Project Office

Page 1 of 3 pages

To: Project Manager, Special Isotope Separation Project, INEL, Idaho City, Idaho

FOR INCLUSION IN THE DEIS PUBLIC HEARINGS RECORD

Via: Office of the Secretary of Energy, Washington, DC

Testimony to the March 26, 1988 SIS/INEL/DOE Hearings : given by A. J. Burnes, private citizen, POB 7564, Boise, Idaho 83707.

If you read the Impact Statement, you know that we the people are being dragged inexorably closer and closer to the edge of the plutonium razor -- completely as scheduled back in August 1986. 1.1

Though, at this very moment, the people of Washington State are as mad as blazes -- determined never to be radioactive contamination victims again. As are the good people of South Carolina. And these states are not alone. However, there is -- by now -- an established maxim : " If you've got something real bad or real immoral or really inhumane to do and nobody else is dumb enough to go for it, just say it will create a few jobs and, then, stick it in a state like Idaho." 4.10.2

There's only one way you could argue against the precise, detailed nature of the SIS project. You'd have to be associated with the plutonium bomb factory. You'd have to violate your oath of secrecy : your vow not to tell the people of this democracy what was really going on. And if you *were* part of the propaganda effort that suggests that SIS is safe and good for jobs and for the economy, you'd never put your security credentials and your *own* career on the line. But, if you're like most of us plain citizens, you can't oppose SIS on technical grounds. You don't have access to precise, classified information. You can't make a compelling, rational case. The whole affair is altogether "Catch-22." It is *just* that simple. 2.6.1

But, suppose we the people took a different tack ? Suppose we said, "Forget that the site for SIS was settled -- for good and all -- at least two years ago. " Forget that the public hearings are but an empty rituals. Forget what EIS-0136 says -- whether it is theoretically valid or not. Suppose we said, instead, that what really matters is whether we have adequate reasons for trusting the people who will operate SIS ? Trusting them with our democratic heritage. With our constitutional rights. And then, if we absolutely *know* we couldn't trust such public employees with the very necessities of our social existence in a democracy, would we trust them in anything ? Would we, for example, trust them with our personal safety or with the health and genetic legacy of our loved ones or with the posterity of this world ? 2.12.5 3.2.2

Well, please let me help you examine such urgent questions... by offering a series of fresh, verifiable facts for your consideration :
In late February 1988, an administrative employee at SIS, with a nonviolent, peaceable protest letter in hand, complained about this form of lawful dissent to INEL Security. Very quickly Security enlisted the enthusiastic cooperation of Boise (ID) city administration and police -- in a heedless, inhumane and illegal criminal investigation. With open contempt for the First Amendment of the United States Constitution. With total disregard of the civil rights provisions of 42 United States Code § 1983, "public safety" officers caused the guaranteed postal privacy of a person entirely unrelated to the specific protest to be violated. And the letterwriter to be interrogated in plain view at his residence. And his neighbors to be interrogated as to his activities. And intimations to be made that reports would be filed and that further investigations might follow. All this being done by means often used to suppress such lawful dissent as is guaranteed by the Constitution of the United States. And all eminently provable, for the author of this testimony was and is the citizen-dissenter in question.
And, when the harassment and intimidation had abated, the author was told by an allegedly uninvolved INEL executive that the entire affair had been an unfortunate "accident."
But this author , for one, wants in Idaho neither an SIS Project which produces such "accidents " nor the people who operate SIS and who are, themselves, the source of such "accidents." For such persons have already shown -- dramatically -- that they cannot be trusted with our democratic heritage and with the preservation of our inalienable rights... let alone with significant quantities of one the most mega-lethal substances in the entire universe. Such persons have proven that they believe that a project contrived to offer the world the threat and/or the reality of increased mass killing is to be exalted above the constitutional rights of individuals. And these heedless sub-mediocrities have sought to further legitimize "accidental" intimidation, harassment and suppression of peaceable opposition by the wrongful use of police power. There are -- in *my* dictionary -- at least two widely-accepted words which are directly associated with such blatant , if mindless, civil misconduct. And neither of them is "accident." I leave the appropriate terminologies to your competent imaginations.

And so, if all that you have now heard were true -- and it is -- how can you believe anything your have been told about SIS by DOE/INEL/SIS ? 1.1
How can you imagine anything honest, good and meritorious about the SIS project ? How can you trust now : you who have seen Watergate and Iran-gate... and much more ?
Well, I cannot and I shall not believe or trust or support the SIS Project. And I think that Congress should be told by us that, for myriad reasons -- not the least of which is yet another shocking example of federal operational defectiveness as to motive, means and competency , there should not be -- there must never be -- an SIS. 4.9.4

W237

1- T. Hill
1-file
1-RDE

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY · DAVIS · IRVINE · LOS ANGELES · RIVERSIDE · SAN DIEGO · SAN FRANCISCO — SANTA BARBARA · SANTA CRUZ

COLLEGE OF ENGINEERING
DEPARTMENT OF NUCLEAR ENGINEERING

BERKELEY, CALIFORNIA 94720

March 28, 1988

RECEIVED
MAR 30 1988
[illegible] Project Office

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

The following document has been sent to me for review and comment:

"Draft Environmental Impact Statement, Special Isotope Separation Project", DOE/EIS-0136, February 1988.

5.1.18 Based on my brief review of the document, I find that the document presents a reasonable and comprehensive analysis of the potential environmental effects of constructing the Special Isotope Separation Project (SIS) at Idaho or at other locations.

There are two places in the report that warrant further attention. On page 4-22 the potential effects of a postulated nuclear criticality accident are discussed. In the last paragraph on that page it is stated that a total of 1×10^{19} fissions from a criticality event is assumed, based on NRC Regulatory Guide 3.35. Merely assuming a release is not sufficient. If the regulatory guide recommends such a value, based on some technically responsible analysis that is relevant to the potential criticality conditions for SIS, then one may have a basis for adopting that value, not assuming it.

On page 2-70, under the discussion of alternative means of producing wespons-grade plutonium, it is stated:

> "The recovery and recycling of existing weapon-grade plutonium from retired weapons as well as accelerated weapon-grade scrap recovery are also not reasonable alternatives to the SIS Project because they are not a replacement for the SIS mission of maintaining the capability of isotopically modifying fuel-grade plutonium to meet weapon-grade specifications."

5.2.4

This says, in effect, that DOE has decided that it must have the capability of isotopically enriching plutonium. Therefore, other means of producing or obtaining plutonium cannot be considered if they do not also have the capability to isotopically modify or enrich fuel-grade plutonium.

Consequently, all of the "Weapons-Grade Plutonium Production Alternatives" described in Section 2.5.2 are really not alternatives. None of these, including using a new fuel lattice in the reactors at the Savannah River Plant, construction and operation of a new production reactor, conversion of the Washington Nuclear Project Unit 1, and increased blending is capable of isotopically modifying fuel-grade plutonium. Therefore, none can fulfill the requirement quoted above, and they are all irrelevant.

Sincerely yours,

Thomas H. Pigford

cc: Mr. Larry Meierotto
Box 1122
Boise, ID 83701

THP:mm

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W238

March 30, 1988

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MAR 31 1988
SIS Project Office

Dr. Clay Nichols, Acting Project Manager
SIS Project Office
Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

5.24.23 As a resident of Idaho for the past 35 years, most of which I have lived in the Southeast portion of the state, I have become very familiar with the Department of Energy at the INEL.

5.27.6.1 Having lived and worked in this area, I can tell you firsthand that safety is the number one concern at the INEL. Personnel as well as plant safety comes before any other consideration in all aspects of the daily operations at the site. Locating the SIS at the ICPP will not make me feel different than I do now.

5.27.9.1 For the ares in general, the SIS project will help stop the decline in the area's economy by maintaining the site employment at or slightly above it's current level. In addition, during the construction phase, the 400 temporary jobs will provide a much needed boost to an industry which is very depressed at the present time. (Unemployment in the construction industry is currently over 50%.)

Spin-off industries, created to support construction and operation of the SIS facility, will enhance the regional economy for many years to come.

5.27.4.5 The SIS project will go a long way to slow the out-migration of the people from our area and in that way, stop the erosion of the local tax bsse.

1.1 In conclusion, I would strongly urge the Department of Energy to locate the Special Isotope Separation Project in Southeast Idaho, and proceed with construction and operation of the facility.

Sincerely,

R. Jim Ovard
2235 Koro
Idaho Falls, Idaho 83404

RJO/c

187

W239

3-30-88

Dear Sir:

I would like to express my family's opposition to the construction of the SIS refinery in eastern, or any part of Idaho. 1.1
At a time when our country and state are attempting to obtain long-term peace efforts world-wide, and Reagan and Mr. Gorbachev have even come to terms with reducing nuclear warheads, the 4.14
Construction of a plutonium refinery for nuclear bombs smacks of hypocrisy and typical American double-standards. Enormous health risks will be taken by Idahoans as well, so it seems that the advocates' claim of the SIS' increasing employment for Idahoans 6.2
is an empty, damaging and dangerous one at best.

Idaho needs many things, but not an SIS refinery. Please consider this letter, and all the many opponents of the SIS.

Sincerely,

Elizabeth Medes
4224 Edwards
Boise ID 83703

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SIS Project Office

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MAR 31 1988
SIS Project Office

W240

March 28, 1988
William N. Brudenell
10892 Bridgetower Dr.
Boise, Idaho 83709

Mr. Clayton Nichols, Project Manager
Spacial Isotope Separation Project

Dear Mr. Nichols:

1.1 As a resident of Idaho, I am opposed to the location of the S.I.S. project in Idaho. I worked for ten years as an engineer in the design of power plants, much of it in nuclear power plant design. Because of that experience, I realize that no design is perfect. There are always 5.8.3 trade-offs between safety and the budget for any project. No budget will ever allow for the design and construction of a perfectly safe 5.29.92 nuclear facility. Other concerns include the transport of raw materials, finished product, and waste product over public highways, the disposal of toxic wastes, and the probability of the eventual contamination of surface or ground water.

5.12.6 As a citizen of the world, I am opposed to the manufacture of weapons 5.30.3.1 grade fuel. I am not opposed to nuclear power. I believe that the benefits of nuclear generated electricity can outweigh the risks. However, I do not believe that more nuclear weapons has any benefit.

4.14 Thank you for hearing my opinions on this very important matter.

Sincerely,

William N. Brudenell

William N. Brudenell, P.E.

188

W241

PHOTOGRAPHIC DESIGN — CONCEPT — STOCK PHOTOGRAPHY

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MAR 31 1988
SIS Project Office

March 30, 1988

Dr. Clay Nichols
SIS Project Management
US Department of Energy
785 Doe Place
Idaho Falls, ID 83402

Dear Dr. Nichols,

Please, no more nuclear anything. Let's get rid of the war heads, bombs, power plants and all the waste. Idaho needs cleaner, safer and more long-term forms of industry. Count my vote NO on SIS. Also count NO for my wife and two children. 1.1

Please hear us, we do not want war or dangerous factory products anywhere near us. Thank you for your help.

Sincerely,

David R. Stoecklein
DRS Photography

DRS/kr

cc: Senator James McClure
Senator Steve Simms
Representative Richard Stallings

241

DAVID R. STOECKLEIN — TENTH STREET COMPLEX, UNIT A1, HTWAY 75 — BOX 656, KETCHUM, IDAHO 83340 — 208-726-5191

W242

UNIVERSITY OF SOUTHERN CALIFORNIA
UNIVERSITY PARK
LOS ANGELES, CALIFORNIA 90089-1062

DEPARTMENT OF CHEMISTRY
(213)743-2780

March 28, 1988

RECEIVED
MAR 31 1988
SIS Project Office

Dr. Clayton R. Nichols
Acting SIS Project Manager
Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

The copy of the "Draft Environmental Impact Statement" on the "Special Isotope Separation Project" arrived a few weeks ago, and I read it with interest. Enclosed is a statement on the topic which I would like to submit.

Sincerely,

James C. Warf

James C. Warf
Professor of Chemistry, Emeritus

189

UNIVERSITY OF SOUTHERN CALIFORNIA
UNIVERSITY PARK
LOS ANGELES, CALIFORNIA 90089-1062

DEPARTMENT OF CHEMISTRY
(213)743-2780

Commentary Concerning

DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT

JAMES C. WARF
Professor of Chemistry, Emeritus

The system which has evolved for deciding important issues such as SIS seems to be that the proposal is presented in purely technical terms, and only purely technical criticisms can be acknowledged. This commentary nevertheless attempts to interpret the place of the proposed AVLIS project on a scale wider than technology alone.

The objective is repeatedly mentioned in the EIS that the purpose of SIS is "production of nuclear materials for national defense." There are claims that "redundance in production capacity" is needed, but no analysis to substantiate this is presented. I submit that one can oppose SIS with the aim of enhancing national defense. 4.1

My Statement of February 26-27, 1987, given at the Boise hearings, outlines my technical objections to the SIS project. 4.7.1

It is likely that, given sufficient funding, the SIS program can be made to succeed. After all, several techniques of separating isotopes of heavy metals have been developed, and this one is as sound on theoretical grounds as any. There will be problems and accidents, but the program will probably succeed. 4.14

The principal shortcoming in the whole SIS program is that it is another step in a never-ending nuclear arms race. It spurs other powers to follow along the same lines, and thus the end result is more and better warheads which might be directed against us. This is certainly a step to lower our security. Moreover, if the atomic vapor technique becomes widely used, it is applicable by smaller powers to plutonium from commercial reactors. With modification, it could be used to separate uranium-235, possibly less expensively than current processes. This would make the balance of power even more precarious. 3.4

No one seriously suggests that our country disarm unilaterally. A certain number of nuclear weapons will be maintained into the foreseeable future. Warheads in silos, in smaller missiles, and in storage for bombers currently contain 5 or 6% plutonium-240, and thus have an appreciable neutron- and gamma-ray background. Since these weapons are stored at a distance from personnel, excessive radiation doses can be avoided. Such

242A

4.4.1 storage in a submarine is less feasible, although the danger to personnel is lessened through use of supergrade plutonium (less than 3% plutonium-240).

Nuclear artillery shells are generally made using uranium-235 rather than plutonium, and thus have low radiation backgrounds. There seems to be no compelling reason why warheads for submarines cannot be fashioned from uranium-235 rather than plutonium-239; if necessary, some plutonium very low in heavier isotopes could be incorporated, if sufficient shielding is used. New arms-reduction treaties depend in part on detection of neutron and gamma-ray emanations from weapons grade plutonium (3 to 6% plutonium 240), so use of AVLIS-purified material would complicate verification. 4.14

In short, the means are already at hand to provide sufficient deterrence. Putting more and more effort into elaborate weapons technology is not just unnecessary; it ignores lessons of the past on the final stages of arms races. 3.4

James C. Warf
March 28, 1988

190

W243

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MAR 31 1988
DOE Project Office

3/29/88

Dr. Nichols,
I would like to voice my position on the proposed S.I.S. project in southern Idaho. 1.1

No! to the S.I.S. !

Reasons:

a. lack of need for product produced. 4.15.5

b. health risks; humans in and around southern Idaho. 6.1.1

c. enviromental risk.

d. Safety of material incoming and outgoing in southern Idaho. 5.29.95

As I am well aware of the need for growth on the part the Idaho economy, I can not consider the S.I.S. as a Logical long term boost for any economy. 5.27.10

Thank you
Danny

Danny Beritich
Box 1568
Hailey, Idaho 83333

W244

March 27, 1988

Marie Meyer
4088 Riva Ridge
Boise, ID. 83704

Clay Nichols
785 DOE Place
Idaho Falls, ID. 83402
Att: Idaho Operations Office

Mr. Clay Nichols:

I have been a resident of the Idaho for seventeen years. I have attended college here, and raised my family in this state. I appreciate Idaho for its quality of life.

6.2 I also know that the economy of Idaho is in need of improvement. However, I am NOT in favor of introducing plutonium production into the State of Idaho. I do not believe our State is in such desperate straights as having to prostitute ourselves, and jeopardize the health and safety of our communities by supporting a nuclear weapons project such as the SIS. Instead, I would encourage our State to be actively seeking and supporting more industry such as Micron's new expansion offering 1,000 new jobs to Idahoans.

5.1.1 As a taxpayer and long time citizen of Idaho I would have to seriously consider relocating out of Idaho if this project takes place in Idaho. I am a strong supporter of quality of life, which has meant Idaho, with its clean uncontaminated Snake River Aquifer. I will not live my life in fear of accidental potential radiation contamination to our water, roads, and environment. I relocated here in Idaho seventeen years ago by choice and I will relocate out of Idaho also by choice if necessary. I strongly OPPOSE the SIC Project in the State of Idaho.

In conclusion, I strongly OPPOSE this SIC project in Idaho.

Sincerely,
Marie Meyer
Marie Meyer

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MAR 30 1988
SIS Project Office

244

191

W245

March 30 1988

Dear Dr. Nichols

6.1.1 It is discouraging to think of the strength of the unions in their efforts to push for the SIS Project. However, I as a concerned individual, feel their motivation is only money only present and temporary concern for jobs.

Please delve into your conscience and consider the real issue of our environment and our need to make a statement against unnecessary war heads. 4.13

Let's keep Idaho clean
Let's have Idaho stand for peace not war.

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MAR 31 1988
SIS Project Office

Sincerely,
Carol Town

W246

JOAN F. DAVIES
BOX 1647
HAILEY, IDAHO
83333

March 29, 1988

Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

RE: Special Isotope Seperation Project

Dear Mr. Nichols:

5.12.1 I would like to address the issue from three specific areas of concerns: enviornmental, economic and moral.

5.30.4.14 1. Enviornmental impact of Idaho's aquafer and air quailty are questionable ricks when producing and safely disposing of plutonium. Core samples of earth displayed at the I.N.E.L. and knowledge of Idaho's porous lava and volcanic ash soil structure does not prove to be a safe site for such activities. Do not put Idaho's irrigation plain in jeopardy. 5.29.92 Quality of air and jet stream spread of pollution can not be controlled with any quarantee. The transportation of long-life radiation material to other sites in the west for disposal only provides the opportunity of other accidents.

6.3 2. Economical justification of such a project seems impractical. A country's spending one-billion dollars on a questionable project who's economic complexion is already in the red only reddens the problem. Jobs for Idaho could be created in many creative public work areas if spending dollars is a criteria. If private industries are questioning Idaho's ability to educate personnel to adequately support their projects, are we equipped to provide personnel for the SIS or will out-of-state people be brought into fill positions? If so, Idaho's economy will still be limited.

2.7.2 3. Morally, I can not justify creating plutonium to make weapons which might eliminate others who share the same globe as I do. Peaceful research, this is not. It also creates a potential for eliminating myself and I value my life the the quality of it to even consider being a part of such a proposed project.

Again, as I formulate my thoughts to write these statements I ask myself, "Why am I as a citizen having to spend my time even considering such a volatile concept?" Our world is beautiful if we can keep it that way. Creation is a festival and humanity is the long awaited champange. Let's preserve our vintage.

Sincerely,

Joan F. Davies

Joan F. Davies

192

W247

AEROGLEN
P.O. BOX 1112 — BROADFORD ROAD — HAILEY, IDAHO 83333

Please register my opinion to turn down SID -
① we need no more plutonium
② we do NOT need the danger. Look at the damage figures if there were an accident
This is not only a non-essential use of non-existant tax dollars, but a totally negative project.
Thank you for this opportunity. I'm counting on this nations sensibility. Jill Bryson

247

4.15.5
5.1.42
4.15.2
1.1

W248

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MAR 31 1988
SIS Project Office

ROBERT E. BURNS
ROUTE 1
MCCALL, ID 83638

DR. CLAY NICHOLS
DEPARTMENT OF ENERGY
785 DOE PLACE
IDAHO FALLS, ID 83402

DEAR DR. NICHOLS:

1.1 FROM BEING A PARENT I HAVE FOUND THAT THERE ARE A FEW ISSUES WHICH LEAD TO ABSOLUTELY NO DISCUSSION OR COMPROMISE. ALL OF THESE ISSUES HAVE AS THEIR BASIS THE POSSIBILITY OF SERIOUS RISK TO THE HEALTH OF MY CHILD. THE ARMS RACE SEEMS TO BE RUN BY PEOPLE WHO ARE DEFICIENT IN COMMON SENSE PARENTING SKILLS. SIS MAKES AS MUCH SENSE AS KEEPING A LOADED GUN IN A

6.2 HOUSE OCCUPIED BY CHILDREN. THE ARMS RACE HAS TO BE SLOWED WHERE IT CAN. ANY SHORT-TERM BENEFITS OF SIS ARE VASTLY NEGATED BY THE LONG-TERM HAZARDS. IDAHO NEEDS TO SHOW SOME CONCERN FOR ITS CHILDREN.

ESPECIALLY FOR THE SAKE OF MY DAUGHTER, I URGE YOU TO RECONSIDER THE GOALS OF THE DOE.

SINCERELY YOURS,

Robert E Burns

ROBERT E. BURNS

193

W249

Box 254
Hailey, Idaho 83333
March 29, 1988

Dr. Clay Nichols
USDOE
785 DOE Place
Idaho Falls, Id 83402

Dear Dr. Nichols:

My name is Kerry Sullivan. I am eleven years old. I may only be eleven, but I am greatly opposed to the plans for SIS. It is a pity that people are actually want to go through with this. Bringing the plutonium in would have to be done with trucks, as would with taking out the wastes. What if one of those trucks was to crash? We could have a few dead people. Everyone that is for SIS, is for it because of the jobs that would accompany it. If Idaho can't even afford to improve our schools we certainly can't afford this. There really is not a rational reason for SIS.

1.1

5.29.87

Sincerely,
Kerry Sullivan
Kerry Sullivan

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MAR 31 1988
SIS Project Office

W250

1- T. Hall
1- File

Fremont County Commissioners

PHONE
624-4271

BOX 248
ST. ANTHONY, IDAHO 8344.

March 29, 1988

United States Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Id 83402

Dear Sirs:

Fremont County Commissioners would like to go on record as supporting the SIS project at the INEL. If this is not the proper address to send this information would you please inform us by letter or forward it to wherever it should go. 1.1

Sincerely,

James Siddoway

James Siddoway, Chairman
Fremont County Commissioners

"SERVING AN AGRICULTURAL AND RECREATIONAL AREA OF 1872 SQUARE MILES"

250

194

W251

BRYAN K. MURRAY

McDougall & Murray
Attorneys and Counselors at Law
OAK STREET LAW CENTER - 600 E. OAK
POCATELLO, IDAHO 83205-4925

PHONE (208) 233-5440
P. O. BOX 4925

April 1, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I wish to lend my full-hearted support to the proposed SIS Project. I have been a practicing attorney in the State of Idaho for five years and have been also very involved in community activities such as the Boy Scouts of America and Campfire. I believe that an overwhelming majority of citizens in our state support the SIS Project both politically and in its environmental and economic impact on Southeastern Idaho. 1.1

There may be those who express some concern over the necessity of the SIS in regard to the defense of the United States, but I do not feel it is a proper issue. It has already been resolved by Congress. The key issue, I do believe, is the environmental and economic impact on Southeastern Idaho, and in this regard I see only positive results. 5.27.6.1

Being an attorney and having worked with many people in regard to on the job accidents and injuries, I only wish every industry in the State of Idaho could have the safety record the INEL has had. I am far more concerned with the Railroad that traverses through Pocatello and possible accidents there than I am at living right next door to the SIS project.

Over the past three years, much of my legal practice has been spent in bankruptcy court. Families in Southeastern Idaho have been hard hit economically, and the SIS project and its economic impact on Southeastern Idaho would only go to strengthen our communities and make them a better place to live. Southeastern Idaho also has a lot to offer to the SIS Project such as the great site at the INEL Plant, the local university and colleges, and a very supportive populace living in this area. 5.24.23

Sincerely,

Bryan K. Murray

BKM:tl

5290Q

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SIS Project Office

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W252

ested format for written or oral testimony at the SIS hearings:

Clay Nichols
o Operations Office
. Department of Energy
DOE Place
o Falls, ID 83402

Mr. Nichols:

4.15.4
5.27.6.1
1.1

ame is ARVIN LORDS and I live at 7697 E 100 N, Ririe,
o. I am employed at Idaho Chemical Processing Plant and have lived in
o for 40+ years.

SIS is a program vital to the economy of Idaho, as well as being a project
essary to the defense of our country. I sincerely urge the location of the
ject at the INEL.

Very truly yours,

Arvin J Lords
Signed

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APR 4 1988
SIS Project Office

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W253

Hecla Mining Company

March 31, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Hecla Mining Company welcomes the opportunity to support the location of the Special Isotope Separation Project (SIS) at the INEL site near Idaho Falls, Idaho. 1.1

We understand that the project is important to our national defense, and that it provides the possibility of bringing other similar projects to the State. Projects such as the SIS will serve to enhance U.S. leadership in technology advancement.

As a dedicated proponent of the educational system in Idaho, Hecla joins other IACI members in endorsing the location of the SIS Project in Idaho because it offers new jobs, new taxes, and new educational opportunities for Idaho. 4.15.4

Very truly yours,

Arthur Brown
Chairman and
Chief Executive Officer

AB:ld

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APR 4 1988
SIS Project Office

253

6500 Mineral Drive • Box C-8000 • Coeur d'Alene, Idaho 83814-1931 • (208) 769-4100 • TELEX 326476

195

W254

7708 Long Drive
Boise, ID 83704
30 March 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

I wish to submit this written testimony in support of the SIS project.

I have listened to the opponents of the SIS and I have not found a single reasonable argument against the plutonium refinery. The opposition I have heard has been emotional and based on fear and misunderstanding. It is similar to the opposition to the Grand Coulee Dam project in the 1930's in which "gloom and doom" predictions were made that the earth's climate would be ruined by damming the Columbia River. In contrast, the result was the blossoming of an entire region because of access to irrigation water and cheap power. Opposition to the SIS seems to be rooted in similar reasoning. 5.24.27

Emotional arguments aside, I believe the SIS project represents progress. The "spin-off" technology and discoveries will likely benefit all of us. Science must continue to learn in order to improve our knowledge and therefore our quality of life. 5.12.1

I understand the arguments of those who oppose nuclear weapons. I also agree that plutonium is very dangerous and must be handled under rigorous safety regulations. It is also true that the Snake River Aquifer is a natural resource that must not be polluted. However, I believe that our nation's safety record with nuclear materials has been exemplary. And the "site" at INEL has as much experience with radiation as any place on earth. 5.24.22

If the environmental impact statement and other studies show that the SIS can be built at the INEL safely and operated properly, then I believe it should be built at INEL or not at all. 1.1

I also suggest that, if built, the SIS managers develop an active public awareness program to inform people of the safety measures in place. It is the "not knowing" and therefore the lack of confidence regarding nuclear power that frightens people. 5.24.12

I thank you for the opportunity of providing input into this very important issue.

Sincerely,

Randolph D. Lee, O.D.

RECEIVED
APR 4 1988
[illegible]

254

196

W255

RECEIVED
APR 4 1988
SIS Project Office

March 30, 1988

Clay Nichols
785 Doe Place
Idaho Falls, ID 83402

Dear Clay:

I would like to take this opportunity to comment on the proposed SIS project at the INEL site.

I feel the SIS project should not be built at the INEL site if in deed it needs to be build at all.

NEED: In my eyes, the real question here is need. The draft EIS does not adequately support the need concept put forth by DOE. In a recent news release the DOE stated that the N reactor at Hanford would be put on cold standby because the plutonium needs were being met by the reactors at Savannah River. John Harrington (DOE energy secretary) stated that the governments's stockpile of plutonium is to meet foreseeable demands for new weapons. 4.1

According to Tom Cochran who has compiled the Nuclear Weapons Databook, we have approximately 110 tons of plutonium stockpiled. Ninety tons in weapons, ten tons and the rest is in available scrap. 4.3

In a recent Newsweek article I read that the Savannah River plant in North Carolina is the only plutonium producing plant currently in operation. The Savannah River plant only produces 1/4 ton of plutonium on an annual basis. This plants operating hours have been cut down due to problems with their emergency cooling system. DOE wants to spend 89 million dollars to repair the Savannah River plant.

We have just signed the INF treaty with the Soviet Union which will reduce the number of nuclear warheads needed at any particular day. We can recycle the plutonium from these warheads.

We may also be signing another treaty with the Soviets which will further reduce strategic arms.

A process called blending already exists which can produce weapon grade plutonium. This process is much cheaper and will produce any necessary plutonium at a much smaller cost. 5.2.10

We already have 25,000 nuclear weapons which are capable of destroying the Soviet Union and the rest of the world.

In six to eight years, it will be a violation to the Nuclear-Proliferation Treaty to take commercial plutonium from power plants and make weapon grade plutonium from it. 3.5.2

255

5.30.2.1 **AFETY**: There are several safety factors I would also like to ddress. Studies show that plutonium has contaminated the ediment beds 230 feet below the burial grounds at INEL.

NEL is supposed to be a temporary storage site. For the past 20 ears Idaho officials have tried to have existing wastes removed. ccording to the DEIS, the wastes will be moved to the WIPP roject in New Mexico. But at this point in time, the WIPP roject is not open due to ground water leakage and the salt eds. Will Idaho become a permanent storage for these wastes. I eel this is unacceptable because INEL sits on top of the Snake 5.12.1 iver Aquifer which is the source for fresh water for much of outhern Idaho.

lutonium will be shipped over local Idaho highways. The DEIS 5.29.66 oes not adequately address what kind of medical treatment, lean-up equipment, security considerations, evacuation and lternative route procedures that need to exist. This nformation needs to be provided so communities along the route 5.29.31 ill be ready and know what they are dealing with. Construction t Hanford or Savannah would greatly reduce the transportation isks of the SIS.

The plant design for the SIS is still in the preliminary stages. The testing of the plant in Livermore will be coinciding with the construction of the plant at INEL; why not just use the Livermore 5.24.17 plant once it is fully tested. Unforeseen delay's could occur. How can credible safety procedures, accident and evacuations of the plant be made before the testing in Livermore is completed.

CONOMIC: Any economic benefit of the SIS will be short lived. 5.27.10 The plant will only be in production for a short period of seven to eight years. This will create a boom and bust economy that will have negative impacts once the project is over.

5.27.1.11 The DEIS does not address the impacts that a nuclear war-plant would have on Idaho and Idaho's major industries--tourism and agriculture.

ALTERNATIVES

I feel there are several alternative proposals that need to be considered.

5.2.15 1. The scrap plutonium that already exists should be used. Scrap plutonium already available is two times as much plutonium that will be produced from the SIS project.

4.4.6 2. We can synchronize the retirement of old warheads and the making of new warheads.

eel the SIS project is not A viable one and should not be ilt at INEL, Hanford or Savannah River. 1.1

support the no action alternative.

ank you for this opportunity to comment.

Sincerely,

Dana Olson

Dana Olson

W256

Mar. 30, 1988

Mr. Nichols & Committee:

1.1 I am a resident of Pocatello, ID. I oppose the SIS on economic grounds.

On the positive side, only a few (roughly 300) low paying service 5.27.7.3 spin-off jobs will be created for Idahoans since we have few or none unemployed nuclear engineers.

On the negative side, even the media coverage of a not so serious 5.27.7.2 nuclear accident with SIS could mean devestating losses for Idaho farmers and also for the Idaho tourist industry.

Thank-you for allowing citizen input.

Bob Tobola
1518 Bench #C10
Pocatello, ID
83201

RECEIVED
APR 4 1988
SIS Project Office

256.

W257

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

March 31, 1988

Dear Mr. Nichols,

I am writing with regard to the proposed Special Isotope Separation (SIS) facility to be constructed at INEL. I have four major concerns with this project: 4.15.1

1. I seriously question whether the plutonium to be produced at the SIS facility will ever be needed. In light of the DOE - White House statement that the "government's plutonium stockpile is sufficient to meet the foreseeable demands for new weapons", do we really need this facility? Basic economic theory tells me that if there is already enough plutonium to meet the demand, excess plutonium production will cause the price to drop. I understand that plutonium can be extracted from retired weapons. Given the recent INF treaty and the likelihood that the U.S. will be able to extract plutonium from the retired intermediate range missiles, do we really need a facility to produce more plutonium? 4.3 5.22.4
2. Proponents of SIS say that 750 jobs will be created. But you have stated that 1/2 to 2/3 of these jobs will be filled by people already working at INEL, thus in reality only 250-375 new jobs will be created. The projected lifespan of the SIS facility is 8 years. Can you insure that in 8 years the people who filled the jobs created by the SIS facility will be able to find other work? 5.29.47 5.1.37
3. Since many of the major roads in Idaho follow rivers, a truck accident has extremely serious consequences. Can you insure that the containers used to haul radioactive waste will meet the strictest government standards for container streagth? 5.1.38
4. The proposed SIS facility will be constructed above the Snake River Aquifer. While the figures for the probability of an accident at nuclear facilities are typically low, these figures do not consider human error. We all know from experience that most of the accidents at nuclear facilities have resulted from human error. Can you insure that an accident at the SIS facility will not contaminate the Snake River Aquifer? 6.3

In my opinion, the $1 billion cost of construction plus the cost that will be incurred in 8 years could be better spent on projects with more long-term benefits. 1.1

Thank you for allowing me to express my views.

Sincerely,
Linda Merigliano
Linda Merigliano

P.O. Box 453
Driggs, ID 83422

RECEIVED
APR 4 1988
SIS Project Office

257

W258

APR 01 1988

3/29/88

Dr Clay Nichols
785 DOE Place
Idaho Falls ID 83402

Re: Comments on Dept. of Energy's Draft
Environmental Impact Statement
1.1 on the Special Isotope Separator
- Testimony for the hearing Record -
6.5.2 In support of the "No Action" option

I am an Idaho resident - having moved here from Arizona several years ago. One of the main reasons I choose to live here is the quality of life - the clean air, vast open areas, lack of crowding and pollution.
5.29.97 I feel the construction of the SIS at INEL would directly conflict with many of the things that make Idaho a state to be proud of.

First - there are no well-documented or proven methods for transportation or storage of feed or wastes
5.30.4.7 to or from the plant - and even the slightest chance of an accident is more risk than I want to take.

Second - the possibility of contamination of the Snake River Plain aquifer - even a "little" leakage could not only cause disaster to farmers and ranchers in Southern Idaho, but could cause illness and health problems for the people living there.

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Third - It has not clearly been shown that such a plant is needed at all - if we have enough 4.1
plutonium, why take chances with Idahoans lives just to have more?

Fourth: The Storage at INEL is inadequate for what is 4.15.1
currently kept there. The plans for waste deposition for the proposed SIS are incomplete, and no firm alternatives to WIPP have been proposed. We are already an unwilling "nuclear waste dump" - let's not ask to 5.30.3.1
have more dumped on us!

Fifth - I personally am against construction of nuclear weapons, and feel the technology, research money and time could better be applied to peaceful uses.

There are other reasons - I'm sure you'll hear them all. 6.3
But I do want you to know I'm strongly against the SIS in Idaho, and strongly for the NO Action Alternative.

Sincerely,

Linda Hammann
Box 2664
Ketchum ID 83340

258A

199

W259

APR 04 1988

March 31, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

Back in September, during Constitution Week I wrote to several of our elected officials to voice my opposition to the SIS Project. The response I received from each of these officials led me to believe my opinions weren't going to make a difference in their representation for our State, although they would keep my "fears in mind".

I found out about the public hearings in Twin Falls being held by the DOE but not in time to prepare a statement and submit it in writing so I'm writing now. I found these hearings to be very informative and I am more opposed than ever after attending.

4.15.5 For the life of me I cannot understand the need for this facility, regardless of the short term job potential and "spin offs" in technology. There seems to be no need for weapon-grade plutonium as there is enough stockpiled to last a lifetime. So why add more fuel to the fire and risk Idaho's future?

1.1 The final decision rests with our government representatives and your department. I've already voiced my opinions to our representatives. Now I want you to understand that not only am I opposed to this facility being built in Idaho, I am opposed to it being built anywhere.

6.2 If there were some legitimate reason for this project I'm still not convinced it would be worth the risks involved. I don't believe there is no real risk and that Idaho can only benefit from the jobs this project could provide. Are we so desperate for jobs that we're willing to risk our precious water supply for a temporary fix? I think not. I also don't believe that the information regarding contaminated ground and water near INEL is a "scare tactic" used by certain groups and organizations that are opposed to this facility. Does our local news station report scare tactics as facts to the public? I think not. I don't feel my representatives are hearing me. I feel there's some political game involved here and no matter what Idahoans feel this

259

project may very well go thru.

We already have contamination problems at INEL, we have Environsafe which is a hypocrisy in itself and I'm hearing more and more about toxic spills on our highways all the time. I feel we have enough environmental problems without the SIS. 5.30.4.5

I believe we should preserve our State at all costs. Let's not tamper with our precious environment and take these risks. There's the potential for an earth quake at the site; there's the potential for an accident on our highways transporting plutonium to and from INEL; and two of our most precious industries, agriculture and tourism could encounter difficulties if this project goes thru. Please listen to the people of Idaho and stop the SIS Project. After all it's our State and we're the ones who will remain here throughout our lifetime. 5.29.87 5.27.2

Sincerely,

Bertilia L. Redfern

Bertilia L. Redfern
Rt. 1, Box 324
Buhl, ID 83316

259A

200

APR 04 1988

W260

1165 Periska Way
Idaho Falls, Idaho 83402
March 30, 1988

Dr. C. R. Nichols
U. S. DOE
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1

I express my support for the building of the Special Isotope Separation Project at the Idaho National Engineering Laboratory.

5.27.6.1

I feel the economic benefits to the Eastern Idaho area far surpass any disadvantages of building the SIS Project. The SIS Project will help maintain a stable economy in Eastern Idaho and thus enhance the quality of living of all area residents. If we do not accept the SIS Project in Idaho, another community may and we will lose these important benefits. We need the SIS Project at the INEL.

Sincerely,

Kathleen A. Eggert

Kathleen A. Eggert

ke

201

APR 04 1988

W261

1165 Periska Way
Idaho Falls, Idaho 83402
March 30, 1988

Dr. C. R. Nichols
U. S. DOE
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1

I support the SIS Project because the United States of America has to maintain a strong defense and not be vulnerable to negotiation from a position of weakness. Arms negotiations will not be successful without a formidable arsenal from which to placate hostile aggression. As with everyone else, it is my hope that the product from this plant will never have to be used in war. However, it is essential that we maintain our nuclear arsenal as a means of ensuring meaningful and credible arms negotiations and continued peace.

3.4

5.27.9.1

The SIS project should be located in Idaho so that Idahoans may benefit from any spin-off technologies, and the research and development associated with it. I believe East Idaho would be remiss to reject this technology.

Very truly yours,

James A. Eggert

James A. Eggert

JAE:ke

W262

1.1

4.13

5.24.30

To: The Department of Energy

I feel both a social responsibility and moral obligation to speak up against the building of the Special Isotope Seperator (SIS).

The SIS is simply a nuclear bomb factory. We have plenty of nuclear bombs, not that I support any of these. How many earths can you destroy?

Secondly, no one has proven to me that we can effectively and safely handle the toxic, hazardous and radioactive waste substances that will be produced by the SIS. The safety of all of us is in jeopardy should we let this project go through.

This testimony is a gift to my unborn child and 3 year old son. Please give them a nuclear free future, so that they may have a future.

Thank-You

Sincerely,

Debi Kraal

Debi Kraal
Rt. 6 Box 9116
Twin Falls, Id.

202

W263

APR 04 1990

MAGIC VALLEY FAMILY PHYSICIANS

RANDALL J. SLICKERS, M.D.
JAMES E. SCHEEL, M.D.
KEVIN G. KRAAL, M.D.
D. KURT SEPPI, M.D.
KENNETH E. HARRIS, M.D.

660 SHOUP AVENUE WEST
TWIN FALLS, IDAHO 83301-6091

733-1665

I am absolutely opposed to the SIS plant being built here, or anywhere, on every imaginable ground. But I would like to address it tonight only as a physician. We commonly hold that our health is primary and fundamental. Jobs, athletics and ideologics mean nothing to one who is suffering, incapacitated or dead. I see this on a daily basis in my practice. When a patient is extremely ill, their chief concern is to get well no matter how politically motivated they are otherwise. And I spend hours a day educating people as to the foolishness of poor and dangerous health habits, be it lack of seatbelts, smoking, or whatever, because of the real if seemingly impossible (to them) risks they carry. I would be less than their physician if I did not do this. Sometimes they listen and sometimes they don't, and occasionally they change. What I see here is the exact same situation. Some of us are actually considering taking one of the biggest and most dangerous chances with the health or life of all of the rest of us - and for what? Creation of a desperately needed substance? Hardly - and we have one hundred and fifty tons and in 2,500 years we will still have 75 tons. And does it mean anyone is healthier, or lives longer, or that someone who is now without food or shelter will have food or shelter? No. In fact just the opposite. Money is taken from the health care to make this plutonium. Unneeded, toxic, dangerous plutonium. If we want to use a billion dollars at INEL, use it for medical laser technology. Or do something simply stupid, but don't do something this dangerous and stupid.

1.1

5.13.14

4.15.4

6.3

5.24.27

Kevin Kraal MD

KEVIN KRAAL, M. D.

KK/ch

263

1.1

5.13.14

4.15.5

6.3

No on SIS!

No to leukemia + radioactive toxins

No to weapons grade plutonium

No to wasting taxpayers money for short sighted, dangerous, defense spending

264A

SPECIAL ISOTOPE SEPARATION PROJECT

PUBLIC HEARING ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

REGISTRATION FOR ORAL PRESENTATION

264

APR 04 1988

W264

- ☐ MARCH 25, 1988 IDAHO FALLS, IDAHO
- ☐ MARCH 26, 1988 BOISE, IDAHO
- ☐ MARCH 28, 1988 TWIN FALLS, IDAHO

I WOULD LIKE TO MAKE AN ORAL PRESENTATION ON THE DEIS AND HAVE NOT ALREADY SIGNED UP.

NAME Roger Parness

REPRESENTING _____

ADDRESS 3964 Reed St

CITY Boise STATE Id ZIP 83714 PHONE 345-8713

Turn for testimony

W265

APR 04 1988

March 25, 1988

Partners In progress
1424 E. 17th Street
Idaho Falls, Idaho 83401

RE: The Special Isotope Seperation Project.

GENTLEMEN:

My name is Marvin Sprabeary and I am very concern. I have been a resident of Idaho for over eighteen years, I have a family, home and business, for which I have worked very hard.

As I said I am concerned, after a careful look and much serious contemplating to the proposed construction and operation of The Special Isatope Seperation Project I feel Idaho is going to lose.

In addition; as an employer and a worker, acustom to jobs performed in Radiologically controlled zones, I have developed a strong confidence in the ability of the INEL facilities to maintain safety to Personel and the Environment through rigorous and constant control.

According to a recent study by the Idaho State University, the 750 permanent jobs at the SIS Facility will generate an additional 1,050 supportive jobs in the community. This would mean a total of 1800 permanent jobs, jobs Idaho cannot afford to lose!

In closing I would like to thank you for the chance to be able to offer my personal and proffessional views regarding the support of this special opportunity of growth and prosperity for our community.

Sincerely,
Marvin A. Sprabeary
supporter of SIS

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204

3.2.7

5.27.7.3

W266

APR 04 1988

Mr. Nichols,

March 30, 1988

My name is Kent Kirby and I am currently a resident of Missoula, MT. I am a frequent visitor to Idaho and recently attended public hearings in Boise on the proposed Special Isotope Separation Project in Idaho.

After evaluating the arguments pro and con on the issues, I have concluded that there isn't a clear need for more plutonium to further fuel the nuclear arms race. The danger of an accident at such a plant is real and could have devastating effects on both human life and on the environment. The costs and risks to all of us far outway potential benefits to a few.

4.15.2

4.15.5

4.15.4

5.1.42

6.2

I have listened to Idaho's elected officials' opinions and am amazed that they have chosen to ignor the warnings of atomic energy, transportation, and environmental experts. The officials have taken a shortsighted view of this project in favor of its economic advantages. They are clearly not representing the best interests of their constituents. If an improved financial picture for Idaho is their goal then they should look to clean, safe, environmentally sound industry.

I am strongly opposed to the S.I.S. Project in Idaho or anywhere else.

1.1

Thank you for your consideration.

Kent Kirby

P.O. Box 3433
Missoula, MT 59806

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W267

APR 04 1988

March 29, 1988

Dr. Clay Nichols
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1 1 At a recent Rotary meeting it was proposed that the Eastern Idaho Falls Rotary Club, which consists of approximately 30 members, support the SIS project. The motion was carried unanimously.

Sincerely,

Phil Hackbarth
President
Eastern Idaho Falls Rotary Club

blg

267

205

W268

APR 04 1988

FOR THE HEARING RECORD
Testimony of Ron Mitchell, 8673 Fairview #55, Boise, Idaho 83704
On March 28, 1988, regarding the Special Isotope Separator Project

My name is Ron Mitchell, and I am a 30-year resident of Idaho. I opposed the SIS project for several reasons. 1.1

First, the draft EIS is inadequate.

Second, it is a pure porkbarrel project, which is unnecessary. As the Energy Secretary recently stated in Washington, D.C., the nation is "awash" in excess plutonium. To waste money producing more is a waste of the taxpayers money and adds a risk to the health of Idahoans. The AEC has a long history of failure to protect workers and citizens from radiation. In fact, the plutonium to be produced here would depend on materials being sent here from the Hanford Nuclear Facility, which itself is being shut down largely due to failure to control radiation. 2.1.1 4.2.1 3.2.1 5.26.5

This project will not provide long-term clean and safe jobs, but only short-term service jobs and jobs that expose workers to health risks. In the interim, the influx of several thousand temporary workers will place great pressure on local fish and wildlife resources (due to many more people hunting and fishing), and local infrasturcture. 5.27.7.1 5.27.4.3

Another disadvantage is that Idaho's INEL will become a "back door" nuclear waste dump. Additional waste from the SIS project will be generated, as well as that shipped in from Hanford. Since no alternative waste site is mentioned in the EIS, it will obviously be dumped in Idaho. For nearly 20 years the Departmen of energy has failed to relocate wastes already here under temporary storage. 5.30.2.5 5.30.1.14 5.27.3.3

This project will also most assuredly damage the recreation tourism economy of the Sun Valley ketchum area. There is also danger of radioactive contamination of the Snake River Aquifer. If it is polluted, it could truly devastate Idaho's agricultural economy which largely depends on this aquifer for existence. 5.30.4.7

Particularly startling and disturbing is that the EIS does not justify this project. This is just another silly wish-list item for the Pentagon. I urge you to drop the SIS entirely, let alone not locate it in Idaho. 4.15.4

Thank you. Ron Mitchell

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W269

APR 04 1988

March 29, 1988

Dr. Clay Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dr. Nichols,

1.1 We support the placement of the SIS project at the INEL for the following reasons:

5.27.7.9 1. Job opportunities for myself, family and friends

5.27.6.1 2. Financial benefits to our communities

5.27.9.1 3. Increased tax base that will come with new employees and industry

3.2.2 4. Benefit to Idaho's higher education to support this project

3.2.7 5. New technology at the INEL

6. Our belief that DOE can build and operate a safe facility

Please include this letter with those in favor of the SIS project at the INEL.

Thank you,,

David J. Griffith
Jacqueline Griffith

David J. and Jacqueline Griffith
455 Crimson Dr.
Idaho Falls, Id. 83401

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W270

APR 04 1988

Stephanie Bourgette
Box 1424
Ketchum, ID 83340

April 1, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

Please add my letter to the many you must be receiving who are against the SIS. I won't take a lot of your time, but I have given the matter a lot of consideration and feel informed of the facts, and while it may create a temporary "shot in the arm", I really feel that the SIS would be devastating to the economy of Idaho in the long run. 1.1 5.27.6.1

We are trying hard to establish tourism as one of our major industries in the state, and the SIS will only deter those efforts. Also the danger to the Snake River Aquifer must be considered. 5.27.3.3

Aside from that, I feel the dangers involved from radiation both from the hazards of production and from the transportation and burial of waste products are too great a risk to ask the people of Idaho to endure. Please consider my vote against the SIS. 5.12.1 6.2

Thank you.

Sincerely,

Stephanie Bourgette

STEPHANIE BOURGETTE

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W271

APR 04 1988

April 1, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 Please add my letter to the many you must be receiving who are against the SIS. I won't take a lot of your time, but I have given the matter a lot of consideration and feel informed of the
5.27.3.3 facts, and while it may create a temporary "shot in the arm", I really feel that the SIS would be devastating to the economy of Idaho in the long run.

5.27.6.1 We are trying hard to establish tourism as one of our major industries in the state, and the SIS will only deter those
5.27.3.3 efforts. Also the danger to the Snake River Aquifer must be considered.

5.12.1 Aside from that, I feel the dangers involved from radiation both from the hazards of production and from the transportation and
6.2 burial of waste products are too great a risk to ask the people of Idaho to endure. Please consider my vote against the SIS.

Thank you.

Sincerely,

Joanne M Werner

Box 1309
Sun Valley ID 83353

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207

W272

APR 04 1988

April 1, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

Please add my letter to the many you must be receiving who are against the SIS. I won't take a lot of your time, but I have given the matter a lot of consideration and feel informed of the facts, and while it may create a temporary "shot in the arm", I really feel that the SIS would be devastating to the economy of Idaho in the long run. 1.1 5.27.6.1

We are trying hard to establish tourism as one of our major industries in the state, and the SIS will only deter those efforts. Also the danger to the Snake River Aquifer must be considered. 5.27.3.3

Aside from that, I feel the dangers involved from radiation both from the hazards of production and from the transportation and burial of waste products are too great a risk to ask the people of Idaho to endure. Please consider my vote against the SIS. 5.12.1 6.2

Thank you.

Sincerely,

Thomas Rosbury
Box 159
Hailey, Idaho 83340

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W273

April 1, 1988

Mr. Clay Nichols
785 Doe Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

FOR THE HEARING RECORD:

Please allow me this opportunity to express my concern over the Special Isotope Separation project being considered for construction at Idaho's A.E.C. site east of Arco, Idaho.

1.1 I strongly oppose this project being built anywhere, particularly in Idaho. It appears to me that there is more than an adequate supply of plutonium for current and national defense needs. The short plant life and relatively small job base is short-term gain compared to the possible black eye this project can give the State, especially the tourist industry.

4.15.5

5.27.3.3 The potential for long-term pollution of the Snake River acquifer is very real, and I feel that the environmental impact statements on the S.I.S. project do not address this issue accurately, nor does it address the existing concern for the acquifer created by the A.E.C.

5.12.1 Finally, I do not want to live within fifty miles of the proposed S.I.S. plant for reasons of personal health and safety.

Thank you for your consideration in this matter.

Very truly yours,

Stoney Burke

273

208

W274

APR 04 1988

964 Wayne
Pocatello, ID 83201-3612
April 2, 1988

Dr. Clay Nichols
U.S. Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402-1133

Dear Dr. Nichols:

I have what might be considered a rather trivial problem with the SIS Draft Environmental Impact Statement. My concern is with the Historic Resources section which obviously doesn't compare with concern for safety. Nevertheless, since Historic Resources are a part of the document, they deserve accurate treatment. 5.15

Sections 3.1.3 (p 3-5) and 4.1.1.2 (p 4-3) refer to an archeological survey of the ICPP area by the Idaho State University Swanson/Crabtree Anthropologic Research Center. The Center's sole finding is "a historic dump site dating to the 1920s...". Based on my admittedly limited knowledge, the Research Center did an incomplete piece of work for this document. The late Jack Gerard of Terreton, Idaho, wrote a booklet about his experiences as a cowboy at the present INEL Site (Wild Horse Jack). The time period was 1914-1917. Mr. Gerard indicates that most of the farms established in the area in 1910 when the Mackay project was started were abandoned by 1914. It doesn't seem realistic to me that 4 years would be long enough to establish a dump, especially with the few people living in the area.

My main point is more than opinion. Approximately 1200 feet due east of the proposed location of the SIS Plant Personnel Access Guard Post is an abandoned farm with a fairly well preserved cellar built with lava rocks and cement. This cellar is mentioned in DOE/EA 0306 (Environmental Assessment-Fuel Processing Restoration at the INEL, Section 3.4.2, p 3-17). However it is not fenced as stated; it is posted with signs. I believe this site to be the location of the "White House" that Mr. Gerard refers to in his booklet several times. He also refers to a "Root Hog Ford", which was on the Big Lost River about 1/2 mile north of the white house. The ICPP sewage infiltration beds extend part way into this farm. Judging from aerial photographs, a second farm lies east of the south end of the ICPP area.

I note that the SIS statement refers to the "Henford Canal" as of possible historical significance. The INEL was also the site of a large irrigation project about 1909, with over 30 miles of canals on the INEL site and outlet works on the Lost River. A village known as Powell or Pioneer was headquarters, located where the railroad crosses Lost River. Four branch canals cross the highway between Central Facilities and the ICPP, and the ICPP service waste disposal pond is bisected by one of the canals.

Section 5.6.1 of the Impact Statement assures protection and preservation of historical artifacts in the areas affected, and I am confident that DOE will take all necessary measures to carry this out.

Thank you for the opportunity to comment on this document.

Yours truly,

Fred W. Dykes

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W276

SPECIAL ISOTOPE SEPARATION PROJECT

PUBLIC HEARING ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

REGISTRATION FOR ORAL PRESENTATION

☐ MARCH 25, 1988 IDAHO FALLS, IDAHO

☐ MARCH 26, 1988 BOISE, IDAHO

☐ MARCH 28, 1988 TWIN FALLS, IDAHO

I WOULD LIKE TO MAKE AN ORAL PRESENTATION ON THE DEIS AND HAVE NOT ALREADY SIGNED UP.

NAME Joseph E. Pietri

REPRESENTING Edna's Homemade Soap Co.

ADDRESS P.O. Box 687

CITY McCall STATE Id. ZIP 83638 PHONE 634-7542

Testimony on Back

W275

Ken Grayson
Box 1424
Ketchum, ID 83340

April 1, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 Please add my letter to the many you must be receiving who are against the SIS. I won't take a lot of your time, but I have given the matter a lot of consideration and feel informed of the facts, and while it may create a temporary "shot in the arm", I really feel that the SIS would be devastating to the economy of Idaho in the long run.

5.27.3.3 5.27.6.1 5.27.3.3 We are trying hard to establish tourism as one of our major industries in the state, and the SIS will only deter those efforts. Also the danger to the Snake River Aquifer must be considered.

5.12.1 6.2 Aside from that, I feel the dangers involved from radiation both from the hazards of production and from the transportation and burial of waste products are too great a risk to ask the people of Idaho to endure. Please consider my vote against the SIS.

Thank you.

Sincerely,

Ken Grayson

KEN GRAYSON

W277

APR 04 1988

Dear Dr. Nich...

I represent a small Business that is run by our large family.

1.1 We all (10) oppose the S.I.S. feel it is unnecessary for any type of economicall Boon.

5.27.7.17 Our small business would be able to employ 5 times the amount of people as any S.I.S. and our industry is socially acceptable.

I Vote No to S.I.S. and feel we

2.12.3 should delay any judgement until the new administration takes over.

Please take serious consideration my voice is of many in our family unit alone

Thanks so much

Joe E. Petri + family

276A

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WHEELER ELECTRIC INC.

469 WEST 16th ST. / PO BOX 2173
IDAHO FALLS, IDAHO 83403-2173
208-522-1906 FAX 522-5927

SIS Statement

Wheeler Electric, Inc. endorses wholeheartedly the construction of the SIS project at the Idaho National Engineering Laboratory. Wheeler Electric has been in the electrical contracting business in Eastern Idaho for 26 years and has provided employment opportunities for many local electricians in that time. There is no doubt in my mind that a good portion of our business over the years has been derived, either directly or indirectly, from the INEL. 1.1 5.27.12.5

We can attest to the high degree of safety practices required of us and all contractors-both construction and operation- at the INEL. We are proud of our safety record and know that all those involved in this project would be extremely safety conscience. We see the SIS project as a step forward in the area of safety, as the Atomic Vapor Laser Isotope Seperation technology utilized in this process is more advanced and less complex than the traditional nuclear reaction technology presently in use, and hence, would not adversely impact our local environment nor increase risks for those who work there. Indeed, it appears that those who bask in the sunlight all day on the ski slopes will receive more radiation than they would by working in this facility. 5.24.23 5.24.31 6.1.2

As a company presently involved in some fiber optic and laser installations, we are very excited about the numerous possibilities for varied business opportunities that this AVLIS technology will bring. We envision the research and development that will spin off from operation of this facility helping to make great strides in many areas-including medical science, communications, and manufacturing among others. This facility will put Idaho and Idahoans on the leading edge of technology in this area and we believe it is very short sighted to hamper this great advance because of the short 7 year mission of plutonium seperation which will fund the construction of 5.27.9.3

5.28.6

this facility. The question has been posed: "what happens if a new president decides this plutonium refinement is not necessary?". We would hope that the vast pool of intelligence and expertise associated with the INEL could easily convert this laser facility to other uses.

3.2.2

Some have said that there is no need to produce more weapons-grade plutonium. I don't know. I don't believe they know either. But I do know that I voted for our president and other leaders and by voting, I believe, I put a measure of trust in them to make these kind of informed decisions in the best interest of our country and its national defense. They have allocated a substantial amount of money to the construction of this facility and that indicates to me that the need is real!

5.27.6.1

There is no doubt that the SIS project will be a great economic boost for our state. We all complain about the need to provide better education for our children and for more funding to do so, but we also balk at the thought of raising taxes. What better way to attain both goals than by expanding and stabilizing the tax base. We see the SIS project as providing this needed shot in the arm and also providing our children more opportunities to stay and work in Idaho.

The other day, I saw a banner that said something to the effect, "Idaho, have you gone mad?" If wanting better education for my children is crazy; if wanting better living conditions for them is crazy; if wanting employment opportunities for my employees is crazy; or if wanting to participate in exciting new technology is crazy, then I am mad. I'm mad at those who are so narrow-minded as to believe that our leaders are out to destroy us. I'm mad at those who stand in the way of my improving the lot of my family. I'm mad at those who can't see the forest for the trees and would ignore this opportunity to participate in a great technological advance!

On behalf of myself, my family and the employees of Wheeler Electric, I urge your rapid evaluation and decision to build the SIS project at the Idaho National Engineering Laboratory. Let's move forward, not backwards!

Douglas R Wheeler VPres

W278

APR 04 1988

March 29, 1988

Dr. Clay Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dr. Nichols,

We support the placement of the SIS project at the INEL for the following reasons: 1.1

1. Job opportunities for myself, family and friends 5.27.7.9
2. Financial benefits to our communities 5.27.6.1
3. Increased tax base that will come with new employees and industry 5.27.9.1
4. Benefit to Idaho's higher education to support this project 3.2.2
5. New technology at the INEL 3.2.7
6. Our belief that DOE can build and operate a safe facility

Please include this letter with those in favor of the SIS project at the INEL.

Thank you,

Ronald D. Klingler
Nita B. Klingler

Ronald D. and Nita B. Klingler
42 South 3000 West
Rexburg, Idaho 83440

278

W279

March 30, 1988
J. L. Smith, P.E.
12 Tulane Avenue
Pocatello, ID 83201

Dr. Clayton Nichols
SIS Project Manager
U. S. Dept. of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

The following are my comments concerning the Special Isotope Separation Project, proposed for implementation at the Idaho National Engineering Laboratory.

4.15.4 1. While I do not favor the long-term, large-scale accumulation of weapons-grade plutonium, I see a clear need to maintain its production by the U.S., until future events make it unnecessary.

5.28.2 2. As a practicing chemical engineer, I see the proposed laser-based SIS technology as being an unusually clean and safe way to separate plutonium from other chemical species. I strongly favor this approach over reactor-based approaches, during the near term, say for the next ten years. Employing SIS will provide time for the U.S. to develop the next generation of plutonium production technology or to arrive at international treaties which will make further production unneeded. 4.15.2

6.1.2 3. The overall risk associated with the SIS Project seems relatively small and acceptable, from my perspective. In part this relates to the clean and well-developed technology. In part, it relates to the fairly remote location of the INEL. In part, it relates to the excellent talent and experience which are resident at the INEL.

4. As a 30-year resident of Pocatello, I see the impacts of the INEL and of the SIS Project as being highly beneficial to our city and to our region. The leading-edge technology inherent in the SIS Project, and in other INEL projects, will do much to keep eastern Idaho in the mainstream of modern-day industrial technology, which is so vital to our ability to compete economically with other regions and even with other countries.

5.27.9.1 5. Specifically, the laser-based technology of the SIS Project represents a breakthrough in the separation of chemical species, which I believe will have spin-off potential for the chemical and mineral-processing industries. These industries have many difficult chemical separation problems and powerful new tools are needed to solve these problems.

5.27.6.1 6. The SIS project's socio-economic impacts in the Pocatello-Chubbuck area will, for the most part, be positive. The area's workshops and labor force are under-employed and the communities are capable of housing and serving many more workers and their families. 6.2

I believe that the above-listed advantages far outweigh the risks and disadvantages associated with the SIS Project. I strongly support the construction of the SIS Project at the INEL. 1.1

Sincerely,

Jack L. Smith
Professional Engineer

W280 APR 04 1988

Dear Mr. Nichols,

I am concerned about the topic on S.I.S. Is this really as safe as everyone claims. I don't believe it is. Idaho is a beautiful state and I think we should keep it that way. If more people would get involved and tell about their fears, then there would be less to worry about.

On television we hear "There is no possible chance of a spill we are completely safe." How can they be so sure. Nothing can hold up to a big earthquake ect. Idaho needs to think of its future and not just its present.

What about my children. I realize that's a long way off but I'm worried about my future.

I can't believe people actually want this. We don't want any more bombs ect. We the people of Idaho want a better future, not only for us but for the people in years ahead.

I only hope that others will be as concerned as I and take action.

Thank You,
Shelly Marie
Bennett Smith
Age 14.

280

5.24.30

5.24.23

5.24.25

213

W281 APR 04 1988

201 Louisa
Boise, ID 83712
March 31, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

RE: XXX SIS

Dear Mr Nichols:

I oppose SIS on the grounds that it is immoral and unnecessary. I sincerely hope that our government will choose not to build it. 1.1

Personally and selfishly I do not want SIS in Idaho if it is built. I do not want vast quantities of plutonium being hauled on our highways. 5.29.92
I do not want radioactive dust floating over family members in eastern counties of the state. I do not want to run the risk of killing fish, wildlife, domestic animals and even people by waste leakage into the Snake River, ...and thence to the Columbia and the Pacific. I do not want it in Idaho, but I would not wish it on Washington or South Carolina either. ... or on the eventual recipients of the the warheads. It should not be built ANYWHERE. 5.29.91 5.3.11

I don't want to be a martyr, but I guess if I had to make a choice I'd rather be a martyr through action than through inaction. 5.30.4.7

Sincerely,

Mark Copeland

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W282

I was unable to attend the SIS hearings in Boise, however I am writing this letter to state that in my opinion (and my wife's) even the consideration of building the Sewerage plant here or elsewhere is sheer stupidity. Be advised that if this is done we will join any movement to oust the politicians from office responsible for the construction of such a project! Read the writing on the wall, there is no future in death!

1.1

John Carl Harrison
1703 N. 30th
Boise, Idaho
83703

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W283

APR 04 1988

Peter M. Lichtenstein, Ph.d
1102 N. 17th St.
Boise, Idaho 83702

My name is Peter M. Lichtenstein. I am a 13 year resident of Boise, Idaho and employed at Boise State University where I am a Professor of Economics. I hold a bachelor's degree in economics, a master of science degree in industrial administration and systems analysis, and a masters and doctorate in Economics.

I would like to limit my remarks to two aspects of the EIS document which deals with the forecasted economic impacts of the SIS project on the State's economy.

The first aspect is the supposed employment effects of the project. The regional multiplier effect, which predicts a net expansion of employment of 400 regular jobs and 440 construction jobs, does not have much statistical significance. My colleague, Dr. Chuck Skoro, has already testified to this effect on March 26, 1988, and I support his conclusions entirely.

5.27.1.5

I will add that regional multipliers are notoriously unreliable predictors of regional impact. The spending multiplier which allegedly generates the new employment does not take into consideration the fact that a sizeable portion of the new jobs generated will come from outside the state. Most regional multipliers that I have seen assume that all new jobs are internally generated within the region being studied. The multipliers assume that the regions are diversified and self-sufficient and have adequate supplies of human and capital resources to meet the demands of new projects.

Such is not the case in Idaho. We have neither sufficient human nor capital resources available to supply the resource demands of the SIS project. This means that these resources would have to come from outside the

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state. In other words, the primary economic effects of the multiplier would not be felt by contractors and workers from Idaho alone.

It is important to note that Idaho's prominent proponents of SIS use this statistically unsound employment multiplier as their primary basis of support. They have accepted this unchallenged statistic without questioning its validity. Closer inspection of the multiplier will reveal that their support for SIS on the grounds that new employment would be generated is entirely unwarranted.

5.27.6.11

The second aspect I wish to address has to do with the source of the $1 billion. As a hard nosed economist, I must ask these two very simple questions. They are questions I have heard no one ask, least of all Governor Andrus and our so-called "fiscally conservative" Senators Symms and McClure and Rep. Craig. The first question is, where will the $ 1 billion come from? That such a simple and obviously important question has managed to escape the attention of Idaho's leaders is puzzling, to say the least.

The second question is, what are the economic consequences of each of the various methods of financing the $ 1 billion project? When and if Congress appropriates the necessary funding for SIS, it will have to get it from somewhere, and, depending on where it comes from, the act of financing the $1 billion will itself have certain negative economic conseqeunces which no one seems to have taken into account.

Generally speaking, there are three sources of money. One source is to take the money away from other appropriated or on-going federal projects, either military or civilian. The second source is new taxes. The third source is federal borrowing.

(1) If the source is another federal project, then which project will be terminated? Which project will get red lined ? Whichever project it might be, we can be sure that either existing jobs or new job opportunities elsewhere would be lost at the same time that new jobs are created.

6.3

Will more new jobs be created than are lost? Probably not: I would predict that, should this be the method of finance, monies will be taken away from civilian projects such as housing construction, projects that are highly labor intensive, in order to finance SIS, which is higly capital intensive. I doubt that money would be taken away from other defense projects that are equally capital intensive.

Labor intensive projects are those which generate lots of new jobs for a given dollar spent, compared to capital intensive projects which generate fewer jobs per dollar spent. Thus, the price for getting 840 new jobs from capital intensive SIS (400 to build SIS, 440 to run it) could well be the loss of <u>more that</u> 840 jobs elsewhere in the U.S. More simply stated, more jobs would be lost in the aggregate than would be created in Idaho. This kind of simple, standard macroeconomic accounting has not been done by anyone in the EIS.

5.27.1.3

(2) If the source of the $1 billion is new taxes, then it is plain to see that the money will ultimately come from the pockets of consumers all over the United States. And when consumers spend less money, then this is bad for business and for labor. And this will result in a negative multiplier process. Economic theory predicts that multipliers work in both directions, either expanding spending, sales and employment or reducing spending, sales, and employment.

5.27.6.11

Thus, while we satisfy the special interests of the out-of-state

contractors and engineers and of Idaho's electrical and construction workers, we are directly harming workers in the retail and wholesale trades, in the home construction trades, and other skilled and unskilled workers in this state and elsewhere. Our conclusion is the same as before: more jobs would be lost in the aggregate than are created here in Idaho. This kind of simple, standard macroeconomic arithmetic has also not been done. 5.27.1.3

(3) The third source of finance is federal borrowing. We all know about the evils of federal debt and the problems of our ever growing deficit. That deficit must be paid for, a lesson which Andrus, Symms, Craig and the electrical workers unions apparently have not yet learned. And when we borrow money we must pay interest. And the interest is added to the debt.

Who will lend the money? That is, who will buy the Treasury bonds ? The lenders will be both U.S. and foreign business. And where will these businesses get the funds with which to lend to the government? The answer to this question is simple: they will lend less to other private businesses in order to lend to the federal government. This is the basic economics of debt financing: the government must bid financial resources away from other private uses, which spells: fewer jobs. 6.3

The conclusion of the above basic economic analysis is clear: while the SIS project itself might create new jobs, and those mainly for out of state beneficiaries, the methods of financing SIS will result in lost opportunities for employment elsewhere in the economy. This has not been figured into the regional multiplier calculation.1

It is remarkable that Idaho's organized labor unions should be so shortsighted and narrow minded. Why is Idaho labor so willing to cling to the

illusion of a net employment gain that would accrue entirely to Idaho workers? ? Why is labor so possessed with the pursuit of their own narrow economic interests, a pursuit that comes at the expense of their brethren workers in other states?

It is even more remarkable to find our noted fiscally conservative elected officials supporting the expansion of federal spending at a time when other higher priority projects, such as support for the homeless, are screaming out for attention. How can it be that that these officials proclaim reduced government involvement in Idaho's economy, reduced welfare payments, and reduced taxes and deficits out of one side of their mouths while at the same time proclaiming the need for increased government involvement in Idaho's econmomy, increased welfare payments (in the form of government created jobs), and increased federal taxes and deficits out of the other side of their mouths? The hypocrisy is unfathomable. 6.3

In conclusion, I find that the weight of all the evidence presented at the Boise hearings points clearly in the direction of cancelling the SIS project before even another dollar is spent. 1.1

Respectfully submitted,

Peter M. Lichtenstein

Peter M. Lichtenstein, Ph.d

W284

city of moscow

P. O. BOX 9203
122 EAST FOURTH ST.
MOSCOW, IDAHO 83843
TELEPHONE 882-5553
AREA CODE: 208

→1-CRN File
1-T. Hill
1-RDE

March 29, 1988

RECEIVED
APR 4 1988
SIS Project Office

Mr. Carl P. Gertz, SIS Project Manager
Idaho Operations Office, U.S. DOE
783 DOE Place
Idaho Falls, ID 83402

Dear Mr. Gertz:

The Moscow City Council Commission on Health and the Environment held a public hearing to obtain comment on the Department of Energy's Draft Environmental Impact Statement on the proposed Special Isotope Separator (SIS) Project at INEL. As you can see by the size of the enclosed transcript, interest in the SIS project does indeed exist in North Idaho. We respectively submit this transcript as official comment.

The Health and Environment Commission made a unanimous decision to sponsor the hearing and two commission members volunteered to actively participate on the hearing panel, myself and Dr. Richard George. The other panelists were Marie Stratton Vogel, Mayor of Troy; Dana Magnuson, Kendrick City Councilperson; Nancy Johansen, Latah County Commissioner; Katrina Berman, representative of the League of Women Voters; Mardi Baron and Bill Voxman, Moscow City Councilpersons; Elliott Moffett, representative of the Nez Perce Tribal Executive Committee; and John Norton, Moscow attorney.

Although the Commission was approached and convinced to hold this hearing by two local environmental groups, the hearing was advertised by all major newspapers and radio and television stations within a 50-mile radius. Over thirty persons presented verbal comment and several more submitted written testimony. The scope and depth of their comments was impressive in terms of research as well as emotional content.

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(1)

The citizens of North Idaho will be impacted by the SIS project and we appreciate this opportunity to comment.

Sincerely,

LuAnn Scott, Chairman
Commission on Health and the Environment

LS:dm
Enc:
cc: Governor Andrus

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PUBLIC HEARING
ON THE PROPOSED SIS
MARCH 10, 1988
MOSCOW, IDAHO

The following is testimony presented at a public hearing on the proposed SIS project at the INEL near Arco, Idaho.

1. Bill London: "I'd like you to imagine, you D.O.E. officials-wherever you are, to imagine a scenario; imagine the SIS built in Southern Idaho; and imagine the winds of political change shifting. Imagine the federal government changing after the impact of the Reagan years and the emphasis placed upon military expenditures lessening. Imagine how the facility might get partially built--built with outside laborers. Imagine that the first plutonium or the first nuclear waste (is) stored there and then imagine the changes happening in the federal government, happening in a new administration, a new fiscal year and a lack of funding. Imagine a half-completed facility and then the leakages that are bound to occur.

5.12.1

It seems like a possible scenario to me that southern Idaho will become a real sacrifice area, that the aquifer will be destroyed, that the employment and economic development that was promised will not occur, that the federal officials will realize that what they were doing here was sponsoring another major welfare program that they decide to eliminate in an era of budget-cutting.

5.27.6.1

I don't think this is an unrealistic scenario at all. If you investigate what is happening at Hanford now, you see that's exactly the situation. This morning, for example, in the Lewiston Tribune there was a story in the first page of the food section by Mike Stewart. A DOE official says U.S. priorities reflected at Hanford. A DOE official in the public relations department is spreading the word now that Hanford is turning over a new leaf. Hanford is not this horrible nuclear facility; they've learned their lesson, they do not do things that way anymore. They're a much better facility now; they're hoping to change; they're hoping to exchange jobs in possibly alternate energy or some other way to keep jobs at Hanford. That could easily happen at the SIS and INEL in southern Idaho. And of course, the legacy of Hanford now is the ruined lives, and the sick people and the desecrated environment. The same thing could happen to southern Idaho. I don't think it's worth it. That's my testimony.

1.1

2. Ellen Magnuson, Kendrick, Idaho:
Testimony written and submitted herewith.

3. Joe Baugh, 211 N. Main, Troy, Idaho 83871:
I'd like to testify tonight against the SIS. I've been a resident of the state of Idaho all my life, that's thirty-eight

(3)

years. Most of that was spent in southern Idaho living underneath the shadow of INEL. My father worked for the Forest Service and I can remember in the fifties he used to carry a badge much like the individuals do in reactors now that indicate how much radiation you're getting.

Back then they told Him that it was because of the Russian bomb testing. When those badges started turning color rather rapidly, there was a concern, and all of a sudden forest service personnel were concerned about it and started to ask questions. When they asked questions, the project was stopped. Nobody was wearing badges anymore. It was also kind of interesting that many of us had a large number of warts and various other sorts of skin tabs and things like that when we were in our youth. Many of us and many of my friends have died of cancer and leukemia since then.

I was hoping I might get out of it when I moved to Northern Idaho and I obviously didn't look at the map very closely when I came from downwind of INEL and moved into downwind of Hanford. So I don't think we can get away from it, we have to stop it.

I don't see any reason to go ahead with this type of reactor. We don't need the plutonium and plutonium is a very, very dangerous element. It is a very dangerous chemical; it is very difficult to deal with and I'm sure that there are leaks occurring. Every time we turn around we see there is a new leak at Hanford, or there's a leak someplace else in the country or somewhere there's an accident on the roadside. It just doesn't seem sensible to me to go ahead with producing more when I don't see any reason for the production of plutonium in the first place. I think for these reasons, for the reasons I don't think it would be much of an economic advantage to Idaho when you consider the potential for some sort of disaster wiping out any kind of economic growth we may experience.

4.15.4

5.30.4.7

I think here in Northern Idaho we noticed that when we had just a minor chemical spill in the Little Salmon River, it has raised quite an uproar. They're now talking millions of dollars of damage and years and years of effect on the environment. That's a very minor spill compared to if that were plutonium that had been spilled, even a small amount of plutonium. We wouldn't be talking about the river flushing out in a few months and just having an entire population of fish being killed. We'd be talking about generations and generations to come. I don't think we need that in the State of Idaho.

5.27.6.1

I think we have lots of resources here that are well worth our utilizing rather than utilizing our supposed ignorance, I guess, or utilizing our supposed patriotism in the state to withstand another assault by the Defense Department and the Federal Government to place an unwanted project in this state. For those reasons I'm opposed to it.

4 Arthur Curtis, 514 S. Polk, Moscow, Idaho 83843:

(4)

2.7.3 I am a minister and what concerns me are both moral issues and political issues. I'm against the SIS being built for a number of reasons. On a national level we are seeing an enormous Star Wars Program with a supposed object of giving us a better defense and it becomes clearer and clearer that the program is really being set up to give us offensive capability which will destabilize the nuclear situation worldwide. I think we owe it to ourselves to be very skeptical of anything that contributes to the Star Wars Project. So, on the national level, I'm opposed to it for that reason in particular.

1.1

2.7.1

5.22.3

I think for the State of Idaho it will be the tail that wags the dog. It will be such a big part of our economy and will wield such influence in the state that we won't ever be able to escape from it if we allow it to assume the proportions that it has if we add the SIS capability to the present facilities that now exist in Southern Idaho. So I think it is very dangerous.

5.27.6.1

5.27.7.5

It is corrupting. It is corrupting because it involves duplicity on a grand scale. The duplicity we know because we have already experienced it. We have been told lies by Federal Agencies about the extent of radiation and we found out afterwards that they were completely untrue. I think there is no way that such an enterprise can escape continuing to lie, continuing to misinform the public. The whole project will be shrouded in secrecy and the people who work for it will be encouraged to be secret, encouraged to lie. I know that a lot of people who work for it will be fine, upright citizens and I certainly don't question their patriotism or question the honesty of most of the people who would be working there. But, I think that the system is such that it encourages lying and encourages a mistrust of government by all those people who know the government's lying. I think that corrodes our state and national moral to have that situation continue.

3.2.2

It is very striking to me that over the course of our forty years of reliance on nuclear weapons, we have taken all the risks in one direction. We have risked building nuclear weapons whose effect was often not known. Both the effect when exploded and the effect when manufactured. We have taken that sort of risk. We have taken the risk of building this huge arms establishment and we have taken all the sorts of risks which are justified by seeing the USSR as a danger. We've taken very few risks in the opposite direction. It would be just a small risk on our part not to build anymore weapons and to assume that we could get along with the weapons we have if you assume that the processes of negotiation might allow us to work things out in some way over the long run--some sort of peaceful stalemate with the USSR. All the risks that we have taken have been associated with a huge arms build-up and we have not been able to take any risks of a peaceful nature--any risks that one might call faith in the process of cooperation. Faith that somehow diplomacy could get us to some of the same places that nuclear arms do.

(5)

So, I would call on us to risk not building more weapons, risk not building the SIS, and I certainly don't want us to assume the risk of contaminating the huge aquifer under the Snake River Valley. That is an extraordinary prospect that that enormous aquifer would be contaminated further than it already is. So, for those reasons, I'm against the SIS.

5.12.1

5. Wiley Hollingsworth:
I'd like to thank you all for setting this up and coming out tonight. The proposed SIS facility would be part of a nuclear fuel chain that begins with mining uranium and ends with waste dumps that no one knows for sure how to isolate from the biosphere.

I have provided you with two written goodies that I hope you'll find time to read. One is a publication out of Canada entitled "No Safe Way to Mine Uranium". A response to Teck Corporation's current effort to clear the legal debts for mining of uranium in British Columbia. The uranium would be sold to Japan for use in their reactors. Would it then go to SIS? What is the plan for SIS after the first four years, after the plutonium has been extracted from the supply of fuel rods irradiated in military reactors.

Is the Department of Energy intentionally building excess capacity that it will let stand idle after four years of operation or does it plan to extract plutonium from civilian fuel rods? To the extent that these questions aren't discussed in the EIS, then the EIS is defective.

5.26.2

Let's put legality and morality aside for a moment, like the nuclear industry seems to do routinely, and consider the possibility that plutonium traded in commercial power reactors is to be extracted at SIS. If so, then the EIS should discuss the relative safety of the reactors and the safety upgrading needed at many.

Are U.S. reactors generally as safe as West European and Japanese reactors, for example? Not according to Nuclear Regulatory Commissioner, James K. Asselstine. On May 22, 1986 he testified before a house sub-committee that "given the present level of safety being achieved by the operating nuclear power plants in this country, we can expect to see a core melt-down accident within the next twenty years."

Now it is possible that such an accident could result in off-site releases of radiation which are as large as or larger than the releases of radiation estimated to have occurred at Chernobyl. On May 29th of the same year, Mr. Carl Walske, President of the Atomic Industrial Forum, Inc. wrote to Mr. Asselstine to say in effect that the public was misinterpreting his testimony. This statement of Mr. Walske's was perhaps the industry and his friends and we'll get back to it. On July 15th of the same year, Commissioner Asselstine responded to Mr. Walske

5.1.45

(6)

saying, "I stand by my statement and I want to take this opportunity to explain my position in detail." And he does so going on for five single-spaced pages. I have a copy of a letter that goes on also to suggest what the industry might do to lessen the risk and upgrade it's safety.

In the fall of that same year, a panel discussion and debate was sponsored locally by same and held at W.S.U. An anti-nuke mentioned Mr. Asselstine's testimony and a pro-nuke responded with the official party line, apparently, handed down by Mr. Walske of the Atomic Industrial Forum. "His testimony was misunderstood by the public." And the pro-nuke went on to say what he meant was...then his speech left a very different impresssion than did Mr. Asselstine's testimony. I mention it as an example of an apparently historic and industry-wide policy of "deceive and confuse". The veracity of the industry and therefore, those who rely on it for information, is suspect whether they speak for the industry to protect jobs, funding, or
3.2.2 grants. It follows that those who read the EIS should do so with good old American skepticism.

The project of the SIS would be plutonium. Do the EIS's authors attempt to keep the public uninformed by continuing the Department of Energy's outrageous overuse of the secret stamp or
4.1 do they adequately address the needs of more plutonium? To the extent that they evade the topic, the EIS is defective. It is more than likely that when you don't need more plutonium, and therefore, don't need the SIS, nor its numerous years and months
5.30.1.5 worth of dissolved fuel rods being "disposed of" in soil overlying the Snake aquifer.

I eat Idaho potatoes, I have family living in Vancouver, Washington beside the Columbia River. Let's keep the Snake
6.1.7 River, a tributary to the Columbia River, clean. Thank you for this opportunity to speak.

6. Victoria Seever, 413 S. Almon #3, Moscow, Idaho:
I'm speaking against the SIS. I lived in Denver for a year when I
1.1 was in the 8th grade. That was the year we studied state history & probably the only year when I found history to be a fascinating subject. We travelled through a lot of Colorado and I was excited to see places I'd studied in my text. But I don't recall ever hearing a thing about Rocky Flats, which is only 16 miles from Denver.

In fact, only in the last couple of years did I learn anything about Rocky Flats where they manufacture triggers for the cores of nuclear bombs and what was the site of the worst fire in the history of nuclear weapons production--a nuclear production facility with a long history of major and minor fires, including one in 1969 in which plutonium contaminated the countryside, and a facility proven to be directly linked to cancers from plutonium exposure to workers and residents near the plant.

(7) 284H

A few days ago, I received a letter regarding my 20 year high school reunion for Bonneville High in Idaho Falls. My parents have lived in Idaho Falls all these years. My sister & her son moved away six months ago to a small town near Twin Falls where she now teaches high school students. Idaho Falls was my home for four years and then summers between college semesters until I graduated and made my home here in Moscow.

My father worked many years at the AEC site, now called INEL, until illness terminated his career as a mechanical engineer at Argonne. I remember INEL as a very real place and not just articles in a newspaper or items on a spreadsheet. I remember families of men my father worked with and driving across the desert, catching a glimpse of antelope in the sage and seeing the nuclear reservation in the distance. I remember my Senior Class taking a field trip to the site as an encouragement for a career when we went off to college.

I remember how excited my father was when the site hosted an open house weekend and he took the family out there. I remember buildings and long descriptions. I remember trying out the gloves inside of enclosures and trying to manipulate simple objects placed there for us. I knew that real workers used these devices for dangerous materials, and for me, that intensified the ominous feeling I had toward the site--a danger I didn't understand and a feeling that I just didn't want to be there.

I couldn't fathom my dad's excitement about this stuff while we vacillated between boredom or unease. I seem to remember cooling tanks of some kind with water that looked a little unearthly like it does when we see them in television coverage. I clearly remember standing in a building a short drive off and reading plaques about how they detonated a reactor there in 1955 as a test and thinking how odd to blow up something as technical and dangerous as a reactor and like all the things I'd been seeing on the site. And I can remember wanting to get away from that building.

On a daily basis, I remember hearing very little about radioactivity. I know my dad and the other guys wore ID badges and I thought it was to monitor radiation levels. I recall his mentioning showers there but I don't recall if he ever had to take any. I knew an accident could cause an explosion.

I remember living in Salt Lake City for four years before Denver when my dad worked in non-nuclear but military-related plants, including Sperry. We could hear Kennecott Copper blast all the way across the valley and you'd look up and see a big puff of dirt and smoke scar the mountain. I remember being really scared when three different times, those blasts weren't Kennecott--when the news bulletins flashed that each time at one of those plants, a lab had blown up, killing several people each time and news casters asking us not to tie up the lines and to wait for the call saying your dad wasn't one of them.

(8) 284I

I remember my father telling my mom how he'd gone with volunteers from the plant to search for body parts and how someone almost stumbled over a foot lying there all by itself and how it reminded dad of combing beaches in the Pacific after artillery fire in the war and bagging pieces of bodies there. I remember him saying that from one explosion about thirty pounds of flesh from three men was all that was found and the rest of the bodies had just vaporized. That's an indelible memory I have and I think of from time to time.

Maybe that's why I take the dangers of labs seriously and am aware that accidents do in fact happen. It was certainly a lesson in how high-tech can't play King's X. Maybe that's why I always had cause to feel uncomfortable about INEL and wonder if there'd be explosions there too. In 1961, there was a runaway criticality and steam explosion at INEL which killed three men. Based upon accident rates having already occurred, like Three-Mile Island and Chernobyl, we can estimate three more such accidents by the year 2000 with over 500 reactors in operation and where core-damaged accidents will then occur every four years. INEL has the largest concentration of reactors in the world. There are fifty-two reactors at INEL. How many of those should we expect to go critical? INEL has already had four accidental melt downs. That's what I know now, but back in high school and college, I knew nothing about INEL's radioactive emissions and contaminations into the environment, except that they continually hunted animals from the desert to test them for exposure--the same antelope and jack-rabbits we saw from the highway out there all the time. I found myself living in Moscow and slowly becoming aware of nuclear arms with all their environmental dangers and political ramifications.

5.1.36

There I was thinking Moscow had to be one of the safest places to live, as luck would have it. I knew nothing about Hanford, Washinton until Mount St. Helens blew and people talked about wind patterns from the N-reactor being like the ashfall from the eruption. And then, all those pieces started formulating a bigger picture. A picture full of ominous facts and dangers and a picture woven of personal memories and places I've lived in. Not some distant place in the Soviet. Vivid memories of my home in Idaho Falls where the Snake River cascades through the city and where friends and I would hang out. And my home in Moscow where the Snake River is also close again.

Now I realize I've been unwittingly close to the nuclear industry with its contaminations and toxic wastes and I've always sensed a kind of innate wariness an organism feels toward a life-threatening entity. I knew as little as most people knew and wasn't particularly quick in picking up on what was all around me. But now I wonder what I've already been exposed to because of air emissions from INEL and Hanford and Rocky Flats, and contaminated water from the Snake River Aquifer.

(9) 3547

I wonder how it got to be that the statistics are that worldwide, over 700 million people live within a 100 miles of a nuclear plant. I wonder how much closer and more saturated we are by radioactive wastes and accidents.

I wish the nuclear industry was the clean, magnificent advancement they once led us to believe. I wish nuclear holocaust wasn't a real potential. I wish governments and men were truthful and not greedy for political and economic power and all to badly inclined toward destruction and war. I even wish the DOE was an organization we could trust and believe to safeguard our health and national welfare, but that's abysmally far from the truth. I wish with all my heart and soult that there'd never been places like the Rocky Flats plant with its terrible fires or Hanford with its government test emissions on downwinders or the misguided intent to create yet another bomb factory, this time, in Idaho at INEL.

3.2.2

Like it or not, convenient or not, whether or not it trickles a raise down to my paycheck or yours, there is no way I can stand in favor of the SIS at INEL. I have spoken out for the closure of N-reactor at Hanford, and I'll be damned if I'll say let's open that nasty can of worms again all over in Idaho. I;m still trying for an end to nuclear military madness and radioactive contamination, transportation, and failed waste containment. I stand here, again, to say "NO" to another bomb factory at INEL or anywhere, to another piece in the nuclear industry jigsaw pie, to another nail in a coffin already bristling with too many warheads. I say "NO!" NOT in my backyard. NO! NOT in the Snake River flowing into my water supply right here. NOT in my state. NOT in my taxes. NOT in my dreams or nightmares, thank you. NOT in my genes or cultural legacies. "NO!" to the bombs and the bomb makers and the bomb doers. "NO!" to a bomb factory at INEL. I say "NO!" to SIS!

7. Mary G. Land, S.W. 730 Crestview, Pullman, WA:
On February 18, I received a letter from Governor Booth Gardner in which he stated he supported putting the Hanford N-Reactor on cold standby because plutonium is not needed at this time.

4.2.1

On February 24, DOE Secretary John Herrington stated "We're awash in plutonium--we have more plutonium than we need."

Why then, is it necessary to "provide a redundancy in production capacity"? Why, in the light of the INF Treaty and the likelihood of a 50% strategic arms reduction, is it imperative "to provide a timely response to potential increases in need"? Why, with the prospect of detente, is it essential to furnish "the flexibility in rapid increase" which the SIS has presumably has over reactor-based production? (All Quotes from Draft Environmental Impact Statement, S.I.S. Project, S-1).

4.15.5

Why refine enough plutonium to build 1,000 additional bombs in the SIS's first seven years of operation? Why do we need 1,000

(10) 2584

more bombs? With the INF Treaty returning between 2500 and 6000 kilograms of plutonium to the U.S. stockpile, why do we need more?

5.12.1 Why put the Snake River Aquifer, one of the largest independent bodies of fresh water in the world, at risk? Why threaten the water supply of more than 40 counties and 3,000 acres of farmland?

5.24.27 Plutonium aptly named according to its creator Glenn Seaborg, for its hellish properties, is the most toxic substance known to man. Inhaled, a pinhead sized particle can cause cancer. At the SIS plant it would be vaporized as part of the refinement process.

5.24.5 It burns in air and a fire could cause INCALCULABLE DESTRUCTION.

Nobel laureate James D. Watson, co-discoverer of the structure of DNA, has stated:

> I fear that when the history of this century is written, that the greatest debaucle of our nation will be...our creation of vast ARMADAS OF PLUTONIUM whose safe containment will represent a major precondition for human survival; not for a few decades or hundred of years, but for thousands of years more than human civilization has so far existed.

3.5.1 There is great suspicion that what "redundancy" really means is a way to circumvent the 1982 Hart-Simpson-Mitchell amendment prohibiting extraction of weapons material from spent commercial reactor waste. In 1981, Reagan's then Secretary of Energy, James Edwards actually proposed such a policy. What a solution to the Hanford waste problem! Recycle it to recover plutonium for more bombs. What an example to offer to countries anxious to join the nuclear club but thus far prohibited by a policy of non-proliferation!

Since the SIS has a projected thirty year life span and since existing Hanford supplies of plutonium, known jocularly as "feedstock", will be used up in five to seven years, what does the DOE have in mind for the remaining twenty-three years?

Has the government plans for a third generation of exotic new weapons designed for a first strike, as seems to be the purpose of Star Wars? The proposal to convert the mothballed WPPSS reactor at Hanford into a tritium-producing facility could be targeted for Black Budget items--microwaves, charged particle beams, nuclear powered kinetic energy, all of which could paralyze an opponent when used as a first strike.

The DOE denies such plans, but we have had missile gaps and windows of vulnerability before resulting in abrogation of existing prohibitions.

"Since the processing and handling of fissile material have a potentiality for the occurrence of a critical event" (4-22) the

DOE acknowledges the environmental impact statement is replete with safety assurances. There is provision for radiation alarms and detectors within the plant, for "trememdous use of Robotics" and a design "to meet criticality prevention requirements," chiefly through "engineered space barriers" and a "two-stage filtration system deemed 99.9 and 99.8% effective" (4-23), a "shut-off mechanism and that same 99.9% effective double filtration system to meet 'uncontrolled chemical reaction' (4-26)". Hazardous waste disposal is in accordance with DOE directives and safe transport of radioactive waste from Hanford to INEL and then from INEL to Rocky Flats in Colorado in Type B shipping containers or casks by either truck or rail." (2-49).

But somehow these assurances have a hollow ring to those familiar with the record of criticality unprevented at Three-Mile Island or casks and containers that have developed cracks and fissures. 5.29.42
Indeed, eleven types of spent fuel and plutonium shipping casks have been suspended after serious questions were raised about them. Another container was cancelled because it did not comply 3.2.6
with federal standards. And closer to home, INEL has had nine meltdown in its history. One of these resulted in three deaths and the serious exposure of other workers.

As for the threat to crops and drinking water, although plutonium has been found in ground water at depths of 110 feet, the environmental impact statement assures us it will not reach the Aquifer (3-16). Again, those of us living in Washington are dubious. We were told dangerous wastes wouldn't reach the Columbia River, but then when they did, the DOE changed its tolerability measurements. The DOE has a fourth alternative 6.1.2
(after examining INEL, Hanford and the Savannah River complex as sites for the proposed SIS facility) and that is--no action. But, if the project "is not constructed and operated, the flexibility and contingency in the production of weapons grade plutonium would not be achieved (4-57)."

That, I submit, would be the alternative most conducive to the moral, physical, and economic well-being of the citizens of Idaho and the Pacific Northwest.

Much is made of the economic benefits of the project. But it 5.27.3.1
would do little to help Idaho's ailing farming and timber interests and it could pose a threat to tourism. Many of its 5.27.10
employees would be imported from outside Idaho. And if detente should actually become reality, and the facility itself become redundant, a boom and bust cycle resulting in unemployment and 3.3.1
bankruptcies such as Hanford currently faces could result.

At present the INEL has a somewhat defensible reputation as a peaceful research laboratory. SIS would change this and turn it 2.7.11
into another bomb factory; an unhappy prospect for the morale of its employees.

5.29.95
1.1

To those of us in the path of transportation accidents, to those dependant on the aquifer for crops and drinking water, and to all citizens faced with the possibility of another "criticality event", the answer would seem to be "NO ACTION" on the proposal.

8. Gerard Connelly, P.O. Box 13, Troy, Idaho:
Letter written and submitted herewith.

9. June Sawyer, 208 E. Second #3, Moscow, Idaho:
Testimony written and submitted herewith.

10. Jean Wardwell, N.W. 1145 Clifford, Pullman, Washington:
Testimony written and submitted herewith.

11. Gitta Bridges, 1422 Alpowa, Moscow, Idaho: Statement is attached herewith, including 560 signatures on the S.I.S. Petition. Page two was missing, therefore the following is from the recording of her testimony:

5.30.3.6

Page 2: nuclear waste goes to INEL. All contaminated reactor components from Three-Mile Island have been sent to INEL. Of course this waste is in temporary storage only. Some of the containers that it is stored in have a designed life time of twenty years. Much of the waste produced in the early years of INEL separation was just dumped and covered with soil.

The other day, when I was at the Latah County Courthouse, I noticed this pamphlet displayed among other informational brochures. It's entitled, " Soil, Crops and Fall-out from Nuclear Attack". It was published by the U.S. Dept. of Agriculture in cooperation with the Atomic Energy Commission; also the Civil Defense of the Department of Defense; and the U.S. Public Health Service in 1962. It instructs farmers how to protect themselves, their families, their animals, and their crops from fall-out. It has some drawings of farmers working in the fields wearing long rain coats and boots and hats and gloves. It states, "This publication discusses radioactive contamination; conditions that may occur as a result of heavy fall-out from massive nuclear attack. The information given here does not relate in any way to conditions that result from distant controlled testing of nuclear devices."

Well, today, twenty-five years later, we know a lot more about fall-out. We know that a massive nuclear attack isn't necessary to a danger of farmlands and cities. We've been forced to look at things in a global perspective, especially after Chernobyl. Here's a quote from Dieter Von Ehrenstein, a well-known West German physicist: "Given todays world-wide nuclear reactor capacity, the amount of long-lived highly radioactive fission product waste produced every year is about equal to the fall-out that would be caused by an explosion of all nuclear weapons in existence today." In other words, even if no nuclear bomb is ever exploded again, we are poisoning ourselves with radioactivity leaking into the earth, the water, the air.

(13) 2840

It is before this background that the people of Idaho, the people of this country must decide whether more plutonium is needed. I have a suggestion for the nine million dollars that are proposed for the plutonium refinery at INEL: Use it in the search for a way to safeguard the horrendous amount of highly radioactive material that has already been produced. Use it to clean up existing waste sites. Use it to create jobs that people can do in good conscience, that contribute to the health and welfare and happiness of the people of Idaho, the United States, the World. Every dollar spent for the SIS means a dollar taken away from education, health care, farm assistance, welfare, public transportation, road maintenance. Dollar for dollar, far more jobs can be created in the civilian economy than in the plutonium economy. 6.3

I don't like the fact that last year military expenditures averaged out to $4,700 for each and every household in the country. I don't like to see Idaho or any other state dependent on spending for war. I don't like the message we give to our children if we produce something the only purpose of which is to destroy and see only the jobs created in the process. How can public officials greet this project as a boon to Idaho's economy when it means increasing the state's addiction to military spending? The drug trade also is a boon to the economy in many places--does the fact that it creates jobs make it any less reprehensible? In a democracy, we are all responsible for the actions of our government. The people of Idaho and the United States must make clear to Congress that the plutonium refinery is not wanted in our or in any other site. NO! to the SIS. 1.1

12. George Bridges, 1422 Alpowa, Moscow, Idaho:
Testimony written and submitted herewith.

13. Nadine Ohmsted, 328 N. Washington, Moscow, Idaho:
I came tonight to speak against the Special Isotope Separation Project. My first argument, of course, is that I don't think we need any more bombs. That might be argued. There are those who argue vehemently. However, my second argument brooks no rebuttal. That is that there is waste produced by this process, and we have no means of dealing with this. The waste hangs around for thousands of years. We have no means of containing it. In the meantime it contaminates our environment. Further, the plan is to transport this waste around and around. There is no place to take it. We don't want to leave it where it is. We have waste that has already been produced and we have nothing to do with it. It's ridiculous to produce more. Another argument in favor of this, supposedly, is that it produces jobs--some 750 jobs and some $500,000,000. that will be brought to the State of Idaho through the INEL. As a daughter of the military industrial complex, I have to speak against this. I lived in Los Angeles, in St. Louis. Yes, my father made a lot of money, but it didn't

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(14) 2840

make our life any richer. As a mother who supports a son on under $10,000. a year, I feel like I have a richer life now than was ever possible considering what my father had to do for a living, or did for a living by his choice. I consider that we would be far better off to take the $500,000,000. and pay these people NOT to do what they propose. It'd be cheaper in the long run--what we have to pay to clean up the mess that we've already got. So, I come tonight not only as a citizen in terms of my lifetime and what it means to the people who are here now. My son is in the audience tonight and he asked me on the way over, "Where are we going; what are we going to do tonight?" I said, "We're going to the hearing of the Special Isotope Separation Project". He said, "Well, what's that all about?" I said, "It's about nuclear bombs." He said, "They want to build bombs in IDAHO?" "Sorry, yes they do." So, while he was sitting here patiently listening, he drew this picture and I would like to enter it into the testimony. Maybe if they won't listen to adults, they'll listen to a very simple statement from an eight-year-old boy. It says, "No nukes, have a clean Moscow, Idaho." So, I'd like to enter that as a statement of pure, heartfelt feeling from my son.

6.3

14. Katrina Berman, 304 S. Main, Moscow, Idaho:--a panel member I need to say that I'm making this statement as an individual. I'm on the panel representing the League of Women Voters. The League, of course, believes in citizen participation and information but we only take stands on which we study and I haven't studied this particular one so this is my personal comment. In the first place, it seems to me the idea that North Idaho hasn't any interest in this issue so that the DOE doesn't need to have hearings here is absurd. Aside from the transportation of these materials around the state, if the Snake River Aquifer is polluted think what that would do to the damage of the Idaho Economy; it would affect everyone in the state.

2.8.7

5.12.1

Even if they assume that we don't care about the added cancers to the people in the southeastern part of the state, the argument for this facility, as somebody mentioned--quoting from the EIS (the enviornmental statement)--to provide a redundant production capacity for weapons grade plutonium. I looked up redundant in my dictionary and it says exceeding what is needed.

5.13.6

As someone also mentioned, the Hanford closure --- the reason given for that was reduced pentagon estimates of plant need. Energy Secretary Herrington was quoted as saying "we are awash in plutonium, we have more than we need." So here they are trying to build a facility to make more of it.

4.2.1

The possible alternatives are mentioned to the EIS. One of them is recycling, or enhanced scrap recovery from the weapons that we now have. I guess recycling from the weapons and scrap recovery from that and other places. The EIS says that this is not an alternative because it doesn't modify fuel grade to weapons grade plutonium. In other words, alternative B is not satisfactory

5.2.3

(15) 284P

because it isn't alternative A. Another alternative they discuss is blending with super-grade plutonium which is already being done and they ruled that out because it interferes with tritium production. So maybe we need a new plant for tritium instead of this one. The arguments for this facility for Idaho are of course the jobs and economic prosperity ones. It would use, they say, (supply) 440 construction jobs for four to five years and then 440 operating jobs which according to the present plans would only also be for something like seven years. These are all, it seems to me, very specialized jobs, probably a large portion of them would not be filled by Idaho residents, if that's the idea.

5.27.7.4

Someone, I think, has mentioned the supply that is to be used, supply of "feedstock" that is to be used for this plant will only last for something like six years, and after that the question is what is going to be done with this? Senator McClure and spokesmen from the INEL have both been quoted as saying that there are no plans to use the facility to convert plutonium from civilian reactors; no plan to change the law that prohibits that.

5.22.3

There is no reason why we should assume that they aren't telling the truth although there's been some speculation that the plan is to change that law and make that possible. So here you have an extremely specialized plant. It seems to me in reading the specifications for it that are in the EIS, it would be extrememly difficult to convert this to anything else, or at least it would cost millions of dollars again.

Another argument is that it would put Idaho in the forefront with new laser technology and research. Well, there's nothing in this plan that calls for any research. It's a production facility, pure and simple. The laser's research is being done at the Livermore Laboratory.

5.27.9.5

Another thing that this will do is shift INEL from a research facility and one that does a lot of good preventive work, safety work about nuclear productions to a military or in the direction of a military facility and this has forseeable consequences that we may not like for Idaho such as increased threat of terrorism, sabatoge, and the kind of security measures that that would involve.

5.1.30

I didn't have time to examine the EIS in detail; it's not an easy document to look at. Not necessarily because it's so technical, but it really isn't designed, it seems to me, to tell citizens what they need to know. One of the most important things to know is that the maximum tolerable dose for a large adult is .6 of a microgram. This is less than one millionth of a gram. This is if you eat it. Well, a microgram of plutonium--cause this stuff is heavy-- is a speck that you could just barely see. This facility will have in it, in the plant, it will have 25,000 grams on hand, which I think if I get my zeroes right, is 40,000,000 lethal doses worth.

5.24.27

(16) 284Q

5.24.27 Another important point about plutonium, of course, is the long half-life--some 40,000 years. This is, I believe, the age of anatomically modern human beings. Not of civilization, but of humans as we conceive them, the way they look now. Those facts I don't think are in the EIS. I didn't find them there, although they may be there.

Of course we're concerned here about the transportation question. There'll be three streams of transportation--plutonium feed from Hanford to INEL; plutonium metal will go from the INEL to the Rocky Flats Plant in Colorado; and the waste they say will go from (this is also plutonium waste, transuranic as they call it--very radioactive) will go to New Mexico, if that facility is operational. The EIS considers risks from transportation. They give it (as far as I could make out) as a product of the risk of accident times the health effects and it seems to me that what you want to know is if there is an accident what will be the effect not diluted by the probability of the accident. And I didn't find that in there either, though it may be there somewhere. The stuff is supposed to be transported in safe, secure transport which they give great credit for making it a safe operation so that they consider that only the most severe categories of accidents would have any effect.

5.29.2

They don't really explain why these transports are so safe. And pretty much, the EIS only considers small airborn particles and they figure that these will be only a very small percent of the load. However, if you did have an accident, there would be a lot more things contaminated that it wouldn't matter--they consider the airborne small particles because these are what people could inhale if it was released in the air.But it would also be road contamination, soil, (and) water contamination.

It seems to me that one of the likely accidents would be if a truck went off the road into the river, for instance, and then it wouldn't matter--you wouldn't have to worry about the small airborn particles. Other things would accomplish pollution very effectively. The accident frequency model that they use doesn't distinguish types of roads. And it seems to me likely that Idaho roads may be more hazardous than the national averages that they use so that the probability of accidents is greater.

5.29.4 But one of the things that, it seems to me, most missing in this, is apparently the models assume that there would be clean-up, evacuation, interdiction as they say people would be forbidden to go into the areas and the models are based upon that happening. There's no discussion, however, on who would be doing this, or how, or what the effects would be. How soon it would be done, and all that would seem to me to be very relevant to the question of how much pollution results--how much injury results.

5.6.1

The EIS, incidentally, only discusses human health effects and it doesn't discuss any other enviornmental effects which is what might happen to animals, birds, fish, and so forth--soil, water.

(17) 2547R

In discussing facility accidents, it seems to me, also the analysis seems incomplete and some of it seems rather questionable.

They postulate that for the likely accidents three kilograms (3,000 grams) of plutonium would be in the area. But it only says that a very small fraction would be released of this. Even in the case of a very severe accident, which involves the whole 25,000 grams in the plant at a time, they say that only 6 grams would be released (which is, I think, a .004th of the amount in the plant. And I don't know why this should be so. But, of course, even this six grams is 10 million times the lethal dose. The accident analogies don't say how long the accident is estimated to go on.

5.1.10

5.1.9

If you have a fire, how long it goes on, the criticality, or how it's going to be stopped, and fire-suppression for instance would be likely to add to release and the exposure. Incidentally, somebody mentioned Rocky Flats fires. The environmental statement says (the) Rocky Flats fire in 1969 didn't release any plutonium from the building. But there are statistics about Rocky Flats fire, maybe not the same one, that there was an explosion and high levels of plutonium released so that high levels of weapons-grade plutonium contamination were found in schools that were twelve miles away from the site.

Another thing is they talk about a designed basis earthquake. The buildings are constructed to survive a designed basis earthquake but it doesn't really say what that is. So, with a designed basis earthquake, I gather, is the kind that you're building (is built to withstand) is built in a circle.

5.8.5

Health effects, cancer deaths are given only with filters working and at that rate it's something like 1/100,000 cancer deaths. I don't know if this includes non-fatal illnesses too. But (with) a 10% loss of filter, the efficiency would multiply the dose, the radiation dose by 100,0000--a factor of 100,000. Even a 1% loss is a factor of a thousand.

5.1.8

In normal operations you have air emissions. You have no liquid effluent in this plant which is a very good thing in terms of the Snake River Aquifer, no liquid effluent from the plutonium processing building, but they're going to turn it all into cement and put it in solid waste. But with the air emissions its likely that other liquids like building run-offs and so forth, steam condensates, would pick up some radioactivity. This goes to percolation ponds which have been called "passive injection wells".

5.3.13

Solid waste also would stay there in retrievable storage so that it can go to the New Mexico plant. The Environmental Statement says that all these effects are very small. They usually say that effects are very small in relation to the background levels of existing wastes that are being produced at INEL or something

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5.23.19 like that. This is a very misleading type of statement because the effects of radioactivity are additive and cumulative. The more you get, the worse the effects are. If the background levels are high, this is a reason not to add to it. More and
5.13.12 more studies show there are added radioactivity and added cancer and other health effects in the areas around nuclear plants and facilities. In the Rocky Flats Weapons Plant for instance, plutonium concentration (is) more than 3,000 times the background levels of the area in town; and a 16% excess of cancer near the
6.2 plant--brain tumors and that type. So, that its very questionable, I think, whether these optimistic predictions that the EIS comes out with can really be believed. I don't think that Idahoans want to risk all this possible contamination and health effects for a plant that is unnecessary and temporary.

15. Cope Gale, 2450 Moscow Mt. Road, Moscow, Idaho:
It is quite ironic to me that the more my country spends on defense, the more they spend on my security, the more insecure I feel. I think this is partly because the security defense system is so inefficient and wasteful of the money they take and partially because their goals are completely in conflict of what I think are the goals they need to follow to make me feel secure.

6.3 The integrity of the DOE is right in there with the CIA, as for the believability of them and of their statements. So, when they want to take a billion dollars to invest in this plant for my defense and my security, I would suggest they do not do that with that money but reinvest it in things that would make me feel more secure such as education and training for the jobs of the 21st Century. These are not nuclear bomb manufacturing, but are the utilization of our resources. We should not be logging our trees and shipping them away to foreign countries, or even other states. We should be utilizing it here in the state and creating
1.1 jobs that people--all of us could use-- and not high-tech Star Wars type jobs. I've been told tonight there's a shortage of nurses. These are the jobs we want for Idaho and so I raise my voice in opposition to this expenditure and hope they will invest the money in something that helps our security and not defeats our security.

16. Tom Crawford, S.W. 826 Crestview, Pullman, Washington:
Testimony written and submitted herewith.

17. Arthur L. Cohen, Route 1 Box 468 Pullman, Washington:
We've heard tonight, repeatedly, about the number of weapons we have and they're more than enough. I did some rather simple calculations. They involve large numbers. One metric ton is 1,000 kilograms or 2,205 lbs. It takes 15 lbs. of plutonium to be a trigger for a hydrogen bomb--a nuclear fusion bomb. It
4.15.5 doesn't matter what size that bomb is, whether it's a so-called small "tactical" bomb or a large one in the megatons of TNT equivalent. So, with what we have, as far as I understand, 100 metric tons of plutonium. That gives us 14,700 triggers--not an excess of 1,000 so you build just 1,000 bombs; we can build or have 14,700 bombs.

Now, let's assume they're more or less the medium-sized ones (not the super-limosines or the sub-compacts, but the medium ones). Each bomb can devastate--and by devastate I mean immediately, not just poison, but destroy at once a circle of approximately a ten-miles radius or twenty-miles diameter.

Without making too much of an error, let's make that squares, that is that they explode in a square--ten by ten---or twenty by twenty rather, which gives up 400 square miles per bomb. Now the land area of the earth is 57,850,000 square miles and if we simply divide that 14,700 bombs into that we can destroy at once (not radiation later, just blast and heat) all the land surface of the earth and in case we miss a spot or two there's 950,000 square miles still to go. We've got enough bombs to do another million square miles. How much more redundancy does this nation need? That's this nation, that's not Russia or the world supply. It's the United States supply of plutonium already.

I have written an article--started out as a letter--and I was honored by having it placed as an article in the Daily News some months ago on the danger of burying nuclear waste at Hanford--The Solid Basalt. Basalt is not solid. I pointed out the aquifers, the cracks.

One thing I did not point out and it came to mind in a technical article in the 29 January 1988 issue of Science, and with a picture of the basalt columns, the giant causeway in Ireland. We 6.1.7
don't have to go to Ireland to see basalt columns. These authors, Aden and DeGraf, point out--and on good sound theoretical basis and I think also from observation that yes, you have one lava flow after another and as the basaltic lava shrinks it breaks into these hexagonal prisms, these basalt columns. But, each underlying one helps determine the prismatic structure of the one above. So, besides the aquifers, besides the channels, and the other porous aspects of basalt, we have then vertical cracks from very narrow to a few centimeters which can go down through layer after layer after layer.

I think the physicists and the physical chemists, metallurgists would call that, if it were just one layer of crystal material on top of another, epitactual. That is to say, where the underlying structure determines the structure of what is laid down on top of it.

Now as it has been pointed out by the other speakers, this overlays a major aquifer, Snake River. As the DOE in its draft 5.12.1
of the Environmental Impact Statement stated that after ten years they found a bit of plutonium at around 100 feet depth. From their figures, they claim, that the aquifer is anywhere from 200 (varies from 200) to 600 feet deeper. Now less than just one test, it found at 100 feet, ten years of what plutonium they did

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have passing through there. They're going to put more through. That means then at 200 feet there will be plutonium in the aquifer at its highest place if that's where they are. Or else, if you can wait around, or our children can wait and our grandchildren, at 600 feet it will be even lower. It will reach the lowest level of that aquifer below ground. So that is what we have there.

Now departing from my two main points, if we look through that EIS carefully; one of the previous speakers had done it very thoroughly, we calculate that the dose to construction workers would be 30 miligrams, that is 30 thousandths of a round wear rem. is defined as ...well I won't be technical about it but the amount of x-ray equivalent to a man that can produce the same damage as a 200 KV x-ray. That's a technical measure, but we can take it as amount of biological damage of radiation and that depends on the dose, the amount, and also the type of radiation. Now, and this assumes there are no accidents, in case of accidents, says DOE, the calculated risk is small. They set the limit of 5,000 rem. per year as a maximum dose that a worker can stand. Something seemed wrong this afternoon. I phoned a radiologist; that is a M.D., and he said yes and the general standard is as low as you can make it and something like 500 rem. is the real maximum--not 5,000. 5.23.24

Now, the assumption is, and DOE states, that if there is a malfunction, that that's going to be local and you can read that on page 7 in the summary, that the filtration system will work. What guarantee is there that if part of the system breaks down, the rest of it is immune to such a breakdown. 5.24.26

I won't go further on this but getting back to the water, they admit on Chapter 2, page 34, that flooding is an admitted possibility and they would take steps to avoid criticality. But what about the contamination of the Big Lost River and where it sinks into several playas and does it become part of an aquifer system--I don't know. But it is in the Little Lost River also flowing through that region and under the INEL is used for irrigation flows. Then, Chapter 2 still on page 56. Where are they going to deposit their solid waste? Admittedly they say it's low-level, but where? By Hanford. The dangers of travel over the road have already been stated. Hanford has been abandoned because of its lack of safety as a waste depository. And that was late in 1987 that it was done. This is February 1988 (the publication). Clearly, not too much is known about percolation of the Snake River Aquifer. And they admit that and they say that DOE is conducting an expanded monitoring program and study to determine the extent of contamination and the most appropriate means of remedial action and to me that is closing the barn door after the radioactive horse has escaped. 6.1.1

18. Beth Case, 1326 Four-Mile Road, Viola, Idaho:
Testimony typed and attached herewith in this report.

(21) 2541V

19. Janice Willard, 2080 Darby Road, Moscow, Idaho:
I apologize {that} my comments aren't really focused or ramble a little bit because I'm not quite as prepared as everybody else has been here tonight. I was raised in Idaho Falls. I lived there for seventeen years. Most of my best friends were the sons and daughters of nuclear physicists and nuclear engineers. My mother recently worked as an engineer at Hanford and I work in the laboratory using radioactive chemicals. And I want to start that out as a preface because I want to indicate that I wasn't brought up to "fear" the word nuclear or "fear" the word radioactive. I was brought up where it was a very working phrase and so I want my comments to be viewed in that respect. I've always supported nuclear power til very recently I think. I do not support the placement of the SIS project at the INEL. I have three reasons for these objections. 1.1

My first reason is for environmental concerns. I'm not a geologist, but I am certainly not convinced that that area is geologically sound for putting a system such as this in there. I've walked out on the desert and seen the sinks of the Little and the Big Lost Rivers as they go into the ground north of the INEL site and then come up at the Thousand Springs below it, in the Snake River Valley. 5.10.4

We know that there is a large aquifer under there and that that aquifer feeds the Snake River and the Snake River feeds the Northwest. A lot of industries depend upon that river. It dumps into the Columbia; we depend upon it for hydroelectrical, we depend upon it for fish, we depend upon it for farming. I just can't see doing anything that would threaten it anymore than our hydroelectrical plants already have. I really like the Snake River. 6.1.4

My second reason is economic. Idaho needs new sound economy. Idaho's economy has been dragging and I can really see why there is a lot of interest in something like this going down to Southern Idaho to boost our economy, because we need something. But, I think it's very short-sighted. I don't see this kind of project as being something that is going to benefit the economy of Idaho because I see that it threatens too many of our other economies. And one example I'd like to give you is that the second highest meat production in this state now is not sheep or hogs. First highest is cattle production and the second highest is trout production out of the State of Idaho. Other high industries that are really coming into the State of Idaho are tourism, and our farming. What do you think would be the effect on our trout industry which has been helping our state if hints were to get out to the general public that there may be plutonium in the water--that it's going into those pens where the fish are. I mean, you can't just stop the water coming in if there happens to be an accident upriver--all your fish would die. We could wipe out a lot of our long-term potential economic development in the state with short-sighted economic development like this. I see this as a boom-town economy and we've seen what's happened in 5.27.3.4 5.27.10

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the Hanford--to the towns of Richland when defense money pulled out of an area. I don't think Idaho can stand that. I don't think we need that.

My third objection to the SIS project is ethical. I think it was Einstein who said that you cannot simultaneously prepare for peace and for war. One of the things that hit me very deeply was when the high school students in Richland voted to keep a picture of a nuclear bomb going off as their symbol--something to be proud of. What kind of a legacy have we taught our children? That they would consider this something to take frivolously. If our economic basis --if our paycheck is coming from maintaining a defense economy, then how can we stand up and fight against a defense system? It just doesn't work. This really concerns me a lot that we can't fight for peace if we are being paid for maintaining war. I guess that pretty much closes what I have to say. I do object to the project.

3.4

20. Alex Hammond, S.W. 645 Winter Circle, Pullman, Washington:
I'll be brief. I really br{ought) a really simple point, I think, across the state line. As many people have said, just to hope that Idaho's people and politicians do everything in their power to prevent the DOE from expanding these plutonium production activities into Idaho's INEL. The rational I offer; I'll try not to double up too much of what's been said before, it is really very pragmatic. Its' based on the simple fact that the DOE has a clear record of fowling one nest and then moving on to build another and leaving its mess behind it. Note the record in my state. Now that the N-reactor "pork barrel" has been shut down, at least temporarily, the tri-cities area finds itself politically isolated, abandoned, or threatened with abandonment by the DOE, to face unemployment by itself and to live next to the largest nuclear waste dump in the U.S. The Hanford landscape is littered with useless contaminated hopes of N-reactor's predecessors as well as with the related storage tanks leaking radioactive waste into the Columbia.

3.2.8

I suggest that there is a simple test that Idaho can make. When the DOE demonstrates that it can finish one project without leaving a polluted landscape and contaminated production facilities behind it without abandonming communities and workers as soon as affected populations begin to insist on keeping track of thyroid cancers, then Idaho might listen to its offer. I suspect the state will have to wait a long time. The DOE has NEVER budgeted money adequate to clean up any of its prior production sites before beginning a new project. Indeed, it's never cleaned up after itself at all.

In you neighbor state of Washington, the DOE seduced and now plans to abandon the tri-cities. Before Idaho considers its offer of betrothal, with its admittedly tempting dowry, it should insist that this fickle bridgegroom return to Hanford, to Savannah River, to Rocky Flats, to Oak Ridge, etc., etc. and restore, if not their reputations, then at least their ravaged

(23) 3647

environments. Only then should Idaho listen to the DOE's dubious proposal to join it in unholy matrimony until death do you part.

21. Crystal Dollhausen, N.W. 125 Webb, Pullman, Washington:
Testimony written and submitted herewith.

22. Arman Larive, N.E. 1500 Stadium Way, Pullman, Washington:
Testimony written and submitted herewith.

23. Karen West, 2160 Randall Flat, Moscow, Idaho:
I see no reason to try and duplicate any of these wonderful speeches so I just have a little metaphor for you. This last week I went down to Lewiston to pick up a new horse, and it was a three-day event horse which is the kind of horse you see in the Olympics that can jump this high, do dressage two hours later and then jump again. They're very highly trained, talented, expensive, versatile horses--certainly very versatile horses. But this horse is not quite that advanced as the Olympic horses are but she was quite something in my book and I brought her home, took her out of the trailer and discovered she couldn't lead--you couldn't lead her with a halter rope without a rodeo. She'd just buck and rear, try and run me over and I thought, "dogfood". I mean, here she is, she's worth a lot maybe, she's worth a lot of money, but you can't lead her. Well, we worked that out; the horse does lead now--it took about three days.

But the analogy I have is with the SIS. This is an example of science and technology carried to an extreme and the purpose of this science and technology is to produce plutonium which you cannot lead. It leads us. Plutonium is, for all the reasons that have been mentioned here today, out of control. Already out of control.

To produce more of it is absolutely unthinkable. It's not even useful as dogfood. You can't eat it anyway. It's use in army nuclear warheads--I have to admit I'm a Quaker, one of those radical fringes he talked about--but the insanity of defense by armament is part of what this whole SIS project is feeding.

I'd like to say, let us stop defending ourselves by doing ourselves in. Let's defend ourselves by putting some of this money into maybe cleaning up some of the nuclear waste we have. I heard that to begin cleaning up at Savannah River, the DOE estimate is 7 billion dollars. Well, lets put--lets start, anyway. And I'd also like to see some money going into learning a peaceful means of solving internatinal conflict. Thank you.

6.3

24. Malcolm Montgomery, 617 N. Hayes, Moscow, Idaho:
I did not come here tonight with any kind of prepared statement. I just came to speak my mind and leave. In truth I didn't even know what SIS stood for when I came here tonight. I found that out later. What I did know was that its purpose was to produce plutonium. I know what that's for and I don't think that that is right. Now I can site a lot of the enviornmental costs that

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people have talked about tonight but we all know what they are. And I could site some of the economics but we all know what that is. So I don't need to do that. I just wanted to come here as a citizen of Idaho, as a citizen of the United States, as a citizen of this miniscual orb that we seem so hell-bent on destroying to say that I oppose any kind of project like this or any other one that won't benefit humanity. And the people who think that we need more plutonium, they need to take a good hard look at the perspective from which this photograph {pointing to an aerial photograph of Moscow} was taken and others from other towns all across the world. Just think about that because we don't need any more plutonium.

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25. Mona Miles Koehler, 627 N. Hayes, Moscow, Idaho:
Testimony written and submitted herewith.

26. Mary Butters, 3392 Blaine Rd., Moscow, Idaho:
Testimony written and submitted herewith.

27. Dr. Michael Blain, 1006 West Hays, #1, Boise, Idaho 83702:
Testimony written and submitted herewith.

28. Chuck Broscious, P. O. Box 8582, Moscow, Idaho; lives in Troy, Idaho:
Testimony written and submitted herewith.

29. Dana Magnuson, Kendrick, Idaho--a panel member.
I would like to point out that what Mary Butters was trying to say, and it came out rather unorthodox, but this is a really political function that's going on. As evidence of that, I received a letter to me--and I have no idea why I'm on this mailing list--but from Senator Symms requesting me as a voter to: "It is very important that more local people speak out in support of the SIS project..." and a list of myths and realities as seen by Senator Symms--most of which would indicate that he would feel that what we've been dealing in here tonight is myth. And also {I received} a letter from Congressman Stallings simply advising me that INEL has been selected as the "preferred site" for the SIS project, and asking for citizen review and comment with no statement one way or the other, but what his stand on it is. But I think that the fact that I got these just as a voter in Idaho; I have not written either of these people any letter about this would indicate that the political nature of this is what Mary was trying to say. These people are being strongly lobbied by a very powerful industry and they may or may not be beholden to this industry. But they definitely are beholden to the voters of the State of Idaho. So if people have an interest and a stand; letters to these people are probably as effective a way as any of making your views known and making them know the strength of your feeling and your willingness to do whatever is necessary which ever side you're on. If you want a job there, and you want to go work there, you'd better be telling them that you want that there. If you don't want that thing there you should be telling them that.

(25) 2547

30. Elliott L. Moffett, P. O. Box 305, Lapwai, Idaho 83540:
Commented on the appreciation of everyone coming and being invited to be on the panel.

31. William C. Kirsch, 1724 East "D" Street, Moscow, Idaho:
Testimony written and submitted herewith.

(26) 2548AA

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

OFFICE OF THE
COMMISSIONER

July 15, 1986

Mr. Carl Walske, President
Atomic Industrial Forum, Inc.
7101 Wisconsin Avenue
Bethesda, Maryland 20814-4805

Dear Mr. Walske:

Thank you for your letter of May 29, 1986, regarding my May 22, 1986 testimony before the Energy Conservation and Power Subcommittee of the House Committee on Energy and Commerce. In your letter, you expressed concern that my statement may have been misinterpreted in the public arena. In particular, you point to my statement that "... given the present level of safety being achieved by the operating nuclear power plants in this country, we can expect to see a core meltdown accident within the next 20 years, and it is possible that such an accident could result in off-site releases of radiation which are as large as, or larger than, the releases estimated to have occurred at Chernobyl." You state that the Atomic Industrial Forum does not agree with my characterization of the likelihood of a core meltdown in this country within the next 20 years, and it is the position of the AIF that, even if there were to be a core meltdown, the probability of a substantial release of radioactive materials is very low (i.e., one substantial release in 200 core meltdowns).

I stand by my statement before the Energy Conservation and Power Subcommittee. I believe that it represents an accurate and balanced assessment of the risk posed by the 100 operating nuclear powerplants in this country. I have provided my rationale for the views contained in my statement before the Subcommittee in various forums in the past. However, since you have taken issue with my statement I want to take this opportunity to explain my position in detail.

I share your concern for accuracy. I recall reading in the newspapers in recent months statements by senior officials within the nuclear industry that our plants are "perfectly safe" and we "will not have a Chernobyl-type plant accident here." Apparently, such absolute statements are thought to be needed to counter-balance arguments from the other side that there is an immediate threat to the public which requires the shutdown of our nuclear plants. In my view, neither position is accurate. To convey an impression that Chernobyl-type releases are impossible in this country is as inaccurate as conveying an impression that a similar disaster is a certainty. I attempted to take the middle road in my opening statement before the Subcommittee. We do not fully understand the risks of nuclear power, and we should not be fearful of saying so.

Your letter contained a number of specific criticisms of my statement. First, you stated that the NRC staff's 45 percent core meltdown estimate over the next 20 years does not take into account safety improvements now being developed and others which will be forthcoming. I agree. However, that estimate also does not include all contributors to the probability of a core meltdown. For example, it does not accurately reflect the contributions to risk from external events such as earthquakes and floods. More importantly, it does not properly account for human errors or degradation in the material condition of the plant. The performance of existing plants demonstrates that these weaknesses in probabilistic studies may result in a significant underestimate of the actual risk. Specifically, we are learning that the plants often react in ways we do not expect. As Harold Denton, the Commission's chief safety officer, wrote: "I believe that the recent Davis-Besse event illustrates that, in the real world, system and component reliabilities can degrade below those we and the industry routinely assume in estimating core melt frequencies." (See, Memorandum from Harold R. Denton to William J. Dircks, dated June 27, 1985.) Thus, my views do not rest only on the 45 percent estimate or on the theoretical calculations of IDCOR which you reference. Neither takes into account the large uncertainties in these theoretical estimates and neither accurately reflects the actual operation of the plants in the real world.

Recent operating experience, including the several serious operating events at U.S. nuclear powerplants in 1985, indicates that inadequate or improper maintenance, surveillance testing errors, equipment failures, design inadequacies, and operator and other personnel errors are occurring at U.S. plants at an unacceptably high rate and that they are significant contributors to operating events that can lead to severe accidents. This operating experience shows that these contributors are causing the total loss of one or more safety systems and multiple equipment failures at plants that can substantially erode defense-in-depth and lead to accident conditions beyond the design basis of the plant.

One would hope that we are aggressively pursuing the root causes of these occurrences. Unfortunately, it does not appear that all U.S. nuclear utilities are learning the lessons of experience. Our Office for Analysis and Evaluation of Operational Data (AEOD) conducted a survey in the fall of 1984 to determine how well licensees were learning the lessons of experience. AEOD concluded: "Most plants are making moderate, not extensive, use of their in-house operating experience, and in general are making less use of the large body of knowledge associated with events and concerns that originate elsewhere in the industry." (See, "1985 Annual Report/AEOD S601," April 1986, p. 5.) This reinforces a previous AEOD report which found that our licensees often repeat the same mistakes, even at the same plant. The actual operating experience of our existing plants and the industry's failure to heed the lessons of experience indicate, in my judgment, that we can expect to see another serious accident in this country during the next 20 years.

In your letter, you emphasized that risk is not equivalent to core melt probability. I agree. You went on to state that it is not technically correct to say that any core melt accident at a U.S. reactor would yield Chernobyl-like consequences, which you said my statement implies. However,

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you quoted only a part of my statement. What I said just before the statement quoted in your letter was:

> Third, although we believe that all of our reactors have some capability to withstand severe core meltdown accidents, the extent to which they can withstand such accidents depends upon the sequence of events during the accident, the individual plant designs and the manner in which each plant is operated and maintained. While we hope that their occurrence is unlikely, there are accident sequences for U.S. plants that can lead to rupture or bypassing of the containment in U.S. reactors which would result in the off-site release of fission products comparable to or worse than the releases estimated by the NRC staff to have taken place during the Chernobyl accident. That is why the Commission told the Congress recently that it could not rule out a commercial nuclear power plant accident in the United States resulting in tens of billions of dollars in property losses and injuries to the public.

Thus, my statement made the point that not all core meltdown accidents can be expected to result in large offsite releases of radiation which can harm the public and contaminate large areas of land and property. The central questions, of course, are: how likely is such an accident, what are the uncertainties in estimating the probabilities, and how well do we understand this risk? Your letter can be interpreted very easily by the uninitiated to say that the reactor risks are well understood and that an accident involving substantial and harmful releases of radioactivity to the environment is all but impossible in this country. That clearly is not an accurate representation of the facts.

Your letter stated that "With our reactors IDCOR does not find any such releases as serious as Chernobyl apparently was." I question whether there is a sound scientific basis for this conclusion. The 1975 Reactor Safety Study (WASH-1400), which the industry and the NRC touted as an objective assessment of reactor risk, contains several release categories associated with core meltdowns that are equal to or greater than our estimates of the releases at Chernobyl. The NRC staff has recently advised the Commission that the best available information suggests that some changes in specific radionuclide group releases to the atmosphere are justified; however, the overall consequences are not significantly different from those using source terms contained in the Reactor Safety Study. Thus, the best available information indicates that severe accidents with Chernobyl-type releases, or worse, can occur at U.S. plants.

The question then becomes: how likely are such accidents and what are the uncertainties in estimating their probabilities? In my view, two conclusions regarding the Reactor Safety Study are germane to this question. First, the uncertainties in reactor risks are much larger than estimated in that 1975 report, even with all of the research and analyses that have been completed since then. Second, the bottom-line results of quantitative probabilistic risk assessments are not reliable. I thought there was a general recognition of these conclusions, but your letter seems to indicate a belief that we can now make sweeping generalizations about the low

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likelihood of a large-scale radiation release for all U.S. plants. In doing so, you seem to give no weight to the American Physical Society Study Group on Radionuclide Release from Severe Accidents at Nuclear Power Plants which concluded: "It is impossible to make the sweeping generalization that the calculated source term for any accident sequence involving any reactor plant would always be a small fraction of the fission product inventory at reactor shutdown." (See, R. Wilson et al., Reviews of Modern Physics, Vol. 57 No. 3, Part II, July 1985, p. S128.) The fundamental issues raised in that report have not been resolved in a scientifically defensible way. Those issues involve factors such as the chemical form of iodine during a severe accident, variations in containment performance due to design and construction differences, and the potential for steam explosion, both within the reactor vessel and within the containment. The resolution of each of these issues has a direct bearing on the potential for a large-scale early release of fission products in the event of a severe accident.

With regard to the chemical form of iodine, the industry has argued that during a severe accident iodine can be expected to join with cesium to form cesium iodide, which reduces the potential for harmful releases of volatile iodine. Yet, recent experiments have resulted in the production of volatile iodine and have not shown extensive cesium iodide formation. For this reason, the NRC staff has recently written: "Based on the experimental evidence available today, a definitive position regarding the chemical form of iodine would be premature. At this time, it is not obvious what phenomena are causing specific exoerimental results." (See, Letter from R.B. Minogue to John J. Taylor of EPRI dated May 22, 1986.)

With regard to containment performance, there is considerable evidence that containment strength may vary substantially from plant to plant based upon differences in design and construction. These differences effectively rule out broad generalizations regarding containment performance. As senior members of the NRC's Office of Nuclear Regulatory Research put it in describing a recent series of tests: "The lessons learned from the steel tests was that even minor details of stiffening ring attachment made a large difference in ultimate capacity. This means that individual construction details could lead to a large variation, site-to-site, in ultimate capacity (of the containments). 'Rules of Thumb' are probably out of the question." (See, Trip Report from D.F. Ross, G.H. Marcus, and C.N. Kelber to Robert B. Minogue dated February 3, 1986.)

With regard to steam explosions, the industry has argued that there is little potential that such explosions could lead to substantial releases based on predictions of fragmentation of the molten core upon emersion in water. However, our researchers at Sandia National Laboratories have not agreed with these predictions, noting, among other things: "A detailed examination of FIST data to date shows no match between the fragmentation predictions of Fauske, Corradini, or Saito-Theofanus, with regard to debris size or distribution. Mismatch is at least an order of magnitude, showing these theories are missing some key ingredients." (Id.) For these and other reasons, our researchers have not ruled out steam explosions as a potentially significant phenomenon which could lead to substantial

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radiation releases. Given the best available scientific information to date and recognizing the substantial uncertainties which still exist regarding these issues, I believe we are still a long way from making defensible generalizations about releases from core meltdowns.

You stated that the implication of my statement "exaggerates the risk from U.S. reactors by at least a factor of two hundred." However, your assertion fails to take into account all potentially significant contributors to risk, all potentially significant core meltdown phenomena, a reasonable range of technically defensible parametric values for calculating containment performance during core meltdowns, all potentially significant accident sequences, the effects of human error or design and construction errors, the effects of materials degradation with age, and significant operating events, including so-called precursors to core meltdown accidents.

According to WASH-1400, there are many accident scenarios that can lead to substantial releases, including a small break loss of coolant with failure of the containment sprays, an interfacing systems loss of coolant (i.e., an accident involving overpressurization of low pressure piping that is outside of the containment but is connected to the high pressure primary cooling piping such that the loss of coolant occurs outside of the containment rather than the design basis loss of coolant inside containment), anticipated transients without scram, station blackout, and loss of coolant accidents with failure of emergency core cooling injection. The specific release category that results from these scenarios is dependent on core meltdown phenomena and containment response thereto. While much progress has been made in understanding these accident scenarios since WASH-1400 was published in 1975, there remain very substantial uncertainties in evaluating them. For example, during a core meltdown, theoretical source term calculations include models for plating out of significant quantities of fission products within the primary system. However, the models do not evaluate, or poorly evaluate, the effects of the heating of the primary system by the plated-out fission products to determine whether this phenomenon alters the sequence of events and the release category. As I mentioned before, steam explosions and their effects on containment and resuspension of fission products are still in dispute. These are just two examples of the many uncertainties and unknowns regarding the release categories which could result from various core meltdown sequences. With regard to the likelihood of the various sequences, for the reasons given above, I would say that none of the sequences can be ruled out. A number of precursor events have occurred at U.S. reactors for each of the above scenarios.

The broad conclusions in your letter seem to be based substantially, if not exclusively, on the IDCOR program. Unfortunately, that program examined only a few plants. The nuclear industry eschewed standardization in such areas as plant design, construction, operations, maintenance and surveillance testing. Thus, each operating plant has its own unique vulnerabilities to core meltdown accidents and to substantial releases of radioactivity. This fact, together with the substantial uncertainties inherent in these types of theoretical analyses and the limited number of

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accident sequences considered, make extrapolation of the IDCOR results to all plants premature at best.

Given the limits of our understanding of severe accident phenomena and the large uncertainties inherent in attempting to predict the likelihood that a core meltdown will proceed to a large and catastrophic radiation release, I reach the same conclusion as did the President's Commission on the Accident at Three Mile Island. In the words of the Kemeny Commission:

> Whether in this particular case we came close to a catastrophic accident or not, this accident was too serious. Accidents as serious as TMI should not be allowed to occur in the future.
>
> The accident got sufficiently out of hand so that those attempting to control it were operating somewhat in the dark. While today the causes are well understood, 6 months after the accident it is still difficult to know the precise state of the core and what the conditions are inside the reactor building. Once an accident reaches this stage, one that goes beyond well-understood principles, and puts those controlling the accident into an experimental mode (this happened during the first day), the uncertainty of whether an accident could result in major releases of radioactivity is too high. Adding to this enormous damage to the plant, the expensive and potentially dangerous cleanup process that remains, and the great cost of the accident, we must conclude that -- whatever worse could have happened -- the accident had already gone too far to make it tolerable.
>
> While throughout this entire document we emphasize that fundamental changes are necessary to prevent accidents as serious as TMI, we must not assume that an accident of this or greater seriousness cannot happen again, even if the changes we recommend are made. Therefore, in addition to doing everything to prevent such accidents, we must be fully prepared to minimize the potential impact of such an accident on public health and safety, should one occur in the future.
>
> "Report of the President's Commission on the Accident At Three Mile Island," p. 15.

That is why I have advocated a program of new initiatives aimed at both reducing the likelihood of core meltdown accidents and minimizing the potential for a large offsite release should such an accident occur. These new initiatives would build upon, but would go beyond the NRC's existing regulatory programs and the self-improvement programs undertaken by the industry in recent years. My proposal consists of three new initiatives for the current generation of plants.

First, we should undertake a detailed reexamination of each U.S. plant to identify and correct design weaknesses and vulnerabilities which can initiate or complicate serious accidents. To be effective, this effort must go beyond the surrogate plant approach advocated by the industry in the IDCOR program. What is needed is a thorough and independent review of

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design of each plant, including a verification of the adequacy of the existing design basis for the plant and a review of all changes made to the plant after the approval of the plant's original design basis. Given the absence of standardization in the U.S. nuclear program and the lack of good configuration control at some plants, this step is necessary to assure that all significant design problems are identified and corrected.

Second, we should undertake improvement programs in areas of demonstrated weakness in U.S. nuclear powerplant operations, including management, human performance, equipment reliability, and maintenance and surveillance testing. Despite the existence of voluntary industry efforts in several of these areas, we are still seeing U.S. plant performance that is substantially below the levels of safety and reliability being achieved in other countries such as Japan, Sweden, and West Germany. U.S. operating experience demonstrates that existing voluntary efforts simply are not doing the job. We need expanded efforts in each of these areas sufficient to ensure a level of performance at U.S. plants which is equal to that now being achieved in these other countries. Of these areas, it appears that management is the dominant factor in achieving excellence in performance.

We need to focus particular attention on those plants with a history of poor operating performance and reliability. The industry's Institute of Nuclear Power Operations (INPO) has been in operation now for more than six years. Although INPO has had a positive effect in improving overall industry performance, there are still far too many plants that fail to meet acceptable standards of performance. This indicates either that strong peer pressure within the industry is still not being applied to the poor performers or that peer pressure alone is not sufficient to bring about effective and lasting improvement. In either case, further regulatory initiatives are needed, especially for the weak performers. In addition, those members of the industry with more expertise and better performance should provide more help to the weaker performers. The industry itself must become more aggressive in ensuring exemplary performance of all nuclear utilities. After all, the future of the best managed facility may rest in the hands of the worst managed. I want to emphasize that I am not seeking perfection in U.S. nuclear power plant operations. What I am seeking is a level of operational performance by the U.S. plants that equals the level of performance being routinely achieved by the plants in such countries as Japan, Sweden and West Germany. I am convinced that this is an achievable objective, and we in government and you in the industry should dedicate ourselves to meeting this goal within the next three years.

Third, we should undertake a detailed study of additional design features, such as a dedicated decay heat removal system and a filtering/venting system for containments which have the ability to reduce substantially the likelihood of a core meltdown and the potential for a large off-site release of radioactivity. Such design features have already been installed or are being actively pursued by several European countries with aggressive nuclear programs. These design improvements for existing, as well as for future plants, are being accomplished in a disciplined manner at reasonable cost. We should, therefore, give specific attention to those designs which already exist or are under active development in other countries. Any such features would not necessarily have to satisfy all of the Commission's requirements such as the single failure criterion since they would serve as a final backup for existing plant safety systems.

(30) recall 124

In my view, these three initiatives would bring about fundamental improvements in the safety of U.S. nuclear powerplants that would enable the optimistic safety performance projections expressed in your letter to be realized. I believe that we both share a common objective: to assure a safe and reliable nuclear power program in this country. I therefore invite you and the other leaders of the industry to join with me in a new commitment to safety -- a commitment that will ensure the successful, long-term operation of the plants we now have and the continued availability of the nuclear option for the future. That commitment can best be achieved by a cooperative safety approach which takes advantage of the industry's knowledge and experience but which also recognizes the need for, and legitimate functions of, regulation. I propose an approach whereby the NRC and the industry would work together to define the specific objectives of each of the three safety initiatives I have outlined and the detailed requirements needed to achieve those objectives. Under this approach, the industry would be free to take the initiative in proposing for discussion creative solutions in each of the areas I have identified. However, this joint effort would result in a binding commitment by the industry to meet specific new requirements. Those commitments would then be subject to NRC inspection and enforcement. The approach I am suggesting is quite similar to that used in many foreign countries with successful nuclear programs and builds upon the voluntary self-regulation approach advocated by the Nuclear Utilities Management and Human Resource Committee (NUMARC).

In the wake of the Chernobyl accident, I believe that nuclear power is at a crossroads in this and other countries. We have the opportunity to learn the lessons of experience, to correct the mistakes of the past, and to bring about lasting improvement that will ensure the accident-free operation of our plants over their remaining operating lives. We had that opportunity following the Three Mile Island accident but we failed to follow through. I sincerely hope that we do not have to wait for another nuclear accident before we come to grips with the root causes of nuclear power risks. The failure to do this during the past twenty years of commercial nuclear experience involving large power reactors is, in my view, the fundamental reason why nuclear power is controversial and will remain controversial until a systematic approach to safety is taken. And, the failure over the last twenty years to come to grips with the root causes of the risks is why I hold the views I expressed at the Congressional hearing. An essential first step toward correcting the mistakes of the past is to acknowledge the obvious: that the public and the Congress will not tolerate, and the industry and the NRC cannot allow, another severe accident as serious as the Three Mile Island accident or worse. The second step is to undertake the new initiatives needed to make this objective a reality.

I have attempted in this letter to outline what more we need to do and why I believe we need to do it. I suggest that we use this exchange as a foundation on which to build a truly effective safety improvement program,

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NO SAFE WAY TO MINE URANIUM!

Government in 'hot' water for lifting moratorium

EDITORIAL

In February of 1980 Bill Bennett made the following statement: "It is clearly the mood of the people of this province that they are not prepared to live with uranium mining. What uranium resources British Columbia has will be left in the ground until the people are prepared to do otherwise."

The people of this province are still not prepared to tolerate uranium mining, but the government is allowing it anyway.

The former premier retired from the legislature more than one year ago. He is now on the board of directors of Teck Corporation, principle owner of Cominco, one of the mining companies involved in B.C. uranium claims.

Bennett's successor, Bill Vander Zalm, in letting the uranium mining ban expire, claimed that the moratorium was a hindrance to all types of mining. He is getting advice from such people as Energy, Mines and Petroleum Resources Minister Jack Davis and former cabinet minister Tom Waterland. Davis at one time advised the C.D. Howe Institute on financial matters relating to Atomic Energy Canada Limited. Waterland quit politics in 1986 to head up the Mining Association of B.C.

The government in Victoria appears willing to jeopardize the fruit growing and tourism industries in the Okanagan as well as the health of mine workers. More than a decade ago, an Ontario Royal Commission Study identified 166 Elliot Lake miners as having lung disabilities in whole or in part as the direct result of dust exposure in the uranium industry. The commission concluded in 1974 that 81 lung cancer deaths were probably attributable to uranium operations. The Environmental Protection Agency in the U.S. estimates that 20,000 cancer deaths per year are attributable to radon gas alone. Radon is released at all uranium mines and mills.

The majority of B.C. residents DON'T WANT THE MINES. In the Okanagan, which would have the first mines, almost 90 percent of those surveyed by the Committee for a Clean Kettle Valley voiced strong support for reinstatement of the moratorium. Many of the municipal governments in the same region, including major centres like Kelowna, have called for a permanent ban on uranium mining.

continued page 4

TO BAN URANIUM MINING VOTE YES NOV. 21

In Kootenay-Boundary Regional District, voters must make a very important decision Nov. 21. Voice your concern for a future free of radioactive contamination

An ad paid for by the Committee for a Clean Kettle Valley

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a program that will assure the long-term protection of the public and that will restore public confidence in the NRC and in nuclear power.

Sincerely,

James K. Asselstine

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SIS TESTIMONY: 10 March 1988

I lived in Denver for a year when I was in the 8th grade. That was the year we studied state history & probably the only year when I found history to be a fascinating subject. We travelled a lot through Colorado & I was excited to see places I'd studied in my text. But I don't recall ever hearing a thing about Rocky Flats, which is only 16 miles from Denver.

In fact, only in the last couple of years did I learn anything about Rocky Flats where they manufacture triggers for the cores of nuclear bombs and what was the site of the worst fire in the history of nuclear weapons production--a nuclear production facility with a long history of major and minor fires, including one in 1969 in which plutonium contaminated the countryside, & a facility proven to be directly linked to cancers from plutonium exposure to workers and residential areas near the plant.

A few days ago, I received a letter regarding my 20 year high school reunion for Bonneville High in Idaho Falls. My parents have lived in Idaho Falls all these years. My sister & her son moved away 6 months ago to a small town near Twin Falls where she now teaches high school students. Idaho Falls was my home for 4 years & the summers between college semesters until I graduated and made my home here in Moscow.

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#5

Retiring Official Assails Atom Safety

By MATTHEW L. WALD
Special to The New York Times

WASHINGTON, June 6 — The level of safety at nuclear reactors around the country is so high that a serious accident is unlikely to occur for 100 years, would be a surprise, according to James Asselstine, a retiring member of the Nuclear Regulatory Commission.

Mr. Asselstine, whose five-year term on the commission expires this month, has been highly critical of the agency's record in the past few years. He said in an interview that he would not buy a New York City area home but would not buy one near the Indian Point reactors in Westchester County unless he was assured that work would be done to improve the buildings designed to contain radiation in an accident. But he said he had confidence in the commission's ability to protect the public.

Mr. Asselstine, who in the last few years has frequently been on the losing side in 4-to-1 votes on safety issues, voiced a bleak future for the industry in this country, saying: "The failure to address some of the problems I've raised could well kill the nuclear option."

Problem: Reset Commission

Mr. Asselstine's comments came at his last meeting as a commission member. Thomas M. Roberts, appointed on Capitol Hill this week to another five-year term, declined to answer charges that he had leaked critical documents to a utility under investigation. Also, state and local governments around the country frequently complain that the commission is unresponsive to their concerns.

To fill Mr. Asselstine's seat on the five-member commission, the White House announced earlier this week that it would nominate Kenneth M. Rossi, a research physicist at Rockefeller University in Rockefeller, N.J., and a part-time member of the board of directors of the Public Service Electric and Gas Company, a utility that operates three reactors in New Jersey.

Mr. Asselstine is the only lawyer on the commission, whose membership requirements include "professional competence in the nuclear power technology with which those responsibilities in the Navy involved him." He is a graduate of the Naval Academy and a former executive of a consulting firm, Nuclear Energy Services Inc.

Mr. Asselstine said in an interview that one of the reasons for his frequent dissents was his background as a lawyer. He who has voted against his colleagues on weakening the emergency planning rule, limiting public participation in licensing hearings and requiring additional safety work at Indian Point and other reactors in high-population areas.

"All too often the technical members of the commission have tended to view procedural questions as the degree of impatience, saying that those are impediments to making decisions and getting on with the job," he said. "I think that how you make a decision and how you explain that decision is every bit as important as the decision itself."

The credibility of the regulators is called 'very low.'

Calls Credibility 'Very Low'

"As a practical matter, the commission's credibility was 'very low.'"

Mr. Asselstine, who turns 39 years old on Sunday, joined the Atomic Energy Commission, the predecessor to the Nuclear Regulatory Commission in 1973, just after graduating from the Kennedy School of Government at Harvard University. He later worked on the staff of several Congressional committees, before he was appointed to the commission by President Reagan in 1982.

In the period of his work in Washington, the use of nuclear power for commercial power plants has gone from the promise of electricity "too cheap to meter" to a stagnant industry with worrisome safety problems.

Mr. Asselstine, who reflected disappointment over the change, said that in his opinion, the failure to require [illegible] "This industry ought to recognize that its own survival and certainly its well-being depends on the public perception that there is an independent, objective regulator at some level, state or federal, that is looking out for the public interest," he said. "They have to believe that that's what the agency is doing, and that doing it in a competent manner, and right now, you don't have that."

Comparison With Other Lands

The problem is vexing, he said, because other countries are using similar technology, or even technology obtained from the United States, and operating reactors that run more reliably and have fewer operating incidents. And he cited specific examples.

"Some of those countries, he said, have added emergency cooling equipment, and improvements to containment buildings, that have been rejected or not seriously considered in this country largely because of [illegible] government officials and companies have developed the technology and regulatory procedures so a reactor can be built 'on a reasonable schedule at a reasonable cost.' In contrast, in the United States plants are routinely 50 percent to 1000 percent above the original budget.

"If they can do it, why can't we?" he asked.

Questioning of Assumption

He said, however, that the direction of regulatory efforts had improved in the last few years, with more attention to management. One of his failures, he said, was that the commission has refused to order special improvements for Indian Point and other plants in areas of high population density. Those plants are not more accident prone, but accidents there would be more dangerous, he said.

He also said that about half the plants around the nation have containment structures that should be improved.

Mr. Asselstine will continue to specialize in the field of picking out the

James K. Asselstine in his office in Washington last week.

The New York Times/Barry Thumma

Road operations from the bad. He is going to work for Donaldson, Lufkin & Jenrette Inc., the New York investment banking firm raising operating rents for [illegible] and their owners. The prevailing [illegible] that the number of plants is growing [illegible] that [illegible] plants will [illegible] some human failures, he predicted a 45 percent chance of meltdown somewhere in the United States in the next 10 years.

"I don't think I'd go quite as far as shows that [illegible] necessarily the saying that this is a Corvair, and it's operating every day, and it's [illegible] that I just described for the Fairmanleed to fatal [illegible] and have [illegible] up-to-[illegible] life of these plants.

Drawing on safety studies, based on statistical assessments of risk, done at some plants, and allowing for the fact that [illegible] that [illegible] some human failures, he predicted a 45 percent chance of meltdown somewhere in the United States in the next 10 years.

"I don't think I'd go quite as far as shows that [illegible] necessarily the saying that this is a Corvair, and it's operating every day, and it's [illegible] that I just described for the Fairmanleed to fatal [illegible] and have [illegible] up-to-[illegible] life of these plants.

My father worked many years at the AEC site, now called INEL, until illness terminated his career as a mechanical engineer at Argonne. I remember INEL as a very real place & not just articles in a newspaper or items on a spreadsheet. I remember families of men my father worked with & driving across the desert, catching a glimpse of antelope in the sage & seeing the nuclear reservation in the distance. I remember my senior class taking a field trip to the site as an encouragement for a career when we went off to college.

I remember how excited my father was when the site hosted an open house weekend & he took the family out there. I remember buildings & long descriptions. I remember trying out the gloves inside of enclosures & trying to manipulate simple objects placed there for us. I knew that real workers used these devices for dangerous materials, & for me, that intensified the ominous ~~sense~~ feeling I ~~felt~~ had toward the site--a danger I didn't understand & a feeling that I just didn't want to be there.

I couldn't fathom my dad's excitement about this stuff while we vacillated between boredom or unease. I seem to remember cooling tanks of some kind with water that looked a little unearthly like it does when we see them in television coverage. I clearly remember standing in a building a short drive off & reading plaques about how they detonated a reactor there in 1955 as a test & thinking how odd to blow up something as technical &

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dangerous as a reactor & like all the things I'd been seeing on the site. And I can remember wanting to get away from that building. ~~too.~~

On a daily basis, I remember hearing very little about radioactivity. I know my dad & the other guys wore ID badges & I thought it was to monitor radiation levels. I recall his mentioning showers there but I don't recall if he ever had to take ~~took~~ any. I knew an accident could cause an explosion.

I remember living in Salt Lake City for 4 years before Denver when my dad worked in non-nuclear but military-related plants, including Sperry ~~as I recall.~~ We could hear Kennicott Copper blast all the way across the valley & you'd look up & see a big puff of dirt & smoke scar the mountain. I remember being really scared when three different times, those blasts weren't Kennicott--when the news bulletins flashed that each time at one of those plants, a lab had blown up, killing several people each time & news casters asking us not to tie up the lines & to wait for the call saying your dad wasn't one of them.

I remember my father ~~guiltily~~ telling my mom how he'd gone with volunteers from the plant to search for body parts & how someone almost stumbled over a foot lying there all by itself & how it reminded dad of combing beaches in the Pacific after artillery fire in the war & bagging pieces of bodies there. I remember him saying ~~one of those times~~ about 30 pounds of flesh that from one explosion

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from 3 men was all that was found & rest of the bodies had just vaporized. That's an indelible memory I think of from time to time.

Maybe that's why I take the dangers of labs seriously & am aware that accidents do in fact happen. It was certainly a lesson in how high-tech can't play King's X. Maybe that's why I always had cause to feel uncomfortable about INEL ~~But when co~~ INSERT I knew nothing about ~~its~~ INEL's radioactive emissions & contaminations into the environment, except that they continually hunted animals from the desert to test them for exposure--the same antelope and jackrabbits we saw from the highway all the time out there. That's what I know now, but back in high school & college,

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~~Then~~ I found myself living in Moscow & slowly becoming aware of nuclear ~~arsenals~~ arms with all their environmental dangers ~~to health & environment in additional to global~~ political ramifications ~~instabilities~~. There I was thinking Moscow had to be one of the safest places to live, as luck ~~had~~ would have it. I knew nothing about Hanford, Washington until Mount St. Helens blew & people talked about wind patterns from the N-reactor being like the ashfall from the eruption. And then, all those pieces started formulating a bigger picture. A picture full of ominous facts & dangers & a picture woven of personal memories & places I've lived in. Not some distant place in the Soviet. Vivid memories of my home in Idaho Falls where the Snake River cascades through the city & then friends & I would hang out. And my home in Moscow where the Snake River is so close again.

Now I realize I've been unwittingly close to the nuclear industry with its contaminations & toxic wastes & I've always sensed a kind of innate wariness an organism feels toward a life-threatening entity. I knew as little as most people knew & wasn't particularly quick in picking up on what was all around

(36) 2pgTT

But now me. I wonder what I've already been exposed to because of air emissions from INEL & Hanford & Rocky Flats, & contaminated water from the Snake River Aquifer.

I wonder how it got to be that the statistics are that worldwide, over 700 million people live within a 100 miles of a nuclear plant. I wonder how much closer & more satuarated we are by radioactive wastes & accidents. ~~I wonder why so many of the marvels of science which instill us with such excitement & pride have been overshadowed by the dread & concerns of nuclear war & environmental poisoning from nuclear development & use.~~

I wish the nuclear industry was the clean, magnificient advancement we were once led to believe. I wish nuclear holocaust wasn't a real potential. ~~to end all realities on this wonderful planet.~~ I wish governments & men were truthful & not greedy for political & economic power & all too badly inclined toward destruction & war. I even wish the DOE was an organization we could trust & believe to safeguard our health & national welfare, but that's abysmally far from the truth. I wish with all my heart & soul that there'd never been places like the Rocky Flats plant with its terrible fires or Hanford with its government test emissions on downwinders or the misguided intent to create yet another bomb factory, this time, in Idaho at INEL.

3.2.2

Like it or not, convenient or not, whether or not it trickles a raise down to my paycheck or yours, there is no way I

(37) 2pgUU

can stand in favor of the SIS at INEL. I have spoken out for ~~against & stand with others who called for~~ the closure of N-reactor at Hanford, & I'll be damned if I'll say let's open that nasty can of worms all over again in Idaho. I'm still trying for an end to nuclear military madness & radioactive contamination, transportation, & Failed waste containment. I stand here, again, to say "NO" to another bomb factory at INEL or anywhere, to another piece in the nuclear industry jigsaw pie, to another nail in a coffin already bristling with too many warheads.

I say

"NO!"--NOT in my backyard. "NO!"--NOT in the Snake River flowing into my water supply right here. NOT in my state. NOT in my taxes. NOT in my dreams or nightmares, thank you. NOT in my genes or cultural legacies. ~~NOT from my politics.~~ "NO!" to the bombs & the bomb makers & the bomb doers. "NO!" to a bomb factory at INEL. "NO!" to SIS.

I say

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10 Mar 88

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Statement on the S. I. S. Project---

Mary G. Land
S.W. 730 Cresview
Pillman, Wash.

On February 18 I received a letter from Governor Booth Gardner in which he stated he suprorted putting the Hanford N Reactor on cold standby because plutonium is not needed at this time.

on February 24 DOE Secretary Johnn Herrington stated "We're awash in plutonium - We have more plutonium than we need." 4.2.1

Why, then is it necessary to "provide a redundancy in production capacity"? Why, in the light of the INF Treaty and the limelihood of a 50 % strategic ar,s rteduction, is it imperative "to provide a timely response to potential increases in need"? 4.15.5
Why, with the prospect of detente, is it essential to furnish "the flexibility in rapid increase" which the S.I.S. has pver reactor=baeed production? (All quptes from Draft Environmental Impact Statement, S. I. S. Project, S-1).

Why refine enough pluronium to build 1000 additional bombs in the S. I. S."s first seven years of operation? Why do we need 1000 more bombs? With the INF Treaty returning between 2500 and 6000kilograms of plutonium to the U. S. stockpiole, why do we need more?

Why put the Snake River Aquifer, one of the largest independent bdodeis of fres water in the world, at rosk? Why threaten thw watwr supply of more than 40 cpinties ans 3000 acres of farmland? 5.12.1

Plutonium, aptly named according to its creator Glenn Seabign fpr its hellish proerties, is the most toxic substance known to man. A pinhead sized particle Inhaled, can cause cancer. At the S.I. S. plant it woild be vaporized as part of the refione ment process. It burns in air and a fire copuld cUSE INCALCULABEL DESTRUCTION. 5.24.27 5.24.5

Nobel laureate James Dv Watson, co=discpverer of thre structure of DNA, has stated:

> I fear that when the history of this century is written, that the greatest debacle of our nation will be...our creation of vast armDAS OIF PLUTONIUM whose safe containment will represent a majpr prevondition for human survival, not for a few decades or hundreds of years, but for thousands of y

hears more than human civilkzation has sp far existed.

3.5.1 There is great susmicion that what :redundancy: really means is a way to circumvent the 1982 Hart-Simpson-Mitchell aamendment prohibiting extraction of weapons material from xpent commervcial reactor waste. In 1981, Reagan"s then Secretary of Energy James Edwards actually ;roposed such a policy. What a solutior to the Hanford waste problem.! Recycle it to recover plutonium for more bombs.

What a n ecample to offer to countries anxious to join the nuclear club but thus far prohibited byma policy of non-proliferation.!

SDincw the S. I. Da has a projected thirty year life spam amd skmce existing Hanford supplies of plutonium, known jocularly as feedstock, will be used up in fi to seven years, what does thre DOE have in mind for the remaining 23 yewaars?

Has the goverrment plans for a third generation of exotic new weapons desig ed for a first strike, as seems to be the purpose of Star Wars? The proposal tp c xconvert the mothballed WPPSS reactplr at Hanford into a tritium-producing facilctu could be targeted for Black Budget items—mic rpwaves, charged particle beams.mucle powered kinetic energy, all of which could paralyze an opponent when used as a firs strike.

The DOE denies such plans, but we have had missile gaps and windopws of vulnerabiloty before resultin g im abrogation of existing prhibition s.

"Since the processing and handling of fissile m_TERIAL HAVE A POTENTIALITY FOR THE OCCURRENCE OF A CRITICAL EVENTe (4-22)the Doe acknowledges, the enviormenta impact statement is replete with safety assurances. Thwre is provisiom for radiat for "tremendous use of pesticides" tion alarms and detectors within the plant, and a design "to meet criticaloty preve vention requirments,: chiefly through "engineered spkace barriers" and a "two-stag filtratiin system deemed 99.9 and 99.8 % effectiv e" (4-23)' a "shut-off mechanism and that same 99/9 % effective dpible filtratirn system to meet "uncontrolled chemical reaction" (4-26)' . Hazardous waste disposal is in accordance with DOE d directives and safe transport of radioactive waste from Hanfored to INEL and then

from INEL to Focky Flats in Oolrado by Type B shippinmg congainers or casks by eit er truck or raI." (2-49)/

But somehow these assurances have a hollow ring to those familare wi the record of criticaloty unprevented at 3 Mile Islan d or casks and containers th that have developed cracks and fissues. Indeed, eleven types of spent fuel and p;uton shipping casks have been sus_ended after serious questions were raised about them Another container was canceled because it did not comply with federal standards. A And closer to home, INEL has had nine meltdowns in its history. One of these res resulted in three deaths and serious exposure of other workers.

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3.2.6

As for the threat to crops and drinking water, although plutonkiu has been fund in grouind water at depths of 110 feet, the environ,emtal impkact statement assures us it will not reach the aQQUIFER (3-16). Again, those of us living in Washington are cautious. We were told Hanford Wastes would not reach the Columbia River, but then when they did, the DOE changed its tolerability measurements. and that is --no action. If the project "is not contructed and oierated,yhe flexibility and co tiongency in the production of seapons grade plutonium woild no be achieved"(4-57).

6.1.2

That, I submit wpild be the alternative nosr conduciv e to mo-ral, physical, and ecpnomic well being of the citizens of Idaho and the Pacc 7f Northwest.

Much is made of the e-conomic benwfits of the project. Bt it would do little to help the ailing farming and timber intersts. Most of its and it would Pose a threat wmployees would be imported from outside Idaho. And if dettente should ac tually b ecome REALITY, AND THE FACILOTY IOTSELF BECOME REDUNDANT, A BOOM AND BUST CYCLE resulting in unempoy,emt and benkruptices such as Hanford is currenty facing could result.

5.27.3.1

5.27.10

3.3.1
2.7.11
5.29.95
1.1

At present the INEL has a morally defensible reputation as a peaceful research laboratory. S.I. S. would change this and turn it into anopther bomb factry. , an unhappy prospect for the morale of its employees.

As for the physical threat to plant workers, to those of us in the path of transortation accidents, to those dependent on the aquifer from crops and drinking water, and to all citizens in the path of another "crticaloty event," the answer would seem to be "No action" on the proposal.

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On the Miracle Mile

IN REPLY TO:

March 7, 1988

TO: Department of Energy

FROM: Gerard Connelly

SUBJECT: D.O.E. proposal regarding development of Special Isotope Separator in Idaho

As President of Idaho's largest independant retail firm and past President of the Moscow Chamber of Commerce (1983-84) please be advised of my adament opposition to the Special Isotope Separator development in the State of Idaho. 1.1

There are many social reasons for opposing this project as well as the Department of Energy's extreemly poor record of honesty in its dealings with the American public over the years however my prime reasons for opposing this project are economical in nature. Our business is highly dependant on both the reality and the perception of Idaho's tremendous outdoor recreation offerings. It only takes one accident to obliterate what we now have relative to outdoor recreational activity. As stated above there is no reasons, based on past history and statements made by the department, to be comforted by present assurances of safety. 3.2.2 5.27.2

Furthermore, we have only to look at the Tri-Cities surrounding Hanford in the State of Wasbington to understand that this type of development is of a boom and bust nature and is not sound economic development. To put it plainly, I'd hate to be doing business of any kind in Richland, Pasco or Kennewick, Washington right now. Only time will tell if that area will be able to recover from the havoc of an economy based on the nuclear industry. 5.27.10

Jerard Connelly
PO Box 13
Troy Idaho
83871

uné Sawyer
08 E. Second #3
oscow, Idaho 83843
/10/88

THE WORD "SANE" MEANS SOUND, WHOLE, HEALTHY. THE PRESENT NUCLEAR POLICY---
OLD, CALCULATING, CRUEL---IS NOT SOUND. IT IS NOT SANE , SOUND BEHAVIOR TO LET
'EOPLE ALL AROUND US LIVE IN WRETCHEDNESS WHILE WE MAKE DREADFUL WEAPONS, WHOSE
'URPOSE IS TO MAKE PEOPLE BOW DOWN LIKE SLAVES IN FRONT OF THEIR THREAT.

WE ARE NOT WHOLE PEOPLE, WHEN WE LET THE FEAR AND SUSPICION BEHIND MUCH OF
THE BUSINESS AND POLITICAL POWER IN THE WORLD DIVIDE US FROM THOSE WE REALLY WANT TO
3EFRIEND.

WHOLE. HEALTHY. SOUND. CAN OUR ECONOMY BE SOUND WHEN IT PRODUCES PLUTONIUM
IN PLACE OF PRODUCING HOMEBUILDERS, TEACHERS, FARMERS, NURSES, SOLAR TECHNICIANS?

6.3 LET ME DIGRESS FOR A MINUTE. I AM AN R.N. THERE IS A VERY SERIOUS NURSING
SHORTAGE IN THIS COUNTRY. I SEE A STRONG CONNECTION BETWEEN THE COUNTRY'S WARLIKE
ECONOMY AND THE NURSING SHORTAGE. WE SPEND TOO MUCH ON DEATH: TOO LITTLE ON LIFE.

1.1 THE PROPOSED SIS IS PART OF A CRAZY WAR, NOT AGAINST THE RUSSIANS, THE CURRENT
"ENEMY" SYMBOLS, BUT AGAINST ALL OF US. LET ME TELL YOU SOMETHING RELEVANT THAT THE
GREEK POET HOMER SAID A LONG TIME AGO:

"ALIEN TO CLAN AND CUSTOM AND HEARTH FIRE IS HE WHO LONGS FOR WAR---HEART-
BREAKING WAR---WITH HIS OWN PEOPLE"

PLUTONIUM FISSION CONTINUES TO CREATE HEARTBREAKING WAR WITH OUR OWN PEOPLE.
TO MAKE MORE PLUTONIUM IS NOT SANE: NOT SOUND, NOT WHOLE, NOT HEALTHY. With much
LESS SOCIAL DAMAGE AND EXPENSE, WE CAN CREATE JOBS , WE CAN CREATE A HEALTHY WORLD.

(44) 284BSR

First let me thank you for holding these hearings. You are providing an opportunity for many of us to state our views, when we would otherwise not be able to do so.

Man has felt, for most of his sojourn on this planet that the oceans, the earth, and the sky were so vast that his efforts could have little influence upon them. 50 or 60 years ago scientists began slowly to realize that we could, and were, having a profound influence upon our world. Over the decades more and more of the citizens of our world, have also come to realize that the planet is fragile, and we must take care to preserve it. We have painfully learned that the wastes we put into the air, soil and oceans come back to us.

At one time the infamous fogs in London were so thick and heavy that they were called "peasoupers". There is even a raincoat of some quality called "London Fog". From film and Conan Doyle, we have an image of Sherlock Holmes emerging from the misty fogs. In the 1960's, London passed laws limiting chimney emissions, and the heavy fogs of the past are no more. The fogs of the past were for the most part induced by industrial and residential wastes. Sherlock Holmes would not recognize the London of today. The buildings have been cleaned, the air is fresh and it glistens in the sunlight.

With strong emission laws many of the mistakes of the past could be

(45) 284CC

corrected for London. That is not so with the materials we are talking about tonight. We can not so easily clean up any mistakes that could be made at INEL.

It is freguently stated that many projects, ways of manufacturing, and waste disposal methods, begun only 20 or 30 years ago could not pass the environmental standards of today. I feel that this is true, and also that this is the way it should be. We must maintain a minumum standard of quality for our air, soil, and water, and in order to do this, and provide future generations with this standard, we have to proceed with far greater care now than we have in the past. We can ill-afford to proceed with projects that look good on paper, can be conveniently located at the site of previous projects, or develop new technologies without careful consideration of the effects or potential effects of these projects. The Special Isotope Separation Project at INEL demands just this sort of careful consideration.

Here are some of the things we must consider:

6.1.7 1.) In the northwest we have had two years of drought. Many climatologists feel we are in the beginning of a third year. One of the ways we in the northwest have of dealing with drought is to draw heavily upon the underground water in the aquafers. INEL is located over one of the largest aquifers in the northwest, the Snake River Aquifer. This

(46) 3847000

Both the existence of the Snake River aquifer, with the dependence the area has on it, and the potential geological disruptions, call into question the wisdom of the location of INEL, and should cause us to question the building of further nuclear facilities at this site. 5.10.4

3.) When proponents of this project push for its acceptance, they talk about the jobs it will create in southern Idaho. The nuclear industry is not the only source of jobs for the northwest. I have already mentioned the extensive irrigated farming in the area. But there are many more industries for employment. From 1965 to 1980 there was a "rural renaissance" throughout America. This was not a back to the land movement, but an urban to rural movement. These people that moved to rural America were looking for clean air, fresh streams, and clear skies. A number of studies have shown that the 'quality of life' was one of the principle motivating factors in this movement. Further, one of the growth industries in the northwest for the past decades has been recreation and tourism. Both of these growth industries create jobs. Farming, further urban to rural growth, and recreation and tourism, are all hurt by the threat of nuclear accidents. Once again the nuclear industry is not the only source of jobs for the northwest. 5.27.7.13

(47) 3847EEE

In summary, looking at the delicate balance of the environment, the location of the proposed site, and the potential harm to other activities, I feel that the Special Isotope Separation Project should not be built as proposed at INEL.

1.1

Thank you for your time and attention in listening to my concerns.

#11 Gina Bridges
1422 Alpoda
Moscow ID

The Draft Environmental Statement for the Special Isotope Separation Facility proposed by the Department of Energy for the Idaho National Engineering Laboratory addresses a number of important issues: impact from radiation releases, impacts of possible accidents, socioeconomic impact, excess cancer risks, worker health and safety, transportation of radioactive and hazardous materials, nuclear waste storage, plant decontamination and decommissioning. Every single one of these issues must be addressed, and in each of these areas serious problems exist. But the most basic question is left out of the DOE's considerations: do we need more weapons-grade plutonium? Do we need a plutonium factory for more nuclear weapons?

4.15.1

Remember, plutonium did not even exist fifty years ago. It is a man-made element. Now several hundred pounds of plutonium are produced by the typical nuclear power plant every year. The N-Reactor at Hanford produced about 1/2 metric ton of plutonium a year. The current U.S. Stockpile is over 100 metric tons, most of it in the 25,000 to 30,00 nuclear bombs in the U.S. arsenal. A particle of plutonium the size of a grain of pollen causes lung cancer if inhaled. A pound of plutonium is sufficient to give lung cancer to every man, woman, and child on earth. This highly toxic material takes many thousands of years to decay. And of course we don't know how to safeguard this monster we have created. We do not have permanent storage facilities; in fact, the search for a storage site has come to a halt. No progress is being made toward devising a technology that could safeguard radioactive wastes for 24,000 years, the half-life of plutonium, or even for a hundred years, for that matter.

5.23.19

5.30.3.1

INEL already is a giant nuclear waste site. Millions of cubic feet of nuclear waste are stored there, including plutonium from Rocky Flats, the manufacturing site for plutonium triggers for hydrogen bombs. One fourth of all military

(48) 2244FFF

(49) 2244GGG

#12 George Bridges
1423 Alpine
Moscow

6.3 to clean up existing waste sites, use it to create jobs that people can do in good conscience, jobs that contribute to the health and welfare of the people of Idaho, the United States, the world. Every dollar spent for the SIS means a dollar taken away from education, health care, farm assistance, welfare, public transportation, road maintenance. Dollar for dollar, far more jobs can be created in the civilian economy than in the plutonium economy.

I don't like the fact that last year military expenditures averaged out to $4,700 for each and every household in the country. I don't like to see Idaho or any other state dependent on spending for war. I don't like the message we give to our children if we produce something the only purpose of which is to destroy and see only the jobs created in the process. How can public officials greet this project as a boon to Idaho's economy when it means increasing the state's addiction to military spending? The drug trade also is a boon to the economy in many places--does the fact that it creates jobs make it any less reprehensible?

1.1 In a democracy, we are all responsible for the actions of our government. The people of Idaho and the United States must make clear to Congress that the plutonium refinery is not wanted in our or in any other state.
NO to the SIS.

4.13 There are many compelling reasons for opposing the plutonium factory (or as it is called SIS facility) that the DOE has proposed. Our country's security will not be enhanced by this bomb factory. On the contrary: our security will be greatly undermined. It will enhance the risk of nuclear war--perhaps even an accidental war on our own people. The SIS facility will contaminate our natural environment, and the DOE has neither the will nor the know-how to prevent this from happening. 6.1.4 The SIS will not really contribute to the economic well-being of this state. Instead, it will exploit and be a drain on the state of Idaho.

I would like to focus attention on only one aspect, however, an aspect that is perhaps not quite as mind-staggering as the ones just mentioned. 5.27.6.1 As an educator, I am concerned also with the effect that installations like Hanford and the proposed SIS facility have on the education of our young people. It is deplorable, in my opinion, to what extent universities across this country have already prostituted themselves to the Pentagon by becoming research institutions for the production of things directly related to warfare. It is deplorable that this administration has seen fit to practically dismantle the Dept. of Education and shift that department's function to the Pentagon. 5.27.15.2

On a more basic level: what effect do installations like the proposed SIS facility have on the education of our young people in the ways of democracy? Can education for democracy be anything but empty rhetoric and hypocrisy as long as our very existence is in hock to something as inherently anti-democratic as the military-industrial complex that has spread over this country like a cancer? As we have already seen in the

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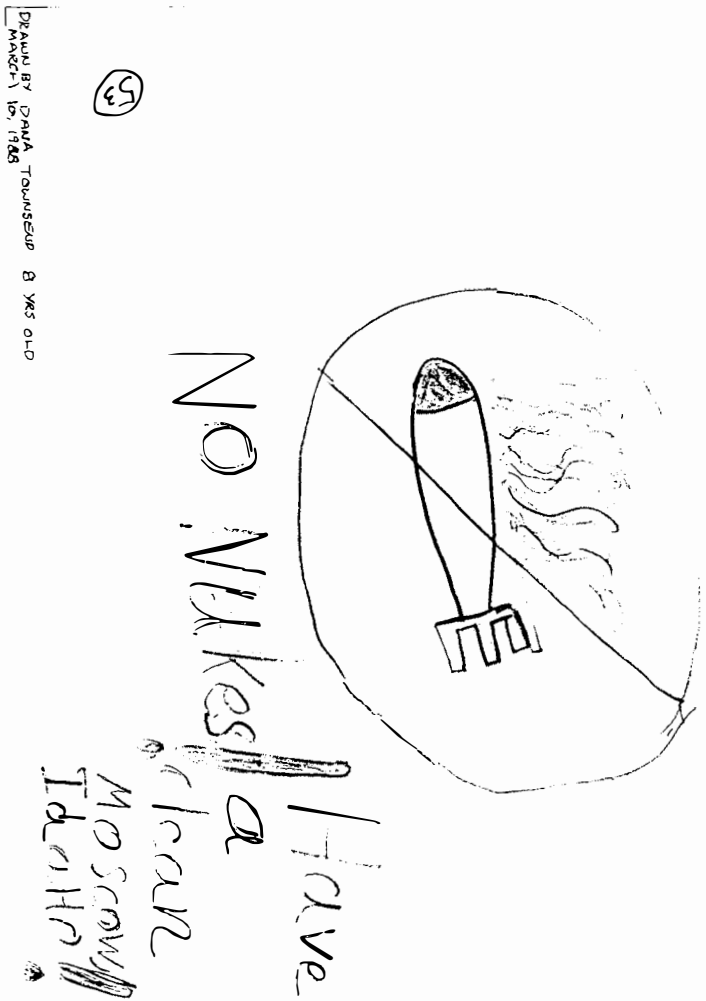
case of Hanford, this complex, based on secrecy, has seriously undermined the democratic process and taken away our right as citizens to determine our own destinies. Instead of an informed public, we have become like blind mice, foolishly trusting in the "authorities" and "experts" never to do anything that would not be in our best interests. But we don't know what is going on. Instead of open public knowledge, we have closed doors and armed guards and tons of classified documents that only a few eyes can see. When people do not know what is going on around them--and cannot know what is going on--they forfeit their basic rights as citizens in a democracy. Everything is obscured by that magic phrase "national security". We cannot make intelligent decisions, decisions that mean life or death to us.

3.2.20

Do we think that our young people don't see this? Certainly they see that we have forfeited control over our own lives and that we have become unfree as a result. I urge the people at DOE to reflect a little about the road they are so eager to take us down, which is the road to totalitarianism in the guise of national security and that false god technology. And I urge the people of Idaho to oppose this foolish waste of taxpayers money.

1.1



DRAWN BY DANA TOWNSEND 8 YRS OLD
MARCH 10, 1988

Statement on the Special Isotope Separator Project

by Tom Crawford #16
SW 826 Crestview
Pullman, WA 99163
March 10, 1988

In addressing the potential environmental impact of beginning a Special Isotope Separation project in southern Idaho, I would like to discuss two of the many areas of concern that we citizens of eastern Washington have in common with the people of Idaho. The first is jobs, and the second is the future.

5.27.10

Jobs are an important component of any state's or region's economic health. But for an economy to be healthy, the jobs on which it is based must be relatively stable. And it helps if the money generated tends to stay in the area to produce other jobs; that is, if a significant number of local industries and businesses cater to the needs and wants of local people. What are we learning about military contracts, particularly those contracts which call for producing expensive, high-tech weapons systems components? (The SIS project seems to fall squarely in this category.) What has our recent experience in eastern Washington taught us?

First, the Hanford experience has taught us that jobs produced by this kind of military activity are not terribly stable. Over its 40 year history the Tri-Cities area has been through several economic roller-coaster rides. We've seen clearly this year that we can't rely on the customer--the federal government--to help local economies adjust to its change in priorities. Little planning takes place to help communities stabilize and diversify their job and market bases.

Second, what about this "customer"? Does working for the Department of Energy help a community or a region build and diversify its economy? Do dollars stay at home, to generate more jobs and more profits for the local area? Certainly an influx of new workers will create new opportunities for some service businesses who can meet everyday consumer needs--food, clothing, housing, and so forth. But the product--material for nuclear weapons--has no value to local residents. (In fact, with growing consensus among military experts that nuclear weapons are unusable, we must wonder whether the product has value to anyone.) It is shipped to other parts of the country for further fabrication, fitting onto a missile or other delivery system, and storage. The product has no local spin-off.

#16

And the jobs themselves are not terribly broad-based. They tend to focus in a narrow range of specialized areas, and tend to give a few people high incomes. Annual studies have shown that a million dollars spent in any other area of government activity will create two or three times the number of jobs as it will if spent on this type of military contract. Further, if a community whose economy is based on military contracts loses its principal customer (say, the Department of Energy), so many of its workers are trained in such narrow technical areas that they must either work for another military contractor, or they are simply out of a job. They certainly won't stick around the community to spend salaries they don't have.

So although the promise of immediate jobs in the area might sound quite attractive, the Hanford experience has written in neon letters the price to be paid: economic disaster. This concerns me as a citizen of eastern Washington because I think we are economically linked to Idaho in a number of ways; what happens to Idaho will affect us.

5.27.6.1

What about ***the future***? Some would have us think that there is no future, or that if there is there's no use thinking about it. Nuclear weapons will destroy us; or the fear of nuclear war makes us act in such bizarre ways we can't say what will be our situation from one year to the next. But if we don't keep making these weapons, the Russians will come storming over the Pacific, or up from Central America through Panama, with knives in their teeth and missiles in their hip pockets. So we've got to build and test more nuclear weapons so both we and the Soviets can stay too scared to act rationally and invest in the future, so that we can create more unstable jobs with military contractors, so we can get more and more depressed worrying about what will happen if we lose those jobs, so we have to build more weapons . . . This is not reasonable. This is not human. It is threatening our future, our sense of purpose, our vitality--our quality of life. This is another significant environmental impact of the SIS proposal. We are all threatened, we are all targets of these weapons, both in the most obvious and immediate sense, and in the way their existence affects our everyday lives.

1.1

Therefore, I would like to join the people of Idaho in declaring that the SIS project is not in our best interest.

Thank you.

~~Known environmental impacts from the proposed SIS plant:~~

*A study of wildlife near the INEL plant shows levels of radioactive substances much higher than in control groups elsewhere.

5.30.4.1 *Radioactive tritium already has been detected in the Snake River Plain Aquifer at INEL's southern boundary, according to a 1983 study by the US. Geological Survey. By the year 2000, the tritium waste plume is expected to migrate up to 6 miles south of the INEL property line. What most estimates do not take into account is the irrigation of over 3 million acres of farm land and the rapidly growing municipal water needs. Snake River Aquifer springs feeding the Snake River provide the entire river flow West of Twin Falls. The river flow East of Twin Falls is almost entirely diverted for irrigation. Any radioactive and chemical wastes which INEL puts into the Snake River Aquifer will eventually reach Northern Idaho, Southern Washington, and Northern Oregon. Tritium has a half-life of 12 years and will lose half its radio-activity in that time.

The Test REactor Area and the Idaho Chemical Processing Plant at the INEL's site together produce up to 100 million gallons of radioactive waste per month. Which is kept in ponds that allow the waste to percolate slowly into the groundwater.

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*Over 69 billion gallons of radioactive water was injected directly into the aquifer between 1953 and 1974. These discharges contained 7,577 curies of radioactive materials according to federal reports. Officials estimate that (eight ten thousandths) .0008 of a curie would kill a person within a month if digested.

5.30.2.5 *Due to the recent failure of the Waste Isolation Project in New Mexico which was to receive SIS wastes, INEL will presumably continue to be a defacto nuclear dump. One fourth of all military nuclear wastes are dumped at INEL as well as all of the THree Mile Island contaminated reactor components. Over 7.1 million cubic feet of radioactive waste has been dumped here on top of the Snake River Aquifer. Government estimates for clean-up of existing radioactive waste dumps runs in the tens of billions of dollars. Some of thewaste was even dumped in cardboard boxes and pose such a significant threat to workers during excavation that DOE considers it impracticable.

* According to "Scoping Comments" by the Energy REsearch Foundation. . . "Enforcing environmental laws at Savannah River Plant is a monumental task. " DOE has consistently resisted the attempts of state officials to carry out their responsibilities.

They are cuRrently involved in a lawsuit at Savannah River Plant provoked by the failure of DOE to implement requirements of the Resource Conservation and Recovery Act, the nation's hazardous waste law, at numerous waste disposal sites." Their state regulatory agency joined them in the lawsuit. It is a sad commentary when citizens groups have to take the lead in ensuring that the federal government obeys its own laws." 3.2.9

* The prototype for the AVLIS process under construction at Lawrence Livermore will not be completed before construction is to begin on the SIS DOE's construction of the SIS prior to completion and thorough testing of the prototype again reveals the DOEs total disregard for safety. 5.28.8

*INEL has had a history of nine melt downs. Four of these were accidents. Experimental meltdowns to test the radiation releases were conducted without regard to the emissions exposure to workers and surrounding residents. One accident resulted in three deaths and serious exposure to workers. 3.2.6

*Many DOE activities are removed from state jurisdiction by the Atomic Energy Act. The exemption of radioactive releases and waste from state authority removes a major health and environmental hazard from our control. The Price-Anderson legislation goes on to exempt contractors working for DOE from liability even if injuries are caused by gross negligence or failure to follow safety regulations. Promises made in the SIS Draft Environmental Impact Statement must therefore be viewed as promises which will not be fulfilled. Individuals or communities have no legal standing in court. Therefore safety is a low priority because there is no accountability. 3.2.18

ANOTHER CONCERN IS THE TRANSPORTATION OF NUCLEAR WASTE ON IDAHOS UNDERDEVELOPED HIGHWAY SYSTEM

* High level nuclear waste will be transported from Hanford to INEL for processing at the proposed SIS facility and then on to Colorado's Rocky Flats. Idaho is not prepared today to deal with existing hazardous materials on its roads. Emergency Response teams with adequate training and equipment are virtually non existent. Due to powerful trucking and industry lobby the state is unable to generate hazardous materials permit fees to provide funding for appropriate enforcement or emergency response services.

The SIS would dramatically increase hazardous materials traffic without any DOE provision for increasing the safety net necessary to protect the general public. The cases DOE uses to transport plutonium and 5.29.67

#18

protect the general public. The cases DOE uses to transport plutonium and

5.29.42

other radioactive materials have flunked even the lenient Depart. of Transportaion and Nuclear Regulatory criteria. Doe continues to use the casks because by law it is not required to comply with any other agency regulations. If even one percent of the contents of an irradiated fule cask were to escape in respirable form in an urban area, according to the latest and most authoritative federal health effects studies, thousands of latent cancer fatalities could result, as well as $2 billion in decontamination costs.

*The casks have also flunked Earthquake activity standards. INEL has an earthquake zone 3 rating. The strongest earthquake of recorded history called the Yellowstone quake occured in 1959. This quake had its epicenter only 100 miles from INEL

The DOE should not be allowed to oversee the next generation of cask design the Nuclear Regulatory Commission should oversee this important task which the DOE seems to regard as unimportant. Also the SIS MUST NOT BE BUILT until such transportation risks are adequately addressed for both road and rail shipments and a final geologic repository is built and tested to receive the wastes.

* And finally, SIS will threaten the well-accepted government position to separate civilian and military uses of the atom.

For years American diplomats have been trying to convince nations that do not yet possess nuclear weapons, but who have invested in nuclear power technology, to refrain from diverting nuclear materials from their power and research programs to nuclear weapons use. Since such agreements are entirely voluntary, there is no international police authority under which nations can be forcibly prevented from making nuclear weapons, the efforts of US diplomats must rely heavily on moral persuasion. For the United States, already possessing thousands of nuclear warheads, to then proceed with making bombs from its commercial reactor wastes is unforgivable.

Therefore in 1982 the Hart-Simpson-Mitchell amendment was passed prohibitting the extraction of weapons materials from commercial reactors.

SIS, a project of almost $1 billion, if completed by 1995, will have at most only a two year supply of fuel material from Hanford, if running full capacity. At most this could be stretched to 4 years if the plant operated at a reduced capacity during start-up.

There is also a process called blending to produce weapon grade plutonium. The Hanford supply would be exhausted using this process by 2006.

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DOE officials do not contest the fact that they will run out of the stockpile of fuel grade plutonium available to feed the SIS. Nevertheless they still plan to operate SIS for 30 years.

The Real argument DOE has given congress for full scale deployment of SIS is to be able to provide rapidly a large scale plutonium production capability, a surge capacity, which would be called upon in the event of a rapid build-up by the Soviets. Since there will be little in the way of DOE fuel-grade plutonium to satisfy this surge capacity, DOE has its eys on spent fuel from commercial nuclear reactors.

It does not tax ones imagination to visualize the nuclear contingents of the DOE marching up to Capitol Hill later in the decade to tell congress that they need to build X number of warheads and to do that they need X amount of plutonium which they can only get from Y commercial fuel.

5.26.2

One more coincidence, if you like to call it that. DOE will become the proud owners of all commercial spent fuel in the U.S. in 1998.

Somehow I have a hard time believing that the Hart-Simpson-Mitchell amendment stands much of a chance.

If SIS is built the DOE would be able to increase rapidly the plutonium inventory in U.S. weapons stockpile by over 50%.

Haven't we been taking steps towards peace? Don't the american public deserve the right to know what the DOE really intends, without having to dig, prod and research? As Eisenhower once said, " democracy and nuclear weapons don't mix". It's hard to comprehend how much money this country has spent on nuclear weapons. Perhaps the Soviet citizens understand better than us that it ultimately goes toward the destruction of their national economy.

#21

March 10, 1988

U.S. Department of Energy

Re: DEIS/SIS
INEL, Idaho

Dear Neighbors,

A few years ago the SIS was proposed to be built at Hanford. The stated objective was to reprocess spent fuel from our commercial reactor program. Because the PUREX plant at Hanford was not designed to reprocess commercial spent fuel, the Process Facility Modification project (PFM) was proposed. The PFM would retrofit the old PUREX reprocessing plant with equipment to chop up commercial spent fuel so that the contents could be disolved out and the plutonium (Pu) extracted. Because commercial spent fuel is highly irradiated, (unlike the fuel of a defense reactor), the commercial spent fuel posed epecial problems. The high content of fission products would mean a corresponding increment of risk in atmospheric emissions, increased concentrations of radioactivity in the liquid waste destined for the tanks and cribs, increased risk of degrading of plant hardware, and a Pu product contaminated with unwanted fission products. The purpoee of the SIS was to clean the Pu, to rid it of the unwanted fission products and create a weapons grade Pu product.

With the passage of the Hart, Simpson, Mitchell ammendment Congress disallowed the reprocessing of commercial spent fuel. Denied the raw material for production, the proponents of the projects then sought to justify the projects by finding bits of this or that fuel from research reactors. Whether the amounts of fuel identified are sufficient to justify the cost of the projects is highly questionable. 5.26.1

At the product end of the cycle the objective is unclear. Has Congress ordered military hardware requiring Pu in a quantity that cannot be supplied by our present stockpile?

The General Accounting office recently identified the Pu industry as potentially one of the more hazardous industries in the world. We should not be asked to live with Pu production for Plutonium's sake. We already have enough Pu to end all life on the planet. If there is a national security need for more of it the our elected representatives must explain that need. 4.15.4

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#21

During the recent INF hearings Senator Jesse Helms remonstrated over the fact that the Russians would get to keep their warheads. Alas, it was aknowledged even by Richard Pearl that it was not possible to destroy them. Pu endures; we do not presently have the technology to get rid of it.

When the SIS was proposed at Hanford, Secretary Edwards of the DOE stated the goal, to reprocess commercial spent fuel and spoke of a surge capacity for Pu production. If the SIS is built the Russians must view it ae a U.S. plan to recover Pu from our commercial reactors. They can view it in no other way. We deserve to know what destabilizing influencee thie will cause in our relations with the Russians. 5.26.2

While political questions may be outside the scope of the EIS, resolution of these issues should preceed the construction of the plant and they will affect our society and economy.

It is not possible to adequately evaluate the environmental impact of the SIS if we overlook the reprecessing of spent fuel at Hanford which will be the initial step to provide the raw material to the SIS. The threat to the groundwater from the soil disposal of radioactive and chemically contaminated liquids is well known but there are uncertainties about the effects of atmospheric emissions. 5.2.8

The atmospheric chemical emissions from reprocessing are recognized to be destructive but within tolerable limits. It is known that beta radiation causes chemical reactions in the atmosphere; the effects of the large amounts of beta emitting radioactive off-gases has not been qualified or quantified.

We tend to think of the destruction of the earths atmosphere as a global problem somehow distant from us. We need to think of it as a local problem requiring our attention. In Washington this past season we made a record amount of applejuice from a sun-scald damaged crop. Recent experiments showing growth retardation in conifers exposed to elevated levels of ultraviolet may indicate an effect to our logging industry.

Idaho residents should carefully consider the desirability of the industry and its product. In the February 1987 issue of the American Journal of Epidemiology in an article titled, "Mortality Amoung Plutonium and Other Radiation Workers at a Plutonium Weapons Facility", the reaseachers state, "Little is known regarding health effects in humans exposed to plutonium." It was time for someone to say that. For years, proponents of the industry have cited the tired old study of 26 Manhattan Project workers exposed to Pu, a study independent reviewers have found to be of limited value.

The more recent 1987 study reported excess worker deaths from cancers of short induction periods, those were brain tumors and digestive tract cancers. Excess worker deaths from other cancers were also reported.

Research on animals exposed to Pu have found lung cancers, osteogenic sarcomas, primary liver carcinomas, bile duct tumors and lymphomas.

5.13.17 The peculiar characteristics of Pu deposition in the human body should signal caution. Inhaled insoluable Pu tends to migrate through the lymphatic system and concentrate primarily in the liver and bone. Unlike radium (also a bone-seeking alpha emitter) which deposits in bone in a more uniform fashion, Pu tends to concentrate on bone surfaces; we can only wonder about the effects to a developing fetus. Once deposited in bone the biological half-life (100 years) is so long that the contamination may be considered nearly permanent. The available research indicates that a Pu body burden of more than 2 nanocuries poses a lethal risk.

Until more is known about the consequences from the Pu already deposited in the environment around Pu facilities and until a more intensive effort is made to study Pu worker exposures, an invitation to operate additional Pu industries seems unwise.

3.2.18 Idaho residents should carefully consider the desirability of the industrial entity providing guardianship of the Pu. The record of internal and external reviews of DOE facilities leaves no doubt that self-regulation has been a failure. The DOE staunchly resists independent regulation arguing that they could not meet production requirements and protect the national security. We are all committed to the protection of our national security but the narrow interpretation by the DOE places that at risk. National security is also defined by the health and well-being of the people inhabiting the land. It is defined by our economic well-being and the protection of the environment.

5.30.3.4 By their own admissions, DOE operations cannot meet the environmental standards imposed on commercial industries. At Hanford, remedial actions to handle the wastes accumulated over the past 40 years and the wastes migrating through the soils has hardly begun. The cost will be substantial, the high estimate reported at 100 billion dollars. It is extraordinarily expensive, if not technically impossible to clean an aquifer of radioactive and chemical contamination. Reprocessing activities at Hanford to provide raw material to the SIS will aggravate the problem.

Sincerely,

(Mrs.) Crystal Dollhausen

#22 S.I.S. Hearings, Moscow

The Rev. Armand Larive
N.E. 1500 Stadium Way
Pullman, WA 99163
3/10/88

I wish to speak against the proposal to establish a special isotope separator. I know there are special reasons for opposing the location of a plutonium refining facility at INEL near Idaho Falls, because of pollution dangers to the Snake River Aquifer, and also the possibility of breaking the law by refining commercially-produced plutonium, but the argument I especially wish to raise is one that my church and other churches would raise against the need for more weapons grade plutonium, since it presupposes a need for more nuclear weaponry. 1.1 4.13

The churches only look upon nuclear weaponry as morally defensible insofar as it constitutes a temporary means of deterence. The trend toward so-called "counterforce," or more offensive,first strike weapons is not something most (at least mainline) churches favor.

The rationale for the SIS facility is to enhance weapon-making capability. Nothing more than that. It is against making more weapons that I wish to argue. With the exception of fundamentalists (who don't expect to be around the tribulation of a nuclear holocaust occur), the churches generally can make no sense of nuclear devices as weapons because the magnitude of damage is such a quantum jump beyond conventional weapons, bad as the latter might be. In addition, the projection of future weapons looks more and more toward offensive strategies. The SDI makes sense only as a protective shield against retaliation after we have launched a first and pre-emptive strike to decapitate silo-based ICBMs, and have only a few retaliatory missles to shoot out of the sky. The MX's, Trident IIs, or D-5s with more enhanced accuracy, also fit this scenario of something like a surgical first strike capability.

With the retirement of out-dated, and INF weapons, their plutonium can be recycled for new weapons. So why the need for even more, when most of us are well-convinced that there is already far too much of this awesome and terrible explosive material?

One answer, I believe, is the push toward ever more synergisms, ever more confusing combinations of possible strike forces and strategies to confound the Russians. We go along not thinking, not acknowledging the possibility of a nuclear winter, or even how precious few explosions would be required to drop the temperature a few degrees, and thereby work world-wide havoc and enormous future harm.

Suppose, for example, that I am a middle-level Pentagon worker

#22

who is part of the team for SIOPS, the Single Integrated

1

Operational Plan, that overall design for which warheads will be delivered where. Suppose that I am in charge of railroad terminals, and I am responsible for seeing they are knocked out. Last year I could plan on 10 warheads, but I could certainly use 15. I put in a request for five more. How many of my co-workers are doing the same? It's activity like this which leads to a number of things like more fuel on the arms race, more guns than butter, more squandering and endangering of our resources.

Let us hope that S.I.S. won't be built in Idaho or anywhere else.

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March 10, 1988

I submit the following comments and suggestions on the Draft Environmental Impact Statement (DEIS) for the Special Isotope Separator (SIS) proposed for construction in southeast Idaho at the Idaho National Engineering Lab (INEL).

The main purpose of the SIS is to provide an alternative source of weapons-grade plutonium for use by the Department of Energy (DOE). There is considerable debate about whether DOE needs additional plutonium. I am not convinced there is a need for more weapons-grade plutonium for the following reasons:

1. The current stockpile of plutonium has been determined, even by DOE, as sufficient to meet foreseeable needs in new weapons.

2. The existing nuclear arsenal is assessed by many experts as more than adequate for our national defense needs. 4.4.2

And, 3. Current nuclear weapon negotiations and the INF treaty provide an alternative source of weapons-grade plutonium from the dismantling of existing nuclear weapons. 4.3

Plutonium is an extremely hazardous material in our environment. Before consideration is given to the transportation and development of weapons-grade plutonuim the public deserves and must be convinced of the need for that plutonium.

A primary concern about the proposed SIS facility is the transportation of hazardous materials. The plutonium for use at the proposed SIS site must be transported interstate both before and after it is processed at the SIS. Additionally wastes generated at the SIS are to be transported out of state. 5.29.1 The DEIS needs to specifically and thoroughly provide information about the methods of transport and their periodic review to assure safety of the public and the environment. Plans to

prevent and handle a possible transportation accident should be outlined and include at the minimum:

5.7.2
1. training and continued education of transporting personnel

2. training and continued education foremergency personnel

5.7.1
3. the process of communication about an accident

4. the combined, effective interaction of state and federal response teams with defined roles in communication and action to confine the accident and protect the public and the environment.

Arrangements for the accountability of DOE for any oversights in the safe transportation of hazardous materials are necessary.

3.6.1
Currently DOE is exempt from any economic retribution for accidents related to DOE operations. Idaho needs to develop

3.2.32
stricter regulation for drivers, transportation vehicles and containers if tremendously hazardous materials like plutonium are to travel our highways.

5.30.2.1
The wastes generated by the SIS are slated for transportation and storage at a facility in New Mexico which has not been completed and at which there are problems with leakage. The DEIS must recognize alternative sites for waste storage. If the

5.12.1
wastes are to remain at INEL, immediate geologic studies of the status of the Snake River Aquifer need to be done to assess the existence of and potential for contamination. Measures to prevent contamination need exploration.

5.10.5
The DEIS also needs to address the geologic activity of southeast Idaho and the potential for earthquakes. The design of the SIS must allow for earthquake resistance or contingency plans for accidents and subsequent environmental contamination must be outlined.

In the past the DOE has tended to ignore environmental and public health impacts from DOE facilities. The DEIS needs to detail the development of environmental and human health monitoring 5.19.3
from a pre-SIS database through full-scale operations monitoring and follow-up evaluations should SIS operations cease. Monies necessary for such studies need to be budgeted at the onset of the project.

The SIS design is still in development. It seems imprudent 5.24.17
to start construction prior to demonstrated and approved safety and effectiveness. Approximately $60million was spent in safety improvements at Hanford before a decision was made on continued operations. Now the N-Reactor is idle, $60 million spent without any return. DOE should not repeat such a costly mistake.

DOE is a self-regulated federal agency without any outside oversight and no accountability to individuals or states and exempt from state regulations. The history of DOE operations indicates episodes of environmental contamination and breaches of public safety. I think the DEIS should include arrangements for 3.2.27
independent review of SIS construction and operations plus contracts with Idaho for periodic reviews by appropriate state 3.2.31
agencies and penalties for non-compliance with federal and state regulations.

In summary, there are many public and environmental concerns about the proposed SIS. Thorough evaluation should be conducted before approval of the facility.

Thank you.

Mona Miles Koehler

Mona Miles Koehler
627 North Hayes
Moscow, Idaho 83843

Mary Dutters
3392 Blaine Rd.

In another tone I'd like to bother the audience and the panel with some additional comments. This last month. NOrthern Idahoans have witnessed first hand the politics of the arms race. Most efforts to halt nuclear weapons build-up and control the arms race continue to hit this roadblock.
The roadblock is us. The majority of us want an end to nuclear weapons production.
Why then does congress continue to vote for more nuclear weapons?
2.7.9 Why does our only liberal congressman Richard Stallings and our good governoe cecil andrus support new facilities for Idaho that will give us an arms race for yet another 40 years?

It's called big business/Corporate influence. Responsibility for the arms race comes from those who profit from it and it has always been an irresistable political force unless of course we speak louder.
It's a very lucrative business and there is a well connected web of investment that is now coming to the outback of Ideeho.
Union Carbide. Chrysler. Dupont.
General Electric, Rockwell and many more.
They make massive profits and spend millions to guarantee their market. Behind the scenes they have lobbied our elected officials for an Idaho policy that will ensure a steady flow of nuclear weapons contracts. Why else does Senator James McClure rank fourth in the nation in campaign money received from nuclear pacs.

Well
The citizens of Washington State plowed through this roadblock. 85% of the people voted on a referendum to dump Hanford. SEnator Slade Gorton stuck with Hanford and its bombs and found himself without a job
The N-Reactor is shut down.

Here in Idaho we need to do the same. We can't let the weaponsmaker have free rein in Idaho this place that we call home.

We've been presented with a unique opportunity to affect arms control. We're about to welcome into our state a project that will make Idaho the principal home of the nuclear weapons industry. Before millions of dollars are invested and the economic diversity of Idaho is destroyed - you and I have got to say NO. real loud

HOw are we going to do this? The odds are probably against us. two years ago when Hanford WAtch had its first meeting in the Deli 30 of us who live downwind to the N-Reactor decided to start a petition dirve to shut it down. I felt great until I got home and realized what we had just taken on.
It's good to remember three things.

Every majority began as a minority of one.

Every cause was once a lost cause.

2842222 No one knows when the addition of one more voice. one more action suddenly changes a situation totally, in the same way that one more degree of heat causes water to boil.

and finally ~~and most importantly~~ think about what it's going to be like if the bombs rain down.
For sure we should take our enjoyments but maybe give up a few. ~~and~~ give up a few more. and think about it every day. (68)

tired, elderly #26a

I listened to the stories of 2 eight year olds and I have NEVER been the same. As a Japanese man, badly scarred remembers being 8 years old and riding his bike when the bomb fell. For nine painful months he lay face down his back without flesh and near death. He had lost his family but remembers that as he lay there he come to hate his parents and all parents for letting it happen.

I think of the father of an eight year old girl who played outside in a housing development built upon soil contaminated with plutonium cut loose from a DOE facility in Colorado. She first had a bump on her knee that wouldn't heal. Soon he brought out a picture of her smiling- she's a beautiful kid but now one of her legs is missing. She dies of cancer and he has her ashes sent to an independent lab and they find significant plutonium in her remains.

Think about that being your kid. Let's do it. Let's stop the SIS. 1.1

5. Mary Butters
3392 Blaine Rd.

~~The US Department of Energy plans to build a new plutonium refining facility called the Special Isotope Seperator, or SIS, at the Idaho National Engineering Laboratory, near Idaho Falls. The purpose of the SIS, is to produce plutonium for nuclear weapons.~~ High level nuclear wastes will be transported from Hanford to the Idaho National Engineering Laboratory or INEL for processing at ~~the proposed SIS facility.~~ is built.

5.29.66 Neither Idaho or Washington is ~~not~~ prepared today to deal with existing hazardous materials on its roads. State wide Emergency Response Teams with adequate training and equipment are virtually non-existent. Due to powerful trucking and industry lobbys, the state is unable to generate hazardous materials permit fees to provide funding for appropriate enforcement, or emergency response services. Idaho has seen a 70% increase in hazardous materials accidents. The recent truck accident which dumped a load of toxic chemicals into the Little Salomen River, is a reminder of our volnerability. This accident killed all the fish ~~and~~ forced restriction of mucicipal water use of the river, ~~and overcrowded~~ the hospital. ~~It was the evacuation of seven families.~~ regard the evacuation of seven families. The SIS would dramatically increase hazardous materials traffic, without any DOE provision for increasing the safety net necessary

5.29.42 to protect the general public. The casks, DOE uses, to transport plutonium and other radioactive materials, have flunked, even the lenient Department of Transportation and Nuclear Regulatory Commission criteria.

DOE continues to use the casks because, by law, it is not required to comply with any other agency regulations. If even one percent, of the contents of an irradiated fuel cask were to escape in an urban area, according to federal health effects studies, thousands of latent cancer fatalities could result, as well as $2 billion in decontamination costs.

High level nuclear wastes used and generated by the SIS must be transported either by rail or by road. To date DOE has been unable to build a cask that will pass any criteria other than its own. Included, is ~~DOE's~~ most recent $100 million ~~DOE~~ Trupact design, 5.29.41 which gradually leaks gases that build up due to radiological bombardment within the wastes.

The DOE's actions expose its dangerous and mistaken view, that nuclear transport safety is not a serious issue. Such an agency, cannot be allowed to oversee the next generation of cask design, testing and handling, as delegated under present policy. It is essential that all cask certification powers be removed form DOE, 5.29.1 and vested in the Nuclear Regulatory Commission, to avoid repetition of these dangerous events. Similarly, the SIS must not be built until such transportation risks are adequately addressed for both road and rail shipments and a final geologic repository is built and tested to receive the wastes. produced by the SIS

INSERT I wonder if there'd be explosions there too. In 1961, there was a runaway criticality & steam explosion at INEL which killed 3 men.

5.1.45 Based upon accident rates having already occurred, like 3 Mile Island & Chernobyl, we can estimate 3 more such accidents by the year 2000 with over 500 reactors in operation & where core-damaged accidents will then occur every 4 years. INEL has the largest concentration of reactors in the world. There are 52 reactors at INEL. How many

3.2.6 of those should we expect to go critical? INEL has already had 4 accidental melt downs.

My name is Ellen Magnuson, I live in Kendrick Idaho. I am a member of Hanford Watch here in Moscow.

When I came to live in this area 11 years ago I thought Idaho was as clean and safe a place to live as one could find anywhere in the country - ~~as~~ far removed from the whole military-industrial complex. If they dropped the bomb it would never be in Idaho.

It was a long time before I discovered my error. I guess it was just after the nuclear accident at Chernobl that I found out my family and I were living just 150 miles directly downwind from a leaky old nuclear reactor which was very similar to the one at Chernobl. I hadn't realised until then how close we lived to a plant which manufactured material for atomic bombs.

This leaky old plant, I discovered, had been ~~release~~ periodically releasing radioactive iodine into our air in some times enormous doses since the 1940s. I learned that certain counties in North Idaho, including Latah county had rates of female breast and thyroid cancer significantly higher than the national average.

When public outcry eventually led to (73) the Hanford reactor being shut down I felt greatly relieved. People really do have power

COMMENTARY ON THE SCOPE OF THE EIS ON
SPECIAL ISOTOPE SEPARATION PROJECT:
IMPLICATIONS FOR IDAHO

March 11th, 1987

Michael Blain, Ph.D.

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to influence these things. My joy was shortlived. I soon found out that the danger was by no means over. Now the Dept of Energy wants to put a new weapons plant down in Southern Idaho at the Idaho National Engineering Laboratory. They want to ship the plutonium from Hanford right through here

3.2.2 How How are we supposed to have any confidence in this Dept of Energy? It doesn't seem to have a lot of concern for public safety or the safety of the environment. The land around Hanford is a radioactive mess.

Already the radioactive waste from INEL are showing up in the water table.

Supposing they do get all those tons of plutonium over our roads without spilling any, do we trust them to keep it out of our aquafer once they get it down there. They don't even know where they will put their waste yet.

5.30.1.13 The more I find out about all of this the more horrified I feel. I realise that there is no place to hide. The problem will not go away if we ignore it This nuclear arms race touches us all. Saying nothing implies aquiescence. The only thing we can do is fight

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INTRODUCTION

I would like to submit the following comments on the scope of the Environmental Impact Statement for the proposed atomic vapor laser isotope separation (AVLIS) facility. There are a number of questions which should be addressed about the political, military, economic, environmental, and health effects of this project. I could, for example, dwell on the police state atmosphere created by these kinds of top security programs or question the morality of people participating in the preparation of a nuclear holocaust. But I will resist the temptation to discuss these matters. I will only say that I believe the crux of the matter has to do more with the organized interests of the nuclear weapons industry than with the rationality of our defense policy (Bertsch and Shaw, 1984). My comments are directed at the potential effects of SIS on Idaho's environment and wildlife, INEL workers, and the public in the vicinity of the INEL site. I will place these comments in the context of past research on the radiological effects of nuclear weapons programs.

WILDLIFE

Background

By 1974 more nuclear reactors (50, of which 16 were operating or operable) had been built at the National Reactor Testing Station (NRTS) than at any other location in the world. In that same year the NRTS was renamed the Idaho National Engineering Laboratory (INEL) and was designated a National Environmental Research Park where scientists could do radioecological research. In the years since the INEL's radioecology research program has produced a steady stream of published research. The focus of some of this research has been on assessing the possible radiological effects in humans of the consumption of contaminated game species. This part of my commentary concentrates on the radioecological effect of INEL radiation releases on wild animals as a "bioindicator" of the extent to which southeastern Idaho's biosphere has been contaminated radionuclides by site activities.

An overview of the studies reveals the following picture. Several studies have concentrated on the contamination of water fowl that use the radioactive waste leaching ponds, (e.g., mallard ducks, nestling raptors, marsh hawks, american kestrals, long-eared owls) and sage grouse around the Test Reactor Area (TRA) and Idaho Chemical Processing Plant (ICPP). These studies report detectable levels of a variety of radionuclides in the tissue samples collected from the animals. One study by Halford and Markham (1983) reported significantly higher levels

5.6.5

of I-127 and I-129 in waterfowl muscle samples collected between 1975 and 1981 near the TRA pond than a control group. The same pattern was found in sage grouse for eleven different radionuclides in samples collected between 1977 and 1979 (Connelly and Markham, 1982; Connelly and Ball, 1983).

Another set of studies have concentrated on rabbits, small burrowing mammals, the coyote, soil and vegetation in the Subsurface Disposal Area and SL-1 Accident Waste Disposal Area. Significantly higher levels of americium-241 was found in rabbit carcasses, soil, plants, and coyote feces samples than in controls (Arthur and Markham, 1983b). Detectable and significantly higher levels than controls of Cs-137 were found in samples of rabbit, deer mice, pocket mice, soil, plants, and coyote feces samples collected between 1977 and 1981 (Arthur, Grant and Markham, 1983a; Arthur and Markham, 1983b). Finally, detectable and significantly higher levels than controls of Pu-238, Pu-239, and Pu-240 were found in samples of rabbit carcasses, deer mice carcasses, soil, plants, and coyote feces in the waste disposal areas (Arthur and Markham, 1983b). The latter study also reported high levels of Sr-90 in the same samples.

A final set of studies have focused on the radioecological effects of the Idaho Chemical Processing Plant on rabbits and pronghorn antelope. Pronghorn antelope are found in the sagebrush areas of the upper Snake River Plain and adjacent mountain valleys of southeastern Idaho. According to Markham et al.(1982:30), "In winter, as many as 4,500-6,000 of the estimated 13,000-15,000 pronghorn in Idaho are on the Idaho National Engineering Laboratory Site." They move down out of the mountain valleys onto the site during the late fall and winter. Since 1953, the ICPP has dissolved spent R&D and Naval fuels to recover materials for the production of weapons grade plutonium and tritium. During the processing and solidification of the resultant liquid waste, radioactive plutonium, iodine, strontium, and cesium have been released into the atmosphere.

The two primary sources of man-made I-129 are nuclear weapons detonations and nuclear fuel reprocessing plants. Iodine-129 is a danger because of its long half-life (15 million years) and because it readily enters humans through the food chain. One study by Fraley et al. (1982) examined I-129 in rabbit thyroids near the Idaho Chemical Processing Plant. The researchers thought a study of rabbit thyroids might be a better indicator of the radiological effects of the ICPP than comparable studies of antelope because pronghorn are migratory. Rabbits have smaller home ranges. The experimental and control rabbit samples were collected from all areas of the INEL site. The control rabbits were collected from Copper Basin located almost 30 miles northwest of the site out of the predominant northeast and southwest wind flow. The results of the study indicated that all but 4 of the 66 rabbit thyroids collected on and adjacent to the site had detectable amounts of I-129. The levels of I-129 in rabbits along the predominant wind direction were regressed against distance from the ICPP. The results of the analysis indicate that levels of I-129 in rabbit thyroids decrease with distance from the ICPP. Moreover,"...the regression analysis of the data collected to the northeast of the ICPP predicted that above background concentrations also existed beyond the northeast boundary of the site" (Fraley et al., 1982:255). The authors also conclude that their data establishes the ICPP as a primary source of I-129 "within the southeastern portion of Idaho" (Fraley et al., 1982:256). The authors could not determine the potential dose to humans from their data. They claim that likely sources of human exposure would come from meat raised on- and off-site and vegetables or milk produced off-site. Their most important claim is that "Atmospheric releases of I-129 from the Idaho Chemical Processing Plant have increased the concentrations of I-129 and I-129/I-127 ratios in the environment in the vicinity of the INEL site" (Fraley et al., 1982:256).

The major sources of radioactive I-131 in the environment are nuclear reactors, reprocessing facilities like the ICPP, and above ground testing of nuclear weapons. A study by Markham et al. (1980b) examined I-131 concentrations in air, milk and antelope thyroids in southeastern Idaho. The study was prompted by the concern that this radionuclide is readily transferred to man through the air-cow-milk pathway. It was also conducted to see which media---air, milk or antelope thyroids---was the most sensitive indicator of the presence of I-131 in the environment due to fallout from nuclear weapons tests and releases from the INEL. The levels of I-131 in air, milk, and antelope thyroids were determined in samples collected from 1972-77. Thyroids were collected from antelope on-site and from mountain valleys north and northwest of the site. During the study five nuclear weapons tests were conducted by the People's Republic of China. Elevated levels of I-131 were detected in thyroids after all five of these tests and following one air release from facilities at the INEL site. "In September 1972, 3.5 Ci of methyl iodide were released into the atmosphere from a facility on the INEL site as part of a research experiment" (Markham et al., 1980b:325). The authors conclude that antelope thyroids are more sensitive indicators of radiation in the environment than air or milk. They note that maximum concentrations of I-131 in the antelope thyroids were comparable to maximum concentrations found in Colorado elk and mule deer during 1964 and 1965 that resulted from two Chinese tests and a nuclear excavation test at the Nevada Test Site. Iodine-131 found in pronghorn thyroids in 1972, and in three separate single thyroids in 1974, 1975, and 1976, could be directly associated with the INEL site.

A study by Markham et al. (1980a) found Sr-90 concentrations in antelope bones collected 1972-1976 averaging 9.6 pCi/g (ash) within 10 km of ICPP, 4.0 pCi/g on the remainder of the site, and 5.5 pCi/g in off-site control animals. The majority of the off-site controls were collected from Copper Basin and the Big Lost River Valley about 50km NW of the INEL site. But some of the control samples were collected in the Crooked Creek and Medicine Lodge Creek valley NE of the INEL boundary. Significantly, there was no statistical difference between the levels of Sr-90 found in bones collected near ICPP and off-site controls. The variation among the three groups is attributed to the migratory nature of the animals and other factors. However, some of the controls were collected "downwind" from the ICPP in the mountain valleys to the northeast. This could account for the elevated levels of Sr-90 in some of the control samples. The researchers do not consider this possibility.

They do cite the results of a 1956-1960 study of antelope collected in southeastern Idaho. The yearly average concentrations of Sr-90 reported in the earlier study ranged from a low of 7.9 pCi/g-Ca in 1957 to a high of 31.1 pCi/g-Ca in 1959 (Markham et al., 1980a:815).

Another atmospheric effluent of nuclear fuel reprocessing at ICPP is plutonium. A study by Markham et al. (1979), based on antelope lungs collected on- and off-site between 1972 and 1976, found that 50% of the lung samples collected within 10km of the chemical plant had detectable Pu-238, 19% of the lungs collected on the remainder of the INEL site, and 7% of the lungs collected off-site had detectable concentrations. As a result of past atmospheric releases, the authors state that above background concentrations of Pu-238 are present in the surface soil surrounding the ICPP. Soil studies indicate that elevated Pu-238/Pu-239-240 ratios exist in surface soil for 2.5km from the plant in the predominant, northeast wind direction. Pronghorn could have inhaled the Pu-238 from the soil. Moreover, elevated Pu-238/Pu-239-240 ratios were found in a pronghorn lung 35km from the ICPP in the same direction.

Cesium-137, a gamma-emitting radionuclide, is also an atmospheric effluent of reprocessing at ICPP. In a published report by Markham et al. (1982), the results of a radiological analysis of antelope rumen, lung, and liver tissues to detect the presence of Cs-137 were reported along with a general summary of previous studies (see Table 1). Fourteen radionuclides appeared in pronghorn rumen samples, but only Cs-137 was consistently detected in muscle and liver samples. Cesium-137 concentrations in muscle from near the ICPP averaged 384 pCi/kg, the muscle samples from the rest of the site averaged 53 pCi/kg, and off-site control muscle samples averaged 38 pCi/kg. In the discussion this and previous studies of the pronghorn antelope, the authors argue that food ingestion appeared to be the mode of entry of Cs-137 into pronghorn from ICPP atmospheric effluents, and the predominant wind direction is toward the northeast from the plant "and the predominant fallout path for ICPP releases follows the wind pattern" (Markham et al. 1982:38).

Table 1
Average Radiation Does to Pronghorn Near the Idaho Chemical Processing Plant, The Remainder of the INEL Site, and Off-site Control Areas, 1972-76.*

Source	Critical Organ	Average dose rate (mrad/year) Near ICCP	Remainder INEL	Off-Site
Cs-137 in muscle	Whole Body	2	0.3	0.2
Sr-90 in bone	Endosteal cells	40	15	20
	Active marrow	20	7	10
Pu-238, Pu-238 240 in lung	Lung	(0.1 maximum dose)		
I-131 in thyroid	Thyroid	36	34	34
I-129 in thyroid	Thyroid	30	6	
Nuclides in rumen	Rumen	20	4	2
K-40 in muscle (natural)	Whole body	15	15	15
Natural external radiation*	Whole body	117	117	117

*From Markham et al. (1982).

Assessment Implications

This review documents the history of radiation contamination of the environment and wildlife in the vicinity of the INEL. There can be no doubt about the exposure of the antelope, jack rabbits, small burrowing mammals, coyotes, mallard ducks, nestling raptors, marsh hawks, american kestrals, long-eared owls, and sage grouse. The studies reviewed indicate two things:

1. The environment in the vicinity of INEL has been permanently contaminated with radioactive plutonium and iodine.

2. The wildlife in the vicinity of INEL have been exposed to radioactive plutonium, iodine, strontium, and cesium released to the biosphere by past INEL operations, particularly the ICPP.

5.6.5

5.6.4 The EIS on the SIS Project should assess the following potential impacts on the environment and wildlife:

5.23.26 1. The EIS should address the problem of the accumulation of radioactive iodine, plutonium, cesium, strontium on- and off-site described above.

5.23.18 2. The EIS should assess the implications of the additional accumulation of these toxic substances on- and off-site due to the operation of the SIS.

3. The EIS should assess the additional contamination on- and off-site due to the enhanced operation of the ICPP due to SIS operations.

4. The EIS should assess the radiological impacts of SIS and enhanced ICPP operations on the air-water-waste-plant-wildlife-human pathways.

WORKERS

Background

5.20.3 Mancuso, Stewart and Kneale (1977) have published data on gamma-ray exposed workers at the Hanford Nuclear site in Washington state. They report that sensitivity to the cancer-induction effects of radiation is at a low ebb between 25 and 45 years of age, but that at younger and older ages there is a cancer hazard associated with low level radiation which affects bone marrow cancers more than other neoplasms and cancers of the pancreas and lung more than other solid tumors.

Assessment Implications

5.20.9 The EIS on the SIS Project should assess the following potential impacts on the health of INEL workers:

I. The EIS should report the existing data on job related health effects from past INEL operations.

5.20.3 2. The results of Mancuso et al. (1977) should be employed as an empirical baseline to assess the implications of SIS for the disease impacts in SIS workers.

5.20.8 3. The EIS should also assess the health impacts on workers due to the enhanced ICPP operations.

5.13.6 4. The assessment of health effects in workers should employ the range of hypothesized relationships between radiation dose and health effects (e.g., in cancer, the linear and supralinear relationships).

PUBLIC

Background

It was AEC policy during the early years of the nuclear arms race to place a higher priority on production of nuclear weapons materials than on considerations of public health around government nuclear weapons facilities like Hanford. The Manhattan Project mounted during World War II spawned a system of power composed of the following institutional elements: agencies of the executive branch of the federal government, particularly the Atomic Energy Commission and the Department of Defense, multinational corporations deeply involved in defense contracting, and the R&D laboratories affiliated with certain major universities. The interests of the elites that governed these institutions, cloaked in the rhetoric of "national security," "secrecy," and later, "the Peaceful Atom," determined the operating policy at nuclear sites like INEL. That the effect of radiation on the public's health was not an important interest dictating the decisions made by these elites is clearly manifested in the high levels of atmospheric release of radioactive pollutants from these facilities.

U.S. Government radiation guidelines during the 1960s permitted the average U.S. citizen near civilian nuclear power facilities to receive a dose of 0.17 rads (or 170 millirads) per year. Tamplin and Gofman (1970:4) estimated that this dose would result in the following long term effects:

-32,000 extra cancer plus leukemia deaths annually for the (then) current population of 200 million people.

-150,000 to 1,500,000 extra deaths from genetically determined diseases annually for a future population of 300 million people (This does not even include the genetically-determined stillbirths and infant deaths).

The guidelines for legally permitted radiation doses to radiation workers and the public have been reduced by quantum drops in since the early 1950s, from 15rem/y to 5 rem/y for radiation workers, and from 1.5 rem/y to 0.0005 rem/y for members of the public. The application of these guidelines to populations near near Atomic Energy Commission facilities

5.13.4

involved in defense activities were not as stringent. It has been estimated that long-term worldwide effects of nuclear weapons testing may cause 29,000 to 72,000 deaths from cancer and 168,000 genetic effects (Johnson, 1984:230).

Recently the whole question of the long term effects of low-dose radiation on the public's health has become the subject of intense controversy among the experts (see BEIR-III Report, Final, 1980; Gofman, 1981:368-415). A review by Beebe (1981) of the evidence from the Japanese atomic bomb survivors stresses the new uncertainties about low-dose radiation effects on health. Leukemia deaths peaked in the first five years after the bombing. Subsequently, there has been a persistent increase in other cancers. This excess has been caused by cancer of the esophagus, stomach, colon, lung, breast, and urinary tract, lymphoma, and multiple myeloma, and the thyroid gland As a result of this new evidence, low-dose risk estimates may in some cases be doubled under the linear or linear-quadratic models of dose-response proposed in BEIR-III. In a discussion of current knowledge of tissue variation in sensitivity to the carcinogenic action of radiation, Beebe concluded, "If we use relative risk, where radiogenic risk is proportional to natural incidence of disease, then bone marrow is the most sensitive; but if we use absolute risk, where radiogenic risk is independent of natural risk, breast and thyroid tissue in the female are more sensitive" (Beebe, 1981:38-39).

5.13.13

In spite of these developments Johnson (1984:135) was forced to conclude that few investigations had been made of the effects in local populations of the potent carcinogens emitted from nuclear weapons facilities. An epidemiological study by Johnson (1981) found a sixteen percent excess of cancer in local populations near to Colorado's Rocky Flats nuclear bomb-trigger plant. Stebbings and Voelz (1981) report evidence of effects in local populations near the Los Alamos Laboratory, New Mexico. An excess of childhood leukemias (Lyon et al., 1979) had been reported in populations in areas of radioactive fallout downwind from the Nevada Test Site. Subsequently, Johnson (1984) found an excess of cancers of the more radiosensitive organs in a Utah-Mormon population downwind of the Nevada Test Site. A study of childhood cancers in rural villages located near the Windscale plant in England found plutonium contamination 40 miles away and fourteen cases of cancer where only three would be expected (Craft and Birch, 1983; Gardner and Winter, 1983; Urquhart, Palmer, and Cutler, 1983). Johnson (1984) found an excess of cancers of the more radiosensitive organs in a Utah-Mormon population downwind of the Nevada Test Site.

The Idaho National Engineering Laboratory (INEL) has released millions of curies of radionuclides in exhaust plumes and in liquid waste discharges in the past 35 years (since 1952) from 51 reactors and a chemical processing plant. Environmental contamination with radionuclides has been confirmed by onsite studies of soil, water, plant and animals, but not of local populations. Federal data on cancer mortality and state data on cancer incidence in the six counties near INEL were analyzed by Blain, Johnson, Kreider, and Nicholas (1985). When the Idaho state population was employed as a control group, there was an excess number of deaths (1950-69) from cancer of the more radiosensitive

organs (17 observed, 9.4 expected, P<.05) and an excess of cancer cases (1971-80; 11 observed, 8.0 expected) in Clark county, Idaho downwind of INEL. The excess is due to a lower than expected number of male cancers (2 observed, 2.8 expected) and a higher than expected number of female cancers (9 observed, 5.2 expected), particularly female breast tumors (6 observed, 2.8 expected). Mormons have a 23% lower rate of cancer than other populations and the six counties have large Mormon populations (range = 40%-80%). When the cancer incidence in the counties is compared to a Mormon control population, there is an excess cancer incidence (1971-80) in Bannock (659 observed, 485.7 expected, p=.001), Bonneville (547 observed, 447.9 expected, p=.001), Butte (47 observed, 34.5 expected, p=.05), and Clark (11 observed, 8.0 expected) counties. There is a need for a comprehensive cohort study (1952-present) that considers membership in the Mormon Church.

Assessment Implications

Bailar and Smith (1986) argue that "we are losing the war against cancer." The age adjusted mortality rates, adjusted for changes in age distributions and population size, increased by 8.7 per cent from 1962 to 1982 (from 170.2 to 185.0 per 100,000). Bailar and Smith suggest a shift in orientation from an emphasis on cancer treatment, the search for a technical fix, to an emphasis on prevention.

This Blain et al. (1985) study of cancer effects in populations near the INEL site indicate that past operations at the site have had health impacts on local populations, particularly in West Jefferson and Clark counties. The EIS on the SIS Project should assess the following potential impacts on the environment and wildlife:

5.13.19

1. The EIS should address the potential for additional health impacts in the populations in the vicinity of the INEL site.

5.13.12

2. The potential health effects should be assessed employing appropriate epidemiological studies of the population which take account of its peculiar demographic characteristics (i.e., rural, religious).

5.23.18

3. The EIS should also assess the health impacts due to the enhanced ICPP operations.

5.13.3

4. The assessment of health effects in the public should employ the range of hypothesized relationships between radiation dose and health effects (e.g., in cancer, the linear and supralinear relationships).

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COMMENTS

ON

SPECIAL ISOTOPE SEPARATOR

DRAFT ENVIRONMENTAL IMPACT STATEMENT

TO THE

UNITED STATES DEPARTMENT OF ENERGY

SUBMITTED

MARCH 10, 1988

CITY OF MOSCOW

PUBLIC HEARING

EMPTY PROMISES

The DOE promises to run its nuclear weapons production facilities safely. They promise in the SIS Environmental Impact Statement that the health and safety of the general public and facility workers will be protected.

3.1.1

The truth of the matter is that the Federal government established the Atomic Energy Act which exempts them from any liability due to injuries sustained by their nuclear weapons production and testing. The Price-Anderson legislation goes on to exempt contractors working for DOE from liability even if injuries are caused by gross negligence or failure to follow safety regulations.

3.6.1

Witness the 10th US Circuit Court of Appeals decision to overturn US District Judge Bruce Jenkins finding in 1984 that the government negligently failed to warn or educate downwind residents of radiation hazards from tests conducted by the Atomic Energy Commission at the Nevada Test Site from 1951 to 1962. Jenkins' earlier ruling came after a trial of 24 "bellwether" claims which represented nearly 1,200 plaintiffs suing the government for some 500 deaths and injuries.

3.2.23

There was no question that the government was negligent in conducting the tests and that it gave false and misleading information at the trials. The legal bottom line is that Congress created laws which specifically exempt the government and any contractors who work for the government from liability.

264

Radiation victims from INEL can find no compensation for their injuries. Not only can they not sue the government or the contractors whom they worked for but Idaho law does not recognize long term radiation injuries. Typically it takes 10-20 years for radiation related injuries to surface after exposure. Again the legal bottom line exempts even the state Workman Compensation Commission from covering long term radiation injuries.

5.27.7.15

Promises made in the SIS Draft Environmental Impact Statement must consequently be viewed as hollow promises. Individuals or communities have no legal standing in court. Safety would by definition have a low priority because there is no accountability. Production goals for the government and profits for the contractors will dominate the priority lists.

3.2.1

EFFECTS OF MILITARY SPENDING

The report "Empty Pork Barrel: Employment Costs of Military Buildup 1981-85" estimates Idaho lost 14,490 jobs because the Federal Government invested in an unprecedented peace time military buildup. Employment Research Associates, a Lansing, Michigan based economics consulting firm compared the actual number of jobs created to the number that would have been created "if this money had been spent on normal civilian economic activities." The DOE annual budget for 1981 was $3.6 billion. In 1986 it jumped to $7.2 billion. DOE manages the nations nuclear weapons production facilities. Government spending on the military has been at the expense of domestic programs.

Idaho has felt the loss of Federal revenue sharing in the following areas:

2.7.4

1. Education
2. Agriculture assistance
3. Welfare and public assistance
4. Research and development of new industries
5. Road construction and maintenance
6. Energy conservation and mass transit development

State revenues have dropped drastically in recent years requiring cut backs at all levels of public services. Local governments who are also dependent on Federal revenue sharing have been equally stressed due to cut backs. Witness the record number of homeless people not seen since the Great Depression.

Idahoans must recognize that the source of the revenue squeeze is in Washington with the spending priorities of the Reagan Administration.

The country as a whole is running a $176 billion trade deficit not to emtion a equally large national debt. Put together, the two debts and related interest on these debts is an awesome burden to put on future generations. The Reagan Administration has added more debt than all previous administrations put together.

5.27.6.11

The real threat to our national security currently lies with our internal disintegration due to inappropriate allocation of our resources. Other countries have invested in education, production capacity and development of new industries which will put them in the lead in future growth.

Therefore the SIS Draft Environmental Statement must evaluate the relative allocation of scarce resources and justify the expenditure of $1 billion on the SIS as apposed to domestic needs.

6.3

SAFETY CONSIDERATIONS

5.10.5 INEL has a earthquake zone 3 rating. That is the same seismic category as San Francisco. The strongest earthquake of recorded history called the Yellowstone quake occurred in 1959. This quake had its epicenter only 100 miles from INEL where DOE wants to build the SIS.

5.24.27 The SIS will be processing the most deadly substance known to humankind - plutonium. Plutonium burns when it comes into contact with air. This makes the production process very sensitive to maintaining vacuum conditions during processing. An earthquake could compromise the facilities ability to maintain its operating conditions. A plutonium fire similar to those at the Rocky Flats plant in Colorado would send lethal plumes of radiation into the air and contaminate the region.

5.1.22 The SIS will use lasers to separate plutonium from other isotopes. These lasers could further complicate the fire scenario by being dislodged or misaligned from its focal point causing fires during an earthquake. Appropriate provisions are not considered by DOE in its Draft EIS on these considerations.

5.1.27 The AVLIS procedures (use of lasers to separate isotopes) involve vaporization of plutonium in vacuum chambers, where it could accumulate undetected in invisible areas. Over time, a supercritical amount might accumulate causing an explosion and/or fire with a flash of radiation contaminating the facility and surrounding area. There would be several kilograms of plutonium involved. Inhalation of 100 microcurie (less than 2 milligrams) is lethal as the residents around Rocky Flats found out.

5.24.27 Scale prototype for the AVLIS process under construction at Lawrence Livermore will not be completed before construction is to begin on the SIS. Design deficiencies revealed during testing of this facility would not be able to be included in the SIS.

5.24.18 DOE's construction of the SIS prier to completion and thorough testing of the prototype reveals the DOE's lack of concern for safety and credible management.

5.1.46 INEL has had nine meltdowns in its history of operations. Four of these meltdowns were accidents. Experimental meltdowns to test the radiation releases were conducted without regard to the emissions exposure to workers and surrounding residents. One accident resulted in three deaths and serious exposure to workers. With such a grim safety history little confidence can be generated in DOE's ability to manage even more sophisticated and potentially dangerous facilities such as the SIS.

TRANSPORTATION RISKS

5.17.3 High level nuclear wastes will be transported from Hanford to INEL for processing at the proposed SIS facility and then on to Colorado's Rocky Flats. Idaho is not prepared today to deal with existing hazardous materials on its roads. Emergency Response Teams with adequate training and equipment are virtually non-existent. Due to powerful trucking and industry lobby the state is unable to generate hazardous materials permit fees to provide funding for appropriate enforcement or emergency response services. The state has seen a 70% increase in hazardous materials accidents.

5.29.64 5.29.33 5.29.42 5.29.49 5.29.81 5.29.1 The SIS would dramatically increase hazardous materials traffic without any DOE provision for increasing the safety net necessary to protect the general public. The casks DOE uses to transport plutonium and other radioactive materials have flunked even the lenient Department of Transportation and Nuclear Regulatory Commission criteria. DOE continues to use the casks because by law it is not required to comply with any other agency regulations. If even one percent of the contents of an irradiated fuel cask were to escape in respirable form in ar urban area, according to the latest and most authoritative federal health effects studies, thousands of latent cancer fatalities could result, as well as $2 billion in decontamination costs.

High level nuclear wastes used and generated by the SIS must be transported either by rail or by road. To date DOE has been unable to build a cask that will pass any criteria other than its own. Included is its most recent $100 million Trupact design which gradually leaks gases that build up due to radiological bombardment within the wastes.

5.29.2 5.30.2.1 The DOE's actions expose its dangerous and mistaken view that nuclear transport safety is not a serious issue. Such an agency cannot be allowed to oversee the next generation of cask design, testing and handling, as delegated under present policy. It is essential that all cask certification powers be removed form DOE and vested in the NRC to avoid repetition of these dangerous events. Similarly the SIS must not be built until such transportation risks are adequately addressed for both road and rail shipments and a final geologic repository is built and tested to receive the wastes.

WASTE MANAGEMENT

5.30.2.5 Due to the recent failure of the Waste Isolation Project in New Mexico which was to receive SIS wastes, INEL will presumably continue to be a defacto nuclear dump. One fourth of all military nuclear wastes are dumped at INEL as well as all of the Three Mile Island contaminated reactor components. Over 7.1 million cubic feet of radioactive waste has been dumped here on top of the Snake River Aquifer. Over 69 billion gallons of radioactive water was injected directly into the aquifer between 1953 and 1974. These discharges contained 7,577 curies of radioactive materials according to federal reports. Officials estimate that .008 of a curie would kill a person within a month if ingested.

5.30.3.6

5.30.4.11

5.30.3.5 Even the timid Environmental Protection Agency was forced to find INEL in violation of the Resource Conservation and Recovery Act which was originally established to police private industry waste management. Substantive corrective action is yet to occur because EPA will not shut down any INEL facility. Consequently violations are interpreted as a peer review without being binding. No civilian industry would be allowed to operate a single day under current Federal environmental law using INEL waste management practices.

5.30.3.4

There is no historical evidence which would lead any discerning Idaho citizen to believe that the SIS waste management will be any different. Even with EPA monitoring and with subsequent notice of violations, conditions have not significantly changed.

5.30.3.7 Government estimates for cleanup of existing radioactive waste dumps runs in the 10's of billions of dollars. Some of the wastes were dumped in cardboard boxes and pose such a significant threat to workers during excavation that DOE considers it "impracticable".

Waste bins built at the New Waste Calcining Facility to store wastes at INEL do not meet earthquake activity standards. Steel that did not meet NRC standards was used in the construction of the bins. Quality control testing of the steel reinforcement was not properly preformed. Rejected metal structures have been used. Improper placement of reinforcement has caused concrete strength problems. Inspite of these disclosures DOE intends to use the bins.

5.14.2

5.30.5.15

3.2.2 Clearly DOE's present management is incompetent to manage any further facility development such as the SIS and would best direct its efforts toward correcting previous blunders.

STATE MONITORING DISCONTINUED

Most Idaho citizens and people throughout the Northwest assume that state health and environmental agencies are monitoring DOE facilities. Most people believe that there is a safety net which enforces safety and environmental laws.

The sad reality is that state budgets have been drastically reduced and environmental monitoring cut. Idaho and Washington have agencies mandated to monitor nuclear activities but existing budget restraints have forced staff layoffs. 5.31.9 3.2.30

States have no authority to regulate Federal nuclear facilities. DOE up until a few years ago denied state officials access to its nuclear facilities. Today DOE has limited agreements allowing state officials restricted access but actual regulation lies solely with the Federal government. Idaho exempted INEL from ground water quality regulations because it is a Federal facility. As the single largest employer in the state it is no wonder INEL swings a lot of political clout. 5.31.2 6.4.5

Idaho was able to persuade INEL to stop injecting 100 million gallons per month of radioactive and chemical wastes into the aquifer. Now the wastes are dumped into ponds which allow the wastes to peculate more slowly into the aquifer. Radioactive tritium already has been detected in the Snake River Plain Aquifer at INEL's southern boundary according to a 1983 study by the US Geological Survey. By the year 2000 the tritium waste plume is expected to migrate up to six miles south of the INEL property line, according to a mathematical model developed by the US Geological Survey. 5.17.2 5.21.4 5.30.1.6

What most of these estimates do not take into account when scientists predict the speed with which contaminates come back to the surface is irrigation. Agriculture in that region is expanding rapidly. As a warm desert ecology, farming relies solely on irrigation to produce very high yield products. So much water has been drawn from the aquifer that the water table has been dropping dramatically. Municipal water for 41 communities also adds to the drain on this aquifer. 5.30.1.16

The irrigation of over 3 million acres of farm land and rapidly growing municipal water needs will pull INEL's pollution back to the surface much faster than anyone predicted. Snake River Aquifer springs feeding the Snake River provide the entire river flow West of Twin Falls. The river flow East of Twin Falls is almost entirely diverted for irrigation. The Snake flows into Northern Idaho where it turns West at Lewiston and joins the Columbia Near the Tri-Cities. Any radioactive and chemical wastes which INEL puts into the Snake River Aquifer will eventually reach Northern Idaho, Southern Washington, and Northern Oregon. 5.12.1

HEALTH EFFECTS OF INEL OPERATIONS

5.6.5 Over its history the Idaho National Engineering Laboratory has built 51 nuclear reactors - 16 are operating or operable today. This represents the largest concentration of reactors in the world. In addition to these reactors are facilities which process large quantities of radioactive and chemical materials. Emissions from these operations have had significant health effects on the surrounding human and wildlife populations.

5.13.13 "Radioecological Effects on Animal and Human Populations Near the Idaho National Engineering Laboratory" by Michael Blain, Phd., Carl Johnson, Md., Carol Kreider, BS., and Robert Nicholas,BS. and presented to the American Association for the Advancement for Science annual meeting in New York, N.Y. May 1984 states:

5.30.4.8 "The Idaho National Engineering Laboratory has released millions of curies of radionuclides in exhaust plumes and in liquid waste discharges in the past 35 years (since 1952) form 51 reactors and a chemical processing plant. Environmental contamination with radionuclides has been confirmed by on site studies of soil, water, plant, and animals, but not of local populations. Federal data on cancer mortality and state data on cancer incidence in the six counties near INEL were analyzed. When the Idaho state population was employed as a control group, there was an excess number of deaths (1950-69) from cancer of the more radiosensitive organs (17 observed, 9.4 expected)[80.8% increase] and an excess of cancer cases (1971-80; 11 observed, 8 expected)[37.5% increase] in Clark county, Idaho downwind of INEL. The excess is due to a lower than expected number of male cancers (2 observed, 2.8 expected) and a higher than expected number of female cancers (9 observed, 5.2 expected)[73% increase], particularly female breast tumors (6 observed, 2.8 expected)[114% increase]."

5.13.13 "Mormons have a 23% lower rate of cancer than other populations and the six counties have large Mormon populations (range = 40-80%). When the cancer incidence in the counties is compared to a Mormon control population, there is an excess cancer incidence (1971-80) in Bannock (659 observed, 485.7 expected)[35.6 % increase], Bonneville (547 observed, 447.9 expected)[22.1 % increase], Butte (47 observed, 34.5 expected)[36.2% increase], Clark (11 observed, 6 expected)[83.3% increase]. There is a need for a comprehensive cohort study (1952-present) that considers membership in the Mormon Church."

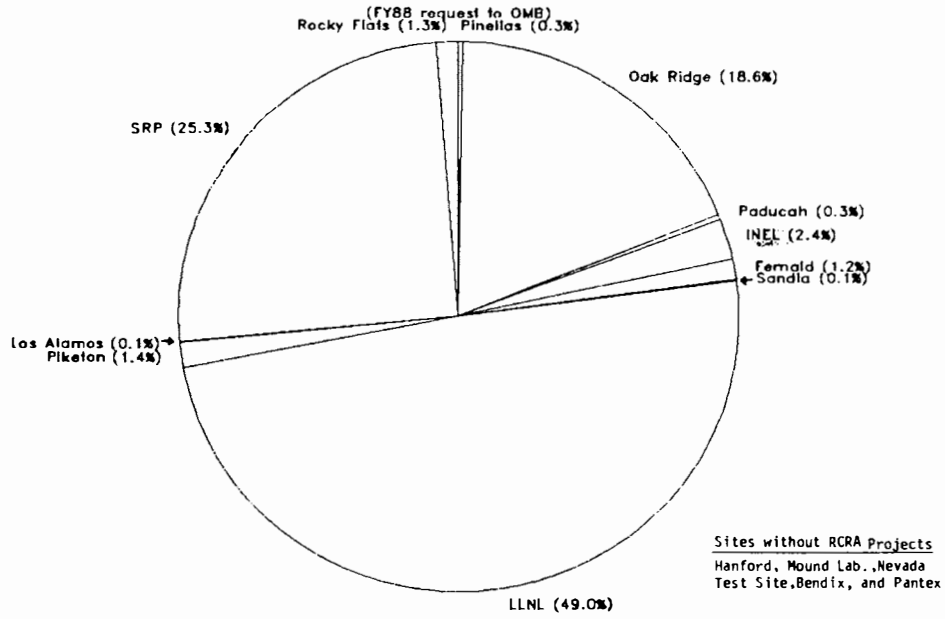
3.2.7 The evidence is clear that past-present operations pose a significant health hazard to Idahoans. DOE is obviously unwilling to operate safe facilities. There is no evidence that the proposed SIS facility which will be processing several hundred billion microcurie per year will operate differently.

5.24.27 Less than one microcurie of plutonium will cause lung cancer and death.

Source: U.S. Department of Energy, Congressional Budget Request, Atomic Defense Activities, Vol. I, (DOE/MA-0271), January 1987.

FIGURE 7.
RESOURCE CONSERVATION AND RECOVERY ACT

RCRA SPENDING AT DOE NUCLEAR WEAPONS SITES

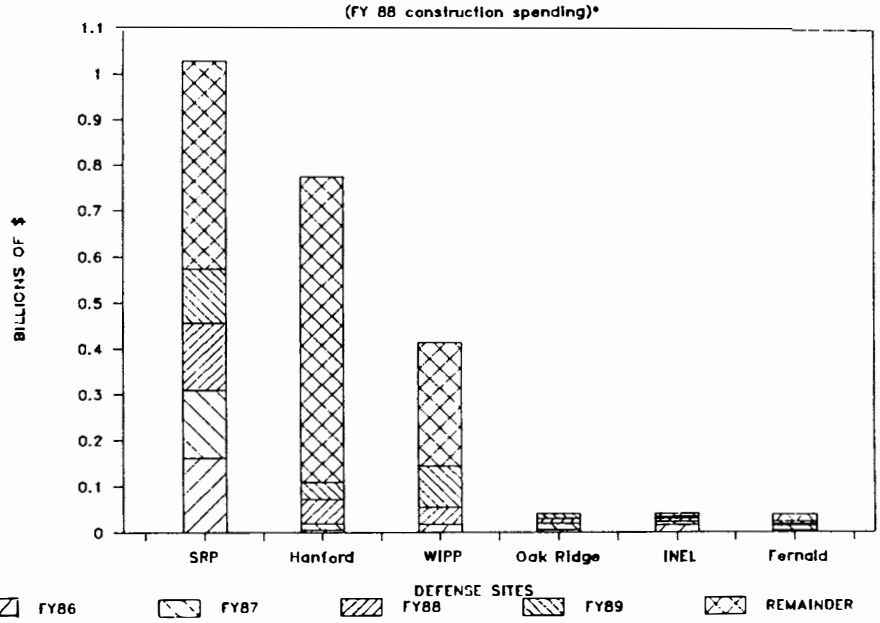


Source: USEPA, Office of Federal Activities, Pollution Abatement Needs at Federal Facilities, September 1986.

FIGURE 5.

DOE NUCLEAR WASTE SPENDING AT WEAPONS SITES

(FY 88 construction spending)*



*Source: U.S. Department of Energy, Congressional Budget Request, Atomic Defense Activities, Vol.I, (DOE/MA-0274), January 1987.

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Re: SPECIAL ISOTOPE SEPARATOR HEARING
MARCH 10, 1988; MOSCOW CITY COUNCIL CHAMBERS

Greetings:

I wish to make the following comments regarding the proposed building of a Special Isotope Separator (SIS).

4.1 4.15.5 4.3 1. The "need' for additional production of nuclear-weapons grade-plutonium has not been substantiated. The United States has adequate supplies of nuclear-weapon-grade-plutonium already. In the past the United States has recycled plutonium from retired nuclear weapons. The reduction in nuclear arms between Russia and ourselves will free up more nuclear-weapon-grade-plutonium. We already have more nuclear weapons than are needed to destroy all life on this planet as we know it today. More is only overkill and insane. We have better ways to spend our tax dollars.

3.2.2 2. The nuclear industry has historically remained unregulated. Since before the dropping of the first nuclear bomb, the nuclear industry has religiously denied and lied to the American public and government about the safety of the nuclear program. Our citizens have been killed from the effects of radiation and our land and water systems have been contaminated through their experiments and flawed practices. The nuclear industry does what it pleases, when it pleases, and as it pleases. History shows us that this industry is its own master. The only way to regulate the nuclear industry is to stop it before it creates it's own chance to expand.

5.12.1 3. Idaho is not a safe environment to expirement with the manufacture of plutonium. No environment is a safe environment for the production of plutonium. The Idaho National Engineering Laboratory sits atop the Snake River aquifer. Because of the Snake River, Idaho has been able to turn the desert into an

agricultural bread basket. If we allow the DOE to buld the SIS at INEL plutonium will contaminate our aquifer and turn this bread basket into a nuclear wasteland. 5.12.1

If the SIS is built at INEL our rivers and streams will become contamiated from spills from trucks or trains carrying the nuclear material from Hanford to INEL. We have worked extremely hard to maintain our water and fishlife quality that we have in Idaho. Our gains would be significantly jeopardized when one looks to the results of an accident where nuclear waste material is "accidentally" deposited in our river system. The chemical spill by Riggins, Idaho, that claimed all of the native steelhead run last fall palls in comparison. 5.29.97

4. The positive economic impact of placing the SIS in Idaho is negligible. Idaho does not need to throw the baby out with the bathwater. INEL will remain as it is. Not all growth reflects a healthy economy. Some growth is down right deadly. Production of the SIS at INEL is a cancer that will kill our own people and their way of life. 5.27.6.1

In conclusion, the SIS has no place in Idaho or Idaho's future. 1.1

Respectfully submitted,

WILLIAM C. KIRSCH

cc: Cecil Andrus
Senator Steve Symms
Senator James McClure
Representative Craig
Representative Stallings

S.I.S. PETITION

The Special Isotope Separation (SIS) refinery, specifically designed for the **refinement of plutonium for nuclear weapons** and proposed for construction at Idaho National Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life. 6.1.1

1.1 WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

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1392 6.	Mary Voxman (Mary Voxman)	1118 King Rd	Moscow, ID 83843
1393 7.	Joanne Pellegrinelli	835 N. Mountainview	Moscow. ID 83843
1394 8.	Jefferson PETRICH	120 N LINCOLN	MOSCOW ID 83843
1395 9.	[illegible]	313 S Main	MOSCOW ID
1396 10.	Rose Lee Diggs	NE 2005 Terre View Dr	Pullman WA 99163

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S.I.S. PETITION

The Special Isotope Separation (SIS) refinery, specifically designed for the **refinement of plutonium for nuclear weapons** and proposed for construction at Idaho National Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life. 6.1.1

WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT. 1.1

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1397 1.	Apocalypse Castillo	Rt 2 Box 161C	Genesee, ID 83832
1398 2.	Mark Solomon	2178 Shawalter Rd	Moscow, ID 83843
1399 3.	Jennifer Blakesley	NW 740 Fisk	Pullman WA 99163
1400 4.	Mona Miles Kohler	627 N. Hayes	Moscow ID 83843
1401 5.	Neth Sanyal	305 E 5th	Moscow ID 83843
1402 6.	Ludwig Schlickenopp	213 N. Lincoln	Moscow, ID 83843
1403 7.	FREDERICK L CHAPMAN	403 N. Pucket St	Moscow ID 83843
1404 8.	[illegible]	SE 425 High	Pullman WA 99163
1405 9.	[illegible]	914 Orchard	Moscow Id 83843
1406 10.	Pat Olson	608 East A	Moscow, ID 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1407 1.	George Diggs	2005 NE Terrace View	Pullman, WA 99163
1408 2.	Leslie Boen	621 A Van Buren	Moscow, ID 83843
1409 3.	Gary Snyder	206 E. Morton St.	Moscow, Id. 83843
1410 4.	Ruth Hoffman	1514 E. Third	Moscow 83843
1411 5.	Gerald W Herd	PO Box 9332	Moscow, ID 83843
1412 6.	Carole A Hughes	1324 Nearing Loop	Moscow 83843
1413 7.	Sharon Cousins	309 S Tyler	Moscow, ID 83843
1414 8.	~~Sharon~~ Laura Kisler	1062 Pierce St #12	Clovis, CA 93612
1415 9.	Janet Lay Sabo	443 E. Lewis #1	Moscow, ID 83843
1416 10.	Jacque Waldrop	230 S Hayes	Mos Id 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1417 1.	John Moore	724 Kenneth	Moscow, Idaho, 83843
1418 2.	Sue Beetsch	P.O. Box 9778	Moscow, Id 83843
1419 3.	Paul H. Beetsch	523 W. Taylor	Moscow ID 83843
1420 4.	Doris Wenske	109 No. Jefferson	Moscow, Id. 83843
1421 5.	[illegible]	1336 [illegible]	[illegible]
1422 6.	Mary L Dunn	500 Queen Rd	Moscow ID 83843
1423 7.	Tina Hutchens	230 E. 8th St #6	Moscow Id 83843
1424 8.	[illegible]	817 [illegible]	Moscow [illegible]
1425 9.	[illegible] (DAVID THODAL)	1017 FOOTHILL ROAD	MOSCOW IDAHO
1426 10.	Ella Inglebret	305 E. 5th	Moscow, ID

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S.I.S. PETITION

6.1.1 The Special Isotope Separation (SIS) refinery, specifically designed for the **refinement of plutonium for nuclear weapons** and proposed for construction at Idaho National Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life.

1.1 WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1427	1. Teri Lipinski	P.O. Box 570	St. Maries, ID 83861
1428	2. Anna Wiland	2017 Mt. View Rd.	Moscow, Id. 83843
1429	3. Dorothy Hopkins-Smith	305 Palouse Cl # B Moscow ID	
1430	4. Lloyd Peterson	1426 Chinook	Moscow ID 83843
1430	5. Jeanette Peterson	1426 Chinook	Moscow, Id.
1431	6. Mary DeRue	320 N Adams	Moscow ID 83843
1432	7. Anna Neher	2408 E. D Street	Moscow, ID 83843
1433	8. Linda Coulter	721 Brent Dr. #24	Moscow Id 83843
	9. ~~Inga Hansen~~	~~CC44 Vanmore Ln~~	~~Moscow, Id 83843~~
Lo. 1434	10. MARKIE WICE	420 E. A St. E #3	MOSCOW 83843

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working on pg 3 - (Dollar come from signatures on it.

Missed you at reception — let me know if you see "my stuff" this month ... (10?)

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S.I.S. PETITION

The Special Isotope Separation (SIS) refinery, specifically designed for the **refinement of plutonium for nuclear weapons** and proposed for construction at Idaho National Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life. 6.1.1

WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT. 1.1

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1435	1. Michael Gagner	326 Prospect #4	Lewiston, Id 83501
1436	2. DOROTHY TIBBETTS	712-SE 25TH ave	Portland, OR 97214
1437	3. Curtis Chase	1429 Linden Ave	Lewiston, Id 83501
1437	4. Sally Life SALLY CHASE	1429 Linden Ave	" "
1438	5. Jan Kempster	326 Prospect Blvd. #2	Lewiston, ID. 83501
21	6. Jack Kappas	Box 1693	McCall, Idaho 83638
22	7. Barney Dow	P.O. Box 1694	McCall, Id 83638
23	8. Don McClaran	Box 1794	" " "
24	9. LISA OSTERMILLER	Box 741	MCCALL, ID
25	10. Rebecca Olson	Box 175	McCall, Idaho 83638

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1.1 WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1439 1.	Ted Fuentes-Williams	Po Box 422	Coeur d'Alene ID 83814
1440 2.	Steve Willey	8530 RAPID LIGHTNING CREEK	SANDPOINT ID 83864
1440 3.	Elizabeth Willey	8530 Rapid Lightning Ck, Sandpoint, Id	
1439 4.	Lorelei Fuentes-Williams	PO Box 422	Coeur d'Alene, ID 83814
	5.		
	6.		
	7.		
	8.		
	9.		
	10.		

PALOUSE-CLEARWATER HANFORD WATCH as sponsors of this petition in cooperation with Snake River Alliance of Boise, intend to reprint it and the names of those signing it, in newspaper advertisements. A donation of $1.00 to cover the cost of these ads is encouraged. The "Watch" can be reached at P.O. Box 8582, Moscow, Idaho 83843. Our phone number is (208) 882-1444. Petitions can be dropped off at the "Watch" office in the Moscow Hotel, 2nd Floor, Room 148.

Return petitions to: Hanford Watch, Box 8582, Moscow, ID 83843. Deadline: Dec. 1, 1987.

S.I.S. PETITION

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
441 1.	Gertrude Hanson	W. 2535 Riverview	Coeur d'Alene, Id,
4422.	Charles Y. Block	HC12 Box 305	Coeur d'Alene, ID
4433.	Lee Ray	N899 Four Winds Rd.	Coeur d'Alene, Id. 83814
4434.	Jean R Gilmore	1323 E. Garden, Dalton	Cocurd'Alene, ID 83814-9430
1445 5.	Richard P Hermstad	812 N. 5th	Coeur d'Alene, ID 83814
1441 6.	Wes Hanson	W. 2535 Riverview Drive	Coeur d'Alene, ID 83814
4467.	Charles J. Sears	836 N. 23rd	Coeur d'Alene Id 83814
4468.	LORNA J SEARS	836 N 23rd	Coeur d'Alene Id 83814
	9.		
	10.		

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S.I.S. PETITION

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1447	1. Warren Miller	Box 142	PECK I D 83545
1448	2. Sarah Walker	Box 69	Peck ID 83545
1448	3. Dick Walker	Box 69	Peck, ID. 83545
1449	4. Dan Davis	RT1 Box 75A	Kamiah Id 83536
1450	5. Al Espinoza	Box 987	Orofino, ID. 83544
1451	6. [illegible]	[illegible]	Kamiah Id 83536
1452	7. Kurt Ruenhorst	12453 Hartford Ave	Orofino, Id 83544
1453	8. Richard Hull	P.O. Box 122, P	Peck, Idaho 83545
1454	9. Erin Walker	8334 Clearwood	Moscow, Id 83843
	10.		

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1455	1. Linda Groseclose	RT. 1 Box 97A	Juliaetta, Id 83535
1456	2. Betty Heimgartner	Box 376	Juliaetta Ida 83535
1457	3. Vera Hutchesson	Box 315	Juliaetta Id. 83535
1458	4. Irene Lackey	Box 325	Juliaetta Id 83535
1459	5. Ena M Grisolds	Box 512	Juliaetta Id 83535
1459	6. Neil L Grisolds	Box 512	Juliaetta Ida. 83535
1460	7. Zana L Mitchell	Box 242	Juliaetta Ida 83535
1461	8. Murray L Tents	Box 1342	Lewiston Ida 83501
1462	9. Elizabeth Hasius	Box 253	Juliaetta Id 83535
1463	10. Barbara Smith	#2 Box 33-C	Kinkaid Id 83837

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	DAVID W. COOK	314 S. Polk	Moscow, Id. 83843
2.	Sara Holup	4216 Cameron	Moscow, ID 83843
3.	Myra E. Smart	SE 630 Dilke St.	Pullman WA 99163
4.			
5.	Ellyn Kerr	Rt 1 Box 71-C	Princeton, Id 83857
6.	CARL MELINA	1005 Orchard Ave	Moscow 83843
7.	Sharon Maughan	HC 63 Box 1714 Clarkia Id 83816 and 1021 Blake St #319	Moscow Id 83843
8.	Tom Pantington	Box 8669	Moscow Ida 83843
9.			
10.			

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1345	1. DWayne Hedin	304 N. Jefferson	Moscow, ID 83843
1346	2. Shirley M. Osborne	5145 Blaine	Moscow ID 83843
1347	3. Lamis I. Matthews	P.O. Box 3143	Moscow Id. 83843
1348	4. Constance Chords	P.O. Box 9231	Moscow, Id 83843
1349	5. Kurt Obermayr	3110 Carmichael #12	Moscow Id 83843
1350	6. Julius E. Peterson	582 Park Way	~~Los~~ South San Francisco, CA 94080
1351	7. [illegible]	#1 Ellen Apts	Moscow Id 83843
	8. [illegible]	~~PO Box 2343E5~~	~~Pullman, WA 99163~~
1352	9. Ellyn Kerr	Rt 1 Box 71-C	Bear Creek Rd. Princeton, Id. 83857
1352	10. Wm Kerr	Rt 1 Box 71 C	Bear Creek Rd " "

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
	1.		
1353	2. Staci Stiller	112 E 4th	Moscow ID
1354	3. Bill Jasper	112 E 4th	Moscow, ID 83843
1355	4.		
1356	5. Carolyn K Berman	2044 Yourmans Ln	Moscow ID 83843
1357	6. Jill Robinson-Smith	1146 Hwy 95 N	Moscow ID 83843
1358	7. Kristi Accola	313 S. Cleveland #5	Moscow, ID 83843
1359	8. Lindsay Brooks	346 E. C St.	Moscow, Id 83843
1360	9. Karen Heidi VanCleave	318 N. Lincoln	Moscow, ID 83843
1361	10. Maurice Earle Raquet	318 N Lincoln,	Moscow, ID 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1362	1. Ann Clinton	1107 S. Lynn	Moscow, Id. 83843
1363	2. Roger B. Howard	730 East 8th St	Moscow, Id 83843
1364	3. Jeanne Whitmer	430 E. Morton	Moscow, Id 83843
1365	4. Meryl Holmes	204 N. Adams	Moscow, Id 83843
1366	5. Diane Atkins	614 S. Washington	Moscow, ID 83843
1367	6. Jed Davis	922 N Almon	Moscow, ID 83843
1368	7.		
1369	8.	117 E. 3rd	
1370	9.	611 S Lynn	
1371	10.	820 N. Main	Moscow ID 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1371 1.	Nicholas Crookston	990 Colt Rd	Moscow, ID 83843
1372 2.	Tom Humphrey	357 Lauder #1	Moscow, ID 83843
1373 3.	John Edwards	760½ Brent Dr.	Moscow, ID 83843
1374 4.	Julie Meno	760½ Brent Dr.	Moscow, ID 83843
1375 5.	Mike Bowman	1008 W. 3rd St	Eugene, OR 97402
1376 6.	Paul Mahoney	4 Pearl St.	Montpelier, VT 05602
1377 7.	Roberto Badillo	P.O. Box 8485	Moscow Id. 83843
1378 8.	Peter Bacon	324 S. Howard	Moscow, ID 83843
1 9.	Daniel R Crum	1193 Saddleridge Rd.	Moscow, ID 83843
1379 10.	Elaine Quesnel	Rt. 1 Box 963	Troy, ID 83871

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1380 1.	Stephanie Tawzy	417 Southwood #5	Moscow ID 83843
1381 2.	Collin Hughes	416 N. Adams #2	" "
1382 3.	Cheryl Werkmeister	P.O. Box 9635, Moscow Id. 83843	
1383 4.	Junko Kawauchi	313 S. MAIN #231	Moscow Id 83843
1384 5.	Sheila O'Boyle	514 S. Polk #2	Moscow, Idaho 83843
? 6.	Barbara Powers		Colfax, WA. 99111
1385 7.	Jay Jensen	841 Truman	Moscow, ID 83843
1386 8.	C. Shawn Wilke	1011 Deakin #4	Moscow, ID 83843
1384 9.	Molly Mcwilkes	1011 Deakin #4	Moscow ID 83843
1371 10.	Irene A Crookston	990 Colt Rd	Moscow Id. 83843

(see previous page)

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Alexander McKsik		
2.	Tall Coast		
3.	Jason		
4.	DARBS BUGBEERY		
89 5.	Keene Lumber Co	1630 Monte Vista	Pocatello ID
90 6.	Alfredo G. Escandon	PO Box 749	McCall, Id. 83638
91 7.	Bud Burrow	20319-92nd Ave. West	Edmonds, WA 98020
92 8.	Martha H Coolidge	38 Standley St	Beverly MA 01915
93 9.	Dwight Mill	560 Collins Blvd	Ft. 83211
94 10.	Susi Kneeman	Box 482	Sun Valley Id. 83353

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S.I.S. PETITION

The Special Isotope Separation (SIS) refinery, specifically designed for the **refinement of plutonium for nuclear weapons** and proposed for construction at Idaho National Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life. 6.1.1

WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT. 1.1

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1079 1.	LARRY MALZERALL	5354 N 5 MILE RD	IDAHO FALLS, ID 83704
80 2.	Robert Hartman	P.O. Box 688	Asotin, WA 99402
81 3.	Chas Rackley	1524 W. Oak	Ft. Collins, CO 80521
82 4.	Frank Pelfrey	Box 9796	Moscow IDAHO 83843
83 5.	Kim Johnston	Box 4578	Ketchum, Idaho 83340
84 6.	John Caccia	POB 4225	Ketchum, Idah 83340
85 7.	Monica Mahr	Box 1736	Sun Valley ID 83353
86 8.	[illegible]	540 Rittiman Rd.	San Antonio, Tx. 78209-5532
87 9.	[illegible]	647 W Day	Post Falls 83204
88 10.	Debra Blazo	416 N Buchanan	Post 83204

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1.1 WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1291	1. Mary Kay Hughes	NE 1002 MAPLE ST EXT	PULLMAN WA 99163
nav	2. DAVID H Harper	625 So E	Grangeville, ID 83530
	3.		
	4.		
	5.		
	6.		
	7.		
	8.		
	9.		
	10.		

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1293	1. Mary G Eary	1724 East D	Moscow 83843
1294	2. Greg Meyer	635 N. Polk	Moscow 83843
1295	3. Carol Lander	2323 Walla Walla Rd	Moscow, Id 8384
1296	4. Lisa Carey	Box 8581	Moscow
1297	5. Craig G Redmond	613 E Taylor	Moscow
1298	6. Karen Lewis	803 E 7th	Moscow 8384
1299	7. Ellen Kerr	R-1 Box 71-C	Moscow
1300	8. EDWARD C. OTHEMEYER	330 S. Asbury	Moscow 83843
1301	9. ROBERT M. THIBERT	2114 MT. VIEW RD	MOSCOW, ID. 83843
1302	10. Bill Kirsch	1724 East D	Moscow Idaho 83843

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Washington Residents in Opposition to SIS

Support Idahoans

S.I.S. PETITION

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1303	1. Stacia Moffett	S.E. 120 Derby St.	Pullman, WA 99163
1304	2. Margaret Coahran	W. 700 Main St.	Pullman, Wa 99163
1305	3. Ellen Hastay	PO Box 269	Albion, WA 99102
1306	4. Ed Z. Satterthwait	NE 1635 Wheatland	Pullman, Wa. 99163
1306	5. Arnold C. Satterthwait	"	Pullman, WA, 99163
1307	6. Jerome P. Lacy	NW 1255 Davis Way	Pullman WA 99163
	7. [illegible]		
	8.		
	9.		
	10.		

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1308	1. Andrea Kruse	1193 Brook Ridge Rd.	Moscow, ID 83843
1309	2. Lanny Arnett	225 N Lieuallen	Moscow, ID 83843
1310	3. ELIZABETH MATTSON	1120 South Hill Terrace #7	MOSCOW ID 83843
1310	4. Katherine Mattson	1120 South Hill Terrace #7	Moscow ID 83843
1311	5. Dody Dozier	304 N. Cline	Moscow ID 83843
1312	6. John H. Sullivan	610 East B	Moscow, ID 83843
1313	7. Lois Fanning	P.O. Box 271	Potlatch, Id 83855
1314	8. ROBERT D. HARRIS	928 E 8th	Moscow ID 83843
1315	9. Melanie Austin	211 N Cleveland	Moscow, Id. 83843
1316	10. Karen West	2160 Kendall Flat	Moscow, Id. 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1317 1.	[illegible]	716 East E, Moscow, Idaho	U.S.A.
1318 2.	Barbara West	Rt. 1 Box 88, Princeton,	Idaho 83857
1319 3.	Tracy Bidwarson	Rt 2 Box 23 Kendrick,	Idaho 83537
1320 4.	Brenda Mallet	327 E 8th	Moscow, ID 83843
1321 5.	[illegible]	229 Cherry St.	Moscow ID 83843
1322 6.	[illegible]	2510 EAST D ST	MOSCOW, ID 83843
1323 7.	Barbara Fuller	1520 Second St.	Lewiston, Idaho 83501
1324 8.	[illegible]	415 E 7th	Moscow ID 83843
1325 9.	[illegible]	210 N. Grant	Moscow, ID 83843
1326 10.	Lee A. Deobald	215 Taylor Ave.	Moscow, ID 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1327 1.	Kevin Harvey-Marose	Box 207 Juliaetta,	ID 83535
1327 2.	Peggy L Harvey-Marose	Box 207, Juliaetta,	ID 83535
1328 3.	Kim A Williams	417 Eastwood #4	Moscow, ID
1329 4.	Stanley W. Thomas	1102 East 7th	Moscow, ID 83843
1330 5.	bob + Lori Glapinski	205A Mtn. View Ext.	Moscow, ID 83843
1331 6.	[illegible]	904 E Lewis	Moscow ID 83843
1332 7.	Wayne Benenson	302 E Morton	Moscow, ID 83843
1333 8.	Fred Hoskins	Rt 1 Box 193A	Deary, ID 83823
1334 9.	JOANN YOUNG	1255 Davis Way	Pullman, WA 99163
1335 10.	George Bridges	1422 Alpowa	Moscow, ID 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1336 1.	Teresa Humble	324 S. Howard St.	Moscow
1337 2.	Linda Wharton	922 West A	Moscow Id 83843
1337 3.	Bill Wharton	922 W. A.	Moscow, Id 83843
1338 4.	Kristine Peterson	P.O. Box 3811	" " "
1339 5.	Shaeon L York	~~208 E~~ 208 E and #2	Moscow Id 83843
1340 6.	Scott Rozenbaum	110 N. Lilley #204	Moscow ID 83843
1341 7.	Jennifer Seidensaal	P.O. Box 3525	Moscow, ID. 83843
1342 8.	[illegible]	PO. 82911	Moscow ID 83843
1343 9.	Tom Partington	Box 8669 Moscow Idaho	83843
1344 10.	[illegible]	203 S Howard	Moscow ID

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S.I.S. PETITION

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WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT. 1.1

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
69 1.	Gina Gormley	Box 8152	MOSCOW ID 83843
70 2.	Bill London	POB 8152	Moscow 83843
70 3.	Nancy Kane	1016 N. Polk Ext. #2	Moscow - 83843
71 4.	Thomas E Wisenckell	Box 351 Weippe ID	Weippe, ID 83553
72 5.	Jay Shepherd	1110 S. Main St #5	Moscow, ID, 83843
73 6.	Dean P. Henger	1017 E. D St.	" "
74 7.	Andrea Chosch-P. Henger	1017 East D St	Moscow 83843
74 8.	Erin L. Cochran	520 East B St.	Moscow ID 83843
75 9.	Matthew Cain	515 S. Almon, #C	Moscow ID 83843
76 10.	Brenda Cain	515 S. Almon, #C	Moscow ID 83843

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Moscow Food CO-OP

S.I.S. PETITION

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6.1.1 Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life.

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1 SP 1.	[illegible]	[illegible]	[illegible]
50 2.	Paul W. Thomas	217 N. Almon #2	Moscow ID 83843
KATHLEEN ANSPACH 3.	[illegible]	220 N. VAN BUREN	"
61 4.	[illegible]	Box 304	Juliaetta, Id 83[illegible]
62 5.	[illegible]	626 S. Hamion	Moscow ID 838
63 6.	Amy C. Smith	503 Spotswood	Moscow, ID 83843
64 7.	[illegible]	1341 Tamarack	Moscow 83843
65 8.	Elizabeth M. Sullivan	610 E. B	Moscow, ID 83843
66 9.	Greg Mader	Rt. 1 Box 73	Pullman, Wa 99163
67 10.	Linda Bell	1015 10th Ave	Lewiston
68	[illegible]	Route 2 Box 256	Pullman Wa 99163

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
48 1.	NANCY N CASEY	Rt1 Box 86	Plummer, ID 83851
49 2.	[illegible]	[illegible]	[illegible] 5384[illegible]
50 3.	Paul Williams	Box 8302	Moscow Id 8384[illegible]
51 4.	Wade Bilbrey	P.O. Box 116	Avery ID 83802
52 5.	John H. Sullivan	610 East B	Moscow, ID. 83843
53 6.	Joseph Thompson	Rt 3 Box 121	Colfax, WA 99111
54 7.	Marjorie B. Brainerd	NW345 Janet	Pullman WA 99163
55 8.	Janice Willoughby	P.O. Box 9714	Moscow, ID. 83843
56 9.	Mitch Ross	P.O. Box 3631	Moscow, ID 83843
57 10.	Larry Connell	504½ E. 3rd St	Moscow Id 83843

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SIS Petition cont'd

	NAME	ADDRESS
12.		
13.	David M. Baxter	528 E. 3rd St, Moscow Id
14.	John Booth	4349 Walf Rd Moscow, Id.
15.		913 S. JEFFERSON Moscow ID
16.	Antonia Dvorak	528 E. 3rd. Moscow, ID 83843
17.	KENNETH J. YUHASZ	116 W. MORTON, MOSCOW, ID
18.		216 E 7th St Moscow ID
19.	Linda J Blackwood	P.O. Box 172 Harrison, ID 83833
20.	Robert J Greene	512 S. MAIN Moscow Id 83843
21	Ronald Attwood	2130 Robinson Park Rd Moscow ID 83843
22.	Margo Wade	505 Indian Hills Cir Moscow Id
23		" " " " " "
24	Molly Pankuk	4345 Wolf Road, Moscow ID 83843
25.	Chris Pankuk	" " " " " "
26.	Mara Voermans	413 N. Jefferson #7 Moscow ID 83843
27.	Arthur D. Bell	203 S. Jackson 83843
28.	B J. HARGROVE -	616 S. Washington, Moscow
29.		424 Pine St. Troy, ID
30.		1110½ S. Harrison, Moscow Id 83843
31		E 515 MAIN Pullman
32.		204 N. Adam Moscow, Id.

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S.I.S. PETITION

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Bob Fullerson	725 McDonald Reno	W 89503
2.	Michael Green	Box 2082	Hailey, Id. 83333
3.	Sunny Blakeslee-Green	Box 2082	Hailey Id 83333
4.	[illegible]	1207 Michigan	Boise ID 83706
5.	Jack O Hall	410 Parkway Dr.	Boise Id 83706
6.	William V. Cook	Box 1964	Ketchum, Id. 83340
7.	TREVOR BARRATT	5 DECLAN TCE	DOORNFON SOUTH AFRICA.
8.	DAN VANDERKALK	12'2 'F'	CENTRALIA, WA 98531
9.	Edna Atkins	Star Route	Ketchum, Id 83340
10.	Todd W. Anderson	113 Parkside Dr.	Salmon Id.

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
	1. [redacted]		
122	2. [illegible]	Rt 1 Box 70A	Troy ID 83871
123	3. Charlotte Buchanan	615 N. Jefferson	Moscow ID 83843
124	4. Melissa Rockwood	617 N. Jefferson	Moscow ID 83843
125	5. Linda J. Colson	616 E 7th	Moscow ID 83843
126	6. Jim Spangler	1415 Hawthorne #502	Moscow 48
127	7. Linda B. Spangler	1415 Hawthorne #502	Moscow ID 83843
128	8. JEAN M BRENNAN	211 S. MAIN #2	Moscow, ID 83843
129	9. BETH E. GOODNIGHT	523 W. TAYLOR #4	MOSCOW, ID 83843
130	10. Chuck Hagner	408 Veatch	Moscow, ID 83843
	11. [illegible]	1013 Palouse R. Dr #42	MOSCOW, ID 83843

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
04	1. Mike Sullivan	Box 254	Hailey, Idaho 83333
105	2. Sandy Rankin	814 N. 7th #6	Boise ID 83702
06	3. Susan Grigsby	355 S. Hayes	Pocatello Ida 83204
07	4. Barbara D Anderson	Box 4904	Ketchum ID 83340
08	5. Scott Wilson	Box 1479	Ketchum Id 83340
09	6. Forben Fortune	Box 2816	Sun Valley ID 83353
10	7. Cindy A. Smith	Box 640	Wellington CO 80549
11	8. [illegible]	Box 3689	Ketchum, Idaho 83340
12	9. [illegible]	P.O. Box 4004	Hailey, Idaho 83340
13	10. Rail Tabanus	Box 796	SUN VALLEY ID 83353

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
95	1. Jake Krelick	834 Sherwood	Missoula MT 59802
96	2. Gordon Berry	1361 N Safford	Fresno CA 93728
97	3. Rochelle Geiddings	13211 C St S.	Tacoma, WA 98444
98	4. Jane Cutler	P.O. Box 96	Ruby Valley NV 89833
75	5. Sandra Shaw	100 Wood River Dr	Ketchum Id. 83340
	6.		
1100	7. Skip Rust	1761 York Pl	Rockville MD 20850
101	8. Wally Hunley	P.O. Box 772	Ketchum, Id. 83340
2	9. Mary Grund	3416 Ranchero	Alleany, Ore.
3	10. Jake Krell	P.O. Box 810	Mt. Shasta CA 96067

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Return petitions to: Hanford Watch, Box 8582, Moscow, ID 83843. Deadline: Dec. 1, 1987.

S.I.S. PETITION

The Special Isotope Separation (SIS) refinery, specifically **designed for the refinement of plutonium for nuclear weapons and proposed** for construction at Idaho National **Engineering Laboratory** in Southern Idaho, poses unacceptable **risks to Idaho's people**, agriculture, environment and quality of **life.** 6.1.1

WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN **END TO ANY FURTHER** DEVELOPMENT OF THE S.I.S. **PROJECT.** 1.1

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Kathleen Ruby	601 E. 3rd St.	Moscow, ID. 83843
2.	Carolyn Tor	314 S. Polk	Moscow ID 83843
3.	DAVID W. COOK	314 S Polk	Moscow, ID 83843
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5.			
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1.1 WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Martha B. Baron	415 E. First	Moscow Idaho 83843
2. Mary Vermeer Mac Nair	1115 King Rd	Moscow, ID 83843
3.		
4.		
5.		
6. Jan R Hamilton	1102 Orchard Ave	Moscow, ID 83843
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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Jim Mitchell	1329 Pitkin #10	Glenwood Spgs CO 81601
2. Diana Armstrong	116 W. Morton	Moscow ID 83843
3. Jana Jones	1011 Harding St	Moscow Id. 83843
4. Connie Cleaas-Jones	1011 Harding	Moscow ID 83843
5. PATRICIA E. WHITE	857 E Seventh	Moscow ID 83843
6. Yvonne Hoffman	5041 Stadium Dr #27	Moscow Id 83843
7.		
8. Dave Makings	Park Village 81	Moscow Id 83843
9. Sid Eckr	9103 Public Ave	Moscow, ID 83843
10. Linda L Hallgewachs	627 Homestead	Moscow ID

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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Don Chrystal	Box 111	Kendrick, Id 83537
2. Esther Chrystal	"	" "
3. MARY BETH LAGENAUR	333 E C St.	Moscow 883-1765
4. Ken Gallant	"	" "
5. Chris Sokol	321 S. Polk	Moscow, Id 83843
6. Loudon Stanford	321 S Polk	Moscow ID 83843
7.		
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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
Galen Shaver	Box 1431	McCall, Id 83638
Andrea Davidson	Box 4374	McCall, Id. 83638
[illegible]	Box 4609	McCall Id 83638
Rob Hoag	POB 249	McCall, ID.
Jim Stanford	PO Box 676	McCall, Idaho
Jim Russell	702 W Lakeside	McCall
David Markland	1307 N 10th	Boise Id.

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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
Linda Holden	Box 1731	McCall, 83638
Doug Holden	Box 1731	McCall 83638
Michael Holden	P.O. Box 283	McCall, 83638
Dan Dowland (8) a Family	P.O. 1063	McCall 83638
Jim & Cordelia (3)	P.O. box 4133	McCall, 83638
Kathleen Eastman (KATHLEEN EASTMAN)	Box 354	McCall, Idaho 83638
Greg Youmans	Box 1086	McCall, ID
Gary Hancock	Box 1567	McCall, Id. 83638
Martin B. Thiele	Box 1515	McCall Id 83638

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Susan [illegible]	PO Box [illegible]	McCall ID [illegible]
2.	[illegible]	[illegible]	[illegible]
3.	David Storrar	Rt 1 Bx 58	McCall Id 83638
4.	[illegible]	[illegible]	[illegible]
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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
226	Michael D McGee	Box 172	McCall, ID 83638
27	Jeff D Parlett	Box 621	McCall, ID 83638
28	[illegible]	[illegible]	[illegible]
29	Scott Bowers	Box 4003	McCall, Idaho 83638
30	[illegible] Howell	Box [illegible]	[illegible]

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Craig Wasson	P.O. Box 735	McCall, Idaho 83638
2.			
3.			
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S.I.S. PETITION

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
12065 1.	KAREN EVANS	P.O. Box 574	McCALL ID 83638
076 2.	Mary Helen Pope	Box 551	McCall ID 83638
087 3.	Daniel P. Ostermiller M.D.	Box 741	" " "
098 4.	Holly B. Becker	Box 64	New Meadows Id. 83654
109 5.	Libby HESSELBARTH	Box 515	McCall I.D. 83638
10 6.	Homer Smuck	Box 1291	McCall, ID 83638
121 7.	Nancy Cussler	Rt. 1 Box 92	McCall, Id 83638
132 8.	Kent Jamison	Box 1094	McCall, ID.
143 9.	Carl C. Wurster	Box 1340	McCall, ID.
154 10.	DOUGLAS MASTALER	BOX 1319	McCALL, ID

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1196 1.	Sharon Solaegui	P.O. Box 596	McCall, Id., 83638
97 2.	DAVID SIMMONDS	P.O BOX 1817	McCAL, ID. 83638
98 3.	P. HILIP GORDON	P.O. BOX 1717	McCALL. ID. 83638
99 4.			
1200 5.	Sharon Hudson	P.O. Box 1259	McCall, ID. 83638
201 6.	Pat Zenzic	P.O. Box 1575	McCall, ID. 83638
202 7.	Kim Brazil	P.O Box 1330	McCall ID 83638
203 8.	Richard Platt	P.O Box 1330	McCall ID 83638
204 9.	Nellie Forbes	Rt #1	McCall. Id - 83638
205 10.	Kathleen Eastman	Box 354	McCall, Idaho 83638

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1	Scott B Anderson	PO Box 751	McCall, ID 83638
2	Rick Nash	12300 Pulpmill Rd	Missoula MT 59802 Yeah!
3	Trinia J. Cordtz Cordtz	P.O. box 4133	McCall, Id 83638
4		Box 1066	McCall, ID 83638
5		Box 410	McCall, Id. 83638
6		Box 111	New Meadows
7		PO 317	McCall Id
8	Edwin Hoffman	Box 322	McCall, ID 83638
9.		Box 1203	Grangeville, Id 83814
10.		E. Lukeside Co.	Cdh Id 83814.
11.	Russell	702 W. Lakeside	McCall Id. 83638

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	FRITZ KNORR	802 WEST A ST.	MOSCOW, ID 83843
2.	Donna Belknap	1669 Damon	Moscow, Id. 83843
3.	Marilyn Lewis	249 N Asbury	Moscow ID 83843
4.	Nancy Chaney	718 So Harrison	Moscow, ID 83843
5.	Marilyn Barrera	132 n 74th	Seattle WA 98103
6.	Lynn Lloyd	535 N Washington	Moscow ID 83843
7.	Eddie & Judy	2002 Hwy. 95	Careywood, ID 83809
8.	Karen Doyle	P.O. Box 52	Grangeville, Id.
9.	Mick Hodges	424 W. Linda	Moscow, Id. 83843
10.	ERMA BOYD	816 W. C,	Moscow ID 83843

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December 1, 1986

Mr. Carl P. Gertz
SIS Project Manager
Idaho Operations Office
U. S. DOE
783 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Gertz,

This letter is in response to the Department of Energy's (DOE) Notice of Intent (NOI) to prepare an Environmental Impact Statement for siting, constructing, and operating a Special Isotope Separation plant (SIS) based on the atomic vapor laser isotope separation (AVLIS) process technology.

We feel that there are many unanswered questions about the proposed SIS project. The Notice of Intent did not address the specifics of the facility adequately. We are concerned about the impact that the SIS will have on our state, economically and environmentally. We are also concerned that this project is an escalation of the nuclear arms race and not in keeping with the President's goal of arms reductions.

We are asking you to hold public hearings throughout the state of Idaho to give residents more information on the SIS facility and to allow us to ask questions.

	Name (please print)	Address	State	Signature
92	Lorcca J. Stauber	Rt. 1 Box 54 Genesee	ID 83832	Lorcca J. Stauber
93	Steve Pettit	Rt 1 Box 108-C Lenore	ID 83541	Steve W. Pettit
94	Diane S Pettit	Rt 1, Box 318 Juliaetta,	Idaho 83535	Diane S. Pettit
95	Erik Stauber	Rt 1. Box 54 Genesee	Id 83832	Erik Stauber
96	Nicholas Comstock	990 Cobb Rd	Moscow.	

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	Name (please print)	Address	State	Signature
97	Alexander Hammond	S.W. 645 Winter Cir.	Pullman WA	99163

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1.1 END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Edith L Koenig	Apt 240 Blaine	Pullman, WA 99163
2.	Jo Pearce	Box 140B ST - James	St.
3.	Karen Mason	Rt 2 Box 140B	St Maries Id
4.	Nadine Olmsted	328 N Washington	Moscow, ID 83843
5.	Linda Schuetz	721 Brandt Rd	Moscow Id.
6.	Kelly Thurman	215 S. Jefferson	Moscow, Idaho.
7.	M. Williams	140 Windus	Pullman WA
8.	M. Kloeboke	148 Windus	Pullman, WA
9.	Bobbie Brandt	156 Chaney Rd.	Viola Id.
10.	M.P. McHugh	W. 2214 York	Spokane Wa 99205

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	Name (please print)	Address	State	Signature
92	Kristin Van Arsdel	1523 NW 57th	Seattle 98107	Kristin Van Arsdel
93	Mark Stevenson	5444 Lakewood Pl N.	Seattle Wash 98103	Mark Stevenson
94	HAZEL WOLF	5126 Ravenna E 106	" " 98115	Hazel Wolf
95	ANNE BRINGLOE	8828 BATTLE PT DR	BAINBRIDGE IS WA 98110	Anne Bringloe
96	Jackie Kling	8460 SW View Point Ter	Portland OR 97219	Jackie Kling
97	Carol Kriz	5617 Randolph Dr.	Boise, Id 83705	Carol C Kriz
98	David L Payne	N 4803 Adams St.	Spokane, Wa 99205	D Payne
99	Mike Leland	1406 Belmont #9	Seattle WA 98122	Mike Leland
1 00	William H Mitchell	2345 Franklin Ave E #4	Seattle, Wa. 98102	Wm Mitchell
01	Jean M. Miller	5816 Roosevelt Way NE	Seattle, Wa. 98105	J M Miller
02	Anne Mize	1528 Grand Ave.	Seattle, Wa. 98122	A Mize

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	Name (please print)	Address	State	Signature
1603	Barbara Wilson	726 S Adams	Moscow	Barbara Wilson
1	Terry Hicks	P.O. Box 455	Celtic Wa	Terry Hicks
2	[illegible]	[illegible]	[illegible]	[illegible]
3	Gene Gillig	Box 8152	Moscow Id	Gene Gillig
4	Dillon Bromley	Box 8153	Moscow	Dillon Bromley
5	Betsy Thomas	1212 8928	Moscow, Id.	Betsy Thomas
6	Ginna Zuback	975 Colt Rd.	Idaho	Ginna Zuback
7	Elizabeth Witt	P.O. Box 561	Troy	Elizabeth Witt
8	J.R. Wilkinson	Box 8654	Moscow	J.R. Wilkinson
9	~~Robert Alvarez~~ ROBERT ALVAREZ	218 D ST SE	WASHINGTON, DC	Robert Alvarez
10	J.E. Beard	4699 Sunnyside Ave	Seattle, WA 98103	J.E. Beard
11	Cynthia Bust	4916 NE 47th	Sea, Wa	98115 Cynthia Bust
12	Sarah S. McCoy	1617-32nd Ave	Seattle, Wa.	98122 Sarah S. McCoy
13	Betty McArdle	3740 SW Corbett St.	Portland Or	97219 Betty McArdle

December 1, 1986

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Idaho Falls, Idaho 83402

Dear Mr. Gertz,

This letter is in response to the Department of Energy's (DOE) Notice of Intent (NOI) to prepare an Environmental Impact Statement for siting, constructing, and operating a Special Isotope Separation plant (SIS) based on the atomic vapor laser isotope separation (AVLIS) process technology.

We feel that there are many unanswered questions about the proposed SIS project. The Notice of Intent did not address the specifics of the facility adequately. We are concerned about the impact that the SIS will have on our state, economically and environmentally. We are also concerned that this project is an escalation of the nuclear arms race and not in keeping with the President's goal of arms reductions.

We are asking you to hold public hearings throughout the state of Idaho to give residents more information on the SIS facility and to allow us to ask questions.

	Name (please print)	Address	State	Signature
	Chuck Broscious	Box 220	Troy, Id	Chuck Broscious
	Mary Butters	3792 Blaine Rd	Moscow, ID	Mary Butters
15	Grey E. Greene	Box 301	Lapwai	ID 83540 Grey E. Greene
	DAPHNE SWITZLER	BOX 301	LAPWAI	ID 83540 Daphne Switzler
	Henry W. Pearney	Box 178	Lapwai,	Idaho 83540 Henry W. Pearney
	DAN KANE Daniel Kane	Box 121	IDAHO	Daniel Kane

S.I.S. PETITION

The Special Isotope Separation (SIS) refinery, specifically designed for the **refinement of plutonium for nuclear weapons** and proposed for construction at Idaho National Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life. 6.1.1

WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT. 1.1

NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Rhoda Kim-Hanson	1111 N. Almon B	Moscow Id. 83843
2. [illegible]	716 East "N"	Moscow Id 83843
3. [illegible]	[illegible]	Pullman, WA 99163
4. AARON TAYLOR	707 STEPHENSON N.	PULLMAN WA 99163
5. K.J. HEDGEROM	2535 8TH AVE.	CLARKSTON WA 99403
6. Cacay S. Hamilton	1615 Hoffman Dr #124	Pullman WA 99163
7. Cori Dantini	SW 600 Crestview #25	" " 99163
8. CHARLES L. REIBER	2626-145TH AVE SE,	BELLEVUE, WA 98007
9. Paul R. McPherson	12625 SE 41st Place # F203	Bellevue, Wa 98006
10. A. Lee Ann A. Clarke	916 Deakin Ave	Moscow, ID 83843

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Washington Residents in Opposition to SIS

Support Idahoans

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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
546 1. PATRICIA KEITH	W. CHURCH ST.	UNIONTOWN WA 99179
2. [illegible]		
547 3. MARCIA F MARSO	W. 1507 Boone Apt B	Spokane WA 99201
4. [illegible]	W 410 Main ST	Palouse, WA 99161
548 5. Walter B—	SE 415 Jackson	Pullman WA 99163
548 6. Laura Gold	% SE 415 Jackson	Pullman WA 99163
549 7. Philip B Halvorson	660 Gray Cn.	Pullman, WA 99163
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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1551	1. WILLIAM R. CATTON, JR.	S.E. 500 CRESTVIEW	PULLMAN, WA 99163
	2. NANCY L. CATTON	" " "	" " "
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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1552	1. MARK MADER	RT. 1 BOX 73	PULLMAN, WA. 99163
	2. Greg Mader	Rt. 1 Box 73	Pullman, Wa. 99163
1553	3. [illegible]	SE 775 [illegible]	[illegible]
1554	4. Elsa Conners	NE 945 Oak #4	Pullman, WA 99163
1555	5. Anthony Coleman	NE Williams Dr	pullman wa 99163
1556	6. Linda Lillard	S.E. 705 Paradise	Pullman Wa.
1557	7. Bridget Wrigley	NE 1420 Valley Rd	Pullman We 99163
	8. [illegible]	SE 205 Paradise	Pullman 99163
1558	9. Roseanne Miller	626 S. Jackson	Moscow, ID 83843
	10.		

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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Roxana Stone Rice	72 Holstrom Circle	Novato, Ca 94947
2. Jay S. Rice	72 Holstrom Circle	Novato, CA 94947
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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. TOM BUCHANAN	1438 26th	SEA, 98122
2. Sarah McCoy	6033 NW 116th	Seattle, WA 98177
3. Rick Nafziger	7241 Commercial NE	Olympia WA 98506
4. [illegible]	311 W. 6th St.	Chewy WA 99004
5. Wm H. Mitchell	1930 - 10th Ave W	Seattle, WA 98119
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Hanford Watch

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1565 1.	KATHLEEN WELCH	215 Pennsylvania Ave SE	Washington, DC 20003
1566 2.	[illegible]	[illegible]	[illegible]
1567 3.	Ben McDonald	718 Adams	Toppenish, WA 98948
1568 4.	HAROLD DAVE	RT 1 Box 1239	Wapato, WA. 98951
1569 5.	W.P MEAD	P.O.Box 724,	PORTLAND, OR 97207-0724
1570 6.	KRISTEN THEDENS	4044 SUNNYSIDE AVE N	SEATTLE, WA 98103
1571 7.	J. E. BEARD	606 23RD AVE E #1,	SEATTLE, WA 98112
1572 8.	[illegible]	512 Bellevue E #114	Seattle Wa. 98102
1573 9.	Gregory A Wine	620 5th W. #109	Seattle, WA 98119
1574 10.	[illegible]	7640 Whitman N	Seattle WA 98103

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From Hanford Conf

S.I.S. PETITION

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1575 1.	DULCE SATTERFIELD	505 Galer Apt 1R	Seattle Wa 98109
76 2.	Thomas B. Steel, Jr.	4404 29TH ST NW	WASHINGTON, DC 20008
77 3.	[illegible]	4243 Tulalip	Clinton, Wa 98236
78 4.	Paul S Hughes	8929 Colesbury Pl.	Fairfax VA 22031
79 5.	Brock Evans	801 Penn. Ave SE	Washington D.C. 20003
80 6.	EDMOND BITTNER	636 BOTTLE BAY RD.	SANDPOINT, ID 83864
91 7.	[illegible]	[illegible]	[illegible]
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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1524	1. Jeff Yeo	Box 1	Thorne Bay, AK 99919
	2.		
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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1525	1. KITA DUBROW	NW 605 CHARLOTTE	PULLMAN WA 99163
1526	2. Lois Roberts	NW 60 Charlotte	Pullman WA 99163
	3. John Mack Roberts	N.W. 600 Charlotte	Pullman, WA 99163
1527	4. Barrie McCall	NW 505 Irving	Pullman, WA 99163
1528	5. Joe HILLERS	NW 515 Irving	PULLMAN, WA 99163
1529	6. Carrie Martin	NW 635 Charlotte	Pullman, WA 99163
1530	7. ~~Jeff G Hyslop~~ DEBBIE A SHEPHARD	NW 725 CHARLOTTE	PULLMAN, WA 99163
1531	8. RICHARD F. TARAMINO	NW 735 CHARLOTTE	PULLMAN WA 99163
1532	9. Jean C Rogers	NW 1600 Hall Dr	Pullman WA 99163
	10.		

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Virginia Hillers	NW 515 Irving	Pullman, Wa 99163
2.	Marjorie Johnson	N. W. 700 Fisk	Pullman, Wa 99163
3.	James R. Wysong	N.W. 710 Fisk	Pullman, Wa 99163
4.	Vivian E. Junghuber	N W 710 Fisk	Pullman, WA 99163
5.	Robert A. Knox	N W 730 Fisk	Pullman, WA 99163
6.	Kent R Chadwick	NW 745 Fisk	Pullman, WA 99163
7.	Catherine I Chadwick	NW 745 Fisk	Pullman, WA 99163
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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	[illegible]	PO Box 2343 CS	Pullman, WA 99163
2.	Eric Rigney	316 Lucile	Pullman
3.	Ken Hautimaa	NW 345 Rogers	Pullman, WA 99163
4.	Vicki Martinez	NE 620 Gray Lane	Pullman WA 99163
5.	Nanda Jones	122 17 7th	Seattle WA 98105
6.	~~Karen Dayton~~		
7.	David Smith	E. 1916 13th	Spokane, WA. 99202
8.	Wende Rogers	E. 1916 13th	Spokane, WA. 99202
9.	[illegible]	1316 E. 89th	Spokane, WA 99202
10.	Fred Wallin FRED WALLIN	319 E VANBUREN	MOSCOW, ID

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1517 1.	Jessie Deer In Water	Rt. 2 Box 51-B	Vian, OK, 74962
1518 2.	Willikin	"	"
1518 3.	Herschel Fink	3163 Braeburn Circle	Ann Arbor, MI
1518 4.	Sorah	"	48108
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Will send
$ later -
Jessie

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1519 1.	Phyllis Weeks	[illegible]	[illegible]
1520 2.	Colette Cazier	Box 82	Kendrick ID 83537
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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. M. Boyd Wilcox	1070 SE Denman Ave	Corvallis, Or. 97333
2. Janet S Wilcox	1070 SE Denman Ave	Corvallis, Oregon 97333
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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. [illegible]	378 Stratford St Apt 2	San Diego CA 92103
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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. James Cooley (James H. Cooley)	Box 416	Troy Id 83871
2. Zoe A. Cooley (Zoe A. Cooley)	P.O. Box 416	Troy, Idaho 83871
3.		
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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Michael Knotts	Box 75	Loom's Co 98827
2. Hal Barth	P.O. BOX 42	Loomis, WA 98827
3. CARI J. STEVENS	862-1 K.H.T.C.R.D	Republic WA. 99166
4. MARSHA D STEVENS	862-1 KHTCRD	Republic, WA 99166
5. John Stevens	Box 221	Tonasket, WA 98855
6. Edward Reimer	Star Rt Box 74	Oroville, WA 98844
7. Jerry Bartels	Box 915	Tonasket WA 98855
8. Michael Johnston	Box 1140	Tonasket Wa. 98855
9. Carol Ann Milliard	R.R. 2 Box	WA 98844
10. Sam Ola Happy	Box 1007	Tonasket, WA 98855
Michael Morgetter	P O B 1214	Tonasket Wa 98855

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Return petitions to: Hanford Watch, Box 8582, Moscow, ID 83843. Deadline: Dec. 1, 1987.

S.I.S. PETITION

6.1.1 The Special Isotope Separation (SIS) refinery, specifically designed for the **refinement of plutonium for nuclear weapons** and proposed for construction at Idaho National Engineering Laboratory in Southern Idaho, poses unacceptable risks to Idaho's people, agriculture, environment and quality of life.

1.1 WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1506 1.	Ellen Magnuson	PO Box 179	Kendrick ID 83537
1507 2.	LUCILLE MAGNUSON	BOX 122	KENDRICK, ID 83537
1506 3.	DANA MAGNUSON	Box 179	Kendrick, ID 83537
1508 4.	Diana Miles	Rt 1 Box 629-G	Lapwai, ID. 83540
1509 5.	Charles Lyons	Box 180	Kendrick, ID 83537
1510 6.	Carol Magnuson	Box 183	Reary, OR 83823
1510 7.	RL Magnuson	" "	" " "
1511 8.	[illegible]	[illegible]	Kendrick ID 83537
1509 9.	B. E. Magnuson	P.O. Box 12[illegible]	" "
1512 10.	Daniel Brooks	Box 571	Kendrick, Ida 83537.
1512 11.	Ken Brooks	Box 51	Kendrick Ida 83537

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[illegible] Kusco [illegible] meeting

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
513 1.	Don Moriak	Gen. Delivery	White River, MT 59762
1513 2.	Karen Peck-Moriak	General Delivery	White River MT 59762
3.			
4.			
5.			
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10.			

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1514 1.	Karen Marie	1072 E Westpoint #4	Wasilla, Ak 99687
1519 2.	John Stein	1072 E Westpoint #4	Wasilla, Ak 99687
1516 3.	Harriet Stein	2330 Lawnmill Creek Rd.	Sitka ak 907-747-3651
4.			
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1.1

NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Michael S. Davis	627 Homestead	Moscow Id. 83843
2. Renee Eder	903 Public	" " "
3. Elma Hobart	225 W Main	Pullman WA 99163
4. Donna Reed Green	425 Sweet #6	Moscow, ID 83843
5. Julie Sawyer	205 E 2nd #3	Moscow ID 83843
6. Mary Hess	609 Elm St	Pullman Id. 83843
7. Ellen Cantrell	615 W 6th St	Moscow, Id. 83843
8. Michael Davis	1330 Hatile Rd	Viola Id. 83872
9.		
10.		

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1.1

NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Dave Sherman	Box 9512	Moscow ID 83843
2.		
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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1.	Richard KEENAN	2124 Lexington Ave	Moscow, ID, 83843
2.	Phyllis N. Anderson	234 N Washington	Moscow " "
3.	JARED A. McMILLAN	P.O. Box 3645	Moscow Id. 83843
4.	Clifton Anderson	234 N. Washington	Moscow ID
5.	Bob Neumauer	1317 Valencia	Moscow ID
6.	James H. Smith	305 Paloose Ct #102,	Moscow, IDaho, 83843
7.	John R. Murphy	426 East E #3	Moscow, ID 83843
8.	Steven P Nitolo	426 East E #2	Moscow, Id 83843
9.	Robert Greene	512 S. Main	Moscow ID 83843
10.	Peter Bass	324 S. Howard	Moscow ID

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working on pg 2

S.I.S. PETITION

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WE CALL UPON OUR ELECTED OFFICIALS TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT. 1.1

	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1464 1.	Stephen Purcell	3405 Upper Old Co. Rd.	Sandpt. Id. 83864
1465 2.	CLAY HINES	BOX 762	SPIRIT LAKE, ID 83869
1466 3.	[illegible] County	3405 Upper Old Co.	Sandpoint
1467 4.	Marilyn Haddad	3925 Pine -	Sandpoint ID 83864
1468 5.	[illegible]	[illegible] 520 Cedar	St. ID 83864
6.	S/ Clayton/ -	Box 1338	Sandpoint / 83864
1469 7.	[illegible]	225 Lake River	Sandpoint
1470 8.	JEANNINE JOHNSON	910 N. DIVISION	SANDPOINT 83864
1471 9.	DAN MARTINEZ	Box 1395	Sandpoint 83864
1472 10.	EARL R. OATMAN	5565 Otts Basin Rd.	Sagle 83860
1473 11.	Patricia R. Watson	Box 1328	Sandpoint Id. 83864
1474 12.	Mary K. Cot	1001 Poplar St.	Sandpoint, ID 83864

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1475 1.	James R. Wilkinson	7950 N. Atlas Rd.	Coeur d'Alene ID
1476 2.	C. Del Pino	Box 12	Sandpoint ID 83864
1477 3.	James Pacholke	218 N. 5th Ave	Sandpoint, Id 83864
1478 4.	Judith Clarke	618 North Ella	Sandpoint, Idaho 83864
1478 5.	Jim CLARKE	" " "	" "
1479 6.	[illegible]	[illegible]	[illegible]
1479 7.	[illegible]	[illegible]	[illegible]
1480 8.	Loreita Atkinson	P.O. Box 1282	Sandpoint ID 83864
1481 9.	MaryJane Wright	1023 Washington	Sandpoint Id
1468 * 10.	Tradey Fogarty	520 Upper Gold Creek	Sandpoint 83864

Please use me as a contact person for spreading info in our area

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1482 1.	Judie Lee	Box 73	Santa, Id 83866
1483 2.	Leroy Lee	Box 103 R+3	St Maries ID 8384
1484 3.	HARRY HEATH	Box 126	SANTA ID 83866
1485 4.	M. Kubiak	P.O. Box 53	Santa Ida 83866
1486 5.	JACK [illegible]	BOX 71	SANTA ID 83866
1486 6.	Becky Millgate	Box 71	Santa Idaho 83866
7.	Joel McCoy	Box 41	SANTA, IDAho 83866
1488 8.	[illegible]	Bx 53	Santa, Id 83866
1487 9.	[illegible] (ELIZABETA FOSDICK)	RT3 Box 103	St Maries Id 83861
1488 10.	CHARLES [illegible]	Box 204	SANTA ID 83866

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Washington Residents in Opposition to SIS

Support Idahoans

S.I.S. PETITION

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	NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1489	1. Mark Vinc	Box 360	Tonasket, WA 98855
1490	2. Jerry Bartels	Box 915	Tonasket WA 98855
1489	3. Laura Vise	Box 360	Tonasket WA 98855
1491	4. MICHAEL HAGAN	BOX 840	TONASKET WA 98855
1492	5. [illegible]	STAR Rt Box 74	OROVILLE WA 98844
1493	6. KAY MC DONALD	☆ RT. BOX 74	OROVILLE 98844
1494	7. Victoria Carlon	315 Frosty Creek	Tonasket 98855
1495	8. Gary Heerdegen	Box 851	Tonasket WA 98855
1496	9. Mary Herbison	Box 426	Carlton, Wa 98818
1497	10. Rob Thompson	Box 219	Tonasket WA 98855

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NAME (Please Print)	ADDRESS	CITY/STATE/ZIP
1. Peter Basoa	324 S. Howard	Moscow ID 83843
2. Anna Miller	324 E. D St.	Moscow ID 83843
3. Arthur E. CURTIS	514 S. Polk St, #9	Moscow ID 83843
4.		
5. [illegible]	[illegible]	[illegible]
6. JEANNE JACOBSON	Box 8909	MOSCOW, ID 83843
7. [illegible]	[illegible]	[illegible]
8. [illegible]	[illegible]	[illegible]
9. [illegible]	[illegible]	[illegible]
10. [illegible]	[illegible]	[illegible]

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W285

IDAHO MUSEUM OF NATURAL HISTORY
Idaho State University
Campus Box8096
Pocatello, Idaho 83209-0009
Telephone (208) 236-3168

RECEIVED
T. J. HILL
MAR 02 1988

February 25, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

5.15

In reference to DOE/EIS-0136D on the SIS Project, I am a bit disturbed that I was unable to find any kind of a reference to paleontologic resources. Section 3.1.2 of Ringe et al. (1987) briefly summarizes Idaho and Federal law applicable to the need for addressing paleontologic resources in the EIS process. Excavations in fluvial sediments beneath the ICPP and surrounding areas do have a substantial probability of encountering paleontologic resources, but it is unlikely that major fossil deposits will be found (ibid. Sec. 3.3.2). It has been recommended that all excavations in fluvial deposits of the INEL be monitored (ibid. Sec. 3.3.2) because these deposits have yielded a number of fossils (ibid. Fig. 3.3-1, Table 3.3-1) in spite of the fact that no previous excavations have been professionally monitored. Within the construction area, monitoring would only be needed for earth moving operations (construction of foundations, footers, service trenches, storage tanks, basements, etc.) involving undisturbed sediments. Being situated on a floodplain, there is also a slight possibility that buried archaeological resources may be present. The duties of any paleontologic monitor(s) should extend to such archaeologic resources. Borrow areas used to supply fill for construction may also need monitoring, depending on the type of material they contain.

I cannot comment in detail about the proposed alternative sites at Hanford and Savannah River but the law would require that potential impact on paleontologic resources also be addressed at these sites.

Reference cited:

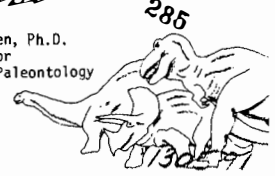
Ringe, B., R. N. Holmer, S. Miller, J. Hearst, and W. Akersten. 1978. Archaeologic and Paleontological Survey of the Idaho National Engineering Laboratory for the Super Conducting Super Collider. Idaho Museum of Natural History, Reports of Investigations: 87-12, 270p.

Sincerely,

William A. Akersten, Ph.D.
Associate Professor
Curator of Vert. Paleontology

WAA/ec

311



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W286

BE ALL YOU CAN BE:
WORK FOR TRUTH,
PEACE & JUSTICE

P.O. Box 7564 - Boise - Idaho 83707 - USA

18 February 1988

Clay Nichols
Nuclear Holocaust Advocate
SIS Project
INEL

If we cannot know from the New Testament
that the Living Christ totally rejects deadly violence... and the preparation for the doing of deadly violence...
and advocacy for the commission of acts of deadly violence... and supporting or encouraging or rewarding those who advocate or participate in preparations for or acts of deadly violence ...
whether such be private persons or agencies or the state...
than we understand nothing of
His Person...
nothing of
His message and *kerygma*.
For His are the clearest of all teachings,
and to ignore them is to
ignore Him.
And such must mean, inevitably,
personal and everlasting catastrophe.

4.13

286

† Sergius
Cepren

RECEIVED
FEB 19 1988
SIS Project Office

W287

E ALL YOU CAN BE
WORK FOR TRUTH,
PEACE AND JUSTICE

1- CR IV
1- Fred Blair
1- T. Hill
1- File

p.o. box 7564
boise, idaho 83707 usa

26 February 1988

Clay Nichols :

There is no greater honor in this mortal life that that of being persecuted by profane authority for Christian acts done in obedience to, for love of and in the Holy Name of Jesus Christ.

4.13

Just as there is no more ignoble, dishonorable and self-condemning enterprise than the fabrication of engines of death, or of components thereof.

My contribution to all the moral dwarfs who do the latter with thermonuclear killing materials and devices is attached, and it was inspired by your present efforts to have me -- and those like me -- interrogated, intimidated and discredited.

+ Sergius
Ceprén

Encl. (1)

312

...tole world flower."

Cry of Autumnal Innocence

(To the poet -farmer, Hesiod... and to his muse, Calliope)

4.13

From *this* typhon's riven beard
utter words of awful prophecy.
In voice so urgent...
in pleadings so ignored.

Its seed is wet with sobs of innocence ...
from shrieks of dread.

For there are monsters of the dark :
Engines of the Sons of
the end of the end of the
Fifth Race.
Bellies charged with flame...
Worse by far than hell's
fissiperous-headed dogs.
More horrible than
lethal riddles.
Beyond all
obscene chimericals.

Its soul is broken and gouged with pain.

For rivers of boiled blood
may come to course fields of vital gold
and bury them in shrouds of scorch-ed fruit.

For titans of the race of iron do not
cease from offering to rip the Sky with blooded teeth.
To fry the faces of their
Children.
To cast them to
oblivions on lifeless mounds of
Lenfolia ...
and of Asphodel.

-- sergius

[26 II '88]

W288

April 2, 1988

RECEIVED
APR 7 1988
SIS Project Office

Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

FOR THE HEARING RECORD:

As I learn more and more about the proposed Department of Energy(DOE) SIS Project for INEL in eastern Idaho I see that there are several important questions left unanswered in the Draft Environmental Impact Statement (DEIS).

5.7.23 I am a nurse living in a small mountainous community along the main north/south highway in Idaho. With the prospect of thousands of tons of radio-active material travelling over our highways, one of my first questions is: Who is going to educate the health community about emergency response to an accidental release of plutonium? Exposure to large amounts of plutonium kills, and in any amount plutonium is a serious health hazard causing cancer, genetic damage, and birth defects.

5.29.66
5.24.27
5.1.28
5.27.2
5.29.42
5.29.89

Our harsh six month winters leave many of our windy passes treacherous. During the last winter we saw a chemical spill along the Little Salmon River which killed a good number of the native fish and thus created an economic hardship on the residents of this area. What effect would a plutonium spill, with its half life of 20,000 years, have on our principle tourist economy? The Department of Transportation has not approved the cask design that the DOE has planned to use to transport plutunium because is has leaked. What provisions are being made to insure safe transportation of nuclear waste along our rural highways?

I am originally from agriculturally active, southern Idaho where my family is employed in the rainbow trout industry. The Hagerman Valley and surrounding areas along the Snake River boast of 80 % of the world's domestic rainbow trout production. The water supply for this area comes from the Snake River Aquifer which runs directly under the INEL site. What would be the impact on agriculture and fisheries in southern Idaho should an earthquake in this known seismic area cause the release of plutonium into the Snake River Aquifer? What kind of market would there be for irradiated Idaho potatoes, corn, beans, sugar, or trout?

5.12.1

Even given that no earthquake were to damage the INEL SIS plant, it is legitimate to suspect that INEL may become the depository for the plutonium contaminated waste from this laser technology. For thirty-five years INEL has been a "temporary" storage site for up to4.4 million cubic feet of nuclear waste. Efforts to get the DOE to ship this waste to final storage have been unsuccessful and now plutonium contamination has been found in soil 230 feet below the waste burial grounds.

5.30.3.8

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The DEIS states that the plutonium contaminated waste from the SIS will be shipped to the Waste Isolation Pilot Project(WIPP) in New Mexico. The New York Times reports that the WIPP has leaks and may not be safe. The DEIS does not address the issue of alternative waste disposal site in the event that the WIPP which is still under construction, is not rendered acceptable. Can we afford to become the storage site for an additional 440 tons of nuclear waste annually?

5.30.2.1

The DEIS also fails to explain the need for the SIS. The DOE itself has said that its closing of the N reactor at Hanford was based on "a finding that the government's plutonium stockpile is sufficient to meet foreseeable demands for new weapons." Plutonium 239's only function is as an explosive in nuclear warheads and our 25,000 nuclear weapons are sufficient to destroy the entire world many times over. It is very short-sighted to risk catastrophic environmental contamination for localized short-term economic gain to be made producing a radioactive material that we do not need and pray will never be used.

4.1
4.13
6.2

Sincerely,

Kathleen Eastman

313

W289

Greater Yellowstone Coalition

April 4, 1988

RECEIVED
APR 5 1988
SIS Project Office

Mr. Clay Nichols, SIS Project Manager
Idaho Operations Office, U.S.D.E.
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

The Greater Yellowstone Coalition appreciates the opportunity to submit comments on the Draft Environmental Impact Statement (DEIS) for the Special Isotope Separation Project (SIS).

The Greater Yellowstone Coalition (GYC) was founded in 1983 for the purpose of preserving the integrity of the Greater Yellowstone Ecoystem, the largest essentially intact Ecosystem remaining the lower 48 states. We presently have a membership of approximately 2000 individuals and 50 local, regional and national conservation organizations.

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1.1 GYC supports selection of the No Action alternative. The serious risks involved in refining and transporting plutonium are unacceptable where the future of a world treasure such as Greater Yellowstone is concerned. Indeed, this is a land of

6.2 irreplaceable wonders and of superlatives, including the first national park and forest, the largest geyser system remaining in the world, refuge for the endangered bald eagle, whooping crane, peregrine falcon and the threatened grizzly bear. Once contaminated by the release of plutonium to the environment, its fragile genetic makeup could never be reassembled. Such catastrophe is virtually inevitable given the location of the Ecosystem downwind of the facility, and the long-lived and deadly nature of the material.

5.12.1 Furthermore, if the Snake River Plain Aquifer, which presently supplies most of the fresh water for southern Idaho, is contaminated, there are no substitute supplies of water available.

5.27.2 Tourism and recreation, which provide the backbone are the mainstays of the Greater Yellowstone and Idaho economies, could be ruined when an accident occurs at the SIS plant or on surrounding highways. Experience at the Hanford, Oak Ridge, WIPP and Savannah River facilities clearly shows that accidents, some

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P.O. Box 1874 • Bozeman, Montana 59771 • (406) 586-1593

serious, involving release of radioactive substances to the environment are only a matter of time.

4.1 It is senseless to place one of the planet's most unique ecological treasures in jeopardy in order to transform a research-oriented plant at INEL into a nuclear weapons production site, for which there is currently no articulated need. The temporary boost in jobs in the Idaho Falls area will hardly offset the loss of human lives and health, and of ecological

6.2 complexity to Greater Yellowstone -- the product of evolutionary processes.

Before we discuss the deficiencies of the DEIS in detail, we would like to place this issue clearly within the context of the Greater Yellowstone Ecosystem.

Greater Yellowstone Ecosystem

Greater Yellowstone is considered the largest temperate coniferous forest remaining in the world. It is one of the few places on earth that still can give us a picture of primeaval America, much as the white settlers originally found it. Besides its unique geothermal and biological features, the Ecosystem harbors the headwaters of three of the nation's major drainage systems -- the Yellowstone-Missouri, Green-Colorado and the Snake-Columbia.

Today, however, the Greater Yellowstone Ecosystem is becoming a natural island surrounded by a sea of human development, from logging and road building, to oil and gas development, industrialization and subdivisions. Taken individually, each threat might be tolerated and its effects mitigated. But taken together, the cumulative impacts of these activities amount to the fragmentation and destruction of critical habitat to such an extent that Greater Yellowstone may no longer be able to support viable populations of its historic diversity of species. These species include those now threatened and endangered, other sensitive to human disturbance, and some perhaps yet undiscovered.

We are learning to recognize the global importance of ecosystem destruction in tropical rain forests. Here, at home, in one of America's and the world's favorite parks, we can already see tell-tale signs of ecosystem erosion from declining populations of such sensitive species as trumpeter swans and grizzlies. In other national parks, major mammalian species have been lost since their establishment. In Yellowstone, where only the grey wolf is known to be extinct, there is still an opportunity to prevent this kind of ecological collapse. Yellowstone, which stands as a tremendously important worldwide symbol of park protection, could carry new significance as an

example of ecosystem protection -- but only if we act to protect what now remains.

Deficiencies of the DEIS

5.6.3 5.24.27 The SIS project poses a serious, longterm threat to the integrity of the Greater Yellowstone Ecosystem. It is much more than a timber sale, oil well or subdivision. Hazardous for 250,000 years, plutonium is perhaps the most toxic of all radioactive materials. It causes cancer, genetic damage and birth defects in man and wildlife alike.

6.2 We are not so poor a culture that we can afford to place ourselves, and this Ecosystem at risk. We urge you to select the No-Action Alternative in the final EIS.

Following is a discussion of the major deficiencies of the DEIS, which must be revised and corrected in the final.

4.1 1. The DEIS fails to explain the need for the SIS.

4.10.2 Without access to the classified Nuclear Weapons Stockpile Memorandum (NWSM), it is impossible to know if the stated need for weapon grade plutonium is legitimate. The public has a right to have the question of need clearly answered in order to make informed decisions and comments. Certainly Congress must also have such information available to make sound funding choices.

4.15.5 4.3 There is strong evidence indicating that the U.S. has adequate stockpiles of plutonium, approximately 120 tons, to meet national defense needs. Even the DOE states that the "decision [to put the N reactor in cold-standby] ... was based on the finding that the government's plutonium stockpile is sufficient to meet the foreseeable demands for new weapons." Furthermore, the signing of the INF treaty will free up an additional 2 tons of weapon grade plutonium. This plutonium does not wear out, and is already sufficient to destroy the Soviet Union or other adversaries many times over.

4.7.1 If there is a need for more weapon grade plutonium, the EIS should explain why this need exists and what chain of events would create a need for "rapid increases in plutonium production capacity" that the SIS would allegedly provide. The rationale for the project is to provide "redundancy", "technological diversity" or "flexibility" in plutonium production, but it is not clear why this is desirable, or what alternatives are available to achieve these goals.

Furthermore, it does not appear feasible to satisfy these goals as stated, by constructing SIS, since the plutonium supply

for the SIS project will be exhausted after only six to eight years. A transfer of commercial nuclear power plant spent fuel to weapon grade plutonium after this time, which would be the only way to continue SIS, would violate the spirit of the Nuclear Non-Proliferation Treaty and set a dangerous precedent for the world. 5.26.2

Unless demonstrated otherwise in the final EIS, it appears that the national defense does not need additional plutonium production or the SIS project. If this is not the case, the true need should be clearly explained, along with alternatives to meet this need, in the revised EIS. 4.15.1 5.30.1.13

2. The DEIS does not adequately address waste disposal from the SIS project, or emergency response in the event of an accident. 5.7.15

This project will generate approximately 440 tons of annual waste products, to be transported to the Waste Isolation Pilot Project (WIPP) in New Mexico. This site, however, has developed serious problems and is inadequate for storage. The DEIS fails to recognize these deficiencies or to develop alternatives to the WIPP disposal site.

If the WIPP site fails to accept additional toxins, will the burden be on Idaho to store the waste and risk permanent contamination? Since there could be no adequate permanent storage available on-site construction must not begin until disposal plans are finalized. 5.30.2.1

In addition, an acceptable means of transporting these toxins have not yet been approved. Methods and alternatives need to be fully developed in the final EIS. 5.29.1

Furthermore, the DEIS fails to specify the type of emergency response that would be implemented to deal with an accident that involved the release of plutonium. This must be developed in the final EIS. 5.7.10

INEL already stores 4.4 million cubic feet of plutonium waste; this storage facility has already proven itself inadequate by contaminating sediment beds 230 feet below the burial grounds. The DEIS fails to show how more development of the SIS will not exacerbate serious pre-existing problems with inadequate storage of radioactive material. This must be done in the revised EIS. 5.30.1.13

3. The DEIS fails to show how it will correct the kind of problems experiences at other facilities. 3.2.1

The FEIS must address its poor track record, and explain specifically how this project differs from those at Hanford, Savannah River, Rocky Flats, Fernald, Los Alamos, Oak Ridge and Livermore weapons design and production facilities -- all of which have been plagued with safety and environmental problems.

4. The DEIS fails to adequately address the psychological and socio-economic impacts of the SIS and nuclear weapons facility. 2.7.2

The FEIS needs to address the fear that may arise in the surrounding communities and among visitors from the threat of the SIS project development. For the surrounding communities, the fear of the releases of plutonium, dangers of hazardous material transportation, as well as economic collapse are very real and must be thoroughly examined. 6.1.1 5.29.1

This project has high potential for destroying the quality of life that the residents of southern Idaho presently enjoy. It also could degrade the experience of millions of tourists each year who flock to Greater Yellowstone for recreation, peace, and respite from the environmental and social problems they face elsewhere. 6.1.9

There is no analysis of the impact an accident could have on public relations and marketing of Idaho agricultural products and recreational industries. In addition, the economic dimension of living, owning property or doing business next to a nuclear weapons plant is absent from the DEIS. Furthermore, the DEIS fails to include the cost of lost economic opportunities for the region, state and National Parks because of the presence of a nuclear weapons production plant. 5.27.1.11 5.27.5.3

In sum, the Greater Yellowstone Coalition is opposed to the development of the SIS project. Any risk of destroying and permanently contaminating one of the largest essentially intact ecosystems in the temperate zones of the earth is more than the public would accept. These risks, however, should be plainly disclosed in the revised EIS. If this were done, the evidence would show: "SIS - NO." 6.2

Sincerely,

Susan Dejmal

Susan Dejmal
Program Assistant

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W290

Dear Mr. Nichols,

My husband, family & myself are so against the SIS. it would take 10 pages of argument to write. Please don't put the SIS in our backyards!!!! 1.1

Sincerely

Karen & Jon Hayes
Hunter & Veronika
P.O. 2301
Sun Valley, Id
208-726-5857

W291

4-[illegible]-88

APR 8 1988

Mr Nichols,

I am writing concerning the Special Isotope Project (SIS). I have
6.1.9 grown up in Idaho and continue to make it my home because of the beautiful, and unspoiled environment. I feel the high quality of life we have here could be srongly threatened by the SIS project.

The SIS is a $1 billion dollar project using lasers to produce fuel-grade plutonium for the use in nuclear weapons. The proposed location, for the SIS is the Idaho Engineering Laboratory (INEL)— too close for comfort?

1.1 It's time to facilitate some global standards for the future. I urge you not to support the SIS. The facility has the potential to create some extreme hazards under occurences such as a fire or explosion. The
6.1.2 transportation and storage of radioactive waste and chemicals could also lead to complications.

We are at a point when we must be very cautious with our decision making.
5.29.92 We no longer have room for mistakes. In a nuclear disaster there are no second chances....

Sincerely,
Mary Grant

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317

W292

APR 8 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Mr. Nichols:

This written testimony is being submitted for entry into the SIS project hearing record. The potential for irreparable damage to the people and environment of Idaho far outweighs any so-called economic benefits to the state of Idaho. A single accident at the SIS site or during transport could threaten Idaho's Recreation and Agriculture industries worth millions of dollars to the people in this state. The DEIS is written in keeping with the American tradition of "doing" first and thinking later. 6.2 5.1.28

The DEIS is also entirely inadequate in addressing potential environmental and health effects of the project. Numerous scientists have testified in hearings all around the state that negative environmental effects to the Shake River Aquifer exist. Anything that affects that water supply, will directly affect humans and wildlife in all of southern Idaho as well as those waters into which the Snake feeds. 5.27.2 2.1.1

If the SIS project were to be given to Idaho at INEL, I cannot help but visualize the Idaho of the future: A tourist arrives at the southeastern border and drives up to a high wire fence which extends as far north and south as can be seen. On the fence reads a sign which says, "Danger-Contaminated Area. Do Not Enter" On a large sign below that, is a disclaimer which reads, "Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights....The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof." (DEIS, February, 1988). 5.12.1 2.3

I support the "NO ACTION" alternative for the SIS project. 1.1

Sincerely,
Pamela Gehrke, RN

Pamela Gehrke, RN

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W293

APR 6 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office/US DOE
785 DOE Place
Idaho Falls, Idaho 83402

DATE: March 31, 1988

1.1

Dear Dr. Nichols:

I am writing to let you know that I oppose the SIS for the INEL. I am horrified by the fact of the mere existence of the INEL which is already producing too much hazardous waste and polluting our waters. I am against

5.30.4.1

production of any more nuclear weapons and would like to see the end of all production and testing. I believe that the human race seems to be bent on ending our existence on this planet but I believe that we need to leave this planet in the condition in which we found it but it is probably too late for that. I love this state and want it to stay the way it is for future generations to enjoy.

Sincerely,

Christine A. Gertschen

318

P.O. Box 2166
Sun Valley, Idaho 83353

cc: Senator Steve Symms
Senator James McClure
U.S. Senate
Washington D.C. 20510

Rep. Richard Stallings
Room 1233 Longworth Building
Washington D.C. 20515

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W294

APR 6 1988

March 30. 1988

To Whom It May Concern,

I am Verna Buehler. I reside at 945 W. Center, Pocatello. ID 83204. I have a 5 year old son living with me at this address. I have lived in Pocatello about 13 years. I taught in the public schools here (4 years), ran my own pottery business (5 years). worked for a community action agency with low income people. and attended Idaho State University as Master's candidate. I am an active citizen in Pocatello, serving on various boards and committees. I am especially interested in promoting opportunities for children in this area now and in the future. I am not interested in supporting projects designed for destruction of human life or planetary life.

I am addressing the SIS Project hearing on the basis that additional generation of material (ie., plutonium) for weapons production is not necessary. I support reduction-in-arms efforts and test-ban treaties.

4.13

I object to all of weapon-related projects at the INEL site. I do not think that the quality of life in enhanced by the presence of the site in this area, regardless of job opportunities. I think that such technological progress should be aimed in other directions, medicine. food production, environmental clean up, for example.

6.3

I do feel that the pollution (water, air) is more than minimal and I do feel government encroachment. in that I cannot monitor the radiation, I cannot stop the defense research. If INEL were producing cement and billowing smoke. citizens could observe and protest. Citizens are not able to ascertain products or by-products of the facility at INEL. I object to continued classified research and military related projects at the site.

3.2.3

I object to the necessary transport of dangerous or hazardous materials that will be part of the proposed plutonium generating process. Accident prevention is not and perhaps cannot be completely addressed in the EIS. Even with precautions, a major accident or slip would endanger the lives of those living in this area and future generations (genetic anomalies).

5.29.92

I think the limited employment opportunities associated with the project do not begin to outweigh the risks I have mentioned. I would perfer to draw or attract other types of businesses to this area.

6.2

I voice my concerns. I do not support or endorse the approval of the Special Isotope Separation Project.

1.1

Sincerely,

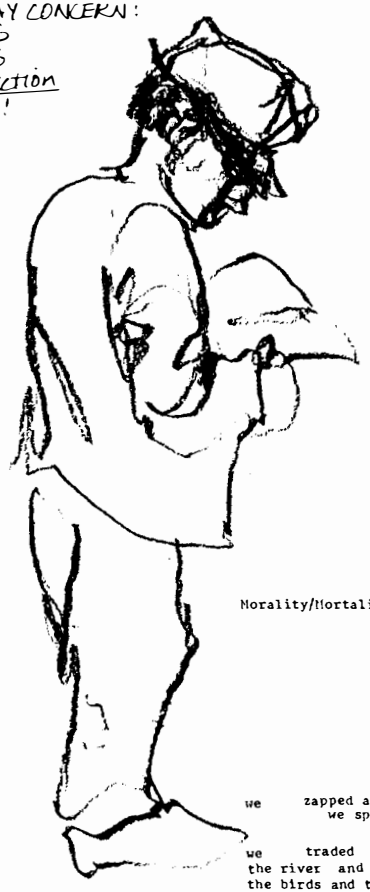
Verna Buehler

294

TO WHOM IT MAY CONCERN:
~~Re:~~ DRAFT EIS
on the SIS
choose the no action
option, please!

1.1

APR 8 1988



Morality/Mortality

we zapped and radiated,
we sprayed

we traded
the river and the woods, the stars
the birds and the children.

friend,
it is you
and it is me
who count. We must,
as if we knew it every way
in going

Judy Wiesner

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289D

APR 8 1988

FOR THE HEARING RECORD

Testimony of Jane Leeson, 310 Resseguie, Boise, Idaho on the Special Isotope Separator Project proposed by the Department of Energy at the Red Lion Riverside on March 29, 1988.

I oppose the construction of this plutonium processing project. It is simply too dangerous for those of us living today. And, it poses too great a threat to those yet born. The process is experimental and existing safeguards and precautions are inadequate. This country cannot afford to pursue a project such as this that could contaminate if not all, then certainly parts of the planet. There is no need. The country and the world are striving for nuclear disarmament. Applying some of our best minds, jeopardizing our regional population and environment, and spending billions of dollars on this counter productive project is insane. 1.1 6.1.1 5.24.18 4.14

If DOE persists in continuing with this project, I believe they should not build it at INEL. The site at INEL is near the headwaters of the one of the country's greatest watersystems. It is in an earthquake zone. It is hundreds of miles from the source of its feeder materials. There is no nearby storage facility to accommodate wastes. We have to be smarter than putting such a dangerous facility in such a vulnerable location. In fact, I am dismayed that the DOE could propose such an inappropriate site. If this is all the smarter they are, then they certainly should not be handling plutonium. 6.3 5.12.1 5.10.5 5.29.31

Again, it is my view that the project should be abandoned for a more productive endeavor, even dealing with nuclear research. But, if it were, it certainly should not be located at INEL where risk associated with transportation, earthquake, and watersystem contamination would not exist if it were located at a different site. America has to be smarter than this plan. 5.30.3.1

I'd like to address the NEPA process and the Draft EIS and request that the following failure of the EIS be corrected ~~in the final document~~ with an analysis.

The scoping officials and documents addressed this project as if it was an already "done deal." By doing so, they made a mockery of the NEPA process; the right of the people to be assured that decisions are based on thorough analysis and public input. I want to be on record here as stating my objection to that initial failure. The National Environmental ~~Protection~~ Act process is critical in regard to this situation. We are not doing business as usual: plutonium production poses catastrophic threats. And, the project is being proposed by a self-monitoring agency which heightens the importance of complete compliance with NEPA. Much of the critical information, especially about need and transportation risks, are unavailable to the public because of "national security." 2.13.9 2.6.3

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2.3 The disclaimer of factual data makes this document unreliable. I believe there should be independent research conducted that would assemble data for analysis of the worst case scenarios and comparisons of alternatives. Without independent research the public is left with a document which is not believable.

In regard to this Draft EIS, I would like to specifically address the failure of the analysis to address major elements in the comparison of alternatives and in describing worst case scenarios.

5.29.31 #1 Transportation risks exist beyond the borders of Idaho with numerous sites where accidents would cause catastrophic and irreversible damage to the population and the environment. Transportation risks associated with the SIS if located at Hanford would be limited to export of the refined plutonium and radioactive wastes. That is, one leg of transportation would be eliminated. Therefore, overall risks associated with a site at Hanford or Savannah River would be reduced if located at the production site.

5.29.2 #2 Transportation risks associated with transportation of the refined plutonium and radioactive wastes were not addressed. For example, the section worst case scenarios should have described risks associated with an accident where the plutonium escapes containment in a populated area; in a rural area; into a watersystem, and then identify how many "opportunities" exist for each risk site on predictable routes.

5.10.17 #3 Comparative risks associated with earthquake for each site should be examined. It is may view that DOE has been capricious and irresponsible not to automatically eliminate INEL because of earthquake threat. Nonetheless, a comparative analysis should be presented.

5.1.21 #4 The worst case scenarios were inadequate. Most of the section dealt with design and construction safeguards that, they claimed, would preclude disaster. The purpose of this section was to look at a situation where the best plans failed, and the plutonium escaped confinement and the filter did not work. I believe there are far more opportunities for accidents at INEL than at other locations. Even more fundamentally, there are far too many dangers associated with project to allow it continuance. This document has utterly failed to provide a worst case scenario.

2.4 #5 NEPA requires that the information be made available to the public in such a format and in language that the general can comprehend it. This document has presented risks of contamination from exposure to plutonium, the basic risk from general operation and from worst case scenarios, in charts. These charts contain mathematical references to contamination and no narrative description made translation feasible. The Draft in this way again fails NEPA.

I believe this document has failed numerous standards required by NEPA and that it must be amended to correct those failures.

2.2.5 Finally, I'd like to say that I believe there are numerous items on a hidden agenda. I understand that the nuclear plant at Hanford may be shut down permanently and that another plant would have to be built. Does DOE plan to do that at INEL? I find it ominous that the legislation prohibiting commercially produced nuclear waste from being used for defense purposes expires at about the same time defense wastes run out. I suspect a connection between a by-product of this process being required for food irradiation and a national plan to use the northwest as a test area for irradiated foods. Because the DOE disclaims the information in this document, cloaks revealing real data about need behind national security, provides a analysis that is a dismal failure in regard to standards set by NEPA, and is a self-monitoring agency on top of it all, I have to reject this plan. Until a plan is developed that evidences we are smart enough to deal with this project, then I believe we are left with no option but the No Action alternative. 3.2.2

W297

APR 8 1988

VALLEY BANK
P.O. BOX 279 • 501 BROADWAY • IDAHO FALLS, IDAHO 83402 • TELEPHONE (208) 525-6249

March 28, 1988

JACK K. MEIKLE
EXECUTIVE VICE PRESIDENT

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RE: SPECIAL ISOTOPE SEPARATION

1.1 Dear Mr. Nichols:

This letter is to inform you that I support the location of SIS in Idaho. It appears that most Idahoens are in favor of this and support the project, since it will provide economic stability for the state.

People of our community have resisted those who may be negative to anything relating to the INEL during the past forty years - Idaho needs this project.

Best regards,

Jack K. Meikle
Executive Vice President

JKM:cbj

0596-a

297

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W298

APR 8 1988

Mix & ASSOCIATES P.O. Box 684 Boise, ID 83701 (208) 384-9959

March 30, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols,

Idaho deserves the economic boost the SIS can bring to its people...and, though a small state, it is sophisticated enough, independent enough and progressive enough to become a leader in nuclear technology.

The many news stories and other materials I've read about the SIS convince me beyond a shadow of a doubt that the technology is advanced enough to assure all of us that the project will be environmentally safe:

- extensive study went into the environmental impact statement, and findings show the risks are virtually none and that precautions exceed DOE standards.
- none of the radioactive waste will be in liquid form.
- highway transportation has been planned in great detail, from the containers to security personnel.
- federal law prohibs use of commercial reactor fuel for nuclear weapons: the purified plutonium will be used for our nation's defense parogram reactors.
- the INEL has been crucial to our country and a vital segment of Idaho's economy for many years. There is no reason to believe the SIS facility will not continue to be used in the future...it is a large investment of time and money.
- the initial SIS investment will pay for itself many times during its initial assignment, by making use of scrap material. It is vitally important to our defense system.

As Idahoans, we must all work together to preserve our state's many virtues...the wilderness, the recreational areas, the health

Consultants in Governmental Affairs, Communications, Public Relations

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and character of its people, its economy. My concerns have been assuaged and I believe the advantages greatly outweigh the arguments of those who are afraid of any kind of nuclear technology and those who are against any kind of industrial development.

6.2

My vote is for progress. My hope is for jobs for Idaho.

1.1

Sincerely,

Shirley V. Mix
President
Publisher, Idaho Business Digest

322

W299

March 2-, 1988
Rt. 1 Box 1377
La Grande, Ore. 97850

APR 8 1988

To U.S. Department of Energy:

I am a senior citizen who is very concerned about the nuclear safety of this area, in fact it has been voted by the people to be a nuclear free zone. What right do you have to truck tons of plutonium thru our area to Idaho. One of the most dangerous highways in the nation is Cabbage Hill south of Pendleton and Ladd Canyon south of La Grande. It can be extremely treacherous in the wintertime. We have also had several train wrecks even in good weather, near La Grande.

1.1

5.29.103

We do not need any more nuclear arms when we have enough to kill all the people in the world and many times over. Reagan and Gorbachev are meeting soon to reduce nuclear weapons. It's ridiculous to spend huge sums of money for more.

4.13

Sincerely,
Mrs Torhild Masterson

299

W300

APR 8 1988

Dr. Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

1702½ Cove Ave.
Ft Grande Ore.
3-25-88

1.1 I write this letter in protest of the proposed SIS facility and the transport of nuclear waste products over the area railroads, and highways.

4.13 Taking into consideration the existing levels of nuclear weapons and weapons grade plutonium stockpiles, I find no logic for production of more such goods or the facilities to do so.

5.29.92 It also defies reason to ship such a volatile and permanent toxin by any method, through any populated area, as the potential for accident is real and devastation great.

5.30.3.1 The best answer at this time seems to be the cessation of all nuclear materials production until the problem of waste managment and disposal is solved. At present, reason and logic tell me this is not the case.

300

Sincerely,
Bob Johnson

323

W301

APR 8 1988

Bill Morris
Box 1622
Hailey, ID 83333

Dr. Clay Nichols
U.S. DOE ID Operations
785 DOE PL
Idaho Falls, ID 83402-1133

Dear Dr. Nichols:

I wish to voice my disapproval of the DOE Special Isotope Separation Plutonium Plant. In an era of federal budget cutting and nuclear non-proliferation I am bewildered as to why we need to create more weapons grade plutonium. A 1985 OMB report cites the SIS process as not only the highest cost in total dollars but the highest cost per gram of plutonium, of the various methods of production. Our soil, water, and the air we breathe cannot escape nor can it absorb even the smallest amount of this most toxic and imperishable substance. Yet the SIS will generate upwards of 200 tons of waste each year with no means of safe disposal or storage. You have heard ample testimony from people who share my same views. For me to continue would be subjecting you to a redundant review of the issue. Let us put the millions to a more sane and humane use. Stop the SIS now.

1.1
4.13
5.28.2
5.30.3.1
6.3

Respectfully,
Bill Morris
Bill Morris

301

W302

Box 9
Garden Valley, Id.
83622
April 2, 1988

Clay Nichols
Idaho Operations Office
785 D.O.E. Place
Idaho Falls, Id. 83402

4.13 Dear Sir:
S.I.S. is not needed and it is not necessary for the security of the U.S.

There are more than enough nuclear bombs on this earth. Enough might now to kill every man, woman and child a couple hundred times each. If this isn't enough, when will we have enough? Where will we draw the line? When we can kill every

5.29.92 man, woman and child five hundred times each, a thousand times each?

The capability of killing each Person on this earth one time is sufficient.

We don't believe the D.O.E. can transPort the materials to make the Plutonium or transPort the Plutonium around safely 100% of the time.

5.24.22 We don't believe the D.O.E. can Produce Plutonium safely and without accidents.

We don't believe the D.O.E. can safely store the waste

5.30.3.1 products in the Ground for thousands of Years without seriously harming our water resources. We believe S.I.S. extremely

1.1 threatens all of mankind and nature. S.I.S. should not be built anYwhere on this Planet.

Sincerely,
J — & Shirley Rodes
Jim & Shirley Rodes

W303

3616 Meadow Drive
Boise, Idaho 83706

March 31, 1988

Mr. Clay Nichols
Idaho Operations Office
785 D.O.E. Place
Idaho Falls, Idaho 83402

Dear Sir:

1.1 Without a lot of verbage I wish to go on the public record in opposition to the proposed Special Isotope Seperator project at the I.N.E.L. facility. I believe that there is little justification for this project at a time when we are attempting to reduce the

4.13 number of nuclear weapons in the world. Additionally, the risk of environmental and human catastrophe is unreasonable given the purpose of the project and the scope within which "gain" or "benefit" to mankind could be measured. Finally, although Idaho could certainly use the infusion of money such a federal project would

6.2 provide a lagging economy, the jobs gained would be few at the cost and many of them would only last a limited time (ie. construction). The same money could benefit more people and create more jobs if

6.3 it were used in any number of other ways. I am therefore in opposition to the project at Arco or any other place, now and in the future.

Thank you for your assistance with this matter.

Sincerely yours,
Mark Brownell

Mark Brownell

W304

APR 8 1988

2514 W. Barberry Ln.
Idaho Falls, ID 83402
April 5, 1988

Dr. Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, ID 83402-1133

Dear Dr. Nichols,

1.1 I support the SIS Project!

3.4 America needs to be strong so as to be able to negotiate peace through strength, and SIS is part of that strength.

5.27.7.16 I am in construction and we need the work as long as the work must be done.

We appreciate this opportunity to submit our testimony.

Sincerely,

Steve Burns

Steve Burns

304

W305

APR 8 1988

1230 N. Skyline Dr.
Idaho Falls, ID 83402
March 30, 1988

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

My name is Patricia A. Walker. I am employed with Westinghouse Idaho Nuclear Company, Inc. in the Idaho Falls area and have liverd in Idaho for 2½ years.

The SIS program is vital to the economy of Idaho, as well as being a project necessary to the defense of our country. I believe this is true and urge the location of the project at the INEL.

5.27.6.1
4.15.4
1.1

Yours truly,

Patricia A. Walker

Patricia A. Walker

305

325

W306

APR 8 1988

SUN VALLEY
AUDIO
BOX 285
SUN VALLEY, IDAHO 83353

TELEPHONE: (208) 726-3476

Dr. Clay Nichols

DATE: March 23, 1988

Dear Dr. Nichols:

I am writing to let you know that I oppose the SIS for the INEL. I do realize that Idaho needs industry which will produce jobs for our state but the price for these jobs is too high. My concerns are for the hazards which are inherent in the production of nuclear power. Idaho is a wonderful place to live. Let's keep it that way.

1.1
6.2

Sincerely,

Amos Galpin

AG/c

326

306

W307

APR 8 1988

SUN VALLEY-KETCHUM CHAMBER OF COMMERCE INC.

TESTIMONY OF NORMA DOUGLAS
SPEAKING ON BEHALF OF
THE SUN VALLEY-KETCHUM CHAMBER OF COMMERCE

Presented at the Department of Energy Hearings
on the Special Isotope Separator, Monday, March 28, 1988

I am representing over 250 member businesses of the Sun Valley-Ketchum Chamber of Commerce. Ketchum and Sun Valley are, as our mayors Ruth Lieder and Larry Young have pointed out, not only economically dependent on tourism, but spearhead this state's efforts to bring tourists -- and tourist dollars -- to Idaho.

It should come as no surprise to anyone who has left our state to find that most Americans don't know where Idaho is. They think it's somewhere near Kansas.

We're fighting for their tourist dollars against Colorado and Utah, two states who spend enormous amounts of money to promote their mountains and their fishing streams to potential visitors.

But, now, thanks to the wonders of modern communications, we have found a way to get free publicity for our state. There are two things that almost anyone, anywhere in America, can tell you about Idaho: 1.) We're the home of the Aryan Nation, and 2.) we're the place where they took all the nuclear garbage from Three-Mile Island. 5.30.3.6

This is not the kind of news that makes you want to pack the wife and kids into the Chevy and head for Idaho.

Night after night, families have been treated to photographs of protestors lying across railroad tracks, horrified that the garbage of Three-Mile Island is making even a brief transit across their state. And where is the garbage going, night after night? Idaho.

Now, we are making the front page of the nation's newspapers once again, this time to offer ourselves as a location of last resort

IDAHO
P.O. BOX 2420 · SUN VALLEY · IDAHO · 83353 · 208·726·4471
VISITORS AND INFORMATION CENTER · 208·726·3423

307

4.15.4 for an unnecessary manufacturing site for a plutonium plant of highly questionable safety. Our meager marketing dollars may not be making much of an impact on tourists, may not be telling them much about our beautiful mountains, our fishing streams, our wildlife and our crystal clear lakes, but our sad eagerness to accept dangerous nuclear projects

5.27.3.3 that everyone else has turned down is certainly sending a frightening message. We are finally making an impression on America, an impression with a half-life of 24,000 years.

Given the well-documented safety problems associated with a project of this kind, and the nationwide negative publicity that clings

5.24.20 to these projects, we of the Sun Valley resort area are horrified to think that we may become, in more ways than one, the location of last

1.1 resort for the S.I.S.

This testimony was presented in person in Twin Falls on March 28 but no written copy was left at the time. It came almost directly after Mayor Ruth Liedda, who spoke first.

327

W308

4-4-88

GENTLEMEN:

I firmly support location and construction of the SIS. Facility at the INEL in 1.1 Idaho.

Thank you for your efforts to bring this much needed economic boost to Idaho -

Jerry A. Peterson

JERRY A PETERSON
6900 DESERT AVE
BOISE, ID 83709

308

W309

Steve Paulson
RT 1 Bx 14-c
Lenore, Idaho 83541

APR 8 1988

Clayton Nichols
SIS Project Manager
Idaho Operations Office
US Dept. Of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Sir;

I have read the Draft Environmental Impact Statement for the Special Isotope Separation Project, and have some questions and thoughts.

2.1.2 I found it to be callused to human pain and suffering, and biased in favor of the nuclear industry. Some of the assumptions and some of the reasoning is unclear,and some of the conclusions are hard to believe on a gut level.

328

First of all, who are you making these bombs for? The people of America? I read with disgust that you are willing to accept "9.5 x10^{-6} in latent cancer fatalities" to american citizens, 2.1.1 (Idahoans) in the case of one transportation accident,and other equally absurd numbers for genetic defects, occupational hazards, 5.31.12 and cancers to the population in the immediate area of the project. I would like to challenge the arguement for placement of the project because of low population density in the immediate 5.23.11 area. The problem of nuclear polution has global and practically timeless ramifications, not just limited to the people presently residing near the Idaho National Engineering Laboratory or Hanford. These people who are working at INEL or Hanford are most likely biased in favor of the project, and have no right to 5.13.12 assume risks for the rest of humanity. The draft Environmental Impact Statement failed to consider statistics on cancers to people consuming fallout with their Idaho potatoes or other agricultural products.

It also disturbed me that you are willing to dump 20 tons of freon into the atmosphere and claim that you are meeting all requirements of the Clean Air Act. The draft EIS failed to consider this project's effect on the O zone, or it's relationship to the recent international (with the United States included) treaty to prevent the destruction of the O-zone, and does not consider the cumulative effects of freon on the upper atmosphere. 5.9.3

Also relevant to clean air, did you know that the people of Idaho voted overwelmingly against generating power in the Snake River valley with coal? I am referring to the Idaho Power Company's proposed coal fired generator in the mid 1970's, Pioneer. I noticed you are intending to power the S.I.S. project with coal generated power. The draft EIS fails to consider the cumulative effects of coal usage to one of the Pacific Northwest's most valuable resources, our clean air. 2.11.13

I challenge the idea that a large construction force would not move into the area during the building phase. That there are nearly 440 unemployed and suitably skilled workers already residing in any of the areas being considered, seems slightly optomistic to me. I would assume that any company securing a contract for the building would want to use employees who were familiar and of known quality. 5.27.4.3

I, also, challenge the conclusion that construction and operation at INEL would not impact the endangered species or threatened species that you list as ocurring in the area, the bald eagle, peregrin falcon, ferruginous hawk, burrowing owl, longed billed curlew, bobcat, or any of the locally rare plants you list. 5.6.1

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329

The draft EIS failed to consider weapons recycle as an alternative. With the Soviet/American intermediate range missle
5.2.15 treaty becoming a reality, there should be plenty of bomb triggers available, making recycling an appealing alternative.

The draft EIS failed in not considering terrorism as a possibility. Given the presence of neo-nazis terrorists operating in the area, the increasing use of terrorism by other groups, and
5.1.30 the susceptibility of these elaborate transportation plans to terrorists, I think that the exclusion of terrorism in this study is a failing.

I fail to see any logic whatsoever in your choice of preferred alternative. The transportation of plutonium from
2.12.5 Hanford to INEL for processing, and then shipping the products to Colorado and New Mexico, is additional risk in an already involved proceedure.Processing at Hanford would, definately, involve less risk. The only reason I can think of to justify this additional step in the process is political pressure, which had no reference in the draft and has no basis in a logical decision.

1.1 The no action alternative appears to me to be the logical choice and should be the preferred alternative.

In conclusion, I think it would be appropriate for you to either; (1) do another complete and comprehensive draft EIS; (2)
2.1.6 consider the no action alternative as the preferred alternative;
2.12.3 (3) or allow a stay in the decision for the next president to authorise the need for the project.

signed, sincerely,
Steve Paulson 3/31/88

W310

April 4, 1988

Mr. Clay Nichols
785 Doe Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

FOR THE HEARING RECORD:

Please allow me this opportunity to express my concern over the Special Isotope Separation project being considered for construction at Idaho's A.E.C. site east of Arco, Idaho.

I strongly oppose this project being built anywhere, particularly in Idaho. It appears to me that there is more than an adequate supply of plutonium for current and national defense needs. The short plant life and relatively small job base is short-term gain compared to the possible black eye this project can give the State, especially the tourist industry. 1.1 4.15.5 5.27.3.3

The potential for long-term pollution of the Snake River acquifer is very real, and I feel that the environmental impact statements on the S.I.S. project do not address this issue accurately, nor does it address the existing concern for the acquifer created by the A.E.C. 5.12.1

Finally, I do not want to live within fifty miles of the proposed S.I.S. plant for reasons of personal health and safety. 6.1.1

Thank you for your consideration in this matter.

Very truly yours,
Candy Forstmann
Candy Forstmann

310

W311

RECEIVED
APR 8 1988
SIS Project Office

April 6, 1988

Mr. Clay Nichols
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

6.1.9 I am writing regarding the proposed SIS project. I feel that this project is totally unnecessary to the country and could be extremely detrimental to Idaho and our way of life.

1.1 Please enter my name as being completely opposed to any project of this nature.

Sincerely,

Judith Webb

Judith Webb

/jw

311

330

W312

RECEIVED
APR 8 1988
SIS Project Office

Friday
25 March 1988

Dear Sirs:

As a concerned citizen of Idaho I'm very much in favor of the SIS project being built in Idaho. 1.1

I'm an electrician in the construction industry, I'm very concerned about the work picture in our area.

I thought since it was an election year that the work would pick up but that's not the case. 5.27.6.1

The SIS project would help out our entire area, not only the construction but spin off to local business and down to the ordinary housewife. 5.27.9.1

As I listen to the pro's and con's of the project, it appears that the people who don't want it are mainly out of state people who don't need to work and raise a family here. The people who live in the Sun Valley and Ketchum area are basically very well off financially. They want Idaho to stay the same - No progress, just stagnation.

312

If there are fears of safety from the SIS being built here, one only needs to go out and work at the INEL. 5.24.23

for a few days and see what what safety programs are in force to
2.2.7 see what an outstanding safety program the INEL has.

Were not going to build the Atomic bomb here, only one part would be produced

The worse possible consequence
5.27.3.4 of locating the SIS here in Idaho would be the influx of anti-nuke demonstrators. These people are the real problems of this and future projects coming to our great state.

The SIS is a well conceived
5.27.9.1 and designed project. The technical advances and new growth alone should make Idaho a very attractive state
5.27.11.1 for other business to locate here

I feel we have many resources in Idaho that other states would love to have, such as the INEL programs, quality of life, skilled work-force, very little crime and beautiful mountains and streams.

6.1.2 This new project would in no way endanger the things that we hold dear. There would be no water pollution

or ground contamination

I want my children to live and work in this area, I am so convinced I am that our area will always be safe. 5.24.23

I will probably live in Idaho the rest of my life and hope my children would too. If we continue to build projects like the SIS etc., there should be no reasons why my kids would need 5.27.4.5 to move away to secure jobs

As a concerned citizen of Idaho I whole heartily support the SIS being built here and will continue to support the national defense programs to protect this great country

Sincerely
Alan L Christensen

W313

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
APR 8 1988
SIS Project Office

March 30, 1988

Dear Dr. Nichols:

I was not able to testify in person at the Twin Falls public meetings so I am providing you with this written testimony from my 3 wife and daughter, my wife and myself.

To begin, it seems illogical for DOE to cite a Disclaimer on the inside cover of the Executive Summary, taking all responsibilities for these documents away from the agency who creates the SIS issue. DOE is responsible for SIS and all of it's associated controversies.

The following are comments regarding the SIS proposal and/or the EIS for the proposed action.

1. The United States does not need more plutonium for weapons. Although the laser technology is modern — we don't need the product. This would be similar to someone building a garbage factory to fill up land fills — we just don't need the end product. We don't need SIS
2. There is an insufficient description of how DOE will handle waste. DOE has established a very poor record of handling nuclear waste.
3. INEL has been a "TEMPORARY" waste storage site for approx 30 years. This is about 1/2 the life of one generation. When will permanent facilities be found and Managed? SIS would increase the misuse of INEL as a storage site.
4. This SIS by your own admission is a "redundancy in production capacity". We don't need SIS.
5. DOE did not adequately evaluate all alternatives or do sufficient Cost/Benefit analysis. - we don't need SIS.
6. a peaceful existance on this planet is being held with the current fire power to kill all life many times over. More plutonium will not induce more peace. We don't need SIS.
7. INEL is already contaminated the soils or subsurface materials because of the poor control of radioactive material. Even when INEL personnell are some of the best trained, most qualified people with some of the best technology available, they still have waste control problems. We don't need SIS.
8. I want to raise my children in a world which does not fear nuclear science. SIS creates fear, supports false egos in the military mentality and demoralizes the meaning of human existance. We don't need SIS
9. The billions of dollars used to operate this peacetime war machine could be used in hundred of public agencies to support the principles of life and productivity rather that death and destruction. We don't need SIS
10. The EIS "NO Action" statement would demonstrate that DOE can produce weapon grade plutonium without SIS and still complete the DOE mission. We don't need SIS.

Now that I have demonstrated several reasons why we don't need SIS I will give you statements why I don't want SIS.

1. SIS is immoral, against freedom of life & choice.
2. SIS is dangerous, because we can't even control our current waste problems.
3. SIS endanges Idaho's natural resources

313

2.3
332
4.13
5.30.3.1
5.30.3.8
4.7.3
4.12
4.13
5.30.1.5
2.7.9
6.3
1.1
2.7.2
5.30.3.1
6.1.4

(1)

Dear Mr. Nichols,

I am writting this letter to inform you of my opinion of the proposed SIS project.

I came to Idaho 13 years ago on vacation and that was all it took. I quit my job as a registered nurse and 3 months later I returned to Idaho to live. I've never been sorry. The primary motivation in moving to Idaho and making half my gross salary from the job I left was "quality of life." When I left Minnesota there was a controversy regarding Silver Bay Mining Co. dumping their by-products into Lake Superior. Although the "experts" said when this process started that what they were dumping was not harmful, they were finding harmful levels of asbestos and other carcinogens. All of those not directly effected financially wanted them to stop dumping. The town of Silver Bay and the mining company said that it would be too expensive to bury their by-products on land. What about the jobs that would be lost? So, the populous surrounding the lake, the largest fresh water lake in the world, began to drink bottled water. Eventually, after involved lawsuits, the state made them dump on land. The mining in Minnesota failed and the Silver Bay Mining Co. shut down. Silver Bay city still exists. The lake is still polluted and will be for life times. The question is — Is it worth is to give people jobs which in turn could lead to our own destruction?

314

4. Increased nuclear power encourages the potential for war.

There are many more reasons, I've been thinking about them for some time. The problem is I can't put all of the reasons, even some of the best reasons, into this letter, there are too many and I am not the best penman in the world.

3.4 I request that DOE cancel the SIS proposal. I am writing Congressman Richard Stallings to try and change his mind on this terrible project.

I recommend the SIS project not be built. We don't want SIS, we don't need SIS.

Sincerely
Stephen J. Langston
Kenneth Langston
Po Box 382
Stoshone, ID. 83352

333

(2)

To obtain the questionable 350 jobs for Idahoans The
6.2 supporters of the SIS project are asking myself and other Idahoans
to risk our health both mentally and physically, our environment,
our economy if something goes wrong and last but not least our
lives.

6.1.9 I want Idaho to be known for its quality education, potatoes
wilderness, its pristine free flowing rivers, high quality of life
and steelhead fishing. I DO NOT want Idaho to be known
for its Plutonium weaponry capabilities!

I have written this letter not as a member of any group but
as a citizen of a wonderful state that I want to help protect.
I believe that environment is the most important priority.
If the DOE and Mr. Andus decide to push for the SIS project
1.1 after the hearings then I will become active in any political
or legal process to stop the SIS.

ANN HOENE
Ann Hoene
Box 101
Hailey, Id
83333

334

314A

W315

4-3-88

Clay Nichols
785 DOE Place
Idaho Falls, ID
83402

RECEIVED
APR 8 1988
SIS Project Office

Sirs:

Idaho has a very good chance of becoming the premier destination state for tourist activities relating to wilderness, whitewater, hunting, and fishing. Recreation has become a major economic force in Idaho and probably will become the prime economic influence in the near future. That's because we residents have had the foresight to preserve some of our states resources and environment while other states have proceeded to obliterate theirs.

For Idahos long term economic and enrironmental future, I must oppose the construction of the Special Isotope Separation Project. The risks inherent in the kind of operation you propose are far too great. You people can't possibly guarantee safe disposal or storage of the waste products you'll be producing because you haven't been able to properly and safely dispose of the crap you've already produced at the INEL. Any kind of accident or mishap involving contaminated waste disposal, contaminated waste transport, or in routine plant operation will have immediate and harmful impact on Idahos tourist industry. 1.1 5.30.3.1 5.27.3.3

Providing 700 jobs for 7-8 years at the project does not equate to the inevitable ruin of Idahos second fastest growing industry, i.e., recreation, when the accident occurs. And we all know it will occur if you build this project.

Build your SIS Project somwhere else, or better yet, don't build it anywhere.

Sincerely
Gary W. Stitzinger

Box 284
Ketchum, ID 83340

315

W316

RECEIVED
APR 8 1988
SIS Project Office

April 4, 1988

Dear Dr. Nichols,

I am writing this letter to express my unmitigated opposition to the proposed SIS Project. I can hardly believe the SIS proposal has made it this far and am hoping that the entire idea will soon be discarded as unnecessary, immoral and a wasteful use of tax dollars. 1.1

I realize some people will be disappointed when the SIS is finally vetoed but I would not be in favor of it even if it made everyone in the state a millionaire and I know many people that feel the same way. The average Idahoan is a strong and resourceful being too courageous to allow exaggerated reports of national vulnerability frighten him into allowing a plutonium storage and recycling facility become situated within his state. Idaho's economic problems will be solved in time and in a manner that will maintain the integrity of it's people

Hoping your department remembers that America is the "land of the free and home of the brave" and that it's strength lies in its commitment to maintaining peace and fostering goodwill amongst nations I remain,

Sincerely against the SIS,

John C Caccia
PO Box 4225
Ketchum, Idaho 83340

335

316

W317

4-4-88

RECEIVED
APR 8 1988
SIS Project Office

Dear Dr. Nichols,

I have been a resident of Blaine County for 10½ years. I love the State of Idaho as a home for myself and my family. I do not support any projects which jeopardize the cleanliness and purity of this beautiful wilderness state.

Please Stop the SIS! 1.1

Sincerely,
Ken Brinton

317

W318

RECEIVED
APR 8 1988
SIS Project Office

April 6, 1988

Nichols
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

I am writing concerning the Special Isotope Separator planned for the INEL in Idaho Falls. As a resident of the state, I want it to be known that I am adamently opposed 1.1
to the placement of such a facility in our state. It is absolutely opposite from the image that Idaho has been trying to project as a beautiful, clean environment which tourists enjoy and people move to from other polluted and overcrowded areas. My husband and I moved here 15 years ago from California to raise our kids in a safe and clean environment. Plutonium and bomb production were not in our 5.27.3.3
plans as potential neighbors. Idaho politians and you at the DOE should look at the long term planning rather than the instant reward of a few jobs. It will work against tourism, which is a major part of our economy too. People who might think of living here will probably think twice when they review our reputation as a bomb producing state. If this does happen you can be sure we will think twice about living here and investing in this states economy.

Sincerely,

Deborah B. Commons
P. O. Box 1408
Hailey, Idaho 83333

336

W319

Dear Dr. Clay Nichols

Please Don't Build the SIS in 1.1
Idaho or any other state or county just
Jam wages and our money into Peaceful 6.3
Projects.

Mallon J Price

RECEIVED
APR 8 1988
SIS Project Office

no return address

319

W320

337

April 2, 1988
T. Fuentes-Williams
P.O. Box 422
Coeur d'Alene, ID 83814

RECEIVED
APR 8 1988
SIS Project Office

Clay Nichols, SIS Project Manager
Idaho Operations Office
U.S. Dept. of "Energy"
785 DOE Place
Idaho Falls, ID 83402

I request that the following testimony be included in the hearing record for the Draft Environmental Impact Statement (EIS), Special Isotope Separation (SIS) Project.

I will present my comments under two headings: process and issues.

I.Process - The following items are problems with the way testimony was gathered and are violations of the intent of the NEPA process to allow adequate opportunity for public input. Since the proper NEPA process was not followed the draft EIS should be rewritten and a new scoping process initiated. 2.1.6

A. Even though the SIS is projected to have national implications hearings were only held at a few selected locations in southern Idaho. The scope of the alternatives clearly indicated that testimony should have been solicited from the Hanford, Savannah River, and north Idaho areas because of potential impact on these areas. Since Hanford and Savannah River are listed as alternative locations for the SIS project the people in these locales deserved to have full input to the decision making process. Since the economic and political decisions for northern Idaho are inexorably linked to southern Idaho any decision to build the SIS in Idaho should be based upon the will of all of Idaho. I question DOE's sincerity in pursuing the NEPA process by holding hearings in southern Idaho. Their actions indicate a desire to limit input from those who are against placing the facility in Idaho. 2.8.7

B. The nearest hearing to my home in Coeur d'Alene was in Boise. Lourdes Fuentes-Williams notified DOE of the intention for her and I to testify at this hearing. She requested that we be allowed to speak consecutively and during the afternoon session because of our need to return to Coeur d'Alene on the same day. The DOE representative indicated that this message would be passed on. In the end we were not able to testify because we were neither placed consecutively nor in the afternoon session even though we had signed up early on March 4, 1988. Since the final testifying list was not made public until just before the hearing we drove to Boise and then had to miss the hearing because of the unacceptable schedule. 2.8.10

C. By changing the hearing dates to facilitate Sen. McClure's Forest Management Act hearing additional hardship was placed on those who needed to travel large distances or needed to rearrange schedules.

D. The Draft EIS document contains a disclaimer on the front inside cover absolving DOE and the U.S. Government from responsibility for the contents of the document. The purpose of NEPA is to allow the public the opportunity to review and contribute to the decision making process. If the DOE is not held responsible for statements made in the EIS then the public can not trust the statements made in the EIS. If this is not a direct violation of NEPA it is a violation of the accountability of governmental agencies to the public which they are supposedly representing. 2.3

II.Issues - The following items are specific problems with the proposed alternative. For these reasons the NO ACTION alternative should be the one followed. 1.1

A. There has been no justification for the present or <u>future</u> need for more plutonium production. 4.10.2

1. The public has not been allowed to study the government's supposed need for plutonium as we are told is outlined in the Nuclear Weapons Stockpile Memorandum (NWSM). Without adequate opportunity to review the pertinent documents the public has been eliminated from the decision making process, violating the intent of NEPA. Recent events, namely the closure of the Hanford N Reactor and statements by Sen. Mark Hatfield, indicate that the NWSM is invalid and there is no justification for present or future plutonium need. 4.10.1
2. The U.S. Government has a surplus of plutonium and will have an even larger surplus with the retirement of missiles due to the INF treaty. A relatively large increase in the number of nuclear warheads would not use up this stockpile. The fact that the government is working toward treaties that would further reduce the number of nuclear warheads suggests that a reduction rather than an increase in the production of nuclear warheads will occur in the future. 4.3
3. There is no need to purify fuel-grade plutonium from Hanford since stockpiled highly purified plutonium from Savannah River can be mixed to fuel-grade plutonium to form weapon-grade plutonium. This process would not require a new facility nor the use of untested technology, hence would cost less than the SIS. The EIS suggests that it would cost more to produce higher purity weapon-grade plutonium at Savannah River (p. 2-63). This statement is false since only a limited amount of fuel-grade plutonium exists at Hanford and no more is scheduled to be produced. Hence, no new high purity plutonium need be produced at Savannah River. 5.2.10
4. The SIS, unlike reactor technology, requires fuel-grade plutonium as a source material. Therefore, the comments made in the draft EIS that the SIS could be used to produce weapon-grade plutonium more quickly than with production reactors is inaccurate since a pre-existing stockpile of fuel-grade plutonium must be available. At present the only such stockpiles are at Hanford, which does not require the SIS to convert to weapon-grade as outlined in point 3 above, and in commercial fuel rods, which are expressly exempt by law from use for weapons. The only possible use of the SIS would then be if the law is changed allowing commercial fuel rods to be processed into weapons. Such a change in federal law is clearly outside the scope of the EIS and therefore the SIS has no purpose in terms of national defence needs. 5.26.2

B. Should fuel-grade plutonium be transported between Hanford and INEL or any other facility clear dangers exist in terms of human health and environmental contamination. The following issues were not adequately discussed in the draft EIS.

1. The draft EIS states that the probability of an accident in transportation of nuclear material between Hanford and INEL is insignificant. This statement is based on only one of many 5.29.90

studies on the dangers associated with the transportation of nuclear materials. The EIS states on page 4-32 that no one has been killed in an accident with an SST. This is a misleading statement since the SST containers have not been authorized by the Dept. of Transportation due to leakage problems. It is also disputed whether anyone has been killed by an SST or similar containers (cf. No Immediate Danger by Rosalie Bertell, Killing Our Own by Wasserman and Solomon). At the very least the draft EIS should be rewritten and other more realistic studies should be utilized.

5.29.42

2. No mention is made in the draft EIS of who will pay for damages to the environment or degradation of human health in the case of an accident or normal SIS operations. A source of funding should be specified by DOE to cover all damages due to an accident or normal operations. If the probability of an accident is as remote as the EIS claims than this should not be a liability to DOE.

3.6.2

C. The NO ACTION alternative is disregarded in little over 1 paragraph in the draft EIS. The remaining page (approximately) discusses technical issues not directly relating to the advantage of pursuing the NO ACTION alternative. Clearly, DOE has presented the NO ACTION alternative only to comply with NEPA regulations. No attempt was made to seriously consider this alternative, nor was any effort made to describe the positive aspects of pursuing the NO ACTION alternative. As such, DOE has again violated the intent of NEPA.

5.2.6

D. Since the safety and validity of the technology upon which the SIS project is based is beyond the understanding of most of the public we are at the mercy of the DOE scientists to truthfully explain any dangers associated with the project. To mitigate the conflict of interest which exists with DOE employees evaluating DOE projects an independent committee of physicists should be selected by congress to evaluate and oversee the project. No valid decision can be made without such an independent review.

3.2.27

Based upon the above statements I suggest that the process DOE has followed in pursuing this project is flawed and the process be terminated. At the very least, the **NO ACTION** alternative should be chosen and the SIS project should not be constructed or operated. The above comments apply specifically to the preferred alternative of building the facility at INEL, however, they apply equally against constructing the SIS at Hanford or Savannah River.

2.13.2

1.1

Sincerely,

T. Fuentes-Williams

338

W321

IDAHO FISH & GAME
600 South Walnut / Box 25
Boise, Idaho 83707

April 4, 1988

Mr. Clayton R. Nichols
Acting Project Manager
SIS Project Office
Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Re: Special Isotope Separation Project DEIS

Dear Mr. Nichols:

Thank you for the opportunity to review and comment on the above referenced document. Idaho Department of Fish and Game does not have anyone with the technical background to thoroughly evaluate all aspects of the proposed project. However, we do offer the following comments.

There does not appear to be any immediate significant impacts to fish and wildlife resources that would result from the proposed project. This is because the facilities and disposal areas are already disturbed sites and a relatively small additional area will be disturbed.

5.6.1

No fisheries values are present on the INEL site. However, long term pollution of the Snake River aquifer is a concern and impacts from the project and subsequent waste storage at INEL should be addressed.

5.12.1

Ferruginous hawk and Swainson's hawk are both listed as candidate species for threatened listing by the U.S. Fish and Wildlife Service. Both species occur on and near the INEL site but were not included in the threatened and endangered section of the DEIS. Their status should be discussed.

5.6.6

Long term impacts to wildlife resulting from atmospheric emissions, liquid effluents, solid wastes and accidents cannot be evaluated at this time because they are unknown. Furthermore, we are unsure if the

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Cecil D. Andrus / Governor
Jerry M. Conley / Director

Mr. Clayton R. Nichols
April 4, 1988
Page 2

5.19.6 proposed monitoring will be adequate to detect and report gradual impacts that may result from these releases or an accident. Therefore, we recommend that adequate funding be allocated in the proposal to fund an independent monitoring agency with the necessary technical background to work with DOE in monitoring long term subtle impacts and review and report on the results. If impacts are detected, there should be provisions for remedial action and mitigation. This monitoring should also include the Snake River aquifer for water pollution in relation to the SIS project.

Sincerely,

Jerry M. Conley
Director

JMC:JN:SE:al

cc: Region 6

339

W322

RECEIVED
APR 8 1988
SIS Project Office

1207 North 14th
Boise, ID 83702.
April 4, 1988

Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

The SIS project should not be built in Idaho, nor should it be built at any other site. The "No Action Alternative" is the only reasonable option for the DOE and the U.S. Congress. 1.1

Why is this project needed? DOE says (p. 31 Exec. Sum.) it is needed to provide alternative capacity channels and technological diversity in the production of weapons grade platonium. But **we are not told why we need additional plutonium.** 4.1

This project proposal appears to be particularly **ill-timed.** DOE seems to have tuned out what is happening in its world. The United States and the Soviet Union, in collaboration with other aligned nations have set on a course of **mutual disarmament.** Already we have a signed INF treaty, negotiations have resulted in a Summit meeting for **arms reduction** talks later this year, and a path is being opened for successive reductions in the world's nuclear arsenal. Where is the emminent need for the SIS project? 4.3

Are we willing to risk the lives and health of people and danger to our agriculture base for a project **for which there is no convincing evidence of need?**

The transport of all kinds of chemicals is increasingly becoming a danger to our citizens. The Environmental Impact Statement makes **no provision for emergency response to deal with possible accidents**. Nor are we informed of the **environmental and catastrophic human consequences emanating from the warheads produced using the product of the SIS.** 5.7.10 2.7.2

We already have **enough nuclear killing power.** A line from a recent TV drama reiterates that money spent for one missle could **feed** more people than the missle could kill. Let's do something else with the $1 billion. 4.13 6.3

Thank you for your attention,

Sincerely,
Carol Craighill
Carol Craighill

322

W323

RECEIVED
APR 11 1988
SIS Project Office

April 8, 1988

Mr. Clay Nichols.

I am writing to express my
5.29.94 concern over the question of the S.I.S.
being placed in Idaho Falls, or
anywhere. I don't like the idea of
plutonium being transported from
Hanford on public highways. It
seems a great waste of money to
build this plant in Idaho when
Hanford could more easily and
inexpensively be made into an
SIS site (if we had to have one.)

The jobs that would be
5.27.7.2 generated would only last about
6 years, not providing long range
security for employees. The risk
of an accident on the highways
while transporting the plutonium
6.2 is not worth it either. Idaho
doesn't need S.I.S. 323

I know that Jobs + Steve
Symms image were the only reasons
this even came up + I ask that
my letter be included in the hearing
record. Idaho needs safe, long
term employment, not this risky
short-term and horribly
expensive political ego trip
for Mr. Symms.

Thanks for listening.

Linda Crowley
2501 Sherman #229
Coeur d'Alene, ID 83814

340

W324

APR 1 · 1988
EIS Project Office

4/4/88

Dear Sirs:

I wish to voice my opposition to the purposed plutonium plant to be located in Idaho and to implore you to reconsider the global implication of continued nuclear weapons production. Ultimately one must come to the conclusion that we, as humans beings, are all brothers united on the

1.1

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plan: and the argument in favor of nuclear protection can be questioned with "protection from what?... from whom?..." Those who answer, "from the enemy" are simply not in touch with who they themselves are and their relationship with their fellowman - their brothers on earth. We must put an end to nuclear weapons production and focus

4.13

341

on world peace. -3-
So for the record
I wholeheartedly oppose
this SIS project as well
as continued production
of nuclear weapons
anywhere.

Thank You,
Paula Tanzini
Boise, Idaho,
83703

W325

St. Pius X Church

April 5, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

As a concerned citizen of Idaho, I am writing this letter to you and ask that it be included in the hearing record for the Special Isotope Separation Project.

I am opposed to the idea of locating SIS in Idaho. I am convinced that any benefits of such a project are outweighed by the dangerous problems it can cause, e.g. dangerous releases of radioactivity and contaminted gound-water. Let's put a atop to the use of taxpayers' money and our country's resources to build more war weapons. There are better ways to strengthen our state's economy; ways that aid the growth of our people not their destruction. 1.1 6.2 6.3

Thank you.

Sincerely,

Carol Ann Wassmuth

Carol Ann Wassmuth

325

625 E. Haycraft • Coeur d'Alene, Idaho 83814 • 765-5108

W326

RECEIVED

APR 11 1988

SIS Project Office

April 4, 1988

Dr. Clay Nichols
DOE
785 DOE Place
Idaho Falls, ID 83402-1133

Dear Dr. Nichols:

Please enter my written testimony in response to the DEIS of SIS Project.

1.1 I support the SIS Project. I speak as a native of Idaho Falls, as a concerned citizen, and as a 4-year veteran of the U.S. Marine Corps.

3.4 We must have a strong capability to negotiate a true peace. I am in favor of a strong America to negotiate "peace through strength."

I am presently employed by a local firm who is a supplier of construction materials. I need my job as I want to see my two daughters live and obtain their education here in Idaho.

Thank you.

Yours truly,

Tony Burns

Tony Burns
2514 W Barberry Ln
Idaho Falls, ID 83402

343

326

W327

RECEIVED

APR 11 1988

SIS Project Office

THERESA E. WELSH
P.O. BOX 2174
HAILEY, ID 83333

April 6, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

RE: COMMENT ON PROPOSED SIS

Dear Mr. Nichols:

Please accept and record my position on the Special Isotope Separator proposal as in favor of not constructing or operating the SIS at the proposed INEL site. 1.1

I feel that many activities detrimental to the environment would occur at the SIS site. The SIS Project would discharge to the environment 20 tons of Freon per year, despite a ban on Freon's use as an aerosol propellant due to Freon's possible role in stratospheric ozone depletion. 5.9.3

The DEIS makes it appear that, in emergency situations, an injection well would be used to dispose of radioactive effluents, although this practice may violate Idaho state regulation. 5.17.1

The DEIS fails to consider properly the cumulative effects of raising the background radiation, or the effects of increased radiation on microorganisms. 5.23.19

For these reasons and many others, I reiterate my negative position on construction of the proposed SIS.

Thank you for your consideration of my position.

Theresa E. Welsh

Theresa E. Welsh

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W328

RECEIVED
APR 11 1988
SIS Project Office

Cheryle Hall-Prior
Post Office Box 2013
Ketchum, Idaho 83340

Dear Dr. Nichols,

I live in Blaine County Id. and have chosen to live here for the past eleven years. The reason I live here is because the air and the water are clean.

1.1 Please do not put a plutonium factory near my state. Find another way to make jobs. In this time

4.3 of disarmament why do we need more bombs. I don't understand.

6.3 A cure for disease (cancer, aids) that's really what we need.

I appreciate being able to tell you this. Just Say NO to the SIS

328

Sincerely,
Cheryle Prior

344

W329

Idaho State University
Pocatello, Idaho
83209-0009

Department of Economics

RECEIVED
APR 11 1988
SIS Project Office

April 5, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho, 83402

Dear Mr. Nichols,

I was appalled when I read in the local newspaper that you expected the final EIS on the SIS to be completed in June. I find it inconcievable that the additional research necessary to adequately complete the EIS could be finished in such a short time.

Two months is hardly sufficient time to read, decipher, and analyze the comments, both oral and written, in response to the DEIS. I would like to think that I, along with many others, illuminated substantial problems in the DEIS. The research necessary to correct those deficiencies and adequately respond to the concerns raised would take at least 6 months. 2.1.1

Even if the work could be completed in June it is not politic to release it at that time. Given the self acknowledged shoddy DEIS I think any hint of anything less than a thorough rewriting of the document will be met with ridicule.

I have enclosed a copy of my original comments on the fear that my earlier letter did not reach you.

Sincerely,

Charles Scott Benson

Charles Scott Benson Jr.

329

RECEIVED
APR 11 1988
SIS Project Office

Idaho State University
Pocatello, Idaho
83209-0009

Department of Economics

March 24, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho, 83402

Dear Mr. Nichols,

I was expecting a more thorough document than the DEIS I examined. My comments will be restricted to the socioeconomic aspects of the document and the general question of needs. My overall opinion of the draft is that it needs to be seriously overhauled. If the entire document is as poorly and inaccurately researched as are the few pages dealing with the socioeconomic impact of the SIS the document is fatally flawed and a new draft should be presented for public scrutiny. By consistently interpreting figures, without question, which best support the story that can be summarized "what DOE wants to do" the report is one of the most blatant examples of dishonest scholarship I have seen. Unless NUS prepared this DEIS free of charge for the DOE it makes the DOD $600 toilet seats look like a bargain.

4.1

In the remainder of this letter I will enumerate various issues which must be dealt with in the final EIS.

1. Need for (weapons grade) plutonium The need for weapons grade plutonium has not been documented. I refer you to page 67 of the March 14, 1988 Newsweek which states, among other things, "Now the nation is awash in plutonium."

4.2.1

2. Need for the SIS The stated arguments for building the SIS are: a) redundancy of production capacity, b) diversity of production technology, and c) timely response to potential increases in future demand. For a federal government with an annual deficit upwards of $150 billion the SIS built for the above reasons is a luxury that is not presently affordable. Construction of the SIS must be justified on some other basis. The most likely method of demonstrating the benefits of the SIS would entail a detailed explanation of the cost reductions associated with the operation of the SIS in addition to the costs of construction already included in the DEIS. The SIS project is justified only if the present discounted value of the project, present value of the future cost savings less present value of the cost of construction, is positive.

4.15.2

4.12

3. Why new construction? The DEIS does not make clear why new construction is needed since the anticipated operating lifespan of the project is but seven years. While not an option at the time of writing the DEIS, perhaps there is sufficient room at the now shut down Hanford site to locate the SIS laser facilities without significant construction and its associated costs.

5.22.2

5.2.9

4. Jobs The economic impacts of the SIS on eastern Idaho are overstated. The DEIS is to be commended for not suggesting that the SIS will lead to spin offs and increased employment opportunities as Idaho vendors supply parts and services for the machinery to be installed. Almost 40 years of the INEL have shown that Idaho vendors have yet to make a significant inroad in the provision of parts and materials for the INEL site projects and this fact is unlikely to change now. However, the employment outlook presented in the DEIS is overly rosy. The following points should be addressed:

5.27.9.6

a) The employment multiplier used (pages 4-3, 4-7) is too high. The multiplier cited was part of study assessing the economic impact of the INEL on eastern Idaho. Multipliers are generally constructed from historic, though recent, data. The numbers used in that study come from a time when expansion of the INEL necessitated expansion of facilities (i.e. housing, schools, retail outlets, etc.) in the six county area surrounding INEL. Such conditions no longer exist. Increased employment at the INEL from operation or construction of the SIS can readily be accomodated by existing facilities in the six county area, thus secondary employment will be far less than is indicated in the DEIS. Some adjustment to the multipliers used should be undertaken.

5.27.1.5

b) The direct job creation of the operation of the SIS is overstated. A significant number of individuals are already employed at the INEL site for SIS related projects. When (if) the SIS commences operation these individuals will become part of the operating personnel, thus new employment will be approximately half the stated figure of 440 (page 4-6). Employment at the SIS can not be analyzed in a vacuum. Rather one should look at employment at INEL. The SIS will add but few, if any, jobs to the total employment at INEL.

5.27.7.4

c) The EIS should address the types and quality of the secondary jobs to be created by the construction and operation of the SIS. If your employment figures are correct and the BEA, Bureau of Economic Analysis, income multipliers for Idaho are correct my calculations reveal that the secondary jobs created will provide an average salary approximately equal to the poverty level. This is hardly the type of job now needed in eastern Idaho. The EIS should further analyze the type and quality of jobs to be created, hopefully disproving the income figures I suggest.

5.27.7.1

5. Lifestyle/Moral Standards The DEIS fails to address the particular lifestyle chosen by residents of eastern Idaho. Many residents are here in spite of the lower salaries due

to an appreciation of the high moral standards of the community. If the operating personnel in-migrating to the area possess moral standards below the average here, and it seems quite likely those persons who choose to work in a weapons production facility will have lower moral standards than the community as a whole, then the average moral standards of the community will fall. Having been near weapons test sites I can readily attest to the fact that "undesirable" elements are plainly present near such facilities. Eastern Idaho may no longer seem an attractive place to live for many families once moral standards fall. As a result either an exodus from the area or a demand for higher wages to compensate for the decrease in the areas quality of life may ensue. Either of these results will be detrimental to eastern Idaho. The EIS should address the likely impact on the moral standards of the community. Further a survey should be conducted to determine the likely outcome of a decline in community standards.

2.7.2

Migration Figures The in-migration from construction and operation will be more significant than reported in the DEIS (pages 4-2, 4-6 - 4-7). As a frame of reference the migration figures are compared to the average increase in population from 1970 to 1980. The chosen years, while they do have the advantage of the accuracy of census data, are a poor choice. The 1970's were a decade wherein the Idaho economy performed better than the United States as a whole. However, since 1980 the Idaho economy has performed significantly worse than the national economy. The six county area has in fact seen population decreases in several of the last few years.

5.27.4.3

Shut down The DEIS lacks any serious discussion of the effects of shutting down the facility after approximately seven years of operation. Areas that should be addressed in the EIS include but are not limited to the following.

5.22.4

The socioeconomic effects of shutting down the SIS should be analyzed.

The decommissioning costs presented in the DEIS (page 4-66) seem unrealistically low for clean up of the facility. The EIS should include estimates of the eventual costs to clean up the facility in a more thorough and comlete manner than is found in the DEIS. In fact, the present discounted value of these costs should be included when performing the calculations suggested in section 2.

5.5.2

It is not clear to me why, if built, the SIS would be shut down after 7 years operation. The EIS should expound on this as well. In some ways it seems DOE may have no intention of shutting down the SIS after seven years but is proposing this to avoid potential opposition to the project. A possible scenario would be that seven years exploits the stockpile of plutonium at Hanford. At that time, given the SIS has been in operation, DOE initiates shipments of plutonium from Savannah River to the INEL for processing into weapons grade plutonium. Obviously the risk associated with the transport of plutonium from SRP to INEL are much greater than the risk involved in transporting plutonium

5.22.2

5.22.5

from Hanford to INEL. I would like to see my fears allayed here as generally the DOE initially implements the most innocuous of its proposals and after gaining approval to operate increases the riskiness of the project.

5.1.39

8. Accidents While the likelihood and severity of accidents and the resulting contamination are addressed, the DEIS fails to assess the economic impacts on eastern Idaho from any major or minor accident. This must be remedied in the EIS.

9. Sloppy research While the DEIS is only a draft there are several errors that can only be attributed to sloppiness. One such example follows. When a research project is used and cited five times (pages 4-3, 4-7, RF-4) the name of the principal author should be spelled correctly (Hofman, not Hoffman).

2.11.10

10. Mission and purpose of INEL The SIS project appears to be inconsistent with the mission and purpose of INEL as stated on page 3-1.

3.3.1

Sincerely,

Charles Scott Benson Jr.

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W330

RECEIVED

APR 11 1988

SIS Project Office

Paul Patterson
924 Washburn
Idaho Falls, Idaho
83402
April 5, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr Nichols:

5.27.8 I've enclosed a written copy of my comments concerning the construction of the SIS facility in Idaho. I find the economic analysis of the adverse impacts of the Special Isotope Separation Project contained in the Draft Environmental Statement to be inadequate or lacking altogether. Spending money this country does not have on a project that is not needed shows a complete lack of fiscal responsibility. I hope that reason will prevail and that

6.3 the SIS will not be built in Idaho or at any of the other proposed locations.

Sincerely,

Paul S Patterson

Paul Patterson

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Testimony On Location of SIS

RECEIVED

APR 11 1988

SIS Project Office

Paul Patterson
924 Washburn
Idaho Falls, Idaho 83402

I would like to go on record opposing the construction of the Special Isotope Separator at the INEL facility in southeastern Idaho. I am opposed to the construction of the SIS anywhere in the United States. Therefore, I support Option Four, no action. 1.1

I'm an economist by training and profession. I've been taught to evaluate projects according to prescribed criteria. Economics is, after all, the study of the allocation of scarce resources among competing and alternative ends. If there is an unlimited resource or if there is no demand, then there is no economic problem. It makes no difference if you talk about how to allocate your pay check or how a limited land base can be allocated between competing and incompatible uses like timber production and wilderness. Economics provides an analytical framework to examine these problems.

Economics does not say how resources should be used. The job of economics is to provide an unbiased evaluation to help administrators or policy makers make informed decisions. One of the criteria that economists use in project evaluation is benefit cost analysis. This is a simple concept but one that can be difficult to apply. Basically, the economist adds up all the benefits and costs from the project and compares the two. If benefits exceed costs then the project is deemed acceptable by that criteria. That does not mean it should be built. There may be other uses for the resources that provide a higher benefit to cost ratio. Also,monetary benefits and costs are not the only factors taken into consideration. Non-monetary benefits and costs should also be considered.

One of the issues that comes up when economists do benefit cost analysis is what accounting stance should be used. This is in essence, how wide a geographic boundary should the expected benefits and costs be measured in. If a project in a small community is being funded 100 percent by federal funds, the benefit cost ratio will be substantially different if the evaluation is only concerned with the distribution of benefits and costs within the county. They get all the benefits and pay very few of the costs. By choosing an inappropriate accounting stance, a substantial bias can be built into the process.

As I look at the construction of the SIS from a variety of accounting stances, what do I conclude? First, from a local level I conclude that the costs far out weigh the benefits. The construction jobs and the jobs when the plant is in operation are 6.2

a definite economic benefit to the local communities of southern Idaho. However, these will be offset by both the short term and long term negative impacts on the local communities.

5.27.11.6 There will be initial costs in terms of crowding in the public schools and problems associated with increased demand on other public services as well. Existing residents will pay the price of bringing the new services into existence through higher property taxes and increased service fees. What happens when the project dies and workers are left unemployed or forced to move else where? Ask the people in Challis what the costs are of having a boom and bust economy. Unemployment will soar and stress the ability of the community to respond to their needs. Property values will fall and the long term debt acquired to provide schools for children who are no longer here will still have to be paid. Property taxes will again rise.

Second, what about the state level? Again the costs exceed the benefits. State regulatory agencies and those responsible for coping with potential disasters are woefully inadequate. Additional scarce state resources would be forced into these areas. The state can't adequately fund education now. How will it with less money available?

5.27.3.3 What about the potential negative impact on Idaho's number three and number one industries? Tourism, number three, would be hurt as people chose to avoid a nuclear bomb factory. And who would want to buy Idaho's famous potato if they glow in the dark. Placing the SIS over the Snake River aquifer, southern Idaho's

5.12.1 life blood, is a bit akin to placing a scalpel at some ones throat as you drive some of Idaho's neglected hiways and hope not to hit a pot hole that would result in lot of spilt blood. Isn't it far better to never allow the scalpel to be placed there in the first place.

6.3 Third, looking at the project from a national basis, again the costs exceed the benefits. A nation that is presently running a deficit of hundreds of billions of dollars can not afford to use scarce resources, American tax dollars, for a project that by DOE's own admission is not needed in the short run. The insidious nature of an uncontrolled deficit poses a much greater risk to the country's economic health and security then all the communists in the world. If a billion dollars of U.S. tax dollars must be spent, there are far better projects on which it should be spent. Not spending it at all may be the best alternative.

4.13 And fourth, from the worlds perspective the costs again far out weigh the benefits. In a world where people go to bed hungry every night and thousands starve to death each day, how can we devote resources to the production of a product, plutonium, which will then be used to produce products which are already in surplus, nuclear bombs. I don't know how adequate the supply of plutonium is in this country. That information, I assume, is classified. But I do know that the number of nuclear weapons in the world are in excess. Does it make any difference if we can only blow up the world four times and the Russians can do it five? No, it does not. What does make a difference is that any country in the world should possess weapons capable of eliminating society as we know it and quite possibly exterminating all life forms on this planet.

I want to conclude by stating as others have who oppose the SIS, I am not a communist. I take strong exception to those who question my loyalty the United States because I hold a view of this project different from there own. I served this country for two years in the U.S. Army. I was doing my part to defend the Constitution and the Bill of Rights. One of those rights is to free speech. I feel I've earned my right to express my opposition to the SIS.

W331

April 6, 1988

Alice C. Hoe
408 Village Lane
Boise, Idaho

Dr. Clay Nichols
SIS Project Manager
U.S. Dept. of Energy
Idaho Falls, Idaho

RECEIVED
APR 11 1988
SIS Project Office

Dear Mr. Nichols,

Regarding the Draft Environmental Impact Statement for the Special Isotope Separation Project I wish to voice dissatisfaction over several missing elements.

5.30.1.11 I am most seriously concerned by the lack of a long-term disposal plan for transuranic and low-level wastes. The proposed waste storage site in New Mexico will, I understand, be used to store limited quantities of transuranic waste on a trial basis. However, it is unequipped to handle even those transuranic wastes presently stored at INEL much less the new quantities which the SIS will produce. At Savannah River S.C. we have contaminated wells and at Hanford, missing dump sites. The public can hardly be expected to trust the DOE to safely manage wastes left to its own devices. To expect detailed plans for how and where these wastes will be stored safely 500 years from now is impractical but at the least, some viable suggestions are in order.

3.2.2

We lack not only adequate storage facilities but properly designed casks for transporting these wastes. Despite the stated intention of the DOE to transport wastes in Dept. of Transportation approved casks, I question whether such exist at present. Members of both the Idaho Conservation League and the Snake River Alliance deny their existence. 5.29.42

The DEIS also fails to detail plans for emergency response in case of an accident at the SIS plant or an accident during transport of waste. Who would be the first responders? Does Idaho have response personnel trained to handle such situations? What medical facilities would be used along transport routes and how well-equipped are they to respond? (As a registered nurse at Mercy Medical Center in Nampa, I can testify that our experience with disasters in general is small and with radiation victims is nil). Remembering the recent chemical spill on I-95 and the resulting confusion of responders to the scene, the above omissions become especially glaring. 5.7.10

The effects of low level radiation on the populace surrounding the SIS facility are also inadequately addressed. I profess ignorance of the methods and models used in the DEIS to estimate health risks and radiation doses to individuals exposed to routine atmospheric emissions. I do know that studies have demonstrated increased incidences of various cancers among populations living downwind from such plants although these studies go unmentioned in the DEIS. Surely computer-generated conclusions should not supersede empirically-generated conclusions 5.13.16

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Lastly, and in light of the afore-mentioned concerns, the stated need for the project appears vague and untenable. It is stated perhaps most succinctly in the DEIS Executive Summary:

> "to provide redundancy in production capacity and technological diversity with respect to current dependence of weapon-grade plutonium production on reactor availability, and to provide a timely response to potential increases in approved needs for weapon grade plutonium." (DEIS Executive Summary p S-1)

4.7.1 Redundancy? Why do we need redundant means for plutonium production? Why is it necessary to depend on "reactor-availability" for plutonium production since we already have adequate supplies of the substance? And why put the cart before the horse, building new plutonium factories before we have even approved uses for the product? I can hear future Idaho legislators clamoring for new unnecessary weapons systems in order to keep the SIS in business.

1.1 In sum, the DEIS leaves this citizen unconvinced of the necessity for the SIS or of its benignity to the environment.

Sincerely Yours
Alice E. Hore

350

W332

April 8, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
USDOE
785 DOE Place
Idaho Falls, ID 83402

RECEIVED
APR 11 1988
SIS Project Office

Re: DEIS - SIS

Dear Dr. Nichols:

I looked forward to receiving a copy of the above-referenced document because I was confused about the SIS and ambivalent about it being built anywhere let alone in Idaho. Imagine my dismay, then, when I opened the front cover of the DEIS and found a statement that denied any accuracy or completeness in the information to follow! The more I thought about a Federal agency wanting to spend so much public money building something for "redundancy" based on information that agency would not support, the more concerned I became. Indeed, I searched through numerous environmental statements I have received from other agencies and, as I suspected, the SIS DEIS is the first with a Disclaimer. Hmmmmm. 4.7.1 2.3

The case for "need" for the SIS is not made by the DEIS. It would be more accurate to say the military-industrial complex wants the SIS. The want for the SIS is a blatant, short-sighted pork barrel in the light of existing plutonium stockpiles, material available from weapons to be retired, continuing progress in arms reduction talks, and the massive Federal deficit. 4.1

It is indicative of the accuracy and completeness of this DEIS that nowhere is the fact cited that the USEPA is proposing to designate the Snake Plain Aquifer as a Sole Source Aquifer under Section 1424(e) of the Safe Drinking Water Act. To put a plutonium factory atop the Snake Plain Aquifer reflects an utter disregard for the health and safety of the hundreds of thousands of Idahoans who rely on it as their only source of drinking water. 5.12.4

I am also concerned that the following items are not mentioned: 1) The track record for environmental clean-up at nuclear weapons production plants; 2) the fact that INEL is under Superfund consideration; 3) the socio-economic impact when the party is over and the project shuts down; 4) the impact on recreation and tourism; 5) mitigation for losses if the aquifer is contaminated or the tourism industry is damaged; and 6) the impact on the Federal deficit. 3.2.1 5.30.1.6 5.27.10

We need not worry about self-defense when we're self-destructing by considering spending a billion bucks we don't have on a project we don't need. The no-action alternative is the only rational choice! 5.27.2 5.12.1 6.3 1.1

Jill Joseph

Jill Joseph
RR #1, Box 254
Hagerman, ID 83332

332

W333

7 April 1988

Clay Nichols
285 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

I am writing you in support of the no action alternative proposed for the Special Isotope Separation Project. As a resident of Washington, hardly proud of the Hanford mess, and a neighbor of Idaho, I feel that we need more plutonium and other hazardous materials about as much as a third armpit. I suggest that we do not need SIS there in Idaho, or here in Hanford, or anywhere else for that matter. In fact I think that your scientists and other kind for this project could be kept more than busy by trying to figure out how to deal with existing supplies of plutonium to minimize harm and destruction from it.

1.1

6.3

Sincerely,

(Ms) Renee Twenty
9302 NE 143rd St
Bothell WA 98011

333

W334

Dear Mr. Nichols, April 8, 1988

I do not support the isotope separation project (NPR) at INEL. I see no need to generate more weapons grade plutonium. We should be decreasing our supply of nuclear weapons. The small amount of local jobs created is not worth any long-term damage to our local and global environment. The plutonium would have to travel long distances over our highways, thereby increasing the chances of an accident. The location of this facility at INEL is not a particularly safe one. INEL is poorly suited to accomodate this type of project due to geologic instability (earthquakes) and it's location in relation to our aquifer. Waste handling and the effect of an accident on the aquifer are poorly and inadequately addressed in the EIS. It is a shame that with all the money and expertise in your agency that you chose to ignore large areas of direct or secondary impacts of the project in the EIS.

1.1

4.13

6.2

5.29.87

5.10.4

5.30.4.1

5.30.1.13

6.1.8

Sincerely.

334

Vickie Traxler
Vickie Traxler
1440 11th Ave E.
Twin Falls, Id. 83301

351

W335

232-5957

P.O. BOX 1120

BROTHERHOOD OF
Painters and Allied Trades
LOCAL UNION NO. 764
POCATELLO, IDAHO 83204

April 8, 1988

RECEIVED
APR 11 1988
SIS Project Office

Dr. Clay Nichols
Acting SIS Project Manager
785 D.O.E. Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols,

My name is R. Terry Hatch and I reside at 10155 Calico, Boise.

I am a native Idahoan who has lived 16 years in Idaho Falls, 12 years in Pocatello, 3 years in Blackfoot, and have just recently relocated in Boise.

After several years of traveling and working at many varied locals around the country, and not finding a place that could compare with Idaho, I found myself back in this beautiful and unique state.

While growing up in Idaho Falls, and being around many other kids whose parents worked at the NRTS, we heard many weird and far-fetched stories about what kind of things happened at the site.
One of the strangest stories that I can recall is the there was a "top secret" submarine base at the NRTS. As the story went... the Navy subs would go into a subterraean tunnel in the Snake River aquifer and go directly in to the ocean somewhere on the coast of Oregon.
Childish, yes. Unbelievable and Incredible, You bet!
There are those who would believe such things, and those in our area who are professionals in the art of deception, and spreading misconceptions about the business of the INEL.

Those who say that the SIS is a bomb factory, that warheads will be produced there are guilty of lies and inuendoes.

5.12.1 Nothing could be further from the truth, those that say the SIS will put plutonium into the aquifer are bordering on the brink of insanity.

How could any sane and mature person believe that an educated and intelligent human being would maliciously cause any thing like that to occur is beyond me.

Yes it is true that man has made some very grave mistakes in his quest for a better world, but never on purpose.

352

I have worked at the INEL for better than 12 years and I feel that the people of DOE and the rest of the INEL community are professional in their fields and I am confident with the safety and nuclear programs which occur at the site. 5.24.23

The technological advances which have been made at the INEL have made a profound impact on our lives, and were handled very responsibly and with a great deal of respect for the environment.

The dedication to safety and the INEL attitude of conservatism has always impressed me.

Peace thru strength is everyones obligation, and if the United States needs to have the SIS to maintain and continue this objective then I feel that the project should be built in Idaho. 1.1

I hope that my children will have the opportunity to work at a plant or a company with half as much dedication to safety and the well being of it's employees, as the INEL does.

Julie, Rob, Terry and Billy are the most prized of all of the blessings that I have, it is my hope that we will leave this world a safe and secure place for them and for their children.

Sincerely yours,

R. Terry Hatch
Business Manager/Financial Secretary
International Brotherhood of Painters
and Allied Trades Local Union # 764

RTH/di

W336

RECEIVED
APR 11 1988
SIS Project Office

P.O. Box 233
Bellevue, Idaho 83313-0233

April 3, 1988

Mr. Clay Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

Please count me in with all the rest who are adamantly opposed to the SIS. 1.1

Sincerely,

Patty Healey

Patricia R. Healey

353

W337

APR 12 1988

APR 19 1988

SIS Project Office

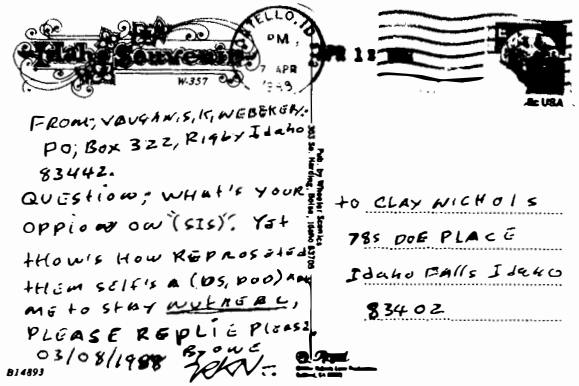
4-8-88

To Whom It May Concern:

Concerning public input into the Special Isotope Separation Project for the record I wish to state that 1. In the Draft EIS it does not appear that a need for plutonium and the SILEX has been identified. 4.1

2. The issue of waste disposal is not sufficiently addressed. 5.30.1.13

3. The psychological, social and long term economic impacts are not adequately addressed. Further reasons why study needs to be conducted before the EIS should be denied. Thank you. Peter G. Lipari 2.7.2



Ginny Blakeslee - Breen
Post Office Box 2146
Hailey, Idaho 83333

S.I.S. TESTIMONY
March 28, 1988

I presently have a job that I feel good about, and I am thankful for that. I hope I am never again stuck in a job situation that I find myself going against what I feel is right. I am for a society that is willing and excited about doing the same thing; creating jobs that a society can be proud of. Being responsible as a society to the planet, and consciously making decisions, not for a paycheck for a few years, but for the future of our planet and our Idaho.

The time has come for accountability; we are responsible for our private actions and our public actions as well.

I say, I dont want S.I.S. in Idaho or anywhere!

1.1

Ginny Blakeslee - Breen

Ginny Blakeslee-Breen

W340

April 11, 1988

Mr. Clay Nichols
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

I have reviewed written information, attended presentations, both pro and con, and listened to testimony regarding the proposed building of the SIS facility in Idaho. All other issues regarding the project aside, I have concluded there is not a need for additional production of plutonium in the United States; therefore, not a need for the proposed project in the state of Idaho. 4.1

Please recognize and count me as opposing the proposed SIS project in the state of Idaho. 1.1

Sincerely,

Chuck Webb
Post Office Box 892
Sun Valley, Idaho 83353

CW/jw

RECEIVED
APR 12 1988
SIS Project Office

340

W341

April 4, 1988

Dear Dr. Nichols,

We, the people of Idaho, are asserting ourselves and taking back control over the destiny of our state, nation and planet. We want to regain back control of our environment from the scientists at the DOE and the transnational corporations.

Idaho's economy is based on tourism because of its beatuiful wilderness, clean air and fresh.water. We must keep the balance between nature and mankind. No form of administration should even seek to destroy that balance for the sake of commercial gain. 5.27.3.3 6.2

The earth is alive and she is herself the source and provider of human life. But we have made her a radiation victim. Let us recognize our common relationship, join our hands to heal the earth, so we may begin to heal ourselves and STOP THE SIS!!!!! 1.1

SUSAN HALL
BOX

KETCHUM, IDAHO 83340
208-726-7533

RECEIVED
APR 12 1988
SIS Project Office

341

W342

APR 12 1988

P.O. Box 6151
Bozeman, MT 59715
April 8, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Sir ,

I wish to comment on behalf of Earth First! on the Special Isotope Separator project proposed for the Idaho Nuclear Energy Laboratory. Please include my comments in the official record for the Draft Environmental Impact Statement. 1.1

The "No Action" alternative is the only logically, morally, and biologically sound alternative. Earth First! believes in "No Compromise in Defense of Mother Earth", and is calling for a moratorium on development in the Greater Yellowstone Ecosystem (GYE), to halt the continuing degradation of this unique and biologically rich area. Yellowstone contains the largest temperate coniferous forest in the world, along with the headwaters of three of the nation's major river systems. And, of course, Yellowstone was the world's first national park, and is the crown jewel of United States Parks. 5.6.3

Earth First! considers proposals to build a new campground or expand winter recreation facilities in Yellowstone Park incompatible with preservation of the natural treasures of the Yellowstone area. The proposal to build the SIS on the western edge of the ecosystem, where prevailing winds will carry contamination from an accident at the INEL directly into the GYE, is completely unacceptable.

The DEIS fails to justify the need for the SIS. How could the U.S. possibly need more than the 120 tons of plutonium already in storage? From whence comes the need for "redundancy" or "diversity" in U.S. plutonium production capacity? The SIS promises to be nothing but another pork barrel project with potentially dire consequences. 4.1

The DEIS ignores many of the potentially severe environmental consequences of the SIS:

1) Water Quality: The Snake River Aquifer is far too valuable a water source to risk its contamination from this questionable project. The Aquifer supplies water to all of southern Idaho, and its continued high quality is essential to the well-being of all residents of the area. 5.12.1

2) Transportation and storage: Plutonium feed would be transported from Hanford to the INEL in the form of Plutonium Oxide powder, a highly radioactive substance which would be extremely difficult in the event of an accident. The SIS would generate 440 tons of TRU waste annually, which would be shipped to the Waste Isolation Pilot Project in New Mexico. However, the Department of Transportation has not approved a transport method for TRU waste, nor has WIPP been proven a safe storage facility; in fact it is plagued with problems. The INEL has been a temporary storage facility for TRU wastes for years, resulting in the contamination of sediment beds 230 feet below ground. In addition, the DOE has a poor safety record, as evidenced by accidents and environmental problems at DOE facilities all over the U.S. 5.29.87 5.30.2.1 5.30.3.8 3.2.1

The above combination of factors makes an eventual accident involving the SIS virtually inevitable.

3) Biological Diversity: Given the likelihood of an accident, the SIS presents an unacceptable risk to the unique and diverse wildlife of the Greater Yellowstone Ecosystem, one of the few nearly-intact major ecosystems remaining in the Earth's temperate regions. Yellowstone and its abundant life is the heritage of citizens of the U.S. and the world. Maintenance of the health of the biotic communities of the GYE should take precedence over any "need" for more plutonium, real or imagined. 6.2

4) Nuclear War: The environmental consequences of Nuclear War would be severe and of global consequence. "Nuclear Winter", a climatic condition likely to follow such a war, may mean extinction for most species of life on Earth. In spite of DOE rhetoric to the contrary, the SIS would result in the production of more nuclear weapons, increasing the likelihood of total devastation of Earth in the event of nuclear war. 4.13

As a representative of Earth First! and a citizen of the Yellowstone Region and the Earth, I find the potential consequences of the SIS to far outweigh any purported benefits, and demand implementation of the NO Action alternative.

Sincerely,

Philip R. Knight

Wild Rockies Earth First!

356

W343

RECEIVED

APR 12 1988

SIS Project Office

1.1 WE THE UNDERSIGNED STRONGLY SUPPORT THE SIS BEING CONSTRUCTED AT THE INEL IN IDAHO.

Newell H. Hansen	1547 East Jensen	McCammon Idaho 83250
Jessie Brown	503 Bannock	McCammon, Ida. 83250
T & Brown	503 Bannock	McCammon Ida. 83250
[illegible]	8969 S 00 Ck Rd	McCammon Idaho 83250
Rhonda Denton	120 center	McCammon Idaho 83250
Dave L Mecum	Box 403	McCammon Idaho 83250
Betty Jo Keller	Box 391	McCammon ID 83250
Dixie Lish	Box 213	McCammon ID. 83250
Betty Henning	Box 268	McCammon Idaho 83250
Nancy Kimball	BOX 268	mccammon Idaho 83250
Russell Keller	86 E Merrill Rd	" " "
Mark Lee Keller	86 E. Merrill Rd.	McCammon Idaho 83250
Joseph a Rowe	Box 144	McCammon, Idaho 83250
[illegible] W. [illegible]	Box 390	[illegible]
Monte Blanchard	6406 Arimo Rd	Arimo Id 83214
[illegible] R. Wei	73 W Goodenough Rd.	McCammon, Idaho 83250
Dana L. Brown	Box 602	Lava Hot Springs Idaho 83246
Gordon Coop	P.O. Box 927	McCammon Idaho 83250
M. Kelly	P.O Box 391	McCammon Idaho 83250

Dyane J. Peterson	Box 237	McCamm Idaho 83250
[illegible]	Box 157	McCammon Ida 83250
Sandy Hansen	Box 401	McCammon, Idd 83250

343

357

W344

1.1 WE THE UNDERSIGNED STRONGLY SUPPORT THE SIS BEING CONSTRUCTED

AT THE INEL IN IDAHO.

Gordon Avery - McCammon Idaho
Doug Anderson McCammon Idaho
DeWayne Harris 104 Center Box 2 98 McCammon Idaho
Larry Nelson 107 5th St. Box 245 McCammon, Id. 83250
Karl Evans 10038 So Marsh Creek McCammon, Id 83250
Jim Rowe Box 277 McCammon, Idaho 83250
Rodney Jones 8421 South Robin Rd. McCammon Id.
Ed Hite P.O. Box 402 McCammon ID
Kathy Hite P.O. Box 402 McCammon ID
Lloyd Ribble 510 Stansbury, Pocatello, Idaho
Harold Green 71 Center, McCammon, Id.
Cathy Green 71 Center, McCammon IDAHO
Norman S. Thomas 506 Front St. McCammon Idaho 83250
Susan Thomas 506 Front St. McCAMMON IDA. 83250
Glade Rowe Box 323 McCAMMON IDAHO 83250

358

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

April 5, 1988

1. R DE
1-NFile
1. T. Hill
1. Hearing Rpln File

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Thank you for the letter dated February 11, 1988, from Mr. Don Ofte, Manager, Idaho Operations Office, Department of Energy, to Mr. Hugh L. Thompson, Director, Office of Nuclear Material Safety and Safeguards, Nuclear Regulatory Commission (NRC), providing opportunity to comment on the draft Environmental Impact Statement, DOE/EIS-0136, on the Special Isotopes Separation Project. Since the Special Isotopes Separation Project is not subject to NRC regulatory control, we do not plan to comment on the statement. 3.2.23

Sincerely,

Richard EC

Richard E. Cunningham, Director
Division of Industrial and
Medical Nuclear Safety, NMSS

RECEIVED
APR 12 1988
SIS Project Office

344

3-31-88

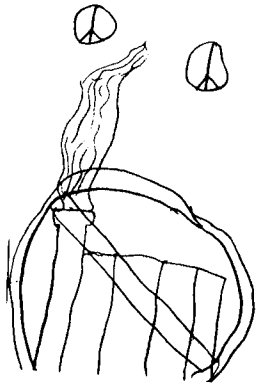
APR 12 1988

APR 6 1988

Dear S.C.S,

5.29.87

Please don't start processing Plutonium because if there was a truck full of it that crashed in Boise the plutonium got in the air it could make several people sick and even kill some.



Sincerly,
Matthew Ellis
age 9
Highlands Elementary

345

APR 12 1988

APR 6 1988

S.I.S

Dear, S.C. S

I don't want any wars.
We already have enough bombs 4.13
to blow up the whole world.
It might be a good idea
for jobs but soon robots
are going to be doing the 6.2
jobs that are created. Also
if there would be a leakage
it would kill thousands of
people. For example it could
get in the water we drink
and it would kill everybody
maybe even you! It could
kill your friends and relatives
If we did build a petroleum

plant and blew up, what jobs would that had leaded to? Nothing just death! Idaho doesn't need any growth. All what it needs is peace. All what Im afraid of is World war 3, diing, and blowing me up. My friends my family and everybody else. Don't grow Petroleum, grow potatoes.

1.1

Sincerely,

Mark Hanson

age, 10

Against

S.I.S.

Dear Sirs and Mams,

I feel that it is my duty to inform you, that I think SIS should stand for Science Incorporated by Stupidity. I know it will create a good many jobs, but, what good are they if those people are dead from a leakage or same one getting the idea for a world war 3. I want to think that we won't need any missles, because if we do no one will know what hit em. And any more encouragement for a world war 3 I want to discourage. There should be no need for war if we can talk, weather it is sign-laungue or regular verble talking.

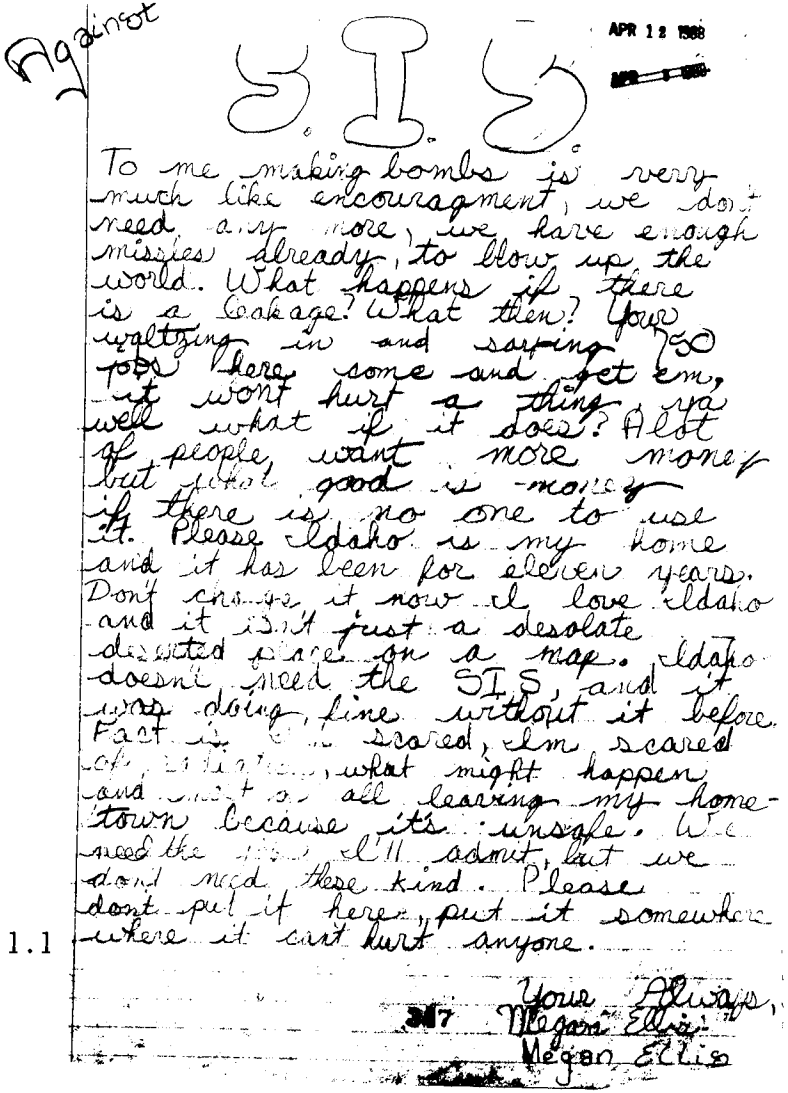
6.2

4.13

Why? you ask am so worried about world war 3 and bombs and missles. Let me ask you this, who isn't? I'm worried, my friends are worried, my family is worried, my friends friends are worried and so on... and if it isn't stopped nothing will ever know that we are worried.

2.7.2

3 W347



Against

S.I.S.

To me making bombs is very much like encouragment, we don't need any more, we have enough missles already, to blow up the world. What happens if there is a leakage? What then? Your waltzing in and saying "Oh Here come and get em, it won't hurt a thing" well what if it does? Alot of people want more money but what good is money if there is no one to use it. Please Idaho is my home and it has been for eleven years. Don't choose it now. I love Idaho and it isn't just a desolate deserted place on a map. Idaho doesn't need the SIS, and it was doing fine without it before. Fact is I'm scared, Im scared of [illegible], what might happen and not to all leaving my home-town because it's unsafe. We need the [illegible] I'll admit, but we dont need these kind. Please dont put it here, put it somewhere where it cant hurt anyone.

1.1

Your Always,
Megan Ellis
Megan Ellis

4/1/88

Dear Governmental Decision-makers:

I have no qualms with our needing a defense system. The problem is that the Arms Race has no possible winners! I believe this country must be strong enough to discourage attack, but we do not need nearly the armaments we have to do that. Untold numbers of armaments are stockpiled by all of the major world powers. What we need now is to invest similar amounts of resources into opening the lines of communication.

Hitler, Mussolini, Amin, Kadafy and others with their volatility and unpredictability threw major levels of fear into all people, but all the hate 40s and 50s did for us with the arms build-up was produce a generation of anxiety-disordered people. Now all the Sixties and Seventies have done is create a society of depressed people.

4.13

You may not have realized it, but there is more than correlation

here. We are talking about a major causative factor.

2.7.2 I provide therapy to adolescents and adults. A common theme in much of the hopelessness I hear from depressed people is, with the nuclear threat, what control do I have. Teenagers frequently respond in a values clarification activity that I do every five weeks that they would not try to protect themselves from radioactive fallout, they just give up and die when their time came. Very fatalistic! Very scary.

6.2 I believe we have sufficient defensive deterrent. The plutonium loading too be done at the proposed SIS is not worth the risk to present generations. The future generations of this country deserve a more foresighted future.

The risk of leakage into groundwater, the risk of accidents at the plant and on our highways, the risks posed by storage of wastes are too high. Any of these risks are too high for a valid acceptance of these jobs which will be added to our faltering 3488A

economy. But the greatest risk of all—continuation of the escalation of armaments beyond any reasonable cost-benefit is the greatest risk of all to present and future generations.

Please do not ask our citizens to incur this risk. The stakes are too high. This kind of an addition to Idaho's economy is likely, at best, to break even. Many businesses will not develop here where owners and workers will be subjected to these risks.

1.1 The special isotope separator is a bad idea, no matter how I look at it.

I am enclosing copies of letters written by my children and a step-child. They are much more eloquent than I in many ways so I include my letter with theirs — not the reverse. My greatest hope is that people not agencies will make these decisions. You work for us. Are you sure you know better than us what our needs are?

3488

Peacefully, [signature] Ph.D.

W349

RECEIVED

APR 11 1988

SIS Project Office

April 5, 1988

Mr. Clay Nichols,
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RE: Comment upon the Draft Environmental Impact Statement, Special Isotope Separation Project, Idaho National Engineering Laboratory, Idaho Falls, Idaho

Dear Mr. Nichols:

I greatly appreciate this opportunity for public comment upon the Draft EIS for the Special Isotope Separation Project and thank the DOE for conducting public hearings on the matter. I have some specific comments on the DEIS and look forward to the DOE's consideration of testimony taken at the hearings and written reviews to achieve what all involved wish - a high quality, legally compliant Final EIS which meets both the spirit and the legal requirements of the NEPA process. In this spirit of constructive, cooperative endeavour I offer the following brief comments for the record of the SIS Environmental Impact Statement.

2.1.1 As issued, the Draft EIS is not legally adequate and does not meet NEPA guidelines nor the legal tests which frame adequacy in the context of a NEPA document. Legal compliance with NEPA is not met in any of the key criteria, including the development and selection of Alternatives, the scope of the alternatives, the impacts the full range of alternatives (including primary, secondary and cumulative impacts, as well as synergistic conditions over the life of the project and other projects currently existing at the INEL), inadequate mitigation designs for the suite of influences the project could effect upon the environment, and the deficiencies in the adequacy of discussion of the alternatives, the lack of objective analysis and lack of completeness of both DOE and independent research (the depauperate citation of primary references), and the lack of adequate support for the ultimate choice among even the Alternatives presented.

To assist the EIS preparation team in understanding the requirements of design, structure, completeness and scope of an EIS under NEPA, I am attaching a copy of Richard S. Mallory's excellent paper titled "The Legally Required Contents of a NEPA Environmental Impact Statement," and ask that it be incorporated in the EIS record.

5.30.5.10 What is the anticipated life of the project, how long would transportation to and from the INEL occur, and how much waste would be generated over the project's lifetime?

5.5.1 Please describe exactly the decommissioning methodology, estimate its cost, and present its timeline for implementation by month in the year the project is terminated. Please define the quantity and types of waste decommissioning will generate, where they will be permanently stored, and the transportation route out of Idaho by which they will be transferred.

5.29.87 5.29.103 Transportation safety for movement of radioactive materials from Hanford, Washington to the INEL and from the INEL to Rocky Flats, Colorado is a central concern to the INEL Alternative, and raises a suite of issues which must be fully addressed in the Final EIS. Please provide documentation (i.e., affadavits of approval) for legal transport of the projected radioactive materials through all states, counties, cities and townships which would be traversed on all routes.

5.29.39 On a detailed map, please clearly designate all potential shipment routes, the rational for selected final routings, and cite all cities or smaller population centers which fall within potential accident impact areas along each route.

Indicate shipment schedules by season for all radioactive materials and provide a listing of the precipitation (rain and snow should be separately displayed), heavy winds (which could impact safety of either the DOE transportation vehicles or civilian vehicles utilizing the same roads), and freezing temperature regimes for the entire route from Hanford to INEL and from INEL to Rocky Flats. (Isobars would be adequate, with an accompanying table of miles per route segment in each category.)

Please present traffic densities and traffic accident data, focusing particularly upon climatic periods which could be hazardous to the transportation of radioactive materials.

Explain the articulation of shipment routes away from population centers, areas of identified traffic density, and areas which have predictable hazard such as snow, ice, rain or high winds.

List all major grades and mountainous routes encompassed in the transportation process. If any of these has special characteristics which could influence transportation safety, describe safeguards established to insure protection.

Are any areas along the transportation route subject to sudden or seasonal flooding (flash floods, for example)?

Indicate the sesmic history, magnitude of historic sesmic events, and periodicity of activity for the entire routes along which radioactive materials would be transported.

363

349

Cite corresponding levels to which all bridges, tunnels and overpasses are sesmically certified along the selected shipment routes.

Are there any major construction or reconstruction activities anticipated along the transportation routes during the project lifetime? If so, indicate alternate shipment routings, the year(s) of their anticipated utilization and any special safety considerations they require. 5.29.77

Diagrammatically illustrate the traveling halo (or potential contamination zone) throughout the transportation corridors from Hanford to INEL and from INEL to Rocky Flats, taking into account wind patterns, drainage direction, and so forth, were the maximum crdible accident to occur (such as a terrorist bombing or some other event which could broadcast radioactive material into the environment).

Please describe "cleanup" readiness, procedures, and equipment which would accompany all radioactive shipment vehicles as a part of the transportation convoy. 5.29.66 Explain how radioactive material would be contained, removed, and transported from the site in the event of an accident which widely dispersed radiation laden materials into the environment. Explain how public safety would be assured under all foreseeable circumstances. How, for example, would radioactive material be removed from a body of water or if it were in particulate condition (from an explosion, for example), and so forth.

Explain the procedures for permanently isolating contaminated areas in the event of a serious accident.

Identify any areas which through which the transportation route passes which impact soveriegn nations, such as treaty recognized "usual and accustomed" fishing sites, tribal lands, and so forth. Similary, discuss any such sites which could receive impact from an accident during transportation (as discussed above). 5.29.82 Provide documentation of sovereign nation agreement for passage through such lands.

Discuss liability responsibility for all anticipated and potential impacts of the project throughout its lifetime as a project, and for the lifetime of any impact produced by an on- or off-site accident. Is the DOE liable for all human, wildlife, private property and public domain assets for the life of the project or any project related impacts (clearly including transportation to and from the facility)? 3.6.2 For all intents and purposes, these could be essentially permanent situations considering the longevity of potential contanminants. Please elucidate the level of liability ($20 billion, $30 billion, etc.) for which the project is covered - presumably by the DOE - and demonstrate that this monetary value would fairly and justly compsenate the public for temporary and permanent losses at the site and throughout the corridor through which project related radioactive material is to be transported.

It is my understanding that the WIPSS storage facility which accepted INEL generated waste until recently can no longer house waste due to water incursion in the salt dome area. 5.30.2.1 Please document the quantity and categories of waste of all kinds currently stored at INEL and the timeline for their removal, since the INEL cannot be a legal repository. 5.30.3.3 Indicate the source of all legally noncompliant waste (since the INEL is not a storage facility) and the shutdown schedule for onsite waste generating sources. Since the DOE wishes to achieve legal compliance with regulatory mandates regarding radioactive waste storage, it is important that these requests be addressed to adequately answer public concern that the INEL could become a de facto waste repository. 5.30.2.5 By indicating the quantity of material onsite, the shutdown schedule of waste generating operations, and the removal schedule, concerned citizens would be better informed about the waste situation and the seriousness of the DOE's efforts to continue legal compliance could be better documented.

Identify the storage facility which will be the recipient of all SIS produced radioactive waste, the route and method of transfer, and the projected lifetime of that storage facility (as well as any historic problems which have terminated waste acceptance for any period of time). 5.30.1.4 If there are different waste storage facilities to be utilized during various times of the SIS project lifetime, similarly identify them. Clearly the SIS cannot be constructed without thoroughly planned waste handling procedures and destinations for its entire lifetime.

Present a discussion of current targeting of sites within INEL by other superpowers, and explain the nuclear targeting anticipated for the SIS facility. 2.7.10 Briefly discuss SIS capabilities to withstand direct nuclear attack (hardening, for example) and the quantity of plutonium and other radioactive materials which would be anticipated to be dispersed from the site in the case of a nuclear strike. (Similarly, present methodology for protection from terrorist attacks ranging from gate-breaking as in the Beirut tragedy to bombarbardment from trucks on the adjacent roads, to aerial attack <by a small plane on a suicide mission, for example>. 5.25.5 Demonstrate that protective measures would adequately shield the site.)

Existing research and data are inadequately presented throughout the document, but particularly with regard to onsite research. 2.1.1 Literature citations focus upon consultant work for the DOE with inadequate referencing of primary research publications. A majority of the citations in the DEIS are not available to the reviewing public. Please place copies of all consultant and DOE generated documents in a good selection of Idaho libraries, i.e., Idaho State University, Boise State University, University of Idaho, College of Idaho, College of Southern Idaho, the Idaho State Libary, and public libraries in Twin Falls, Idaho Falls, and 2.11.5

Pocatello. Without access to cited consultant studies, the adequacy of the EIS cannot be assessed.

For example, a suite of research has been conducted by the EPA and USGS as part of gaining a better understanding of the Snake River Plain Aquifer and its qualification for Sole Source Aquifer designation. These significant studies are not cited directly in the DEIS and do not appear to be considered in the Draft document. A few of these include: 5.12.4

Marshall, Wendy (Compiler). March, 1984. Support Document for the EPA Designation of the Snake River Plain Aquifer as a Sole Source Aquifer. U.S. Environmental Protection Agency, Region 10.

Lindholm, G.F., S.P. Garabedian, G.D. Newton and R.L. Whitehead. 1983. Configuration of the Water Table, March, 1980, in the Snake River Plain Regional Aquifer System, Idaho and Eastern Oregon. U.S.G.S. Open-File Report 82-1022.

U.S. Geological Survey. 1984. Water-Resources Investigations, Report 84-4001. Hydrologic, Demographic, and Land-Use Data for the Snake River Plain, Southeastern Idaho. By H.W. Young and M.L. Jones; prepared in cooperation with the Environmental Protection Agency. This document includes a suite of plates relevant to the DEIS.
- Plate 1. Land Use and Ownership, Water Use, and Contributory Drainage Area to the Snake River Plain.
- Plate 2. Depth to Water, March, 1980, in the Snake River Plain Aquifer.
- Plate 3. Water-Table Contours, March, 1980, in the Snake River Plain Aquifer.
- Plate 4. Water-Level Hydrographs and Locations of Selected Wells, Snake River Plain Aquifer.
- Plate 5. Estimated 1980 Recharge To and Discarge from the Snake River Plain Aquifer.
- Plate 6. Spring Flows and Annual Spring Discharge, and Locations of Selected Springs, Snake River Plain Aquifer.
- Plate 7. Water-Qulatiy Sites on the Snake River Plain Aquifer and Snake River.
- Plate 8. Generalized Soils Overlying the Snake River Plain Aquifer.
- Plate 9. Population Distribution, Snake River Plain and Contributory Drainage Area.
- Plate 10. Waste-Water and Solid-Waste Disposal Sites, Snake River Plain and Contributory Drainage Area.
- Plate 11. Locations of Current Ground-Water Level Observation Wells, and Proposed Observation Wells and Water-Quality Sampling Sites, Snake River Plain Aquifer.

Please include a thorough discussion of the likely designation of the Snake River Plain Aquifer as a Sole Source Aquifer, as this designation appears compellingly supported by the evaluating research. Ms. Wendy Marshall (FTS 399-1890; 206-442-1890) and Mr. Gerald Opatz (FTS 399-1225; 206-442-1225) in the Region 10 EPA office can address any questions regarding Sole Source designation timelines and the studies cited above. Discuss Sole Source Aquifer designation and the implications it would have for the water withdrawal and water percolation ponds for the proposed project.

Similarly, I note that there a number of glaring ommissions of other studies actually done at the INEL. For example, Malde's (1971) USGS Open-File Report entitled "Geologic Investigation of Faulting near the National Reactor Testing Station, Idaho" is not cited, nor is his formal publication of an update of this study published last year. As is stated at the end of the paper (p. 163), "Lacking clear evidence to the contrary, it must be assumed that earthquakes as large as the 1959 Hebgen Lake earthquake (magnitude 7 to 7.25, say) might occur anywhere in the active zones near the Snake River Plain on the east, north and northwest." It should be noted that the Borah Peak earthquake in 1983 was itself 7.1 to 7.3. The relationship of the SIS site to the Howe area faults and their potential for sesmic activity should be elucidated. 5.10.7

As is noted on page 3-16, "...core samples at RWZMC have detected the presence of plutonium at depths of 33 meters (110 feet) and 70 meters (230 feet)." In view of the identified plumes of contaminated water now percolating through the INEL area, please discuss the impact of the additional hydrologic percolation load which SIS would generate at the proposed ponds. What will be the effect of introducing more water in the percolation system; explain how the DOE can state with certainty that this would not form an enhancement to conducting the existing plumes into the aquifer. Please discuss projected water loads to be percolated for the life of the project and the relationship of the percolation drainage area to sites with identified radioactive or other contaminants. Please provide a map indicating the location, depth and sampling regime for the new test wells which must be established below (down gradient) the SIS site. 5.30.4.9 5.30.5.14

Describe safeguards to keep accident contaminated water out of the environment, so that it could not percolate into the groundwater system. 5.30.1.2

Please provide a map with all waste burial areas and potential down-gradient plumes of contamination in relation to the SIS percolation ponds, and explain how adding water to the system will not increase conductance of already contaminated, slowly percolating water. How would wet year events influence percolation from the ponds? How will wildlife be kept from utilizing the ponds (ducks, etc.)? How will seasons with freezing weather influence percolation rates; will the ponds be allowed to freeze over? What is their anticipated depth on a seasonal basis? 5.30.1.1 5.6.10 5.21.1

5.1.16 Describe aerial and hydraulic venting or loss in the event of a serious accident, such as an act of terrorism. During a post accident period, explain how the contaminated area would be isolated, its watershed contained and removed, wildlife (as well as man) prevented from entering, and surface dust prevented from leaving the ground (through applications of coagulants, etc.).

5.7.16 Were a major contaminating event to occur, it could reach roads open to the public. Describe rescue methodology and standby readiness for off-facility care of public victims in the case of an event.

5.7.18 The Hanford Reach of the Columbia River is inadequately described. Since the Hanford site is not the preferred alternative, I will merely attach the USFWS analysis of the site (which is not referenced in the DEIS). The significance of the Hanford Reach of the Columbia River as the last mainstem spawning habitat for chinook salmon, as well as being a final Columbia River refuge for several now habitat limited molluscs (Lithoglyphus columbianus, the Columbia River Spire Snail, and Fisherola nuttalli,the Giant Columbia River Limpet), and the remarkable wildlife values it sustains on the islands in the reach cannot go undocumented in the FEIS. Please include the attachments regarding the Hanford Reach in the EIS record.

5.6.11 One of the legal failures of the DEIS lies in its failure to present a full range of alternatives. For example, ratification of the recent INF treaty will provide an alternate source of a significant quantity of weapons grade plutonium. Please construct several alternatives presenting temporal sequences of weapons grade plutonium as alternate sources of redundancy material. One alternative should cite and quantify plutonium made available from the dismantlement of INF warheads. Another should examine the zero option and other discussions currently underway, since weapons manufacture should logically track in spirit and fact disarmament endeavours which are in the national interest and are being seriously pursued. For example, with the availability of the decommissioned INF warhead plutonium, explain how long the SIS could be kept from producing the redundancy backup material. Could the production date of the facility be set back for a year, more, and so forth. If the zero option methodology were accepted, explore other operation setback options (if warheads were reduced by 50%, etc.).

2.13.17 Please explain at what point a redundancy system would no longer be required in a disarmament sequence. Presumably at some quantifiable point, adequate plutonium would be available to produce new weapons as old ones were dismantled, and ultimatly with the termination of the production of plutonium utilizing weapons entirely, the planetary (and national security) problem becomes how to store and handle the enormous quantity of plutonium now contained in warheads. In this context, please present ultimate storage plans for all plutonium produced because it will surely last long enough to see the elimination of its need. A facility producing a radioactive material with extended longevity must be accountable for its product's containment for the entire lifetime of its potential damage to the environment - regardless of whether it spends ten or even fifty years unexploded in a warhead. Please describe the ultimate storage site for sufficient halflives to no longer be potentially harmful to man or other components of the environment.

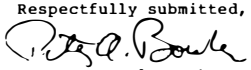
4.4.6

5.2.15

5.30.3.2

Thank you again for your consideration. Please include these comments and the attached documents in the EIS record. I look forward to receiving the Final EIS in which all of these concerns are specifically addressed.

Respectfully submitted,



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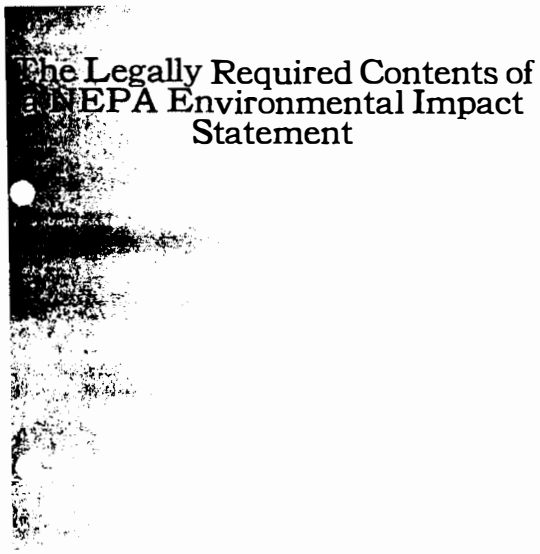

STANFORD ENVIRONMENTAL LAW [illegible]

THE LEGALLY REQUIRED CONTENTS OF A NEPA ENVIRONMENTAL IMPACT STATEMENT

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PREFACE

This Report provides a summary of the law governing the content of environmental impact statements. The first two chapters treat the broad purposes of NEPA, the changes it was intended to cause in agency decision-making processes, and the purpose of the EIS in the context of these changes. The last three chapters discuss "the impact of the proposed action and its alternatives--which items should normally be the focus of the statement." CEQ Guidelines, 40 C.F.R. § 1 .8(b). The Report focuses to some extent on impact statements by and court cases against the Bureau of Land Management of the Department of the Interior.

It is most important that the reader come to understand the kind of inquiry which NEPA mandates--the principles which underlie the particular legal requirements the courts have developed. As Judge Wright pointed out in Scientists' Institute for Public Information v. AEC, 5 ERC 1418, 1425 (D.C. Cir. 1973), "[d]rafting a proper impact statement involves much more than filling in the blanks on a government form." Checklists and summaries have deliberately been omitted to force the reader to grapple with the reasons behind the conclusions, and hopefully come away with the kind of understanding which will be necessary to draft a statement conforming with the spirit as well as the letter of the law. Time spent obtaining a thorough understanding of the legal requirements, including reading a few of the major cases, will be more than compensated for by getting an adequate EIS written the first time through.

A note to those unfamiliar with case citations:

The first citation to the case will look like this: Scientists' Institute for Public Information v. AEC (LMFBR), 5 ERC 1418, 1425 (D.C. Cir. 1973). Its parts are:

--Scientists' Institute for Public Information v. AEC: the name of the case, indicating the principal parties.

--LMFBR: a common name for the case; frequently, there is none.

--5: the volume of the case reporter where the case will be found.

--ERC: the name of the case reporter; all citations herein are to the Environment Reporter--Cases, published by the Bureau of National Affairs, Inc.,

--1418: the number of the page where the case begins.

--1425: the number of the page where the particular material being referred to will be found; sometimes omitted.

--D.C. Cir.: the court deciding the case; "U.S." indicates the Supreme Court; "Cir." indicates a court of appeals; "D." indicates a district court (e.g., E.D.N.C. means the District Court for the Eastern District of North Carolina); all cases cited herein are Federal.

--1973: the year the decision was rendered.

Subsequent citations will look like this: SIPI v. AEC, supra note x, 5 ERC at 1425: the name has been abbreviated, "supra note x" indicates that the case is cited in full in note x above, "at" indicates that the beginning page number of the case has been omitted.

I. INTRODUCTION

Federal agencies have encountered substantial difficulties in preparing adequate environmental impact statements under the National Environmental Policy Act of 1969 (NEPA).[1] This report outlines the legal requirements for content and adequacy of such statements. In order to appreciate these requirements, the broader purposes of the Act must be examined.

In formulating NEPA, Congress recognized that the nation's traditional policies and programs were aimed primarily at the production of goods and services, and reflected a pervasive disregard for environmental consequences. The resulting decline in environmental quality was widespread and becoming increasingly serious. Only a policy mandating a fundamental reordering of the nation's priorities and objectives could arrest and reverse the trend of environmental decline.[2] NEPA is intended to insure that this fundamental reordering in fact occurs within all Federal agencies.

Section 101 states the ultimate thrust of the Act and particularizes the kind of reordering required. In section 101(a), Congress ". . . declares that it is the continuing policy of the Federal Government . . . to use all practicable means and measures . . . to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." In order to carry out this policy, section 101(b) establishes six specific environmental goals[3] for the Nation and declares that "it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may" achieve these goals. Although broadly stated, this language is not mere preamble, and Congress was not "satisfied to limit its statement of policy to the vague requirement that agencies must use all practicable means consistent with other essential national policies to protect the environment."[4] Rather, the specific goals and NEPA's legislative history "make it clear that the Act . . . was intended to effect substantive changes in decision-making. . . . Given an agency obligation to carry out the substantive requirements of the Act, we believe that courts have an obligation to review substantive agency decisions on the merits. . . . The reviewing court must . . . determine, according to the standards set forth in sections 101(b) and 102(1)[5] of the Act, whether the 'actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values.'"[6] The ultimate object of NEPA, then, is that agencies should examine and modify their plans and programs so that the broad goals of the Act may be attained. The courts have indicated that they will review the substance of agency decisions to ensure that these goals are not ignored.

Congress realized that such broad goals were unlikely to be attained unless more specific procedures were "designed to see that federal agencies do in fact exercise the substantive

discretion given to them."[7] While the general substantive policy of the Act is flexible, the procedural requirements of section 102, to which we now turn, are not highly flexible, and demand strict compliance.[8]

All agencies are to ". . . insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment" (NEPA § 102(2)(A) (emphasis added)) and to "initiate and utilize ecological information in the planning and development of resource-oriented projects" (§ 102(2)(H)). Environmental considerations must be made just as much an integral part of planning and decision-making as any other important consideration. They must be considered before decisions are made, as are other important factors. They may not be specially segregated in such a way that they do not enter decisions as effectively or decisively as other considerations.[9] Nor may they be reserved exclusively for "major Federal actions significantly affecting the . . . environment," as is the formal impact statement process (§ 102(2)(C)). Rather, environmental consdierations must be a fully integrated part of all decisions affecting the environment.[10] This is not to say that a formal environmental analysis must precede every decision, but that appropriate environmental considerations must always enter.

In addition, agencies must ". . . insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with

economic and technical considerations" (§ 102(2)(B)(emphasis added)). Environmental values must not only be considered, but weighed equally with other important factors.[11] Environmentally attractive options may not be ruled out by increased expense or difficulty alone. Moreover, mission objectives must often be altered, reduced, or even abandoned in order to avoid excessive or unwarranted adverse environmental impacts. What NEPA requires is a careful balancing of economic, technical, environmental, and other costs and benefits.[12]

NEPA also requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources" (§ 102(2)(D)) and to include in impact statements a statement of "alternatives to the proposed action" (§ 102(2)(C)(iii)). Congress recognized that mitigation measures pasted on conventional projects would not in general sufficiently reduce adverse impacts. Agencies must actively seek and perfect entirely new methods and objectives more in tune with environmental considerations to replace approaches conceived in an era when environmental factors were largely ignored.[13] They must abandon the tunnel vision and strict mission orientation which have too often characterized past agency planning, and design and consider a broad new array of subtle and radical alternatives. Only after such full consideration of all reasonable approaches is it likely that the "most intelligent, optimally beneficial decision" in

required in every kind of decision which may ultimately have some impact on the environment.[17]

terms of resource use and environmental protection will ultimately be made.[14] Senator Jackson, the Senate sponsor of NEPA, underlined the importance of this process:

> We need to know what the risks are, and we need to know what options and alternatives are available in the development of our resources and in the administration of our environment. It is far cheaper in human, social and economic terms to anticipate these problems at an early state and to find alternatives before they require the massive expenditures we are now obligated to make to control air, water and oil pollution.[15]

Section 102 also mandates that its requirements be met "to the fullest extent possible."

> [The phrase] is one of emphasis and not limitation and thus . . . require(s) maximal compliance . . . . [It] clearly imposes a standard of environmental management requiring nothing less than comprehensive and objective treatment by the responsible agency. Adherence to this standard will make environmental policies a "real working part of all the activities of all Federal agencies and programs" as visualized by [the Act's] leading Senate sponsor. Thus, an agency's consideration of environmental matters that is merely partial or performed in a superficial manner does not satisfy the requisite standard.[16]

Moreover, section 102(1) provides that ". . . to the fullest extent possible, (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act . . ." That is, all laws must be administered to the fullest extent possible in compliance with NEPA. Agencies no longer have any discretion to decide whether or not to consider environmental factors; they must be considered in every facet of the agency's operation unless explicitly excluded by statute. In short, compliance with the requirements of section 102 is mandatory, not discretionary, and

II. PURPOSE OF THE IMPACT STATEMENT

As can be seen, NEPA requires a pervasive, "across-the-board adjustment"[18] in the manner in which Federal agencies make decisions affecting the environment. Preparation of impact statements is only one part in the process of considering environmental values mandated by the Act. It is only in the context of this overall change that the impact statement can be understood as a sensible part of the process.

Agency actions typically emerge from extensive planning processes. Early in the process, a wide range of options is available. Thereafter, each major decision in the process shapes the proposal by narrowing the range of options remaining. By the time a proposal is ready for formal, final approval, the bulk of important decisions have already been made; the final decision-maker has essentially a yes-or-no choice, decidedly weighted in favor of going ahead by investments in planning and research. If environmental considerations are deferred until this time, they can have at best a minor influence on the proposal. Instead, NEPA requires that they have the same opportunity to shape agency actions as do other important factors. Hence, environmental information and analysis must be available at the beginning of the planning process, so that each important decision shaping a proposal can be a selection of those options which optimize the trade-offs between environmental and other considerations. In this way, the final proposal is most

likely to represent the optimal balance between resource use and environmental protection.[19]

In many instances, potential impacts may be poorly understood in the early stages of project formulation, and a more complicated process will be necessary. The initial concept for a project should suggest major kinds of impacts, and general classes of alternatives for mitigating or avoiding them. Study of impacts should proceed simultaneously with formulation of the project,[20] and each process should provide input to the other. Increased definition of the project allows more detailed study of potential impacts, and increased knowledge of impacts allows the development of increasingly specific measures for mitigating impacts. The proposal may be the result of several stages of feedback.[21]

But the agency should investigate alternatives more thoroughly than this process suggests. Ultimately, the objective should be to present the final decision-maker with several viable options representing a range of different trade-offs between project benefits and environmental impact, as well as a range of distinct methods for achieving project goals. If all the options are viable, carefully developed possibilities for implementation and the agency has not previously committed itself to any one, this approach has several advantages over the development of only one proposal. First, NEPA requires that proposals strive to reach the best available balance between project benefits and environmental impacts. But it is impossible to know whether this balance has been achieved without knowing in some depth what other

The careful development of alternatives is even more important when the agency is requested to approve an independent applicant's project. It will frequently be in the applicant's interest to overlook or undervalue environmental factors, and its proposal is unlikely to represent the optimal balance between resource use and environmental protection. The agency can counteract this tendency only by carefully developing a full range of alternatives to the project, selecting the best one, and insuring that the applicant's proposal is properly modified, or possibly rejected.[23]

If the procedure described above is followed, the environmental impact statement need not be an extraneous and useless exercise. It may be a concise summary of information that has already been collected and become a useful part of the planning process. It serves the important function of fully informing the final agency decision-maker, other parts of the government, and the public of all possible significant impacts that may result from the several alternative proposals for reaching a particular objective. It thereby enables people not involved in formulating the proposal to intelligently weigh for themselves the desirability of proceeding with the project in terms of its environmental impacts, and to make independent, reasoned choices among the alternatives presented.[24] Moreover, the commenting procedure enables their participation in the final agency decision by providing a formal channel for the input of their judgments and a mandate that the agency

possibilities are in fact available. Only the careful development of a range of different proposals, including an active attempt to bring out the best potential of each, can provide adequate information as to what other possibilities are available. Speculation and project justification are no substitute.[22] Secondly, the facilitation of public participation in agency decisions has always been a necessary part or responsive and democratic decision-making. Proposing a range of options without strong agency commitment to any one greatly facilitates public participation by allowing the final selection to reflect public input far better than a single yes-or-no choice can. Moreover, the selection of objectives and basic strategies for approaching an objective, and the balance between environmental and other values, are substantially matters of choosing or emphasizing various values, which no amount of expertise can definitively resolve. Public input is particularly appropriate on these matters, and even more so when they are the subject of considerable controversy.

Clearly, the agency must do more than develop and present alternatives. It must also consider all alternatives in good faith, on their own merits, and be prepared in fact to implement the alternative which appears most desirable in light of public comment. If the agency is already substantially committed to its main proposal and, as is likely in such a case, the alternatives presented are simply a collection of straw men hurriedly thrown together, the alternatives procedure is reduced to a charade.

account for those judgements in making its final selection among alternatives.[25] In sum, the impact statement is more than an informational document. It is a decision-making document which is intended to provide important input to agency decisions, and must be considered in good faith before the agency reaches a final decision.

Unfortunately, the idealized procedure presented above represents a radical change in the decision-making processes of most agencies. Congress recognized that it was unlikely to come about simply through the general statement of procedures in NEPA section 102. Hence, the requirement of a "detailed statement" in section 102(2)(C) was included as an "action forcing" provision.[26] Its second purpose is, thus to ensure that the required decision-making processes, in fact take place and "that environmental concerns [are] made a meaningful part of the agency decision-making process, by requiring that the agency engage in a systematic and scientific analysis of the environmental pros and cons of a proposal"[27] and consider that analysis in good faith along with other important factors before commiting itself to action.[28] The courts have commonly enforced this requirement by enjoining agency actions accompanied by a defective statement. In doing so, they have examined the content of the impact statements to ensure that they reflect the required analysis, and have required that statements be available before final, formal approval or other substantial commitment to a proposal has been made. They have enjoined projects

when the agency's consideration of the statement was clearly not made in good faith, or other procedural requirements such as circulation for comments have not been observed. But enforcement has been focused primarily on the impact statement itself. As long as it has been properly prepared, and the balance struck between environmental and other factors has not been "arbitrary and capricious," the requirements of section 102(2)(C) have been met. The other requirements of section 102(2), whose implementation section 102(2)(C) was intended to promote, are not sufficiently precise to allow a court to decide that they have not been followed in a particular case, and thus to enjoin an agency action until they have been complied with.

As a result, agencies may technically comply with NEPA by writing legally adequate impact statements, and yet evade the law's most important mandates for change in the decision-making process. What changes do result may come indirectly, through the exposure of personnel to environmental facts in preparing statements, the hiring of new personnel to prepare statements who are more sympathetic to NEPA, and the public & political pressure that may result from a full disclosure of impacts.[29]

Ultimately then, the impact statement requirement may be only marginally successful in causing the fundamental changes in agency decisions which NEPA envisions, and even less so in causing the desired changes in decision-making processes. Agencies may successfully avoid changing due to the necessarily broad and imprecise nature of the sections

of the Act which mandate those changes, and the resultant difficulty in enforcing them. They may continue to complain that impact statements appended to existing processes are largely a waste of time and effort. But they must realize that their refusal to follow the broader mandates of the statute has created this situation, and that it is within their power to correct it. "Agencies' own willing use of these sections offers the most promise over the long run that the intent behind them will be realized."[30]

In this connection, an Interior Department report provides interesting insight. In 1974, the Department established an eight-man Task Force to review the activities and problems encountered by the Department in response to NEPA. The Task Force's Review[31] identifies a number of problems and makes several recommendations pertinent to the above discussion:

> PROBLEM: Top Management of DOI has not communicated a firm commitment to NEPA to departmental managers and employees.
>
> . . . It is the considered judgment of the Task Force that within DOI there is some uncertainty as to the commitment to NEPA in the face of program obligations and of the crises which are identified from time to time. NEPA may have been cast in the role of a stumbling block to development, something that will have to be modified or laid aside if we are to meet the "energy crisis." It is sometimes seen as a tool for the environmental activist to stop all Federal agencies in their tracks.
>
> The number of actions delayed . . . does not indicate that DOI is grinding to a halt. Some of the delay can be attributed to litigation based on NEPA but the bulk is caused by our own ineptness in doing a good job with NEPA.
>
> There is overwhelming support by nearly all bureaus for NEPA and most people interviewed by the Task Force

> feel that the benefits of applying NEPA far outweigh any delays or other impacts on their programs. There was also a feeling by many of the employees interviewed that if there were more visable signs of a positive commitment to NEPA by top management, more positive support would be provided by bureau directors, assistance directors, division chiefs, and regional directors. This would help to make it clear to all employees that NEPA will be a part of doing business from here on out and will not be cast aside tomorrow because of a new crisis.
>
> It also appeared to the Task Force that there may be a lack of positive motivation towards NEPA on the part of some project and program leaders . . . . In part, the lack of motivation may be accounted for by the experience within DOI of preparing EIS's on projects which were virtually complete when NEPA became a law. Many managers tend to equate the kind of EIS then prepared (which was nothing more than an observation of environmental consequences of or justification for decisions already made, i.e., a status report) with the kind of EIS that should be prepared now. The present should be a vital tool in presenting environmental considerations regarding the proposal and its alternatives to the decision-maker so that the decision itself will be better.
>
> The production of an EIS whether as a status report as described above or as an essential tool in the decision-making process is produced by the same procedure. This tends to equate them to some managers. They are similar documents on the surface but essentially different in purpose and motivation . . . .
>
> . . . The Task Force recommends:
>
> --THAT DOI TOP MANAGEMENT REAFFIRM ITS SUPPORT OF NEPA.
>
> --THAT SECRETARIAL RECOGNITION OF THE PERCEIVED BENEFITS OF NEPA BE PUBLICIZED.
>
> . . .
>
> . . . Our first recommendation is general, but it requires positive action. It is basically a recommendation that the Secretary . . . undertake . . . to convey a positive stance on NEPA. The policy of supporting NEPA has been stated. What is needed is a strong reaffirmation of the intent to follow this policy during and in spite of the "energy crisis" or other "crises" which may and will occur.

> The second recommendation is more specific. The Task Force was advised of many benefits which DOI employees felt have resulted from NEPA. Recognition of these benefits stimulates the individual employee and perhaps those working closely with him. Identification of the benefits by the Secretary would stimulate more employees and convey a firm belief that NEPA is of benefit to the environment and to DOI in its role as a conservation and natural resource manager. . . . [The Review then listed twelve specific benefits which DOI employees felt resulted from NEPA].

In sum, the Review found strong support for NEPA and a consensus that its benefits far outweighed its problems. NEPA compliance problems were found largely to be due to misunderstandings of the purposes of NEPA and the impact statement process, and lack of higher level support.

III. DEVELOPMENT AND SELECTION OF ALTERNATIVES

> ". . . [A] thorough study and a detailed description of alternatives . . . is the linch pin of the entire impact statement."
>
> --Monroe County Conservation Council v. Volpe, 4 ERC 1886, 1888 (2d Cir. 1972) (Anderson, J.).

Previous chapters have established why a careful and complete consideration of alternatives is required. This chapter discusses in detail what is required in that consideration.[32]

NEPA requires an agency to do more than consider just those alternatives which may immediately spring to mind. It requires the investment of time and resources in actively seeking the best possible approaches to a project.[33] Only a careful and wide-ranging search for new ways of achieving objectives and new trade-offs between conflicting objectives will ultimately provide satisfactory solutions to environmental problems.[34] Hopefully, there will be radically different ways of achieving the project goal. But at a minimum there will be several promising ways to exchange decreased project benefits or increased cost for eased environmental impacts. Since the ultimate trade-off between benefits or expense and environmental costs is partly a matter of choice or preference, the statement cannot pretend to rule out all promising alternatives on the ground that differing judgments are not possible. Its function is to present the best selections from the broadest possible range of options. The discussion here focuses on the development and selection of those alternatives which

(e.g. coal gasification or nuclear power v. coal-fired electrical power, or non-structural alternatives to flood control). When the overall management for an area is under consideration, different objectives and emphases should be examined to determine under which regime the optimal balance of resource use and environmental protection will result for the particular area in question (e.g., emphasis on grazing v. various other emphases v. various combinations of emphases).

Options such as scaling down the size of the project, more gradual development of the resource, postponing development, or abandoning the project entirely are some of the most important alternatives. Considering scaling down or abandoning the project is essential to determining whether, or to what extent, the project is worth the environmental, social, and possibly economic costs entailed. For this reason, the "no-project" alternative is always legally required.[38] Both "scaling down" and "no project" should be imaginatively interpreted. For example, scaling down might most beneficially be accomplished by reducing or eliminating the project's most environmentally objectionable aspects, rather than reducing each component by the same factor (e.g., mine and generating plant reduced to mine alone). If the no-project alternative involves undesirable impacts (e.g., the project is a resource management program), the minimal project which avoids these impacts, yet avoids the adverse impacts of the full project, should be designed and analyzed. Postponement pending further study must be considered if the

must be included in the statement.[35]

In developing and selecting alternatives, the ultimate goal of the alternatives process--to find better ways to accomplish objectives and to help determine whether objectives are worth accomplishing--should be kept in mind. The presentation of a large number of alternatives which have been developed in such a cursory fashion that their true potential cannot be ascertained, is of no value in attaining this goal. What is required is the careful conception and construction of a modest number of truly promising alternatives, and their careful investigation and development so as to reveal their best potentials.

Mitigation of Impacts:

The primary key to developing alternatives is to identify, early in the proposal formulation process, the project's most important likely impacts, and to look for ways the project might be changed to mitigate[36] or eliminate those impacts.[37] Alternatives will vary from minor to drastic modifications. Some will involve little change in the project, but consist of additional measures to compensate for the project's impacts (e.g., destruction of fish and wildlife habitat compensated by management of other areas as replacement habitats). Others will involve design changes (e.g., cooling ponds v. cooling towers, or overhead v. underground transmission lines, for a power plant), alternative sites for various components, and reclamation requirements (e.g., for mining and timbering operations). Still others may consist of projects significantly different in nature, but providing similar benefits

nature or magnitudes of potentially serious impacts are poorly known, since one of the primary purposes of NEPA is to insure that environmental consequences are fully understood before projects are undertaken. Postponement or more gradual development are also attractive if advances in mitigating technology or alternative sources or project benefits may be expected in the near future, or if the need for the project is remote in time and no action need be undertaken currently.

Most options will not completely mitigate all adverse impacts. However, none may be rejected solely for that reason.[39] A partial solution still provides some reduction in impact and should be considered. Moreover, a single option considered in isolation may not show its best potential; discrete options should be combined, where appropriate, to form more attractive alternatives. The goal should not be the maximum number of alternatives, but a modest number which have been carefully thought out and constructed with an eye toward finding the best possible ways to mitigate project impacts.

For example, BLM's Eastern Powder River Coal Basin EIS considered a large number of alternative energy sources to coal production from the perspective of determining whether any single source could provide a complete substitute for the proposed coal production in the basin. The Natural Resources Defense Council (NRDC) criticized the statement for taking this approach rather than constructing more viable combination alternatives, such as limited or delayed

production in the basin supplemented by development of other energy sources or conservation, to reduce impacts within the basin. Eliminating or restricting mine mouth generation was considered particularly attractive because generation would cause the most serious impacts. EIS at VII-844 to -853. The statement would have been more useful if it had considered these alternatives, rather than such non-possibilities as tar sand development.

NRDC v. Grant,[40] presents a representative sample of rejected alternatives. The Soil Conservation Service proposed to channelize 66 miles of streams in the Chicod Creek watershed. In holding the impact statement inadequate, the court deemed significant its failure to discuss the following reasonable alternatives: The Bureau of Sport Fisheries and Wildlife recommended that seven miles of channelization be omitted in the most productive portion of the Chicod ecosystem. The North Carolina Department of Natural and Economic Resources recommended that vertical drainage and water level structures be discussed, since they would mitigate the project's adverse ground water effects. After finding that the statement failed to discuss several serious impacts, the court added that consideration of deferral as an alternative "is particularly appropriate in view of the differing opinion about the environmental effects of the Project and Section 102(2)(A) of NEPA which 'makes the completion of an adequate research program a prerequisite to agency action.'" (This latter requirement is discussed in Chapter V). The court stated that other alternatives were

discussed "only superficially" and without reference to their environmental impacts.

An examination of the court's opinion in the recent off-road vehicles (ORV) suit[41] may illustrate the care and imagination required to arrive at an adequate set of alternatives. On February 8, 1972, the President issued Executive Order 11644, directing the Secretary of the Interior (among others) to promulgate regulations specifying procedures for the designation of "specific areas and trails on public lands on which the use of off-road vehicles may be permitted, and areas in which the use of off-road vehicles may not be permitted." The procedures were also to employ stated environmental criteria and ensure adequate opportunity for public participation in initial designation decisions. However, the regulations promulgated for BLM lands not only prescribed the procedures and criteria to be employed in designating areas and trails, but also designated all areas not previously restricted or closed to ORV traffic to be open. The EIS accompanying the regulations listed four alternatives:

(A) No action.

(B) Close all DOI lands to ORV use.

(C) Open all DOI lands to ORV use.

(D) Delegate to bureaus the authority to implement the Executive Order without Secretarial review.

The court found the regulations and all four alternatives to violate the Executive Order: alternatives (A) and (D) because the Order directs the Secretary of the Interior to develop and issue regulations; and alternatives (B) and (C) and the

regulations themselves for failure to apply the stated environmental criteria to specific areas and trails in making the initial designations of "open" or "closed", and for failure to ensure adequate public participation in those designations. The court continued:

> Other alternatives which are both compatible with Executive Order 11644 and reasonable would seem to exist. These could consist of several variables. At the very least, BLM lands could be left undesignated pending evaluation and designation. A variable of time could be considered, i.e., expedition of the review process. A variable keyed to the areas themselves could be infused, i.e., requiring consideration on a priority basis linked to the sensitivity of various areas to ORV use (both year-round and at particular seasons). Another variable could be tied to ORV usage--considering first those lands most widely and heavily used by off-road vehicles. Numerous combinations of these variables are possible. Other variables or completely different reasonable alternatives probably exist.
>
> The Court does not presume to dictate those alternatives which should or must be considered. It does find, however, that defendants have failed to study, develop and describe appropriate and reasonable alternatives to the recommended course of action and include those alternatives in their Final Environmental Statement. That statement, therefore, fails to comport with Section 102 of NEPA. . . .[42]

Alternatives representing extreme possibilities, such as (B) and (C), are of little value in informing the public and a decision-maker of the best available alternative courses of action. Moreover, poorly conceived alternatives tend to render an EIS simply a justification of the proposal by making it look better than it is. Unfortunately, they are all too common in impact statements. As the court's examples demonstrate, a number of thoughtful, imaginative options which achieve the Order's objectives with an eye toward minimizing environmental consequences are easily available

in this case. As a further illustration, the no-action alternative might have been more imaginatively interpreted to comprise the court's first suggestion: it is the minimum action compatible with the order's instructions. The court's suggestions are the sort of creative thinking that will be necessary if consideration of alternatives is to serve a useful purpose.

Scope of Alternatives:

The second key to developing alternatives is to identify the scope or range of alternatives to be considered. That is, how far afield from the proposal should alternatives go? The standard formulated by the courts is imprecise: a statement must adequately examine all reasonably available alternatives.[43] However, it need not include alternatives whose availability or feasibility is speculative or unlikely.[44] Perhaps this requirement can best be summarized by saying that any alternative which is currently technologically practicable or likely to become so within the time frame of the project, should be included.[45] Some further explanation may be helpful.

Roughly speaking, alternatives must achieve project objectives. However, this limitation must be interpreted very broadly. First, an alternative need only partly achieve the objectives of the proposal; alternatives such as postponement, scaling down, and no project are in this category. Second, the project objectives may not be so narrowly stated as to rule out attractive alternatives supplying roughly similar benefits.[46] If the objective is stated very narrowly (e.g.,

to mine "X" tons of coal annually in "Y" county to generate "Z" megawatts), only a few alternatives, quite similar to the proposal, will satisfy the objective. On the other hand, if the objective is stated very broadly (e.g., to augment the nation's energy supply by roughly .1%), the range of potential alternatives is broadened enormously.

One key in determining the proper scope is to ask what decisions would be implied or embodied in the decision to pursue the main proposal, and to look for alternatives for ~~'~~ie decisions. For example, a decision to permit intensive grazing is a decision partly or wholly to de-emphasize other conflicting objectives. The impact statement must examine alternative objectives that might be pursued, in order to determine whether the proposed objective is the best for the area. A decision to approve coal mining is a decision to augment the nation's energy supply. The statement should examine reasonably available alternative ways to do so, and the wisdom of doing so at all. A detailed project statement may refer to analysis in a programmatic statement only if the latter has analyzed the question in the same detail as would be required in the former.[47]

An examination of particular cases may clarify the required scope of alternatives:

In Atcheson, Topeka & Santa Fe Ry. v. Callaway,[48] the Corps of Engineers proposed to increase Mississippi River traffic capacity at a particular lock. The court recognized that the single project made sense only as part of a larger project to increase the capacity of the entire Upper

ment considered essentially the same alternatives as did the statement discussed above, but was found to have discussed them adequately. The court rejected plaintiffs' contentions that the additional alternatives of federal rather than private exploration, and leasing off Louisiana and Texas, where OCS production is presently taking place, should have been included. The court stated that "[a]n alternative which would result in similar or greater [environmental] harm need not be discussed.[53] This pronouncement is a radical de~~p~~rture from the widely accepted requirement of NRDC v. Morton that "all reasonably available alternatives" be adequately discussed. Its acceptance would thwart both of the fundamental purposes of an impact statement. First, it would prevent the public and the final decision-maker from making an independent, reasoned selection among the practicably available alternatives. The fact that the agency has determined that two options have equivalent impact is no indication that an independent reviewer, unconnected with the project, will reach the same conclusion. Secondly, an impact statement is intended to ensure that the required consideration of environmental values has actually taken p~~l~~ce. Without adequate discussion of an alternative, there is no assurance that the agency's conclusions about it have been reached after full and proper consideration of the pertinent environmental factors. It is suggested that the court's statement cannot be relied upon. However, another distinction between the impact statements in the above cases may account for the differing results. The former's

Mississippi River. Since the former thus represented a commitment to the latter, the court required an impact statement covering the larger project. The court also required the Corps adequately to consider alternative means of transportation, such as railroads, for accommodating increased freight traffic in the region.

In NRDC v. Morton[49] a BLM impact statement on the proposed lease of 80 OCS oil and gas tracts off eastern Louisiana was found inadequate for failure adequately to consider the alternatives of deregulating natural gas and increasing oil import quotas. The circuit court found the latter alternative to be reasonably available, even though outside the authority of the Department of the Interior, because the proposed sale was only part of a multi-department response to the President's directive on the nation's energy supply.[50] The court rejected the contention that alternatives such as nuclear power and oil shale deserved more than summary treatment: While they might hold substantial promise for the long term, they could not be expected to meet the near-term energy requirements which the leasing program was intended to meet.[51] However, the court added that the group of reasonably available alternatives would probably change for subsequent OCS proposals, due to changes in technology or energy requirements and supplies.

In Sierra Club v. Morton,[52] the BLM impact statement on the proposed lease of 147 OCS oil and gas tracts off Mississippi, Alabama, and Florida (the "MAFLA" sale) was declared adequate against a number of challenges. The state-

discussion of alternatives occupied only a handful of pages, while the latter's filled 352 pages. Although bulk alone is no indication of adequacy, a difference of this size may indicate a substantial difference in treatment. (Adequacy of discussion is taken up below).

The standard that "all reasonably available alternatives" must be included implies that some reasons for excluding potential alternatives are not legitimate. Most important, it is irrelevant whether a practicable alternative is or is not within the agency's power to implement; those outside the agency's authority must be included and discussed just as thoroughly as those within.[54] The purpose of NEPA is to find more environmentally acceptable solutions to problems so that they may be implemented by whatever means may be necessary. Such solutions are hardly likely to disappear abruptly at the arbitrary line separating the jurisdiction of two agencies with related responsibilities. Instead, the "everything depends on everything else" aspect of ecology means that potential solutions may be within the authority of several agencies, or no Federal agency.[55] If the best solution to a problem is outside the authority of the drafting agency, the EIS becomes a tool for alerting the proper agency of the need for action on its part, or for persuading Congress that appropriate legislation should be enacted. For example, if the Department of the Interior is considering allowing natural gas development, and one major cause of the natural gas shortage is ICC regulation of the interstate price, it is absurd to ignore deregulation as one part of the solution

simply because ICC is not part of the Interior Department. If agencies refuse to search for solutions to broad problems except within the confines of their own authority to act, the best solutions to some problems will never be implemented. In this way, as in others, NEPA mandates that agencies abandon the all-too-common objective of perpetuating and expanding their traditional functions at the expense of environmental responsibility.

IV. IMPACTS TO BE CONSIDERED

> "At the very least, NEPA is an environmental full disclosure law."
>
> --EDF v. Corps of Engineers, 2 ERC 1260, (E.D. Ark. 1971) (Eisele, J.).

One of the basic ideas embodied in NEPA is that, in this day of serious environmental problems, it is vital to know what the environmental consequences of an action will be before becoming committed to it. Only with full knowledge of all the consequences, considered before a commitment to act, can an intelligent decision whether to act and an informed choice of actions be made.

The standard of "full disclosure" was originally stated in the Gillham Dam case:

> At the very least, NEPA is an environmental full disclosure law. . . . The "detailed statement" required by § 102(2)(C) should, at the minimum, contain such information as will alert the President, the Council on Environmental Quality, the public, and, indeed, the Congress, to all known possible environmental consequences of proposed agency action.[56]

This standard has been adopted by many other courts.[57] Another court has given a different formulation:

> . . . [A] § 102 statement must thoroughly discuss the significant aspects of the probable environmental impact of the proposed agency action. By definition, this excludes the necessity of discussing either insignificant matters, such as those without import, or remote effects, such as mere possibilities unlikely to occur as a result of the proposed activity.[58]

The Wallisville Dam court considered and resolved this apparent difference, and stated the full disclosure standard as it seems to be applied:

> The first judge had been presented with a twelve page impact statement from what appeared to be a recalcitrant

> agency. Upon subsequent submission of a more elaborate statement, he dissolved the injunction and stated that it was not necessary to "dot all the I's and cross all the T's" in an impact statement.[59] In light of these facts, the tests espoused do not appear to differ substantially, if at all. A reasonable test would be the same as that adopted by present Corps regulations: an impact statement should contain "all possible significant effects on the environment."[60]
>
> This obviously requires a high level of knowledge of all possible effects in order that "significant" ones may be identified by the agency when preparing an impact statement.[61]

More briefly, the agency must show that it has taken a "hard ." at all the environmental consequences of its proposed action.

The terms contained in these definitions are, unfortunately, all too plastic. Judge Friendly's discussion may shed additional light on these matters. While the discussion concerns the determination of what is an "action significantly affecting the . . . environment," it is equally applicable to deciding which impacts deserve attention in the statement.

> . . . Although all words may be "chameleons, which reflect the color of their environment," . . . "significant" has this quality more than most. It covers a spectrum ranging from "not trivial" through "appreciable" to "important" and even "momentous". . . .
>
> The scheme of [NEPA] argues for giving "significant" a reading which places it toward the lower end of the spectrum. . . .
>
> . . . One of the purposes of the impact statement is to insure that the relevant environmental data are before the agency and considered by it prior to the decision to commit Federal resources to the project; the statute must not be construed so as to allow the agency to make its decision in a doubtful case without the relevant data or a detailed study of it. . . . "[A] statement as [thus] required whenever the action arguably will have an adverse environmental impact," . . . with the qualification . . . that the matter must be fairly arguable . . . .
>
> . . . The CEQ Guidelines lend additional support to the conclusion that the threshold determination of significance

> must be set at a low level. They provide that "if there is a potential that the environment may be significantly affected, the statement is to be prepared." [CEQ Guidelines § 1500.6(a)](emphasis added). And they state further . . .:
>
> > Proposed . . . actions, the environmental impact of which is likely to be highly controversial, should be covered in all cases.
>
> Id. . . . I see no basis for reading this as limited to cases where there is a dispute over what the environmental effects actually will be. Rather, I would think it clear that this includes action which the agency should know is likely to arouse intense opposition, even if the actual environmental impact is readily apparent . . . .[62]

It is also essential that the range of impacts considered be sufficiently broad. Any change in "the quality of the human environment," no matter what its nature, must be discussed if significant.[63] The Senate Report on NEPA indicates that Congre was concerned with a wide variety of environmental problems:

> haphazard urban and suburban growth; crowding, congestion, and conditions within our central cities which result in civil unrest and detract from man's social and psychological well-being; the loss of valuable open spaces; inconsistent and, often, incoherent rural and urban land-use policies; critical air and water pollution problems; diminishing recreational opportunity; continuing soil erosion; the degradation of unique ecosystems; needless deforestation; the decline and extinction of fish and wildlife species; faltering and poorly designed transportation systems; poor architectural design and ugliness in public and private structures; rising levels of noise; the continued proliferation of pesticides and chemicals without adequate consideration of the consequences; radiation hazards; thermal pollution; an increasingly ugly landscape cluttered with billboards, power-lines, and junkyards; and many, many other environmental quality problems.[64]

The tendency to concentrate on those impacts on which the autho has some expertise, or on which data is easily available, at the expense of other equally or more important impacts, must be avoided.[65] Primary attention should always be directed to the most severe impacts.[66] Lesser impacts may be treated more brie

The following discussion indicates in more detail the kinds of impacts which must be considered. The several categories mentioned need not be discussed separately in the impact statement, as long as important impacts are not overlooked.

Primary Impacts:

Primary impacts may be loosely defined as those effects which flow directly from the project in some way. The opinion of the court in NRDC v. Grant, serves as an example of the kind of primary impacts that must be discussed. The Soil Conservation Service's impact statement on the proposed channelization of the Chicod Creek watershed was found inadequate in part for omission or misrepresentation of five impacts which the court found significant: (1) The statement admitted that the project would cause Chicod Creek to deliver five times more sediment to the Tar River, yet failed to discuss the project's impact on water quality in the Tar River. (2) The statement suggested that there would be effects on fish in the watershed, but failed to define those effects. (3) An independent report indicated that eutrophication was an increasingly common problem for rivers in the area, yet the impact statement was silent on the project. (4) Local sponsors were to be responsible for the operation and maintenance, and thus the success, of portions of the project; evidence indicated that similar sponsors had failed adequately to perform their maintenance responsibilities in the past, and thus a discussion of the history of the success

or failure of similar projects in the past was required. (5) The plant "kudzu" was to be used to control erosion; if uncontrolled, it could become a dangerous pest, yet the statement failed adequately to discuss control methods.[67]

Secondary Impacts:

Secondary or indirect impacts, as well as primary or direct impacts, must also be included in the statement. Secondary impacts might be loosely defined as any changes in the environment which might ultimately come about if the project is undertaken, but which do not flow directly from the project itself.[68] The CEQ Guidelines are instructive:

> Many major Federal actions, in particular those that involve construction or licensing of infrastructure investments (e.g., [mining, power plants,] etc.), stimulate or induce secondary effects in the form of associated investments and changed patterns of social and economic activities. Such secondary effects, through their impacts on existing community facilities and activities, through inducing new facilities and activities, or through changes in natural conditions may often be even more substantial then the primary effects of the original action itself. For example, the effects of the proposed action on population and growth may be among the more significant secondary effects. Such population and growth impacts should be estimated if expected to be significant . . . and an assessment made of the effect of any possible change in population patterns or growth upon the resource base, including land use, water, and public services, of the area in question.[69]

The recent history of Rock Springs and Sweetwater County, Wyoming, illustrates the potential magnitude of secondary impacts. Construction and operation of the Jim Bridger power plant and associated mine, and the contemporaneous expansion of other nearby extractive industries, resulted in a large, transitory population influx to Rock Springs and other

communities in the county. Serious adverse impacts on the economic and social fabric of the community have resulted. Population doubled in three and one-half years. Industrial productivity dropped 25% to 40%, while personnel turnover jumped from 30% to 90%, and sometimes 150%, annually. Increased competition for community services and goods has lead to increased frictions and dislocations within the established community. Incoming workers' families have been housed in colonies of mobile homes physically and socially isolated from amenities of the town. Isolation, lack of community amenities, and the difficulty in making friends due to high turnover has lead to severe psychological strains on families--particularly women and children. Workers considered employment conditions the best in the nation, yet thought living conditions so intolerable that most stayed less than a year.[70]

All of these problems are clearly effects on the quality of the human environment which must be considered.[71] Yet, BLM's second draft impact statement for the Jim Bridger plant, while it attempted to treat cultural and economic factors, discusses none of them. The statement summarizes:

> . . . Because mining and power production will not change traditional employment patterns, cultural values will not be disrupted by implementation of the proposal. . . .
>
> The social and economic trends exhibited are not expected to change . . . . All of the developments discussed can be easily accommodated in Sweetwater County's six and one-half million acres of land without materially changing present extensive land use patterns. EIS at 28-29.

Had the impact statement revealed the possible problems

well before commitment to the project, as it should have, the problems might have been mitigated or avoided. The town and the county would have been alerted to potential problems and would have had lead time to take steps to mitigate or avoid them. Federal decision-makers could have evaluated alternative forms of the development (e.g., delay to allow lead time for the community, more gradual phased development, or relocation of the generating plant to spread the impact) or the requirement of other mitigating measures (e.g., company constructed and subsidized housing, or cash payments or other assistance to the community to help expand services) in terms of these impacts. Meaningful public input, impossible from the actual statement, would have been greatly facilitated.

BLM's final statement for the Eastern Powder River Coal Basin of Wyoming stands in contrast to the Jim Bridger statement. Over one-third of the chapter on environmental impacts is devoted to social and economic conditions,[72] including population, employment, income, housing, public education, health and social services, law enforcement, fire protection, water and sewer facilities, utilities, and community attitudes and life-styles. The discussion entitled "Responsiveness of the Housing Market to Predicted Housing Demand" reveals the nature of the impacts investigated:

> A critical housing situation will exist when the population related to coal development in Campbell and Converse Counties enters the region . . . . The shortage of housing will necessitate maintenance of substandard units in the housing stock. . . . Other families may select housing units of lesser sizes which may lead to overcrowded conditions. . . . Finally, many families may select the mobile home as the only means by which to solve their housing demands.

However, even this study is essentially non-quantitative and may amount to little more than a recitation of the standard ills likely to confront a booming mineral extraction region. And it had little effect on the alternatives and mitigating measures considered, except for a general call for better planning. However, it is a step in the right direction.

The courts have required adequate consideration of secondary impacts. In the Tellico Dam case, TVA planned to create a Tellico Reservoir and an associated new urban development, including a community of 50,000 people. An independent report indicated that the project would accelerate urbanization and industrialization in an area not equipped to handle it, and that better sites were available nearby. Yet the impact statement reached broad conclusions concerning the environmental impact of the project admittedly without careful research or planning. The court found that the long-range impact of development on the area could not have been adequately considered, and for this and other reasons enjoined further construction.[73] TVA returned to court the next year with a more substantial statement. Among other improvements, pointed to an agreement with the State Planning Commission to assist in planning for development, the formation of an area planning council, which had adopted a long-range land-use plan, and the adoption of a comprehensive land-use plan by the three counties involved. The court found it adequately treated the long-range development of the area.[74]

While the discussion above has focused on such impacts as housing demand, other impacts of induced development such

as removing land from agriculture, water quality impacts due to run-off, increased erosion, and the like are equally important. They may not be ignored simply because they are due to induced development such as employee housing, and not the proposed development itself. The objective is to discuss all impacts that are likely to occur if the proposed action is taken that might not occur if it were not taken, regardless of the agent causing those impacts.

Cumulative Impacts:

The impacts discussed so far have all flowed from the project in question, either directly or indirectly. In addition to these, the statement must also discuss "cumulative impacts"--"the overall, cumulative impact of the action proposed, related Federal actions and projects in the area, and further actions comtemplated"[75] in the foreseeable future by Federal and private entities. The individual impacts from a variety of projects in an area over a period of time may be individually limited but cumulatively considerable. Considering the impacts from just the proposed action does not give a true picture of the overall change that a combination of actions may work on the environment, and an accurate evaluation of the importance and acceptability of the proposed project's impacts is impossible.

For example, the individual impact of a particular development on local housing may be significant, yet not drastic. However, in the context of several similar developments which together severely strain the local housing supply, the demands

of the proposed action may be much more serious. This is exactly what happened at Rock Springs (discussed above). The housing impact of the Jim Bridger plant, which alone might have been acceptable, was in fact compounded by substantial demand from contemporaneous private mining projects whose existence the impact statement recognizes. In NRDC v. Grant, the court found that the statement "failed to consider fully . . . the cumulative impact of the Chicod Creek Watershed Project and other channelization projects on the environmental and economic resources of Eastern North Carolina."[76] The absence of any discussion of the long-term effects of sedimentation, the accumulation of nutrients in the river basin, and effects on groundwater of all the area's channelization projects taken together were one factor in rendering the statement inadequate.

The ultimate objective in considering cumulative impacts is to enable evaluation of the proposal in the context of the long-range flow of events. Incremental decision-making--this is, making decisions without looking any further ahead or to the side than the next step--is no longer acceptable.

Senate Report emphasizes this approach as a part of NEPA:

> As a result of [the] failure to formulate a comprehensive national policy, environmental decision-making largely continues to proceed as it has in the past. Policy is established by default and inaction. Environmental problems are only dealt with when they reach crisis proportions. Public desires and aspirations are seldom consulted. Important decisions concerning the use and the shape of man's future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.
>
> Today, it is clear that we cannot continue on this course. . . .[77]

Full implementation of this policy makes it clear that agencies must examine the cumulative impacts of private actions as well as Federal actions in assessing the impact of a project. The total impact on the environment will not be decreased simply because the actors are not Federal agencies or Federal licensees. The fact that most induced development is private and that its impacts must be considered bolsters the conclusion that private development may not be ignored when calculating cumulative impacts.

The cumulative impact of a collection of related Federal actions may most profitably be considered in a programmatic statement. However, if the agency chooses not to issue a programmatic statement, the cumulative impacts of the related actions must be considered in at least the first individual project statement.[78] In addition, to the extent that the programmatic statement does not adequately treat any cumulative impacts peculiar to a particular project, they must be treated in the project statement.

Other Statutes:

Other statutes than NEPA are concerned with the impact of Federal actions on the environment. Some, such as the Fish and Wildlife Coordination Act,[79] the National Historic Preservation Act of 1966,[80] and the Endangered Species Act of 1973,[81] require consultation with other agencies before certain actions are taken. The Endangered Species Act and the National Historic Preservation Act also require specific statements or findings on environmental impact. Other statutes, such as the Clean Air Act of 1970[82] and the Federal Water Pollution Control Act

Amendments of 1972[83] require compliance with certain standards. The impact statement should indicate the nature of any consultation that has taken place, summarize in text and include in full as appendices any reports from consulted agencies and findings by the agency itself, and otherwise indicate how the requirements of applicable statutes have been met. The objective should be to make the impact statement a single, integrated document which satisfies the requirements of all applicable statutes which deal with environmental impacts.[84]

Unfortunately, many impact statements confine themselves to a brief, unquantified, conclusory[88] discussion of the impacts of alternatives, and adduce little objective information which might support the agency's conclusions. The reader is unable to independently evaluate the magnitude and significance of the stated impacts or differences in impacts. NEPA demands more than this. The presentation must not be "so conclusory and uninformative . . . that it affords no basis for a comparison of the problems involved in the alternatives. The requirement of a thorough study and detailed description of alternatives . . . is the linch pin of the entire impact statement."[89] "What is required is information sufficient to permit a reasoned choice of alternatives so far as environmental impacts are concerned."[90] The discussion of alternatives must meet the same standards of adequacy that are set out below for the remainder of the statement. Moreover, since alternatives are intended to be viable possibilities for actual implementation, of the same level of importance as the main proposal itself, they should be described and their impacts analyzed with the same degree of detail and completeness as the main proposal.

In AT&SF v. Callaway, the Corps of Engineers planned a project which the court concluded was part of a plan to increase the traffic capacity for the entire Upper Mississippi River. The court's discussion of the Corp's treatment of one alternative illustrates the adequacy standards and the policy behind them:

V. ADEQUACY OF DISCUSSION

NEPA requires not only that appropriate impacts and alternatives be discussed, but also that the discussion meet certain legal standards of adequacy. These standards have been developed to ensure that the impact statement fulfills its purpose of allowing the reader to make his own assessment of the impacts involved and an independent, reasoned choice among the alternatives presented, in terms of the overall balance of environmental and other factors. The impact statement must present enough information to support its conclusions and enable the reader to challenge them with his own reasoned conclusions.[85]

Adequate Discussion of Alternatives:

As with the main proposal, the first requirement for adequate discussion of an alternative itself and its likely environmental impacts. The impact statement must also compare the environmental impacts of each alternative with those of the main proposal, showing the relative advantages and disadvantages of each.[86] The CEQ Guidelines emphasize this requirement:

> A rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions . . . is essential. Sufficient analysis of such alternatives and their environmental benefits, costs and risks should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might enhance environmental quality or have less detrimental effects . . . . In each case, the analysis should be sufficiently detailed to reveal the agency's comparative evaluation of the environmental benefits, costs and risks of the proposed action and each reasonable alternative.[87]

> . . . The only references in the EIS to the possibility of other modes of transportation meeting the expected increase in traffic of goods are the conclusory statements that: railroads and other forms of transportation could not handle the increase in traffic of goods, especially grain, would require greater public investment, would cost more to shippers, would, by stifling industrial growth, have an adverse economic and social effect on the region, and would require greater energy consumption in light of the projected availability of fuels.
>
> While this court is not in a position to agree with or dispute the merits of these conclusions, neither is the Congress nor the public since the data on which they were based and the agency's reasoning process were not included in the EIS. . . . What the lack of disclosure does in this case is to prohibit review by masking the reasons upon which the initial choice has been made between [the proposed project] and alternative means of transportation. . . . [T]he EIS . . . fails to adequately consider feasible alternatives. . . . Such violations of both the letter and spirit of NEPA can not be tolerated.[91]

In sum, the impact statement must explicitly compare alternatives and the main proposal with sufficient information and detail to enable informed, independent review of the merits of the agency's choice among them.

We now turn to additional standards of adequacy, many touched on above, which apply to the entire statement, including the discussion of alternatives.

Objective Analysis:

The most basic requirement of adequacy is objectivity. The impact statement may not be consciously biased to promote the agency's proposal,[92] presenting the proposal in a better light than the alternatives, or underplaying the proposal's less desirable aspects. It may not be simply a justification for a decision the agency has already made.[93] Rather, it must be a good faith, objective presentation of all the pros

and cons of the proposal and alternatives, which is intended to allow the reader to make his own evaluations of the project.

Nor may the impact statement be written on the assumption that the project will be approved. It is intended to precede any decision to commit the agency to a proposal, and should contain viable alternatives which are possible choices for the decision-maker. Hence, it cannot assume that a particular decision will be forthcoming.

But an objective analysis requires more than a neutral stance. It requires the presentation of sufficient factual information to provide support, foundation, or reason for statements made and conclusions reached. The presentation must enable the reader to understand how a conclusion was reached and why the author believes it to be correct. Enough facts must be presented to enable the reader to critically examine a conclusion and reach his own independent judgment as to its validity, based on those facts. "Conclusory" statements--that is, those failing this standard--are a pervasive failing of impact statements, and must be carefully avoided. Judicial rejection of impact statements as simply conclusory and therefore uninformative is not unusual.

The opinion in NRDC v. Grant provides examples:

> The final Statement concedes that the Project will greatly increase the quantities of sediment carried downstream from the project area into the lower reaches of Chicod Creek and the Tar River. Immediately after construction, annual sediment deposit in the lower Chicod will be 11,470 tons. Sediment yeild at the confluence of the Tar River is expected to be 730 tons annually. On the assumption that the banks will stabilize in two years, sedimentation will still be increased to 4,010 tons deposited annually in Chicod Creek and 250 tons in the Tar River. The present Annual

yield in the Tar River is 50 tons.

> While disclosing the fact of this increase in sediment load, the statement contains no discussion of its downstream effects. The Statement merely concludes, without supportive scientific data and opinion that "No significant reduction in quality of the waters of the Tar River, Pamlico River, and Pamlico Sound is expected." Credible evidence suggests the opposite conclusion. Having conceded a massive increase in sedimentation, the Statement disposes of its environmental effects in one conclusory statement unsupported by empirical or experimental data, scientific authorities, or exploratory information of any kind. Where there is no reference to scientific or objective data to support conclusory statements, NEPA's full disclosure requirements have not been honored. . . .
>
> . . . One can frequently see kudzu along roads and highways. Most likely it can be seen growing on banks, stretching over shrubs and underbrush, engulfing trees, small and large, short and tall, slowly destroying and snuffing out the life of its unwilling host. . . . However, if controlled, kudzu may have erosion preventing value. . . . As to the use of kudzu, the Statement merely discloses; "One row of kudzu will be planted at the very top edge of the channel slope through cultivated areas. The growth of kudzu will be controlled by mechanical methods." The Statement fails to disclose how the growth of kudzu can be controlled by mechanical or any other methods and in this respect fails to satisfy the requirements of NEPA.[94]

The impact statement for the expansion of an interstate highway in Washington provides an additional example:

> The impact statement also suffers from a reliance on generalities and heavy-handed self-justifications. . . .
>
> Noise is said to have little effect on the area "because the rural character of the area renders it nearly free of permanent human habitation." There is nothing beyond the bare conclusion thus stated to prove either its truth or its falsity. . . .[95]

The reasons for rejecting unfounded conclusions are fundamental to all areas of administrative law." . . .[A] requirement of findings and reasons, where feasible, is one of the most effective protections against the arbitrary exercise of discretionary power."[96] It insures that the agency's decision

is based on a consideration of the relevant factors,[97] and not on factors irrelevant to the decision.[98] And it allows courts and individuals to intelligently review that decision, and challenge it if necessary.[99] Similarly, unfounded conclusions in impact statements subvert both the fundamental purposes of impact statements--enabling independent review of a project in environmental terms, and ensuring that the agency has appropriately considered the proper factors--as the opinion in the Tellico Dam case points out:

> . . . Although comprehensive in scope, the draft statement's cost-benefit analysis consists almost entirely of unsupported conclusions. As a result, a non-expert reader is denied the opportunity to intelligently evaluate TVA's conclusions. In addition, it is impossible to determine the thoroughness of the research upon which TVA based the conclusions, or their relative merit. A lack of careful research and planning is suggested by . . . statements contained in the [impact] statement itself:
>
> > "While land use planning is far from complete, broad conclusions concerning the environmental impact . . . can be made at the present time . . ." (Emphasis added). . . .[100]

The requirement of adequate support yields the corollary that statements should be quantified as much as possible or otherwise stated as exactly as possible where quantification impossible. For example, the statement "Sediment loads in streams will be increased from 5% to 15%" is far superior to the statement "Sediment loads in streams will be increased only slightly." The former imparts enough information to allow the reader to draw his own conclusions; the latter does not. Statements should also attempt to communicate information by which the significance of an impact can be judged by the non-expert reader. For example, the statement "Sediment load

in stream X will increase 100 tons annually" is intermediate between the two previous examples in its informative content; it provides more information than the latter, but provides no scale by which the nontechnical reader can judge the importance of the added 100 tons. The statement "Sediment load in stream X will increase 100 tons annually over the current 1,000 tons annually" is the best of the four.

A second corollary is that "it is essential that the sources of data used to identify, quantify, or evaluate any and all environmental consequences be expressly noted."[101] In order to independently evaluate the impact statement's statements of fact, the reader, particularly the expert reader, must not only know the facts used, but be able to assess the reliability of those facts by examining their source.

Some statements have the opposite fault.

> The "staple job," as it is sometimes called in bureaucratic parlance, . . . is principally characterized by masses of studies, data, and comments of the public and other agencies "stapled" to a slender narrative. While the narrative may occasionally refer to the accompanying papers, the reader must wade through much poorly organized material often set forth in technical jargon to sift out that which is relevant and important.[102]

This approach is also unacceptable. As Judge Sue stated in Sierra Club v Froehlke,

> [I]t is apparent that much greater care must be taken in the system, organization and presentation of material for the benefit of a Court and a layman. . . . [I]t would be unreasonable to expect even the most diligent administrator, congressman or court to read hundreds or thousands of pages of text, exhibits, enclosures and appendices to gain an overall grasp of the environmental impact.[103]

Similarly, the CEQ Guidelines direct that ". . . analysis

should be sufficiently detailed to reveal the agency's comparative evaluation of the environmental benefits, costs and risks of the proposed action and each reasonable alternative.[104]

In sum, the agency should present not a poorly analyzed mass of data, but a succinct summary of data collected and a cogent analysis indicating the data's significance. The resulting document should be a "decision-paper" tailored for an intellignet and demanding decision-maker--a narrative of moderate length and intelligible content, providing sufficient information and analysis for an informed choice among the available alternatives by the responsible official or an intelligent but non-expert outside reader, without extensive forays into supporting documents.[105] It should be written in language comprehensible to the non-expert reader, but containing enough information to alert specialists to problems within their fields of expertise.[106]

Adequate Research:

One of the fundamental purposes of NEPA is to ensure that agencies consider the environmental consequences of their proposals before acting. Implicit in this requirement is the undertaking of sufficient study and research to reveal what those consequences in fact are. The court in EDF v Hardin[107] was concerned with whether the Department of Agriculture had conducted research sufficient to expose the dangers of its proposed program to control fire ants by the application of the pesticide Mirex. It has amply outlined the research

requirements of NEPA:

> . . . Broadly speaking the Act requires an agency to undertake research during the planning of its programs that is adequate to expose their potential environmental impact and to disclose the results of this research to other interested agencies. The details of these research and disclosure requirements are set out at [section 102].
>
> Under section [102(2)](A) government agencies are directed to "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment." This section makes the completion of an adequate research program a prerequisite to agency action. The adequacy of the research should be judged in light of the scope of the proposed program and the extent to which existing knowledge raises the possibility of potential adverse environmental effects. The act envisions that program formulation will be directed by research results rather than that research programs will be designed to substantiate programs already decided upon. Thus, this provision of the Act requires a diligent research effort, undertaken in good faith, which utilizes effective methods, and reflects the current state of the art of relevant scientific discipline.
>
> Section [102(2)](C) requires the initiating agency to prepare and distribute an environmental impact statement concerning proposed programs. This statement is to contain the results of the research conducted during the planning phase together with adequate documentation . . . .
>
> A final procedural requirement of the Act is contained in section [102(2)](G), which requires the agencies to "initiate and utilize ecological information in the planning and development of resource-oriented projects." This directive recognizes the growing importance of the environmental sciences and directs the agencies to undertake research of a broader scope than may have been traditionally within their jurisdiction.[108]

Recognizing the potentially damaging effects of its program on non-target species, the Department undertook an extensive research program to identify and measure those effects. Large-scale field experiments simulating the proposed action tended to indicate that all species other than fire and certain oil-feeding ants were at normal population levels after application.

The program also involved extensive and continuing laboratory investigations of other possible effects of the proposed application on ecosystems.[109] The court found the study sufficient under NEPA.

Of course, most agencies conduct research into the likely effects of their proposals. The point here is that a program of research, adequate to reveal the proposal's environmental consequences, is a "prerequisite to agency action" that may not be dispensed with. If potentially significant impacts are poorly understood, and the research tools for investigating them are reasonably available, the agency is required to undertake the necessary research before it acts. A statement which fails adequately to reveal significant impacts because the necessary research was not carried out is not legally adequate.[110] The research on or monitoring of environmental impacts after and action is begun is no substitute for prior research, because the environmental consequences revealed once the action is taken cannot possibly be accounted for in the agency's initial decision of whether and how to act.[111]

Adequate Support for the Ultimate Choice Among Alternatives:

As described up to this point, the statement must include an adequate, objective analysis of all the significant impacts of the main proposal and alternatives, supported by adequate research. However, the agency's decision among alternatives is based on more than environmental considerations. It requires a careful balancing of all relevant factors--environ-

mental, technical, economic, and others. A member of the public or another agency critically evaluating a proposal and alternatives must do the same. A "reasoned choice" among alternatives based solely on environmental criteria is hardly useful input to the decision-making process: except for unusual actions having a net beneficial environmental impact, the choice would usually be for no action. Instead, NEPA requires that the reader be able to make an independent assessment of the overall desirability of the project and a selection of the most desirable alternative, all factors considered. Only in this way can the reader make a useful assessment of the environmental costs involved--in terms of the project's other costs and benefits. In fact, of course, the thoughtful reader does exactly this, to the extent that he can. But NEPA requires more of the agency than to leave the reader to intuition and guesswork, or substantial research of his own. It requires a statement of the other benefits which offset the environmental costs of the proposal, and a similar indication for each alternative.

The CEQ Guidelines contain an entire subsection on this requirement:

> The following points are to be covered: . . . (8) An indication of what other interests and considerations of federal policy are thought to offset the adverse environmental effects of the proposed action . . . . The statement should also indicate the extent to which these stated countervailing benefits could be realized by following reasonable alternatives to the proposed action . . . that would avoid some or all of the adverse environmental effects. . . .[112]

Moreover, the courts have supported this requirement.

> The complete impact statement must contain more than a catalog of environmental facts, however. The agency

must also "explicate fully its course of inquiry, its analysis, and its reasoning." Ely v. Velde, [3 ERC 1280, 1286] (4th Cir. 1971). Thus, the complete impact statement represents an accessible means for opening up the agency decision-making process and subjecting it to critical evaluation by those outside the agency, including the public.[113]

. . . [A] federal agency obligated to take into account the values . . . NEPA seek[s] to safeguard may not evade that obligation by keeping its thought processes under wraps. Discretion to decide does not include the right to act perfunctorily or arbitrarily. That is the anthesis of discretion.[114]

In short, the complete impact statement must contain a concise discussion of those factors which produce the benefits which make the project worth pursuing, and the degree to which those benefits could be attained through the various alternatives considered, plus a concise statement explaining the reasons behind the agency's ultimate choice among the proposal and other alternatives in terms of these factors. While this discussion need not approach the magnitude of the discussion of environmental impacts, it must meet the same standards of objectivity and adequate support (non-conclusoriness) imposed on the remainder of the statement.[115]

air and water pollution, poor land-use policies and urban decay can no longer be deferred for payment by future generations. These problems must be faced while they are still of manageable proportions and while alternative solutions are still available.

If the United States is to create and maintain a balanced and healthful environment, new means and procedures to preserve environmental values in the larger public interest, to coordinate Government activities that shape our future environment, and to provide guidance and incentives for State and local government and for private enterprise must be devised.

In spite of the growing public recognition of the urgency of many environmental problems and the need to reorder national goals and priorities to deal with these problems, there is still no comprehensive national policy on environmental management. There are limited policies directed to some areas where specific problems are recognized to exist, but we do not have a considered statement of overall national goals and purposes.

As a result of this failure to formulate a comprehensive national policy, environmental decision-making largely continues to proceed as it has in the past. Policy is established by default and inaction. Environmental problems are only dealt with when they reach crisis proportions. Public desires and aspirations are seldom consulted. Important decisions concerning the use and the shape of man's future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.

Today it is clear that we cannot continue on this course. Our natural resources--our air, water, and land--are not unlimited. We no longer have the margins for error that we once enjoyed. The ultimate issue posed by short-sighted, conflicting, and often selfish demands and pressures upon the finite resources of the earth are clear.

. . .

The committee believes that America's capacity as a nation to confront these conditions and deal more effectively with the growing list of environmental hazards and problems resulting from these conditions can be improved and broadened if the Congress clarifies the goals, concepts, and procedures which determine and guide the programs and the activities of Federal agencies. . . .

Id. at 5-6 (emphasis added). See Calvert Cliffs' Coordinating Committee v. AEC, 2 ERC 1779 (D.C. Cir. 1971) for a discussion of the purposes of the Act generally.

FOOTNOTES

[1]42 U.S.C. § 4321 et seq. (1970). NEPA § 102(2)(C) requires all Federal agencies to:

include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on--

(i) the environmental impact of the proposed action,
(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
(iii) alternatives to the proposed action,
(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes.

[2]The Senate Report on NEPA, S. Rep. No. 91-296, 91st Cong., 1st Sess. (1969), prepared recommending passage of the original Senate bill, indicates some of the policy problems NEPA is intended to confront:

Traditional policies were primarily designed to enhance the production of goods and to increase the gross national product. As a nation, we have been very successful at these endeavors. Our gross national product is approaching $900 billion a year. The American people enjoy the highest standard of living in the world. Our technological ability is unrivaled. But, as a nation, we have paid a price for our material well-being. That price may be seen today in the declining quality of the American government.

As the evidence of environmental decay and degradation mounts, it becomes clearer each day that the Nation cannot continue to pay the price of past abuse. The costs of

[3]These goals are to:

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

[4]F. Anderson, NEPA in the Courts 258-59. This book provides an excellent in-depth legal analysis of NEPA.

[5]NEPA § 102(1) provides that: ". . . to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act. . . ."

[6]EDF v. Corps of Engineers (Gillham Dam), 4 ERC 1721, 1725-28 (8th Cir. 1972), aff'g 4 ERC 1097 (E.D. Ark. 1972).

[7]Calvert Cliffs', supra note 2, 2 ERC at 1780.

[8]Id.

[9]See id. at 1784. AEC regulations prohibited power plant licensing review boards, which commonly raised technical questions, from raising environmental questions. The court invalidated the regulations as "mak(ing) a mockery of the Act." Id. at 1784.

[10]See Hanly v. Kleindeinst, 4 ERC 1785, 1792-93 (2d Cir. 1972); Rhode Island Committee on Energy v. GSA, 7 ERC 2096, 2107 (D.R.I. 1975).

Senator Jackson, the principal Senate sponsor of NEPA, stated:

If an environmental policy is to become more than rhetoric, . . . [all] agencies must be enabled and directed to participate in active and objective-oriented environmental management. Concern for environmental quality must be made part of every phase of Federal action.

115 Cong. Rec. 29087 (1969) (emphasis added); cited with approval, EDF v. Froehlke (Cache River), 4 ERC 1829, 1834 n. 18 (8th Cir. (1972).

[11] Calvert Cliffs', supra note 2, 2 ERC at 1781 n. 8:

> The word "appropriate" in § 102(2)(B) cannot be interpreted to blunt the thrust of the whole Act or to give agencies broad discretion to downplay environmental factors in their decision-making processes. The Act requires consideration "appropriate" to the problem of protecting our threatened environment, not consideration "appropriate" to the whims, habits, or other particular concerns of Federal agencies.

[12] Id. at 1781-82.

[13] E.g., flood plain zoning as an alternative to dams for flood control; solar energy as an alternative to fossil fuels and nuclear power.

[14] Calvert Cliffs', supra note 2, 2 ERC at 1782.

[15] 115 Cong. Rec. 3700 (1969).

[16] EDF v. Corps of Engineers (Tennessee-Tombigbee), 4 ERC 1408, 1415 (N.D. Miss. 1972).

[17] See Calvert Cliffs', supra note 2, 2 ERC at 1782.

[18] Scientists' Institute for Public Information (SIPI) v. AEC, 5 ERC 1418, 1423 (D.C. Cir. 1973).

[19] . . . The interdisciplinary approach should not be limited to the preparation of the environmental impact statement, but should also be used in the early planning stages of the proposed action. Early application of such an approach should help assure a systematic evaluation of reasonable alternative courses of action and their potential social, economic, and environmental consequences.

Council on Environmental Quality (CEQ), Guidelines for Federal Agencies Under the National Environmental Policy Act, 40 C.F.R. § 1500.8(c) (1975) (hereinafter cited as CEQ Guidelines).

> . . . The Act is addressed to agencies as a whole, not only to their professional staffs. Compliance to the "fullest" possible extent would seem to demand that environmental issues be considered at every important state in the decision-making process concerning a particular action--at every stage where an overall balancing of environmental and non-environmental factors is appropriate and where alterations might be made in the proposed action to minimize environmental costs.

Calvert Cliffs', supra note 2, 2 ERC at 1785 (emphasis original).

> Only in this fashion is it likely that the most intelligent, optimally beneficial decision will ultimately be made.

Id. at 1782.

[20] Initial assessments of the environmental impacts of proposed action should be undertaken concurrently with initial technical and economic studies. . . .

CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.2(b).

[21] E.g., siting studies for the Kaiparowits Generation Station spanned 9 years and 19 potential sites. The preferred site and the best alternatives changed several times in response to air pollution, esthetic, and economic studies. See BLM Environmental Impact Statement Handbook, App. 7, Fig. 3.

[22] Senator Jackson had this to say in his section-by-section analysis of the conference bill:

> A rigorous exploration and objective evaluation of alternative actions that might avoid some or all of the adverse environmental effects is essential. Sufficient analysis of such alternatives and their costs and impact on the environment should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might have less detrimental effects.

115 Cong. Rec. 40420 (1969), quoted in Sierra Club v. Froehlke (Wallisville Dam), 5 ERC 1033, 1068 (S.D. Tex. 1973), rev'd on other grounds, 6 ERC 2080 (5th Cir. 1974).

[23] It is exactly this problem of applicant bias which has lead to the strict requirement that the "responsible [government] official," NEPA § 102(2)(C), and not the applicant, prepare the impact statement. The applicant's analysis is too likely to be self-serving. See, e.g., Greene County Planning Board v. FPC, 3 ERC 1595, 1599-1600 (2d Cir. 1972).

[24] . . . [A] formal detailed statement and a description of alternatives . . . allows those removed from the initial process to evaluate and balance the factors on their own.

Calvert Cliffs', supra note 2, 2 ERC at 1782.

> What is required is information sufficient to permit a reasoned choice of alternatives so far as environmental impacts are concerned.

NRDC v. Morton, 3 ERC 1858, 1563 (D.C. Cir. 1972), aff'g 3 ERC 1473 (D.D.C. 1971), see also 3 ERC 1623 (D.D.C. 1972), text accompanying notes 43-44, 49-51 infra.

[25] Circulation of the draft statement for comments and adequate responses thereto, published in the final EIS, are required. See CEQ Guidelines, supra note 19, 40 C.F.R. §§ 1500.2(b)(7), (3), .7(a), .9, .10.

[26] See 115 Cong. Rec. 40416 (1969) (remarks of Senator Jackson); Senate Report, supra note 2, at 9.

[27] Rhode Island Committee on Energy, supra note 10, 7 ERC at 2105.

[28] . . . [B]y compelling a formal 'detailed statement' and a description of alternatives NEPA provides evidence that the required decision-making process has in fact taken place. . . .

Calvert Cliffs', supra note 2, 2 ERC at 1782.

[29] Congressman Dingell, a main sponsor of NEPA, recently was reported as saying:

> The success of the environmental impact statements is not so much that they were used as we intended they should, but that citizens have been able to use the process as a way to get into courts. . . . Some agencies are complying poorly. They decide what they are going to do and then write an environmental impact statement to support the decision. That is not what Congress had in mind. I am fearful that we are breeding a race of impact statement writers who put all the right words down but don't really get environmental concerns involved in the decision-making process. The impact statement itself is not important. The important thing is that proper judgments are made reflecting environmental considerations in the decision-making process. The impact statement should be a discipline for this and also a process by which the public can be informed and brought into the decision-making process.

Quoted in United States v. SCRAP, 5 ERC 1449, 1467 n. 10 (U.S. 1973) (Douglas, J., Dissenting); SCRAP v. United States, 6 ERC 1305, 1311 n. 25 (D.D.C. 1974).

[30] F. Anderson, supra note 4, at 266.

[31] Department of the Interior, A Review of Environmental Impact Statement Processes Within the Department of the Interior II-3 to -5 (April, 1974).

[32] The Review identified "alternatives" as one of seven NEPA terms for which lack of a clear definition within DOI has lead to considerable confusion. It recommends the following definition:

> Other reasonably available courses of action of comparable or lesser scope which may wholly or partially achieve the specific objective or objectives of the proposed Federal action and which may reasonably be expected to cause less environmental damage. Actions outside the authority of the agency and the option of taking no action at all must be included.

Review, supra note 31, at IV-12. Except for the word "specific", this report supports that definition.

[33] NEPA § 102(2)(D) directs agencies to "study, develop, and describe appropriate alternatives. . . ."

[34] While the search for alternatives need not be an exhaustive investigation convering every conceivable option, the law requires a "hard look" and a thorough investigation of reasonably available alternatives. NRDC v. Morton, supra note 24, 3 ERC at 1563-64; Sierra Club v. Froehlke, supra note 22, 5 ERC at 1075.

[35] Most of the suggestions made below are stated succinctly in the CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(a)(4), which should be read carefully.

[36] From a legal point of view, mitigation measures and alternatives are equivalent--they simply connote different points in a continuous spectrum.

[37] . . . [E]ach of the primary environmentally adverse effects must be considered, and alternative approaches to the project should be considered with an eye to mitigating each or all of these.

Sierra Club v. Froehlke, supra note 22, 5 ERC at 1075-76.

[38] E.g., Calvert Cliffs', supra note 2, 2 ERC at 1782; Committee to Stop Route 7 v. Volpe, 4 ERC 1329, 1333 (D. Conn. 1972).

[39] NRDC v. Morton, supra note 24, 3 ERC at 1563; Calvert Cliffs', supra note 2, 2 ERC at 1793.

[40] 3 ERC 1884 (E.D.N.C. 1972) (project enjoined pending preparation of an impact statement), 5 ERC 1001 (E.D.N.C. 1973) (project further enjoined pending preparation of an adequate impact statement).

[41] National Wildlife Federation v. Morton, 7 ERC 2128 (D.D.C. 1975).

[42] Id. at 2136-37.

[43] NRDC v. Morton, supra note 24, 3 ERC at 1562.

[44]Id. at 1562-64.

[45]In addition, any seemingly obvious alternative which is deemed infeasible should also be included, with a brief explanation of why it is so judged. This helps the reader to make an independent assessment of the agency's selection of alternatives.

[46]The statement in the Review, supra note 31, at IV-12, that an alternative must ". . . achieve the specific objective or objectives of the preposed Federal action . . ." (emphasis added), should not be strictly interpreted.

[47]Clearly, a wide range of alternatives to an energy project can most realistically be considered in an "umbrella" or programmatic statement, leaving project statements to focus on a narrower range of options. Consideration of radically ferent alternatives in each project statement tends to be . ply formulaic, having little impact on the decision.

[48]7 ERC 1016, 1022-24 (D.D.C. 1974).

[49]Supra note 24.

[50]3 ERC at 1561-63.

[51]This is not to say that such long-term alternative sources need not be discussed in connection with alternatives such as postponement or more gradual development, which might substantially avoid the projected impacts due to new technology in the long term.

[52]7 ERC 1769 (5th Cir. 1975).

[53]Id., at 1775, 1776.

[54]NRDC v. Morton, supra note 24, 3 ERC at 1561-63. Equally irrelevant is whether or not an alternative would require separate Congressional authorization before implementation. EDF v. Froehlke (Cache River), supra note 10, RC at 1832.

[55]A well-known example is the employment of non-structural alternatives, such as flood plain zoning, to dams for flood damage control.

[56]EDF v. Corps of Engineers (Gillham Dam), 2 ERC 1260,1267 (E.D. Ark. 1971) (emphasis original).

[57]See F. Anderson, supra note 4, at 201.

[58]EDF v. Corps of Engineers (Tennessee-Tombigbee), supra note 16, 4 ERC at 1419.

[59]EDF v. Corps of Engineers (Gillham Dam), 4 ERC 1097, 1100 (E.D. Ark. 1972).

[60]Sierra Club v. Froehlke, supra note 22, 5 ERC at 1067.

[61]Id. n. 209.

[62]Hanly v. Kleindienst, supra note 10, 4 ERC at 1794-96 (Friendly, C.J., dissenting); cf. id. at 1790 (majority opinion). The majority opinion lists two factors to be considered in testing significance:

> . . . (1) the extent to which the action will cause adverse environmental effects in excess of those created by existing uses in the area affected by it, and (2) the absolute quantitative adverse environmental effects of the action itself, including the cumulative harm that results from its contribution to existing adverse conditions or uses in the affected area. Where conduct conforms to existing uses, its adverse consequences will usually be less significant than when it represents a radical change. . . .

Id. at 1789 (majority opinion); see Simmons v. Grant, 6 ERC 1224, 1229-31 (S.D. Tex. 1974).

[63]The CEQ Guidelines discussion of significance in the context of "actions significantly affecting the . . . environment" is instructive:

> Section 101(b) of the Act indicates the broad range of aspects of the environment to be surveyed in any assessment of significant effect. The Act also indicates that adverse significant effects include those that degrade the quality of the environment, curtail the range of beneficial uses of the environment, and serve short-term, to the disadvantage of long-term, environmental goals. Significant effects can also include actions which may have both beneficial and detrimental effects, even if on the balance the agency believes that the effect will be beneficial. . . . The significance of a proposed action may also vary with the setting. . . . While a precise definition of environmental "significance," valid in all contexts, is not possible, effects to be considered in assessing significance include, but are not limited to, those outlined in Appendix II of these guidelines.

CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.6(b).

[64]Senate Report, supra note 2, at 4.

[65]The Review indicates that impact statements tend to contain unnecessarily detailed and frequently irrelevant discussion relating to the description of the existing environment, apparently because data is easily obtainable or the author is an expert in a particular subject. Review, supra note 31, at V-6.

[66]CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(a)(3)(i).

[67]NRDC v. Grant, supra note 38, 5 ERC at 1004-05.

[68]The Review identifies "secondary impacts" as one of seven terms requiring better definition within the Department of the Interior, and suggests the following definition:

> Any effects (impacts) which it is reasonable to anticipate will be caused directly by the primary impacts of the Federal action, or indirectly by the Federal action itself. Secondary impacts may not be quantifiable.

Review, supra note 31 at IV-10 to -14. It is suggested that the CEQ's characterization, see text accompanying note 69, infra, is more informative.

[69]CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(a)(3)(ii).

[70]See J. Gilmore & M. Duff, A Growth Management Case Study: Sweetwater County, Wyoming (Denver Research Institute, 1975).

[71]Hanly v. Mitchell, 4 ERC 1152, 1156-57 (2d Cir. 1972).

[72]This section is founded on a study by VTN Inc.

[73]EDF v. TVA, 3 ERC 1553, 1554-55 (E.D. Tenn. 1972), aff'd, 4 ERC 1850 (6th Cir. 1972).

[74]EDF v. TVA, 6 ERC 1008, 1012 (E.D. Tenn. 1973), aff'd 6 ERC 1369 (6th Cir. 1974).

[75]CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.6(a). The Review identifies "cumulative impacts" as one of the seven terms requiring better definition within the Department of the Interior, and suggests the following definition:

> The accumulation over a period of time of all the effects (impacts) of a Federal action or group of Federal actions having similar effects; and the aggregation of all effects of all Federal actions within a given geographical area including Federal actions contemplated in the reasonably foreseeable future.

Review, supra note 31, at IV-10 to -14. This definition would be satisfactory were it not confined to Federal actions. See text.

[76]NRDC v. Grant, supra note 40, 5 ERC at 1006.

[77]Senate Report, supra note 2, at 5 (emphasis added); see NRDC v. Morton, supra note 24, 3 ERC at 1563.

[78]See generally Scientists' Institute, supra note 18.

[79]16 U.S.C. § 661 et seq.

[80]16 U.S.C. § 470 et seq.

[81]16 U.S.C. § 1531 et seq.

[82]42 U.S.C. § 1857 et seq.

[83]33 U.S.C. § 1251 et seq.

[84]See CEQ Guidelines, supra note 19, 40 C.F.R. §§ 1500.8(b), .9(a).

[85]Hereafter, the term "statement" will mean a single conclusion or assertion, and "impact statement" will always be used to identify the entire document.

[86]A sound construction of NEPA . . . requires a presentation of the environmental risks incident to reasonable alternative courses of action.

> . . . [I]t is the essence and thrust of NEPA that the pertinent statement serve to gather in one place a discussion of the relative environmental impacts of alternatives.

NRDC v. Morton, supra note 24, 3 ERC at 1561.

[87]CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(a)(4) (emphasis added).

[88]"Conclusory" means stating a conclusion without showing how it follows from antecedent facts and principles. See text preceding note 94 infra.

[89]Monroe County Conservation Council v. Volpe, 4 ERC 1886, 1888 (2d Cir. 1972).

[90]NRDC v. Morton, supra note 24, 3 ERC at 1563.

[91]AT&SF v. Callaway, supra note 48, 7 ERC at 1023-24; see text accompanying note 48 supra.

[92]EDF v. Corps of Engineers (Gillham Dam), supra note 59, 4 ERC at 1098; Sierra Club v. Froehlke, supra note 22, 5 ERC at 1067.

[93]EDF v. Armstrong, 4 ERC 1760, 1762 (N.D. Cal. 1972). ". . . [S]tatements are to serve as the means of assessing the environmental impacts of proposed agency actions, rather

than as a justification for decisions already made." CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.7(a) (emphasis added).

[94]NRDC v. Grant, supra note 40, 5 ERC at 1004-05; see also ATSF v. Callaway, supra note 48, 7 ERC at 1023-24; text accompanying note 91 supra.

[95]Brooks v. Volpe, 4 ERC 1492, 1497 (W.D. Wash. 1972).

[96]K. Davis, Administrative Law Text 332; see generally id. chap. 16.

[97]See Citizens to Preserve Overton Park v. Volpe, 2 ERC 1250, 1256 (U.S. 1971).

[98]See D.C. Federation of Civic Associations v. Volpe, 3 ERC 1143, 1153 (D.C. Cir. 1971).

[99]See K. Davis, supra note 96, chap. 16.

[100]EDF v. TVA (Tellico Dam), 3 ERC 1553, 1554-55 (E.D. Tenn. 1972).

[101]CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(a)(1); Brooks v. Volpe, supra note 95, 4 ERC 1496-97.

[102]Jordan, Alternatives Under NEPA: Toward an Accommodation, 3 Ecology L.Q. 705, 724-25 (1973) (footnote omitted).

[103]Sierra Club v. Froehlke, supra note 22, 5 ERC at 1096.

[104]CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(a)(4) (emphasis added). CEQ had originally proposed that the underlined word be "permit." Environmental groups strenously objected that this might allow agencies to leave to the reader the job of ascertaining the comparative impacts involved. See generally Jordan, supra note 102, at 726-29.

> [105][A]gencies should make every effort to convey the required information succinctly and in a form easily understood, both by members of the public and by public decision-makers, giving attention to the substance of the information conveyed rather than to the particular form, or length or detail of the statement.

CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(b).

> which environmental effects are essentially unknown. It must be remembered that the basic thrust of an agency's responsibilities under NEPA is to predict the environmental effects of proposed action before the action is taken and those effects fully known. Reasonable forecasting and speculation is thus implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as "crystal ball inquiry." "The statute must be construed in the light of reason if it is not to demand what is, fairly speaking, not meaningfully possible***." But implicit in this rule of reason is the overriding statutory duty of compliance with impact statement procedures to "the fullest extent possible."

Id. (footnotes omitted).

[111]Lathan v. Volpe, 4 ERC 1487, 1490 (W.D. Wash. 1972). "NEPA . . . does not authorize [agencies] to meet their responsibilities by locking the barndoor after the horses are stolen."

[112]CEQ Guidelines, supra note 19, 40 C.F.R. § 1500.8(a)(8).

[113]EDF v. Froehlke (Cache River), supra note 10, 4 ERC at 1832 (emphasis original).

[114]Ely v. Velde, 3 ERC 1280, 1286 (4th Cir. 1972).

[115]The Review supports the position that the EIS is a decision-making document as well as an informational document. Review, supra note 31, at V-4. Its position on the inclusion of economic, technical, and other information is unclear. Id. at V-5 to -7. It does present several arguments that have been made for the exclusion of such material, which we deal with here:

(1) The EIS is one of several inputs to the decision-making process, not the sole decision-making document, and thus need not contain all the information necessary for a decision: As pointed out in the text, the EIS is the sole decision-making document available to other agencies and the public, upon which they must decide whether the environmental impacts of the project are justified in terms of its benefits, and, all factors considered, which alternative is preferred. Without some discussion of the important non-environmental factors, intelligent public review is more difficult, and review of the reasons behind the agency's ultimate choice among alternatives is practically impossible.

(2) Additional information will overload the EIS: Additional information will no doubt lengthen the document. However, the discussion of non-environmental factors need not be so

[106]EDF v. Corps of Engineers (Tennessee-Tombigbee), supra note 16, 4 ERC at 1419. The Wallisville Dam court gives an example of what is necessary:

> There is some discussion of water quality couched in terms of parts per million, but it fails to provide the non-technical reader with a scale of reference as to what is acceptable and what is not.

Sierra Club v. Froehlke, supra note 22, 5 ERC at 1073; see also id. at 1067-68.

[107]2 ERC 1425 (D.C. Cir. 1971).

[108]Id. at 1426 (emphasis added); cited with approval, Brooks v. Volpe, supra note 95, 4 ERC at 1498.

[109]2 ERC at 1428.

[110]NEPA required each agency to undertake the research needed to adequately expose environmental harms [citing EDF v. Hardin, supra note 107]. . . .

> Clearly, the "detail" [for the "detailed statement"] must flow from research conducted according to the statute's mandate. If [agencies] have access to studies already conducted which show the environmental effects of a similar project under substantially identical conditions, then the detail can be supplied by referring to and summarizing from these studies. If no such information is available, then [agencies] must see to it that the necessary research is conducted.

Brooks v. Volpe, supra note 95, 4 ERC at 1498.

The court's statement in SIPI v. AEC, supra note 18, 4 ERC at 1426, that ". . . one of the functions of a NEPA statement is to indicate the extent to which environmental effects are essentially unknown" is not a loophole through which NEPA's research requirements can be escaped. It refers only to unusual situations in which complete research on all the environmental impacts of a proposal is impossible; the case itself concerned the AEC's entire Liquid Metal Fast Breeder Reactor program. The statement's context supports exactly the conclusions reached in the text:

> Similarly, Section 102(C)'s requirement that the agency describe the anticipated environmental effects of proposed action is subject to a rule of reason. The agency need not foresee the unforeseeable, but by the same token neither can it avoid avoid drafting an impact statement simply because describing the environmental effects of and alternatives to particular agency action involves some degree of forecasting. And one of the functions of a NEPA statement is to indicate the extent to

detailed as the environmental discussion; it should focus briefly on the most important considerations and omit lesser factors entirely. The objective is to sketch the factors, the net result of which the agency believes justify the action' environmental costs, and to show how that result might be achieved by alternatives.

(3) Other factors will "dilute" or "diminish the significance" of environmental factors: This objection is basically a red herring. Environmental factors can receive exactly the same treatment and be presented with exactly the same level of significance whether other factors are included or not. Other factors should be segregated in separate sections or paragraphs in order to avoid the appearance that they are being included to "dilute" the environmental impact. Moreover, enabling independent evaluation of the agency's reasons for its final choice among alternatives is a necessary function of the EIS, and some consequent expansion of the otherwise strictly environmental tone of the EIS is not only required, but if properly handled will add perspective against which environmental factors can be better evaluated.

(4) Inclusion of non-environmental factors will reduce the objectivity of the EIS and tend to convert it to a justification of the proposal: This may indeed result if the economic presentation is limited to "the benefits or objectives-of-the-proposal side, in order to achieve a [so-called] balanced presentation." Id. at V-6. But in fact, there is no reason why economic and other factors cannot be presented just as objectively as environmental factors. They only become a "justification" of the decision if presented in slanted fashion, in order to minimize the impacts of the proposal and magnify the problems of alternatives, as some impact statements have attempted to do. If properly and objectively presented, they do not constitute an attempt to "justify a decision already made." Hopefully, when objectively presented, they will show that the agency's final decision is in fact justified, all factors considered. If they do not, something is seriously wrong with the decision itself, and it is one purpose of the EIS to reveal this problem.

Developed by the Nature Conservancy for their 1/27/87 letter to the Corps.

Washington State
Site Name **HANFORD REACH**

County: Benton, Franklin, Grant
Acres: 25,000*
USGS Quads: Coyote Rapids 15'
Hanford 15'
Wooded Island 7.5'
Legal: T 13 N R 23-28 EWM
T 14 N R 25-27 EWM
T 10-12 N R 28 EWM

Site Description

The Hanford Reach is the last significant relatively free-flowing reach of the Columbia River in the United States -- an approximately 55 mile stretch located north of Richland, Washington between river miles 340 and 395 (Priest Rapids Dam). This extensive and diverse riverine habitat contains over 17 river islands, native riparian vegetation, free-flowing riffles, gravel bars, oxbow ponds, backwater sloughs, and shorelines ranging from gentle slopes to steep bluffs. The Hanford Reach is identified by the U.S. Fish and Wildlife Service as one of the two most important fish and wildlife habitats in Washington.

The reach is habitat for several plant and animal species classified as Endangered, Threatened and Sensitive, including the State Endangered White Pelican, State and Federally Threatened Bald Eagle, proposed State Threatened Columbia River Spire Snail and Giant Columbia River Limpet, and the State Endangered plant- - persistantsepal yellowcress. The reach is the last major natural salmonid spawning area on the Columbia River and many other fish species occur in the diverse aquatic habitats. Bird abundance and diversity is very high, especially for wintering waterfowl, colonial nesting species, Canada geese, and raptors. The area is also important habitat for many species of mammals, reptiles, amphibians and invertebrates. With its relatively free-flowing water, the Hanford Reach represents the most natural and diverse fish and wildlife habitat area on the mid-Columbia.

The Hanford Reach lies almost totally within the boundary of the U.S. Department of Energy's Hanford Reservation.

Ecological Significance

With the exception of the Hanford Reach, all of the Columbia River above Bonneville Dam in the United States has been inundated and drastically altered by dams and reservoirs created for hydroelectric power and irrigation. The Hanford Reach is the last significant stretch which suggest the original condition of the pre-settlement mid-Columbia River and the wealth of plant and animal species it supported. It presents one of the final opportunities to protect what little remains of the Columbia River's natural heritage.

Endangered, Threatened and Sensitive species known at the site:

Plant species:

Rorippa columbiae (persistantsepal yellowcress) - largest population known for this species. One of only 11 plants in Washington classified as State Endangered.

Carex densa (dense sedge)- classified as Sensitive in Washington
Cyperus rivularis (shining flatsedge) - Sensitive in Washington
Lindernia anagallidea (false pimpernel) - Sensitive in Washington
Limosella acaulis (southern mudwort) - Sensitive in Washington

Animal species

Pelecanus erythrorhynchus (American White Pelican)	- State Endangered, regular wintering area
Haliaeetus leucocpehalus (Bald Eagle)	- State and Federally Threatened, regular wintering area
Lithoglyphus columbiana (Columbia River Spire Snail)	- Proposed State Threatened, only known site anywhere for this species.
Fisherola (Lanx) nuttalli (Giant Columbia River Limpet)	- Proposed State Threatened, largest site of only two known for this species
Buteo swainsoni (Swainson's Hawk)	- Proposed State Sensitive, also nests in vicinity of reach.

Other special animal occurrences found at the site include:

Catostomus platyrhynchus (Mountain Sucker)	- Proposed State Monitor fish species.
Percopsis transmontana (Sand Roller)	- Proposed State Monitor fish species.
Papilio oregonius (Oregon Swallowtail)	- Proposed State Monitor butterfly.
Ardea herodias (Great Blue Heron)	- Proposed State Monitor, nests in rookeries along reach.
Nycticorax nycticorax (Black-crowned night heron)	- Proposed State Monitor, nests in rookeries along reach.

Other special fish and wildlife features at the site:

-Used by 21 species of raptors, 10 of which nest on or adjacent to the reach.
-Five amphibian, ten reptile, and at least 35 mammal species occur in the vicinity.
-Forty-three species of fish occur in the diverse aquatic habitats of the reach.
-Only salmon and steelhead-trout spawning grounds remaining on the Columbia. In 1986, 300,000 wild fall chinook salmon entered the Columbia river, most of which were spawned naturally in the reach.
-Two California gull colonies of 600 pairs were reported from the reach in 1980.
-Two ring-billed gull colonies (1200 pairs) were reported in 1980 from the reach.
-One Forster's tern colony of 25 pairs was reported in 1980 from the reach.
-Canada geese numbering 100 to 300 pairs nest on islands in the reach, in some years producing over 800 young (reported in 1980 as ca. 15% of the state total for Canada geese).
-Mule deer use the islands along the reach extensively for fawning. Thirty to fifty fawns are born on the islands annually.

ECOLOGICAL SIGNIFICANCE Hanford Reach

Other special fish and wildlife features at the site (continued):

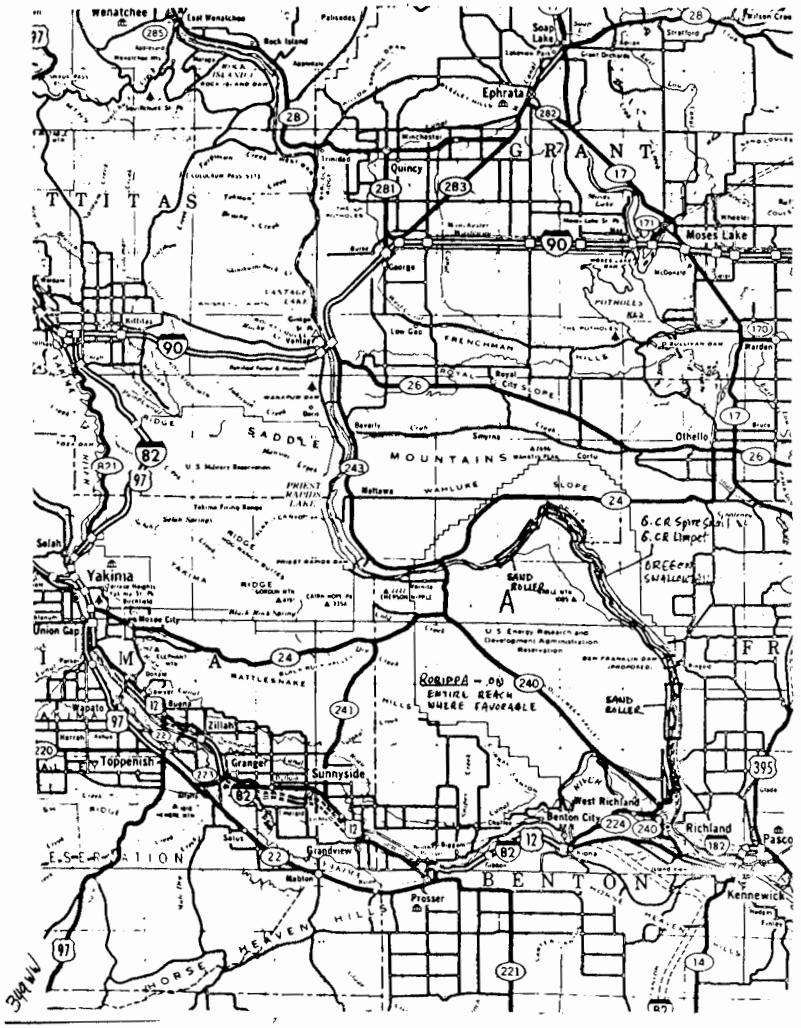
-Islands along the reach were reported in 1980 to be used regularly by 30,000 to 50,000 wintering ducks, and 3,000 to 6,000 wintering Canada geese.

The reach is the last remaining significant stretch of the river which presents glimpses of the natural riparian communities of plants and animals which once comprised the great mid-Columbia River ecosystem.

Further information on natural features at the site can be obtained from the Washington Natural Heritage Program (DNR), and Washington Department of Game, Nongame Wildlife Program data systems

HANFORD REACH
COLUMBIA RIVER

Approximate Boundary



IMPORTANT FISH AND WILDLIFE HABITATS

OF

WASHINGTON

AN INVENTORY

U. S. Fish and Wildlife Service

MAY 1980

HANFORD REACH OF COLUMBIA RIVER

I. STATE: Washington COUNTY: Yakima, Benton, Grant, Franklin TOTAL ACRES: Minimum 25.000

LEGAL DESCRIPTION: Columbia River and adjacent lands from river mile 345 to Priest Rapids Dam (River Mile 397) and lying within the following area:

T13N R23E, 24E, 25E, 26E, 27E 28E,
T14N R25E, 26E, 27E,
T12N R28E,
T11N R28E,
T10N R28E.

II. WILDLIFE SPECIES, HABITAT AND SIGNIFICANT ECOSYSTEM VALUES

A. Reason for uniqueness or national significance

The Hanford Reach is the last significant (over 50 river miles) free flowing reach of the Columbia River in the United States. The rest of the Columbia has been inundated and drastically altered by dams and reservoirs created for hydro-electric power generation and irrigation diversion. Because the Hanford Reach is still free flowing it represents the most diverse fish and wildlife habitat area on the mid-Columbia River.

The Hanford Reach lies almost totally within the Department of Energy's Hanford Reservation which has been closed to public access since 1942. This unique situation has provided a sanctuary where plants and animals have remained protected from the surrounding pressures of human growth and development for over 35 years.

B. Endangered, threatened, or endemic species (including plants and invertebrates)

The reach is used as a wintering area by as many as 15 bald eagles. Peregrine falcons may use the area during migration.

One plant species Allium robinsonii, listed by the Smithsonian Institute as threatened, occurs on the site. Another plant, Astragalus columbianus, once thought extinct, has been recently collected on the reach.

Two invertebrate species, Lanx nutalli nutalli (the giant Columbia River limpet) and Lithoglyphus columbiana (the giant

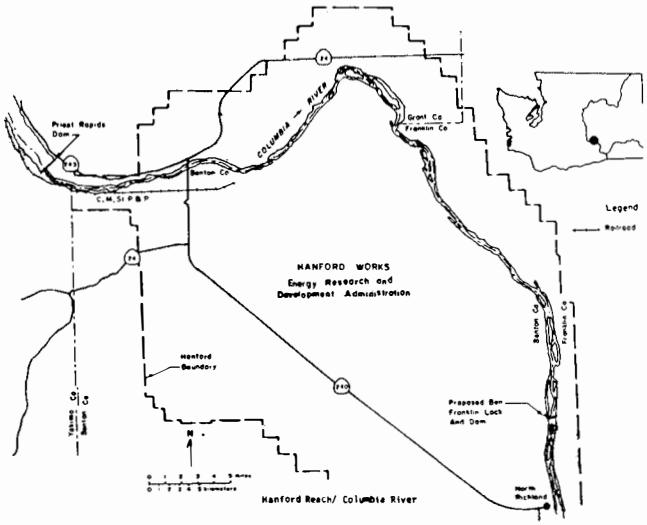


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Figure 6

Columbia River spire snail), are believed to be endemic to the Hanford Reach. A recommendation to classify these species as endangered has been made to the Fish and Wildlife Service but an official determination has not been made yet.

C. Species abundance and diversity

Forty-three species of fish occur in the diverse aquatic habitats of the reach. Avian abundance is high for colonial nesting species, wintering waterfowl and nesting Canada geese. Avian diversity is high including some of the most diverse raptor use in the state (21 species, 10 of which nest on or adjacent to the reach). Five amphibian, ten reptile, and at least 35 mammal species occur in the area.

D. Species of major concern and reasons

There are 21 state-listed species of fish occurring in the Hanford Reach. Included are the white sturgeon and the uncommon sand roller. The reach is the last major natural salmonid spawning area on the Columbia and annually supports 20,000 to 30,000 spawning fall chinook and 10,000 steelhead trout.

There are at least 21 state-listed species of birds that use the reach or adjacent lands. Most notable are prairie falcons (8 nesting pairs) and long-billed curlews.

Other state-listed animals on the reach include one mammal, three amphibian, and five reptile species.

E. Wildlife values, including different and outstanding wildlife associations and habitat types

Within the Hanford Reach, colonial nesting species include a black-crowned night heron rookery of 20 pairs (1974), a Forster's tern colony of 25 pairs, two ring-billed gull colonies (1,200 pairs), two California gull colonies (600 pairs), and a great blue heron rookery of 100 pairs.

On the reach there are 17 islands of high wildlife value. Canada geese numbering 100 to 300 pairs nest on these islands and have, in some years, produce over 800 young. This production is approximately 15 percent of the state total for Canada geese.

Mule deer use the islands extensively for fawning. Thirty to fifty fawns are born on the islands annually.

The islands are used as loafing sites by 30,000 to 50,000 wintering ducks, primarily mallards, and 3,000 to 6,000 wintering Canada geese.

F. Relict, localized, limited, or otherwise significant ecosystems

Native riparian habitat, free flowing riffles, gravel bars, oxbow ponds, back water sloughs, and the White Bluffs are all localized and limited habitats of the Columbia River present in the Hanford Reach.

III. THREAT OF OESTRUCTION/OEGREE OF PROTECTION

A. Nature of threat and probability of occurrence within two, five, or 10 years

The threat to the Hanford Reach is immediate. The U.S. Army Corps of Engineers in the 1960's proposed that the Ben Franklin Dam be built at approximately River Mile 348. This hydroelectric dam and reservoir would inundate the Hanford Reach and destroy most of the area's inherent value to fish and wildlife. The proposal was first dropped in 1969 because of objections from the U.S. Fish and Wildlife Service and other agencies concerned about the environmentally damaging impacts of the project. However, the proposal is now being reconsidered.

Other threats include a proposal by the Corps to dredge a navigation channel from Richland to Priest Rapids Dam, upstream pumped storage, power peaking, increased withdrawals for irrigation, and increased public access to the reach. The feasibility of a navigation channel appears economically impractical at this time.

B. Severity of impact and permanence of change

Ben Franklin Dam is the most environmentally damaging of the threats to Hanford Reach. The dam would permanently eliminate most salmonid spawning areas and possibly cause the extinction of two invertebrate species; the giant Columbia River limpet and the giant Columbia River spire snail. Eighty percent of the islands would be inundated; greatly impacting Canada goose nesting, mule deer fawning, and winter waterfowl use. Riparian habitats would be eliminated and would not be expected to reestablish themselves for at least 30 to 50 years.

The proposed navigation channel would have permanent though less severe impacts. Salmonids, waterfowl, deer, raptors, spawning gravel beds, and riparian vegetation would be affected. Power peaking, pumped storage, irrigation withdrawals and increased public use are expected to have similar impacts.

V. OWNERSHIP INFORMATION

Type of Ownership	No. of Ownerships	Residences	Acres	Cost Est.
Private	Few	Few, if any		Unknown
Federal	2	None	20,000+	None

VI. OTHER AVAILABLE INFORMATION

A. Identified by others as an area of concern

The Washington Department of Game, National Marine Fisheries Service, Department of Energy, Battelle Pacific Northwest Laboratories, Pacific Northwest Regional Commission, Pacific Northwest River Basin Commission, and the Columbia River Conservation League (CRCL) have all identified the reach as an area of concern.

B. Other available information (publications, reports, etc.)

Numerous scientific studies of the Hanford Reach have been conducted by Battelle Pacific Northwest Laboratories at Richland. The U.S. Army Corps of Engineers has recently completed a study of riparian habitats of the Columbia River. Additional information is available from the U.S. Fish and Wildlife Service, Olympia Area Office.

VII. ADDITIONAL COMMENTS

A. Controversial aspects related to the site

Efforts to preserve the natural integrity of the reach will impact local, state, and federal entities that are interested in developing the reach for hydropower and recreation.

B. Availability

Most of the land is administered by the Department of Energy. Acquisition of private lands would be minimal.

C. Possible means of protection

Most of the land is already in federal ownership. Possible alternatives for protection include: National Environmental Research Park (present status), National Wildlife Refuge, Wild and Scenic River, Research Natural Area, National Natural Landmark, National Historic Landmark (first nuclear reactor site in U.S.), National Registry for Archeological Sites, or special congressional legislation.

D. Estimated annual operational/maintenance expenditures

These costs would be minimal if the reach is left in its present natural state; however, if recreation sites are developed, operation and maintenance costs could be substantial.

E. Development needs

Development of additional riparian habitats (tree plantings, etc.) would greatly benefit wildlife along the reach. Other development needs would be dependent upon the final determination for the reach (development or preservation) and the management scenario that is implemented.

F. Recreational and/or environmental education potential

The reach has tremendous potential for sport fishing, hunting, camping, picknicking, boating, and education. However, many of these activities would impact fish and wildlife populations, e.g., people on islands during goose nesting and deer fawning. Many of these recreational and educational opportunities may be precluded by the overriding considerations for the Hanford Project, the needs for security and protection for human health and safety.

G. History

Old townsites of Hanford, Wahluke, and White Bluffs occur along the reach. One cabin associated with the Hudson Bay Company dates back to the 1850's. Because the Hanford Reservation represents the first major endeavor in nuclear science in the world, the site has great historical value and may some day be designated as a National Historic Landmark.

H. Archeological information

The reach is very rich in archeological resources. There are 105 known sites, three of which are probably significant enough to warrant full excavation and national registry.

TABLE 1

WASHINGTON IMPORTANT FISH AND WILDLIFE HABITAT RANKING

Values:
L - Low
M - Medium
H - High

RANK	CANDIDATE AREAS	Species Value	Habitat-Value	Secondary Biological Value	Threat	Total	Education & Recreation Values	Development Cost	Management Cost	Acres
1.	Padilla/Samish Bay	24	23	14	20	81	H	L	H	18,200
2.	Hanford Reach - Columbia R.	21	20	21	18	80	M	L	M	25,000+
3.	Protection Island	21	21	14	19	75	H	L	M	346
4.	Sequim Bay	23	17	10	20	70	H	L	M	3,325
5.	McNeil Island	21	9	13	16	59	H	L	H	4,400
6.	Point New	19	18	8	12	57	M	L	L	348
7.	Juniper Woods	18	19	7	11	55	H	L	M	8,500
8.	Bowerman Basin	19	5	13	18	55	M	L	L	540
9.	Graysmarsh	23	6	13	12	54	M	M	M	850
10.	Kah Tai Lagoon	20	6	9	18	53	H	L	L	100
11.	Deer Lagoon	20	5	10	18	53	M	L	L	400
12.	Union River Estuary	19	5	9	19	52	M	L	L	340
13.	Crockett Lake	19	5	8	18	50	M	H	H	200
14.	Renton Marsh	19	4	9	18	50	M	M	M	2,200
15.	Black River Swamp	19	5	7	16	47	L	L	L	775
16.	Tukwila Pond	16	1	9	18	44	H	L	M	39
17.	Fisher Island	21	3	6	13	43	L	L	L	186
18.	Kellogg Island	14	1	8	19	42	L	L	L	14
19.	Upper Esquatzel Coulee	19	1	8	13	41	L	L	L	?
20.	Thorndyke Marsh	10	8	8	15	41	H	L	M	40

A2

CIRCLE ONE OR MORE: FRESH WATER, LAND, MARINE, ESTUARY

Lithoglyphus columbiana (Pilsbry, 1899)

COMMON NAME Giant Columbia River Spire Snail

SCIENTIFIC NAME: GENUS Lithoglyphus SPECIES columbiana SUBSPECIES

PHYLUM Mollusca CLASS Gastropoda ORDER Mesogastropoda FAMILY Hydrobiidae

Are there data suggesting the species (or subspecies) is presently in jeopardy?
no

Are there data suggesting the species (or subspecies) is potentially in jeopardy?
yes

If either explain why. This species lives together with Lanx nuttalli nuttalli another endangered species, and is threatened by the same forces. It lives in free-flowing portions of the main Columbia River and because of the damming on one such area remains in the U.S. If that portion is dammed or polluted the species will probably become extinct.

DISTINGUISHING CHARACTERISTICS: Adult specimens are about 7½mm long, dark, with a conspicuous, narrow shoulder on the body whorl and with the upper part of the body whorl flattened and sloping to the rounded periphery which is located well below the centre of the whorl. The aperture is narrowed posteriorly and lacks callus on the posterior part of the inner lip.

PRESENT DISTRIBUTION: Columbia River probably only in the area between Priest Rapids Dam (46°38.4'N, 119°54.4'W) and the head of McNary Lake (46°31.4'N, 119°16.7'W) in the main river channel.

FORMER DISTRIBUTION: Presumably throughout the Columbia River from the Spokane River downstream to the mouth of the Columbia and in the Spokane and Little Spokane rivers near Spokane. Early records from the Snake River have been re-assigned to other species.

HOW COMPLETELY IS THE DISTRIBUTION KNOWN? Unknown.

HABITAT REQUIREMENTS OR CHARACTERISTICS: Apparently restricted to the main channel of the free-flowing portion of the river at depths deep enough to remain flooded even with seasonal drying and water-level manipulation at the Priest Rapids Dam. The species lives on diatom-covered rocks.

POPULATION STATUS AND TRENDS: Apparently healthy in the occupied area.

TABLE 2

ECOLOGICAL SIGNIFICANCE (WILDLIFE, BOTANICAL, & ECOSYSTEM VALUES)

STATE	RANK	NAME		THREAT	PROTECTION	ACRES
WA	1	Lower Samish/ Padilla Bays	A large estuarine ecosystem which represents a major proportion of the remaining wintering/migrating habitat for waterfowl, shorebirds, and raptors in Washington State. The largest known population of wintering peregrine falcons (federally endangered) occurs here and the site contains one-third of the Pacific eagles (federally threatened). One-third of the Pacific Flyway population of brant are noted here as well as 11 species of wintering raptors (including merlin and snowy owls). Very high avian diversity with over 200 species represented and high concentrations of wintering waterfowl/shorebirds.	Threatened by planned marina complex and secondary threats from water motorcycles and recreational boating.	The wildlife values found on the bays are for the most part not protected in Washington.	18,200
WA	2	Hanford Reach/ Columbia River	The site is a 51 mile stretch of the Columbia River which represents the last free flowing portion of the river in the United States. The river and supports a salmonid spawning area on the Columbia River and supports a salmonid 30,000 spawning fall chinook salmon and 10,000 steelhead. Up to 15 bald eagles winter in the area as well as 50,000 ducks (primarily mallards) and 6,000 Canada geese. Raptor populations are diverse (21 species) including 10 species that nest in the area. Canada geese numbering up to 300 pairs nest on river islands. Nesting colonies of gull and forster's tern also occur on the islands. Two threatened plants (Smithsonian list) and two endemic mollusks inhabit the area.	The proposed Ben Franklin Dam would inundate most of the habitat listed. Other threats include navigation channel, power peaking and public disturbance.	The site is designated a National Environmental Research Park by Department of Energy but this would not preclude the Ben Franklin Project.	25,000+
WA	3	Protection Island	A relatively large island in the Puget Sound which supports large populations of colonial nesting seabirds. The island contains half the nesting rhinoceros auklets in Washington (regionally important nesting seabird species as well). A black oystercatcher (regionally important) nest is found on the island and a large group of harbor seals occupy an island point.	Imminent threat from housing development and secondary from human intrusion into the seabird colonies	The seabird colonies found on the island have some protection elsewhere but the extent is unknown.	346
WA	4	Sequim Bay	This large, relatively undeveloped bay is of major importance to migratory waterfowl, shorebirds, marsh-birds, and seabirds. Peregrine falcons and bald eagles use the area during winter months. Shellfish production area for many species of fish and other marine production area for many species of fish and other marine life forms.	Threatened by a proposed marina complex and shoreline development.	Present statutes and regulations have been only partially successful in protecting such sites from development.	3,125
WA	5	McNeil Island	McNeil Island contains the last population of harbor seals in south Puget Sound. The island is used both for pupping and hauling out. An active bald eagle nest is located on an adjacent Gertrude Island and a rookery (74 pairs) of pelagic cormorants is located on McNeil Island. Over 10,000 waterfowl winter in the immediate area. The intertidal flora and fauna is diverse and abundant.	McNeil Island will be placed on an excess property list in the immediate future. Land development pressure is great.	The islands are presently in federal ownership (Dept. of Justice) but a change in ownership could jeopardize protected status.	4,400

STIMATED NUMBERS: Unknown but relatively common in the occupied area.

REEDING RATE IN THE WILD: Unknown.

F DECLINING, STATE REASONS IF KNOWN: --

ROTECTIVE MEASURES, IF ANY, ALREADY TAKEN: The species appears to occur incipally within the restricted-access area of the Hanford Works the U.S. Atomic Energy Commission and is therefore protected from rect damage by private enterprise.

ASURES PROPOSED: Prohibition of further damming in the region, continual nitoring of water quality and prohibition of pollution from any upream source.

MBER IN CAPTIVITY: None.

EEDING POTENTIAL IN CAPTIVITY: Unknown.

ST FISH (MUSSELS):

GENERAL REMARKS, i.e., TAXONOMIC VALIDITY IF DISPUTED, ETC.:

Considered valid by the most recent authors to evaluate the taxonomic status of the species (see references). The genus is called Fluminicola in the literature published prior to 1975.

UNIQUE FEATURES:
See above under distinguishing characteristics. No other Lithoglyphus is diagonally flattened and narrowly shouldered on the body whorl or is restricted to main river channels.

LITERATURE REFERENCES AND NAMES AND ADDRESSES OF OTHER AUTHORITIES:

Henderson, J., 1929: Univ. of Colorado Studies 17(2):167-8
Henderson, J., 1936: Ibid. 2.3(4):277
Pilsbry, H.A., 1899: The Nautilus 12(11): 123,125.
Taylor, D.W., 1975: Mus. of Paleont., Univ. of Michigan, C.W. Hibbard, Vol. 1:1-384

Addresses: Mr. Allyn G. Smith, Dept. of Geology, Cali. Acad. Sci., Golden Gate Park, San Francisco, Calif. U.S.A. 94118

Dr. D.W. Taylor, Box 1124, Rohnert Park, Calif. 94928. U.S.A.

YOUR NAME Arthur H. Clarke → 542-3069

ADDRESS National Museums of Canada, OTTAWA, Ontario. K1A 0M8

Arthur Clarke
617 (758-6043)
~~(774-1425)~~
Eco-Search Inc,
Massachusetts

SIGNATURE

June 23, 1976
DATE

12-27-83 Dr. Arthur Clarke
7. Hawthorne St.
Mattapoisett, Massachusetts 02739

From the Washington Dept. of Game, Nongame Program

.A2

CIRCLE ONE OR MORE: FRESH WATER, LAND, MARINE, ESTUARY

Lanx nuttalli nuttalli (Haldeman, 1841)

COMMON NAME Giant Columbia River Limpet

SCIENTIFIC NAME: GENUS Lanx SPECIES nuttalli SUBSPECIES nuttalli

PHYLUM Mollusca CLASS Gastropoda ORDER Basommatophora FAMILY Lancidae

Are there data suggesting the species (or subspecies) is presently in jeopardy? no

Are there data suggesting the species (or subspecies) is potentially in jeopardy? yes

If either explain why. This subspecies is probably now restricted to the main portion of the Columbia River in the United States in reaches which have substantial current. The Columbia River has now been restricted by a series of dams and there is only one free-flowing portion left. That is the only area where the subspecies is now known to live. If that portion should be dammed the subspecies would probably become extinct.

DISTINGUISHING CHARACTERISTICS: L. nuttalli nuttalli is a relatively large (14 mm), heavy-shelled freshwater limpet with an anterior, centrally-located apex and (in the inside of the shell) a ring-like muscle scar which has a gap on the right hand side of the shell. It is unlike any other species in the Columbia River.

PRESENT DISTRIBUTION:
Columbia River from Priest Rapids Dam (46°38.4'N, 119°54.4'W) downstream for about 42 miles to the head of McNary Lake (46°31.4'N, 119°16.7'W) and possibly for 16 miles more to Richland, Washington.

FORMER DISTRIBUTION:
Presumably throughout the Columbia River from the vicinity of Trail, British Columbia to its mouth. Also reported from the Snake River as far upstream as Rupert, Idaho in 1917 but not found in the Snake River since that time.

HOW COMPLETELY IS THE DISTRIBUTION KNOWN?
Unknown. This is a difficult species to collect because of its habitat.

HABITAT REQUIREMENTS OR CHARACTERISTICS: The species lives on diatom-covered rocks in the central channel of the Columbia River at depths sufficiently deep that autumnal, low water levels do not subaerially expose them. Substantial river current appears necessary for their healthy survival.

POPULATION STATUS AND TRENDS: Unknown.

[illegible], i.e., TAXONOMIC VALIDITY IF DISPUTED, ETC.:
Two additional subspecies of L. nuttalli have been described: L.n. kootaniensis (Baird, 1863) from the Spokane and Kootenay rivers and L.n. lancides from the Snake River. These are somewhat different from typical L. nuttalli nuttalli.

UNIQUE FEATURES: Distinguished from other species of Lanx by its heavy and relatively large shell, its anterior apex and its discontinuous ring-like muscle scar.

LITERATURE REFERENCES AND NAMES AND ADDRESSES OF OTHER AUTHORITIES:

Henderson, J., 1929: Univ. of Colorado Studies 17(2):154-7.
Henderson, J., 1936: Ibid. 23(4):270
Morrison, J.P.E., 1955: The Nautilus 68(3):79-83.
Pilsbry, H.A., 1925: The Nautilus 38(3):73-75.
Taylor, D.W., 1975: Mus. of Paleont., Univ. of Michigan, C.W. Hibbard Mem. Vol. 1:1-384.

Addresses: Mr. A.G. Smith, Dept. of Geology, California Academy of Science, San Francisco, Cal. 94118 U.S.A.

Dr. D. G. Watson, Ecosystems Dept., Battelle Northwest, Richland, Washington, D.C. 99352 U.S.A.

YOUR NAME Dr. A.H. Clarke,

ADDRESS National Museums of Canada, OTTAWA, Ontario. K1A 0M8

Arthur H. Clarke
SIGNATURE

5 October, 1976
DATE

W350

THE MEIEROTTO GROUP

1- RDE
1- T. Hill
1- file

April 13, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Re: Draft Environmental Impact Statement, Special Isotope Separation Project, DOE/EIS - 0136, February, 1988.

Dear Dr. Nichols:

Attached for consideration as comments for the Draft Environmental Impact statement, Special Isotope Separator Project are the following:

- Review by Dr. McDonald E. Wrenn
- Review by David A. Waite, President, Health Physics Society
- Micro Earth Quake and Ground Vibration Monitoring on the INEL Site by J. R. Pelton
- Volcanic Hazards Assessment for the Proposed Superconducting Supercollider by Dr. William R. Hacett and others
- Geologic Faults Near the Proposed Site of the Superconducting Super Collider in Eastern Idaho by Dr. David W. Rodgers

Thank you for entering these as part of your comment record.

Sincerely,

Larry E. Meierotto

Attachments

350

[illegible] • P.O. Box 1122 • Boise, Idaho 83701
Telephone [illegible] Telex 15[illegible] 592BSE,US

395

REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE SPECIAL ISOTOPE SEPARATION PROJECT

McDonald E. Wrenn, Ph.D.
Radiation Surveillance Associates, Inc.

March 27, 1988

2.1.1 This draft statement is very comprehensive and in the format of most environmental impact statements as mandated by the National Environmental Policy Act. It addresses exposure of people in the vicinity of the Idaho National Engineering Laboratory and other alternative locations in the United States to the products of the facility. The radioactive products are primarily long lived isotopes of element number 94, plutonium.

All reasonably probable pathways for exposure to plutonium are treated and the report correctly identifies inhalation as the most important route of exposure.

5.23.21 The report is comprehensive in its treatment of a variety of possibile senarios of exposure including normal operation, accidents at the facility, and transportation accidents.

There are in my view two major weaknesses in this impact statement. The first is the size of the source term used in the estimation of releases from the facility both during

5.1.8 normal operation and accidents. Although the amount of radioactivity estimated to be released in this statement may turn out to be a very reasonable one in relation to future experience, it depends upon the removal efficiency of high efficiency particulate absorber (HEPA) filters placed in series. Operational experience in the past has shown that the effective efficiency of such filters depends upon the absence of any bypass around the filters. Therefore, in operation it is necessary that leakage around the filters be essentially eliminated. If this condition is obtained in practice then the release estimates may indeed be quite realistic. If not, then the estimates of releases could be fairly substantial underestimates of the true releases.

5.13.4 A much more serious deficiency in the report is the misidentification of the expected carcinogenic effects to be produced from inhaling plutonium released from the facility.

A great deal of experience exists with plutonium exposure in humans, and the organs to which plutonium is translocated after inhalation exposure are well known. The highest concentrations in the organs of greatest biological significance are the lung, the skeleton (and in particular the cells lining the endosteal surfaces), and the liver. In mammalian toxicology experiments with injected and inhaled plutonium the major biological endpoints induced are cancers of the lung, the liver (including bile ducts), and the bone. The cancers induced in the bone are almost exclusively bone sarcomas, and generally osteosarcomas. No increase of leukemia has been observed in long lived experimental animals exposed to inhaled or injected plutonium or other actinides.

In addition, there has been no excess of leukemias in the radium dial painters and other persons who were medically injected with radium-224, even though the bone sarcoma induction rate has been elevated substantially in these populations. It is abundantly clear from both epidemiological studies in humans and experimental toxicological studies in mammals that the major biological effect produced in humans for α-emitting radionuclides deposited in the skeleton are bone sarcomas and not leukemia.

Appendix A of this report, Table A-16 and A-17, imply that the induction of leukemia would be much more frequent that the induction of bone cancer after inhalation; the spectrum of other cancers predicted in the impact statement is not that which would be expected from our knowledge of the biology of plutonium inhaled by mammals nor the biology of radium-induced bone sarcomas in humans (see enclosed table).

I could go into the reasons why this artifact occurs, but it simply is because the estimation of health effects has been made by using a physical dosimetric model with weighting factors for risks in various organs derived from completely divergent patterns and type of radiation exposure in people exposed to low LET radiation in Hiroshima and Nagasaki, whereas the true exposure in this case would occur from the inhalation of α-emitting (high LET) radioactivity.

The models used for the physical dosimetry are appropriate for estimating dose, but the health risks estimated are artificial. In addition, these models and the weighting factors used were developed by the ICRP for prospective control of exposure to radioactivity, not for assessment of expectation of effect. This very important distinction means that if the method of the ICRP is used prospectively in statements such as this one, the wrong spectrum of induced cancers will be predicted as is the case here.

It would not be beneficial to the Department of Energy to predict in such a statement that leukemia induction is a relatively probable biological effect from inhalation of plutonium released from this facility when in fact that is not the correct expectation. This might invite law suits in the future. The existence of a draft impact statement saying that leukemia and thyroid cancer are likely could lead to a serious problem in unwanted litigation.

5.13.4 The solution to this dilemma is clear. The effects predicted should be based on real risks observed in humans and animals exposed to heavy α-emitting radioelements such as plutonium. Part of the problem with this statement rests on the fact that it relies upon the Beir-III report, which does not treat the problem of the effects of high LET radiations adequately. In order to correct this deficiency in the assessment, the recent report of the Beir-IV committee which deals with uranium, thorium, plutonium and radium, as well as other alpha-emitters, and the biological endpoints identified in this report along with their relative frequencies should be used in lieu of the risk estimators in Table A-16 drawn from Beir-III.

5.23.22 A particularly damaging aspect of the report is that the most frequently cited doses reported in the statement and the executive summary are those for whole body exposure and thyroid. Plutonium does not produce a whole body exposure. Thus, the dose chosen to act as a surrogate for impact is not the best one. Dose to the lung would be better. Perhaps the people who wrote Appendix A did not have input to the executive summary.

Spectrum of Cancers Inferred from Tables A-16 and A-17 Induced by Pu to a "Maximum Individual" Using the ICRP Model

	%
Leukemia	14
Bone Sarcomas	4
Liver	14
Lungs	47
Other	21

HEALTH PHYSICS SOCIETY

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10900 N.E. 8th Street
Bellevue, WA 98004
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Larry Meierotto
802 W. Bannock, Suite 305
Boise, Idaho 83701

Dear Mr. Meirotto:

In general, we found the radiological assessments very well done, with the methods, data and degree of conservatism being appropriate for the applications. Several suggestions for improvement are offered for the consideration of the authors.

5.20.7 o It is apparent from the Table of Contents that maintenance activities, the aspect expected to yield the highest occupational doses, is not addressed. Such a section should be added to the text.

5.20.5 o On page S-7 it is indicated that the INEL worker is expected to receive a dose during construction some fifteen times that for the same activities at Hanford. This fact warrants further characterization of the conditions at INEL that give rise to this situation.

5.20.1 o On page S-10 occupational dose during construction is not discussed.

2.11.4 o On page 1-2 the N-Reactor status should be updated.

5.8.13 o Section 2 of this document should be expanded to include a more comprehensive discussion of the instrumentation systems that are anticipated to be installed in the facilities to monitor the work place radiological conditions, such as area radiation monitors and criticality monitors.

5.27.4.1 o On page 4-2 the use of the average U.S. family size is not appropriate when regional census data are readily available for the sites being considered.

5.20.1 o Section 4 should be expanded to include a discussion of routine occupational radiological dose with appropriate backup characterization data being given.

5.30.1.25 o The Section 4 discussion of mixed wastes should be expanded to include contingencies relative to the holding times, etc., regulatory requirements that are pertinent.

o Following the decommissioning section, a section entitled "Maintainability" should be inserted. 5.31.20

o On page A-17 the unit of particle size is incorrect.

o On page A-37 the average of the absolute and relative risks is given. An arithmetic average of these two numbers has no meaning. More appropriate would be the specification of the range of risks bounded by these two estimates. 5.23.10

I hope that these comments help in the preparation of a revised document that expresses the impacts of the alternative actions as understandably as they can be expressed. 5.13.3

David A Waite

David A. Waite, President
Health Physics Society

MICROEARTHQUAKE AND GROUND VIBRATION MONITORING ON THE INEL SITE

JULY - AUGUST 1987

J. R. Pelton
Department of Geology and Geophysics
Boise State University
Boise, Idaho 83725

December 15, 1987

TABLE OF CONTENTS

SCOPE OF WORK

The State of Idaho has submitted a site proposal for the Superconducting Super Collider (SSC) in response to an invitation from the U. S. Department of Energy. Numerous proposals have been submitted by other states, but it is anticipated that the strengths of Idaho's proposal will place it on the "short list"; i.e., the list of finalists to be determined by late December 1987 from which the actual SSC site will be chosen. Finalists will be responsible for providing additional data on short notice to the site selection committee. In Idaho's case, questions will undoubtedly be raised concerning the seismic hazards associated with the proposed site at the Idaho National Engineering Laboratory (INEL) on the eastern Snake River Plain (ESRP). A comprehensive review of the existing literature on seismic hazards in the vicinity of the INEL (see References and Bibliography) indicated that the following work would provide new data that would be valuable to the Idaho SSC project in the final site selection process:

1. A microearthquake survey would provide a highly focused examination of ESRP seismicity on the INEL site if the survey could be carried out with the following parameters: at least 3 weeks duration, average station spacing of no more than 8 km, and portable seismographs operated underground in lava tubes at the highest possible gain and maximum bandwidth. Previous microearthquake studies, including the excellent work of the INEL Seismic Laboratory, have in some cases been much longer-term, but have also required much greater station spacings (at least 25 km), and did not explore the possibilities of monitoring at underground sites in lava tubes.

2. Ground vibration monitoring in the vicinity of the interaction points along the proposed SSC track is necessary to show that the proposed site meets the ground motion tolerances as specified in section C5, "REGIONAL CONDITIONS", of the "Invitation for Site Proposals for the SSC", published by the Department of Energy in April 1987. The ground motion tolerances are largely within the measurement capabilities of commercially available vibration monitors.

These two projects, the microearthquake survey and ground vibration monitoring, were selected as the most cost-effective seismological contributions that Boise State University could make to the anticipated participation of Idaho in the final site selection process. The calculation of probabilistic ground accelerations on the INEL site was also considered, but a comprehensive review of the seismic hazards studies done for INEL by numerous consulting firms (most recently, Tera Corporation [1984]) indicated that there was little that could be done with budget and time limitations to improve previous analyses of probabilistic ground motion from earthquakes.

MICROEARTHQUAKE SURVEY

Introduction

The nature of contemporary seismicity in the vicinity of the INEL site may be investigated by examination of earthquake data from two sources:

I. Historical and instrumental earthquake data compiled in catalog form by the National Oceanic and Atmospheric Administration (NOAA).

II. Instrumental earthquake data recorded by microearthquake networks consisting of fixed telemetry stations or temporary portable seismographs.

Epicenter maps based on catalog searches of Type-I data have been published by Sbar et al. [1972], Smith and Sbar [1974], Woodward-Clyde Consultants [1975], Greensfelder [1976], Agbabian Associates [1977], Smith [1978], Bones [1978], and Tera Corporation [1984]. The importance of these epicenter maps to the Idaho SSC project is that they help define seismic source zones for use in seismic hazard analyses; Type-I data are of little use for direct determination of the recurrence intervals in individual source zones because the instrumental record is both incomplete and too short. A significant improvement in Type-I epicenter maps for central Idaho was recently published by Dewey [1987], who used joint epicenter determination techniques to calculate more reliable epicenters and epicentral error estimates for regionally recorded earthquakes in central Idaho. The basic conclusion of all Type-I studies is that the ESRP in the vicinity of the INEL site is virtually aseismic.

Type-II data is generally used to extend contemporary seismicity studies into the microearthquake range (magnitude less than 3). The records of the INEL seismic network are the most important source of microearthquake data for the INEL site; publications based on INEL data include Dahl and Niccum [1973], Dahl and Johnson [1974], Dahl et al. [1977], Navarro et al. [1977], and King et al. [1987]. The INEL network began in December 1971 when a single short-period vertical instrument was installed near the Central Facility of the INEL; a three-station network was in operation by October 1972 [Dahl et al., 1977]. The network now has six stations [S. Jackson, INEL, personal communication, 1987]. Other published microearthquake studies in the vicinity of the INEL site include Westphal and Lange [1966], Pitt and Eaton [1971], Sbar et al. [1972], Pennington et al. [1974], Bones [1978], and catalogs of the University of Utah seismic network.

The most complete published analysis of the INEL data was given by King et al. [1987], and indicates only 3 small earthquakes (magnitude approximately 1) located on the ESRP between October 1972 and October 1983. This lack of seismicity on the ESRP in the vicinity of the INEL site is consistent with the Pennington

et al. [1974] study which recorded no earthquakes on the Snake River Plain during 3 weeks of recording at 5 localities in or near the ESRP, and with the study by Pitt and Eaton [1971] which recorded no earthquakes on the ESRP with a six-station telemetry network centered on the northern INEL boundary for 9 months. The pertinent work by Westphal and Lange [1966], Sbar et al. [1972], Bones [1978], and the University of Utah seismic network is focused on southeast Idaho and also indicates aseismicity of the ESRP. Bones [1978] does report small earthquakes (magnitude < 1.5) recorded along the southeast margin of the ESRP during an 18-month interval, but suggests that these events may include some unidentified quarry blasts and that the area of the ESRP lies outside the effective coverage of the study. Aseismic creep resulting from elevated temperatures at relatively shallow depths has been proposed as the cause of the observed lack of seismicity on the Snake River Plain [Pennington et al., 1974]. King et al. [1987] suggested that small shallow (<5 km depth) earthquakes may be generated in the upper crust of the ESRP through the action of thermal contraction and subsidence.

The INEL network is intended to monitor seismic activity within a designated study area: 43.0N to 44.5N and 111.5W to 114.0W, an area of approximately 35,000 km^2 [King et al., 1987]. For the current INEL network, the minimum station spacing is 40 km, the maximum is 175 km. The microearthquake surveys by Pennington et al. [1974] used an average station spacing of approximately 30 km, and the average station spacing used by Pitt and Eaton [1971] was approximately 25 km. Clearly, the next logical step in the seismic monitoring of the ESRP in the vicinity of the INEL site is to deploy a network of portable seismographs operating at maximum possible gain with an average station spacing much less than previously attempted. Besides providing additional data upon which seismic hazard analysis for the Idaho SSC project can be based, a microearthquake survey of this type is of scientific interest because it can provide a measure of the thickness of the brittle upper crust beneath the ESRP, and may indicate the way in which tectonic stress is transmitted across the ESRP.

Procedure

A dense (average station spacing approximately 8 km) network of six portable seismographs (all Sprengnether MEQ800 using smoked paper records) was deployed in the southwest corner of the INEL site in the vicinity of Middle Butte and East Butte. The network operated from 27 July 1987 (UT) to 19 August 1987 (UT), an interval of 23 days. The Middle Butte and East Butte area was chosen because it is the only part of the INEL site which offers plentiful lava tubes for subsurface location of the seismographs. Subsurface recording was considered highly desirable to maximize the amplifier gain. The only station not located in a lava tube on basalt bedrock was WAW which was located in a topographic depression with the seismometer buried near basalt bedrock. Figure 1 shows the station locations, and Table 1 lists the important parameters for each station.

All stations recorded for 48-hour intervals at drum rotation rates of 60 mm/minute except for WAW which recorded for 24-hour intervals at 120 mm/minute. Time drift was documented at the beginning and end of each seismogram by recording the signal from a Sprengnether portable TS400 clock superimposed on the MEQ800 internal clock. Poor WWV reception in the lava tubes required the use of the TS400 as a field time standard. Time drift of the TS400 clock was checked against a WWV receiver (considered the absolute time standard) approximately every 12 hours using an oscilloscope (at the start and end of each day). Drift of the TS400 was always in one direction (TS400 fast relative to WWV) with a rate of about 1 msec per hour. The drift rate of the TS400 was no problem because the TS400 was brought into agreement with WWV each morning before visiting the stations. The total drift correction DC for any time T on a seismogram is given as follows:

$$DC = DTon1 + DR1(T-Ton1) + DTon2 + DR2(T-Ton2)$$

where DR1 = (DToff1-DTon1)/(Toff1-Ton1) is the drift rate of the MEQ800 relative to the TS400, and DR2 = (DToff2-DTon2)/(Toff2-Ton2) is the drift rate of the TS400 relative to WWV; also note that:

DTon1 = TS400 time - MEQ800 time at seismogram start Ton1
DToff1 = TS400 time - MEQ800 time at seismogram end Toff1
DTon2 = WWV time - TS400 time at start of day Ton2
DToff2 = WWV time - TS400 time at end of day Toff2

The smoked paper records were fixed in a shellac/alcohol solution and labeled with permanent white ink.

Data Analysis

Each record was scanned for local earthquakes; i.e., earthquakes occurring near the network on the ESRP. The basic criteria were an S-P time of less than 5 seconds on at least one record and confirmation of the event on at least one other record. Only two events were found that met the criteria (Figures 2 and 3): 0705 UT and 0714 UT on 8 August 1987 UT; the event at 0704 UT is actually an S arrival for a more distant earthquake (more clearly seen on the WAW record, not included in this report). The recordings on MSC and MBC are the only clear seismograms for the 0705 and 0714 events; the S-P times are estimated to be approximately 1 second, and the magnitudes based on duration measurements are estimated to be less than 1. The S-P times suggest that the 0705 and 0714 events have hypocenters within a few km of MSC and MBC; there is not enough data to warrant a computer epicenter determination. Other seismograms showed events that appear to be local earthquakes but these could not be confirmed on additional stations.

Arrival times for P and S were measured for all events with S-P times less than 20 seconds. Computer solutions for these events using HYPO71 [Lee and Lahr, 1975] were grossly inaccurate because

of their position outside the array which resulted in large azimuthal gaps in the station coverage. This situation will be remedied by requesting data from Boise State University, INEL, and the University of Utah if more precise locations are warranted.

Conclusions

A dense network of six portable seismographs (average station spacing 8 km) deployed for 23 days in the southeast corner of the INEL site recorded two events that could be reasonably identified as earthquakes occurring on the ESRP. This result indicates that the ESRP is not completely aseismic as is commonly thought, but does have a very low rate of seismicity (not quantifiable with existing data). It is important to point out that the results of this highly focused microearthquake survey are consistent with the notion that the ESRP is aseismic relative to the mountainous areas to the north and south which have been shown by numerous studies to be quite active. A gross and unreasonable extrapolation of the very low rate of ESRP seismicity would be required to suggest that the INEL site is more seismically hazardous in terms of probabilistic ground accelerations than previous studies have indicated. Future microearthquake surveys conducted with dense station coverage (2 km average station spacing is recommended) and using digital recording could define the thickness of the brittle layer of the ESRP upper crust, and could help explain the transmission of tectonic stress across the ESRP from the seismically active areas to the north and south.

GROUND VIBRATION MONITORING

Introduction

Ground vibration monitoring is a necessary component of the Idaho SSC project because stability of the colliding particle beams is necessary. According to section C5, "REGIONAL CONDITIONS", on page 57 of the "Invitation for Site Proposals for the SSC" issued by the U. S. Department of Energy in April 1987:

> "The beams are sensitive to ground motion in the frequency range from a fraction of a hertz to several tens of hertz. At about 3 hertz there is a resonant beam response to the ground motion. However, by using a feedback system, ground motion of up to 0.5 thousandths of an inch amplitude at the interaction region and 2 thousandths of an inch elsewhere can be controlled."

Additional information on ground motion tolerances for the SSC can be found in Fischer and Morton [1986].

Procedure

Ground vibration monitoring was carried out at two stations along the proposed SSC track (WC and EC in Figure 1) and at seismic station MBC (Figure 1). Station WC is near the western set of proposed interaction points, and station EC is near the eastern set of proposed interaction points. The instrument used was a Sinco S-6 Peak Vibration Monitor (Model 53136); the useful range of this instrument in terms of ground displacement, velocity, and acceleration is defined in Figure 4 by the shaded area. Ground motion falling below the heavy black line labeled A-B in Figure 4 is less than 0.5 thousandths of an inch peak-to-peak displacement and would meet the SSC ground motion tolerances as state above. Figure 4 indicates that the 0.5 thousandths of an inch peak-to-peak threshold is within the capabilities of the Sinco S-6 Peak Vibration Monitor in the frequency range 6.5 to 200 htz. Lower frequency ground motion monitoring would require a calibrated digital seismograph using a low-frequency three-component geophone such as the 1 htz Mark Products L-4-3D, and should be attempted if the Idaho SSC project is selected as a finalist.

The Sinco S-6 instrument was deployed for the following time intervals:

MBC: 0123 17 August 1987 to 1801 17 August 1987 UT

EC: 2125 17 August 1987 to 2019 18 August 1987 UT

WC: 2228 18 August 1987 to 1807 19 August 1987 UT

At each station the transducer was oriented with a Brunton compass so that the longitudinal axis was in the direction of geographic North, the transverse axis was in the direction of geographic West, and the vertical axis was up. Sensitivity was set at the lowest possible threshold: 4% of the 0.3 inch/second

range (0.012 inch/second, the smallest ground velocity within the Sinco S-6 operating range, see Figure 4). The instrument triggers on a total vector ground velocity exceeding the preset threshold (0.012 inch/second), and records the triggering waveform for 2 seconds; on-board frequency analysis is also done and the results can be transferred to a microcomputer.

Results

The Sinco S-6 instrument was not triggered by ambient ground motion during any of the indicated monitoring periods. Of special interest is the fact that a magnitude 3.5 earthquake occurred approximately 140 km to the northwest of MBC during the monitoring interval there (0344 17 August 1987 UT). On-board testing of the complete system including amplifier, A/D circuits, sensor connections, transducer response, RAM, PROM, LCD, keyboard, multiply/divide circuitry, and printer indicated that the instrument was operating properly. Evidence for correct functioning of the instrument trigger was provided by dropping small rocks in the vicinity of the transducer.

Conclusions

The total vector ground velocity did not exceed 0.012 inch/second at any time during the monitoring intervals listed above. Therefore the ground displacement did not exceed 0.5 thousandths of an inch peak-to-peak displacement in the frequency range 6.5 to 200 htz, and the SSC ground motion tolerances are not exceeded in this frequency range by ambient noise in the vicinity of the interaction points of the proposed SSC track. This data can be submitted to the SSC site selection committee as evidence that stability of the colliding beams will not be a problem. If necessary, lower frequency measurements can be carried out on short notice with the equipment mentioned above (available from colleagues at other institutions).

TABLE 1. Microearthquake Station Parameters

DEN 43 33.82N 112 38.34W Elevation=5200 feet
MEQ800 with Mark L4 1 htz seismometer
Maximum Gain: 84db Filters: 0-10 htz
Installed: 2251 27 July 1987 UT
Removed: 1532 19 August 1987 UT

DSC 43 27.77N 112 43.42W Elevation=5205 feet
MEQ800 with Mark L4 1 htz seismometer
Maximum Gain: 90db Filters: 0-10 htz
Installed: 1816 14 August 1987 UT
Removed: 1729 19 August 1987 UT

ETF 43 23.85N 112 38.83W Elevation=4815 feet
MEQ800 with Mark L4 1 htz seismometer
Maximum Gain: 90db Filters: 0-10 htz
Installed: 1754 29 July 1987 UT
Removed: 1818 19 August 1987 UT

MBC 43 29.94N 112 42.48W Elevation=5280 feet
MEQ800 with Geo Space HS-10 2 htz seismometer
Maximum Gain: 84db Filters: 0-10 htz
Installed: 1756 28 July 1987 UT
Removed: 1900 19 August 1987 UT

MSC 43 29.65N 112 38.67W Elevation=5560 feet
MEQ800 with Mark L4 1 htz seismometer
Maximum Gain: 90db Filters: 0-10 htz
Installed: 2145 28 July 1987 UT
Removed: 1610 19 August 1987 UT

WAW 43 34.90N 112 43.07W Elevation=5080 feet
MEQ800 with Mark L4 1 htz seismometer
Maximum Gain: 90db Filters: 0-10 htz
Installed: 2136 29 July 1987 UT
Removed: 1455 19 August 1987 UT

Note 1: Elevations estimated from USGS 7.5' topographic maps combined with rough measurements (e.g., comparison with ladder length, field guess) of subsurface depths of stations within lava tubes. Altimeter measurements proved untrustworthy because of extreme temperature differences between surface and lava tube interiors.

Note 2: Some minor temporal gaps exist in the records at MBC and MSC because of instrument problems.

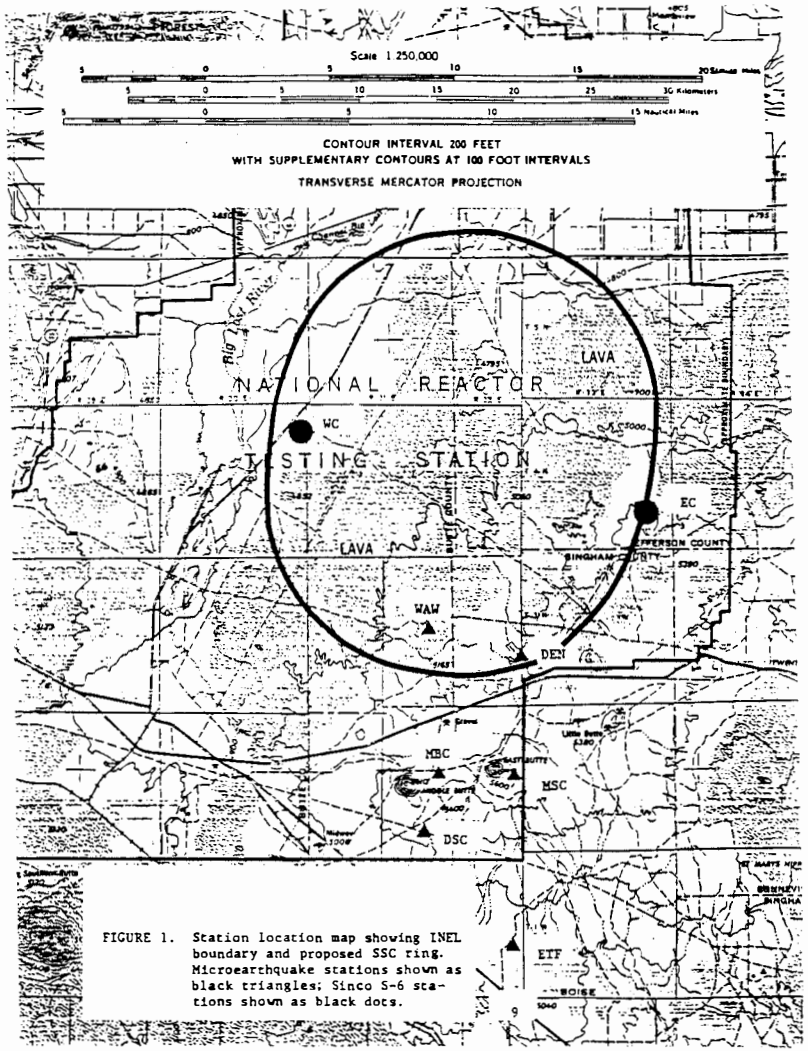

FIGURE 1. Station location map showing INEL boundary and proposed SSC ring. Microearthquake stations shown as black triangles; Sinco S-6 stations shown as black dots.

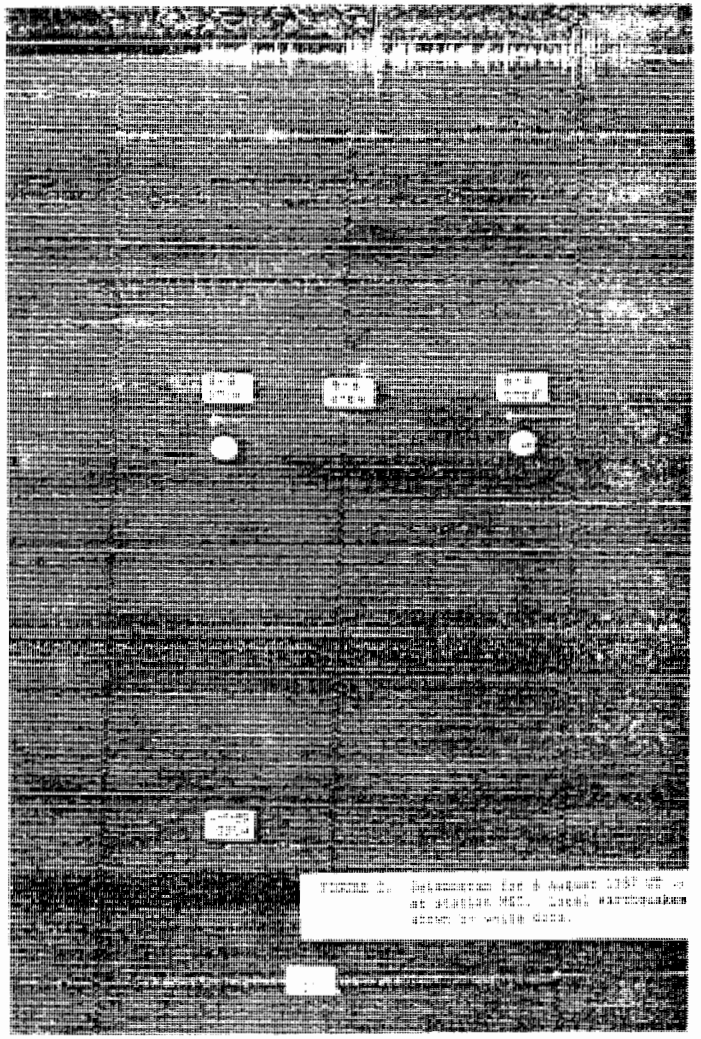

FIGURE 4. Operating range for Sinco S-6 Peak Vibration Monitor. Taken from the instruction manual, published by Sinco, Slope Indicator Company, Seattle, Washington, copyright 1987.

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VOLCANIC HAZARDS ASSESSMENT FOR THE PROPOSED SUPERCONDUCTING SUPERCOLLIDER

Idaho National Engineering Laboratory, Eastern Snake River Plain, Idaho

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CONTENTS

I. INTRODUCTION TO EASTERN SNAKE RIVER PLAIN GEOLOGY

1.1 REGIONAL GEOLOGY AND TECTONIC SETTING

The mountains and plains surrounding the Idaho National Engineering Laboratory (INEL), despite their apparent timelessness, represent relatively young landforms that developed during the last 17 million years. The mountains are part of a system of parallel, northwest-trending mountain ranges, and the plains are part of a 40 to 62 mile-wide, curved belt of volcanic rocks known as the Snake River Plain, extending about 400 miles from the Idaho-Oregon border to Yellowstone National Park (Fig. 1). These two major physiographic provinces, Basin and Range mountains and the Snake River Plain, illustrate the two major geologic processes that have influenced eastern Idaho during the last 17 million years: extensional faulting and volcanism.

1.1.1. Basin and Range Faulting

The parallel, northwest-trending mountain ranges of southeastern Idaho are only a small portion of a much larger geologic region known as the Basin and Range Province, extending southward from Idaho into Nevada, western Utah and ultimately into northern Mexico. Characteristic of this province are northwest-trending normal faults, which juxtapose mountain ranges and adjacent valleys or basins (Fig. 2). Valleys represent downfaulted blocks of the earth's crust, and ranges are uplifted blocks. This style of faulting results from extension, or pulling-apart, of the earth's crust in Basin and Range province. Basin and Range faulting has been active throughout the province for at least the past 17 million years (Allmendinger, 1982), and active faulting in the region surrounding the eastern Snake River Plain continues today. This is shown by the 1983 Borah Peak earthquake, when the Lost River Valley was downdropped several meters along a normal fault, with respect to the Lost River Range (Crone, 1987).

1.1.2. Snake River Plain

Traversing the Basin and Range mountains of southern and eastern Idaho is the Snake River Plain , a geologically young volcanic region which has been active during the last 17 million years (Fig. 3). Volcanism becomes increasingly young from southwest to northeast, and over millions of years, early rhyolite volcanism is succeeded by later basaltic volcanism at any one place. These observations have led geologists to suggest that the eastern Snake River Plain and Yellowstone formed as the North American continent moved westward over a stationary plume or "hot spot" in the earth's upper mantle. Volcanoes of the Snake River Plain

thus form a track that records the westward motion of North America at a rate of about 6 cm a year, during the last 17 million years. The hot spot model is also thought to apply to the Hawaiian islands, where the Pacific Plate has moved northwestward over a stationary mantle plume, leaving a chain of volcanic islands that become increasingly young to the southeast.

1.1.3. Intersection of Faulting Pattern with Snake River Plain

Intersection of northwest-trending mountain ranges with the northeast-trending eastern Snake River Plain has seemingly affected the pattern of basaltic volcanism during the past two million years. It is believed that the Basin and Range faults present to the north and south of the Snake River Plain are also present beneath the volcanic province, since the locations of residual volcanism occurring since passage of the plume seem to have been controlled by buried normal faults. This interpretation derives from the recognition of northwest-trending volcanic rift zones of Quaternary basalt on the eastern Snake River Plain (Prinz, 1970; Greeley and King, 1977; Kuntz, 1978a; Greeley, 1982), which are parallel to northwest-trending normal faults in the mountainous country to the north and south of the plain.

2. EARLY RHYOLITE VOLCANISM

Two types of rhyolitic eruptions have occurred on the eastern Snake River Plain during late Tertiary and early Quaternary time. Four to seven million years ago, explosive caldera-forming rhyolite eruptions occurred, and the deposits are analogous to those exposed in the Yellowstone-Island Park region today. About 0.5 million years ago, non-explosive effusion and intrusion of rhyolite domes occurred, forming Big Southern, Middle and East Buttes to the south of the INEL.

2.1. PATTERN OF RHYOLITE VOLCANISM IN TIME AND SPACE

Tertiary rhyolites of the eastern Snake River Plain are represented by three major sheets of ash flow tuff, erupted over a huge area from the Arco and Pocatello regions to the margin of the Yellowstone Plateau (Morgan and others, 1984). These three tuffs range from 4.3 to 6.5 million years old, and together comprise the Heise Volcanic Field: the 6.5 million year old Blacktail Tuff, the 5.6 million year old Blue Creek Tuff, and the 4.3 million year old Kilgore Tuff.

The source of the Heise Volcanics is inferred to be large caldera complexes that are now buried beneath the eastern Snake River Plain (Fig. 4). These extinct Tertiary calderas of the

eastern Snake River Plain are now covered almost entirely by Quaternary basalt lava flows.

Non-explosive rhyolite eruptions occurred on the eastern Snake River Plain about 0.5 million years ago, forming rhyolite domes at Big Southern, Middle and East Buttes (Fig. 4). Big Southern and East Buttes are exogenous domes, formed by the effusion of viscous rhyolite lava (Spear and King, 1982). Middle Butte is a tilted block of basalt lava flows, probably forced upward by a rhyolite intrusion that never reached the surface (Greeley and King, 1977).

2.2 ERUPTIVE STYLES AND EXTENT OF RHYOLITE DEPOSITS

The area over which volcanic deposits are dispersed is largely determined by the explosivity of eruptions. Viscous, gas-charged rhyolite tends to erupt explosively, compared with fluid, gas-poor basalts.

The nature of volcanic eruptions is determined in part by the amount of volatiles dissolved in magma, mainly carbon dioxide and water. Rhyolite magmas contain more of these volatiles than basalts, due to their source areas and melting temperatures. Basalts are generated from the upper mantle and erupt at temperatures of 1000-1200° C, while rhyolites are produced in the lower crust and erupt at temperatures of 700-900° C (Cas and Wright 1987).

As gas-charged magma rises to shallower crustal levels, the water and carbon dioxide begin to exsolve and cause an enormous increase in pressure within the magma chamber. When magma has reached this stage, it is capable of erupting explosively, generating voluminous pumice that is very widely dispersed.

This type of volcanism is perhaps best exemplified by the eruptions that have occurred in the Yellowstone-Island Park region during the past two million years.

2.3 YELLOWSTONE VOLCANISM

In the Yellowstone-Island Park area, 100 km northeast of the INEL, Quaternary rhyolite volcanoes are not yet covered by basalts. The Yellowstone-Island Park volcanic field evolved through three volcanic cycles, each beginning and ending with the effusion of rhyolite lava flows and domes, but culminating with explosive rhyolite eruptions. These eruptions produced the 2.1 million-year-old Huckleberry Ridge Tuff (2,500 cubic kilometers estimated volume), the 1.3 million-year-old Mesa Falls Tuff (280 cubic kilometers), and the 0.6 million-year-old Lava Creek Tuff (1000 cubic kilometers).

Christiansen (1984) shows that these eruptions produced hot, mobile ash flows that after three cycles covered thousands of square kilometers. Fragments of pumice and ash were injected high into the atmosphere and were carried for thousands of kilometers. Today, these

ash deposits are found as far away as Saskatchewan, Mississippi, and California (Fig. 5).

Withdrawal of magmatic support during these eruptions led to concurrent collapse, resulting in the formation of large rhyolite calderas. Following caldera formation, late-stage effusion of gas-poor rhyolite magma from caldera ring fractures produced lava flows and domes. Most of the lava flows and domes were emplaced about 150,000 years ago, and the most recent eruptions occurred about 50,000 years ago (Christiansen and Blank, 1972).

3. LATER BASALTIC VOLCANISM

Geological and geochronological data indicate an eastward progression of Snake River Plain volcanism, with basalt volcanics covering early rhyolite deposits (Fig. 3). Basalts and sediments of the eastern Snake River Plain are part of the Snake River Group, a geologic unit composed largely of basalt lava flows that erupted during the past 2 million years.

3.1. LANDFORMS AND ERUPTIVE STYLES

Typical landforms of Quaternary basaltic volcanism on the eastern Snake River Plain are illustrated in Figure 6. Basaltic volcanism has been mild, nonexplosive, and primarily emplaced in one of three forms: (i) broad, low, central-vent shield volcanoes; (ii) fissure flows; and (iii) flows emplaced through major systems of lava tubes (Greeley, 1982). Numerous **shield volcanoes** are typical of the eastern Snake River Plain, each covering tens to hundreds of square kilometers, and having slope angles of less than 0.5 degree. One of the largest shields of the Snake River Plain is the Wapi lava field, which covers more than 300 square kilometers at the southern end of the Great Rift. **Fissure flows** erupted from several-kilometer-long fractures associated with volcanic rift systems; the youngest of these occur at Craters of the Moon (1,500 km^2) and Kings Bowl (3 km^2) lava fields, along the Great Rift. **Lava tubes** are often feeders for extensive lava flows; those associated with the Shoshone lava tube system cover about 210 square kilometers. The Bear Trap lava tube northeast of Kings Bowl can be traced for 21 kilometers and its lava flows cover at least 60 square kilometers.

Cinder and spatter cones are comparatively uncommon on the eastern Snake River Plain, and most are confined to the Craters of the Moon lava field. These are small-volume, steep-sided features created by gas-charged lava spattering out of central vents, building cones of lava bombs and cinders. **Maar volcanoes** are low, circular tephra rings created by steam explosions (hydrovolcanism) when rising basaltic magma encounters shallow ground water or

surface water. Though very explosive, these volcanoes are usually small and affect only small areas. The locations of five hydrovolcanic complexes are given in Figure 7; most occur near the southern margin of the eastern Snake River Plain. Hackett and others (1987) attribute this to the depth and lithology of the Snake River Plain aquifer. Depth and quantity of ground water are major controls on the explosivity of basaltic volcanism. Depth to the water table is generally shallow (ten meters or less) along the southern margin of the Snake River Plain, but is much deeper beneath the north-central Plain (generally about 300 meters; Lindholm and others, 1983). Hydrovolcanism seems to have occurred only where ground water was available at shallow depths; that is, only along the southern margin of the eastern Snake River Plain.

3.2. TIME-SPACE PATTERN OF QUATERNARY BASALTIC VOLCANISM

Basalt vents of the eastern Snake River Plain are not randomly distributed, but form linear arrays of fissure flows, small shields, spatter and cinder cones, pit craters and open cracks. These features define volcanic rift zones where eruptive activity has been concentrated. Several postulated northwest-trending volcanic rift zones cross the INEL (Fig. 8). The poorly defined Circular Butte-Kettle Butte volcanic rift zone crosses the northeast corner of the INEL; volcanism along this rift zone is older than about 100,000 years (Kuntz and Dalrymple, 1979). The Lava Ridge-Hell's Half Acre volcanic rift zone is of similar age (Kuntz and Dalrymple, 1979), although the youngest volcanism in this rift zone occurred at Hell's Half Acre, south of the INEL, about 5,200 years ago (Kuntz and others, 1986b).

Kuntz and others (1986b) recognize eight Holocene (less than 15,000-year-old) basaltic lava fields in the central and eastern Snake River Plain of southern Idaho (Fig. 9). The most recent basaltic volcanism of the Snake River Plain occurred about 2,100 years ago at the Craters of the Moon, Kings Bowl, and Wapi lava fields, which all lie along the Great Rift.

3.3. GREAT RIFT AND CRATERS OF THE MOON AS A WELL-STUDIED EXAMPLE

The Great Rift is an 85-kilometer-long, 2-to-8-kilometer-wide volcanic rift zone of the eastern Snake River Plain (Figs. 8 and 9). Three well-studied Holocene basaltic lava fields occur along it (Prinz, 1970; Greeley and King, 1977; Kuntz and others, 1986a,b). The Craters of the Moon lava field is composed of more than 60 lava flows, 8 eruptive fissure systems and 25 cinder cones, with a total area of 1,600 km^2 and total volume of about 30 km^3. The Wapi lava field issued from a single shield volcano, covers 330 km^2, and has a total volume of 6 km^3. The small Kings Bowl lava field covers only 3.3 km^2 and its volume is only 0.01 km^3.

Although cinder and spatter cones are conspicuous, the most voluminous deposits are tube-fed pahoehoe lava flows averaging about 10 meters thick.

Field, radiocarbon and paleomagnetic studies of the Craters of the Moon segment of the Great Rift indicate eight distinctive eruptive periods ranging from approximately 15,000 to 2,000 years in age, with an increase in magma output during the more recent eruptions (Kuntz and others, 1986a). Radiocarbon dating of the Kings Bowl and the Wapi lava fields shows that the youngest volcanism occurred approximately 2,200 years ago. The effusion rate between 15,000 and 7,000 years ago was about 1.5 km^3 per thousand years. Between 7,000 and 2,000 years ago, the rate was about 2.8 km^3 per thousand years, or about 3 million cubic meters per year.

The Great Rift output rate is about 10 times less than historical effusion rates at active Hawaiian volcanoes, about 20 times less than the rate for Iceland, and about equal to or slightly less than that of most composite volcanoes (Kuntz and others, 1986a). In addition, repose intervals between Great Rift eruptions (centuries to thousands of years, and averaging about 2,000 years) are considerably longer than those at historically active composite volcanoes or oceanic islands.

The timing and character of future eruptions based on the past history of a volcano or volcanic rift zone are speculative, but the steady-state, volume-predictable nature of past Great Rift volcanism suggest that another eruptive period is likely to occur within the next 1,000 years, and that 5-6 km^3 of lava will be erupted (Kuntz and others, 1986a).

If it is assumed that the older, less well-studied volcanic rift zones had eruptive behavior that was generally similar to Holocene eruptions along the Great Rift, then the Holocene volcanism has important implications for future volcanism at the other rift zones that cross the INEL. Given the 10^3 year repose interval for Great Rift eruptions, it seems very unlikely that basaltic volcanism will occur at the INEL in the foreseeable future, since volcanism has not occurred from vents within the INEL boundary for about 10^5 years, and only a few small lava flows have encroached onto the southern INEL about 10^4 years ago.

4. GENERATION, RISE AND STORAGE OF MAGMA BENEATH THE EASTERN SNAKE RIVER PLAIN

Leeman (1982) discusses rhyolite and basalt magma evolution on the eastern Snake River Plain and Yellowstone Plateau, and introduces a four-stage model: (i) initial basalt ascent; (ii) segregation of crustal melts; (iii) period of predominantly rhyolite volcanism; and (iv) period of predominantly basalt volcanism. The model is based on the concept that magmas ascend

primarily due to bouyancy effects, which are influenced by the density structure of crust and mantle. Figure 10 is a summary of the four stages of magma evolution. In stage A, basaltic magma forms in the mantle and ascends because it is less dense than mantle rock. Because basaltic magma is denser than upper continental crustal rocks, these magmas may stagnate at depths of comparable densities, either at the base or within the lower crust. Repeated influx of basaltic magma may lead to the development of large magma chambers, and overlying crustal rocks may eventually melt by conductive and convective transfer of heat. The resulting rhyolite magma is less dense than basaltic magma, and would ascend into the crust to form high-level magma chambers (Stage B, Fig. 10). Elevated crustal tempertures would result in regional uplift due to thermal expansion and buoyancy. Eventually, explosive rhyolitic volcanism occurs, with eruptions of voluminous ash-flow tuffs. Release of rhyolite magmas to the surface would partially empty the upper crustal chambers, causing collapse of roof rocks and formation of calderas (Stage C). This process was repeated many times (as at Yellowstone) before the shallow silicic magma chambers became solidified. After solidification of the silicic magma bodies, basaltic magmas can ascend through them, causing sporadic basaltic eruptions (Stage D, Fig. 10). The eastern Snake River Plain is currently considered to be in Stage D.

5. HAWAIIAN VOLCANISM AS AN HISTORICAL ANALOG TO QUATERNARY BASALTIC VOLCANISM OF THE EASTERN SNAKE RIVER PLAIN

5.1 INTRODUCTION

In order to understand ancient volcanic systems, it is often useful to study similar systems that are active today. Basalt volcanic deposits of the eastern Snake River Plain have many similarities with those of the Hawaiian Islands, including tectonic setting. Both the eastern Snake River Plain and the Hawaiian Islands are considered to have resulted from lithospheric plates passing over stationary mantle plumes. The most obvious difference between the two provinces stems from the fact that the eastern Snake River Plain resides within a *continental* plate, while the Hawaiian Islands rest on an oceanic plate. As a result, rhyolite volcanism has dominated the early stages of eastern Snake River Plain volcanism, although the youngest volcanism at both regions has been basaltic.

5.2 GENERATION, RISE AND STORAGE OF MAGMA IN HAWAII

Decker (1987) gives a detailed overview of this subject, and the following discussion is a summary of this material.

5.2.1. Generation

Geophysical and geochemical data indicate that basaltic magma is generated in the earth's upper mantle beneath the Hawaiian Islands at depths of 60 to 170 km (Wright, 1971; Fig. 11). The upper mantle parent material is lherzolite, a crystalline aggregate of olivine, pyroxenes, and other minor minerals such as garnet or spinel (Wright, 1984). Hawaiian basalts have calculated temperatures of formation of 1350-1400° C, and measured eruption temperatures of 1100-1200° C.

5.2.2. Rise

Since basaltic magma is less dense than its surrounding source material, it often ascends into the lithosphere. In sufficient quantities, magma may force its way up through the lithosphere, in conduits formed by headward fracturing. Seismic data have shown that some magma batches ascend as much as 30 km in several weeks and are often stored in shallow reservoirs beneath the summits of large Hawaiian shield volcanoes. Other batches never reach the shallow reservoirs and instead solidify at depth.

5.2.3. Storage

All magma that reaches the surface of Kilauea, the most historically active shield volcano in Hawaii, first passes through a shallow reservoir 2 to 6 km below the summit (Heliker and others, 1986). This reservoir is defined by an aseismic zone surrounded by an envelope of increased seismic activity. Fluctuations of magma within the reservoir are accompanied by ground deformation, and accumulating pressure may force the magma to erupt at the summit or move laterally into rift zones (Fig. 12).

Geodetic monitoring of the summit region indicates that the reservoir system is slowly inflated over months or years, and is then rapidly deflated during eruption or intrusion into rift zones. Deflation alone cannot accommodate these large volume losses, and the roof rocks above shallow magma chambers collapse, forming huge depressions such as Kilauea Caldera and its numerous smaller pit craters.

The magma reservoir is estimated to contain about 11 km^3 of molten rock. Only a small percentage of this magma ever erupts onto the surface, indicating that Hawaiian volcanoes grow by internal as well as external processes (Heliker and others, 1986).

5.3 COMPARISON BETWEEN HAWAIIAN AND EASTERN SNAKE RIVER PLAIN BASALTIC VOLCANISM

Shield volcanoes are basaltic landforms common to both regions, but have dramatically different sizes. The island of Hawaii is composed of five overlapping shield volcanoes, each with a basal diameter of 100-200 kilometers. By comparison, shield volcanoes on the eastern Snake River Plain have average diameters of only a few kilometers. This size difference is due to the differing modes of magma storage between the Hawaiian Islands and the eastern Snake River Plain, and differing magma supply rates.

Studies from Hawaii indicate that magma is stored in summit reservoirs as large as 11 cubic kilometers (Heliker and others, 1986). The presence of many calderas in Hawaii reinforces this interpretation, since calderas result from the collapse of overlying rocks associated with magma fluctuations in large, shallow reservoirs. There are no calderas associated with basaltic volcanism on the eastern Snake River Plain, indicating that magma in this region is seldom stored in voluminous, high-level reservoirs, but instead is brought directly to the surface from relatively deep sources, probably near the base of the crust. It is therefore anticipated that ground deformation associated with future eastern Snake River Plain basaltic volcanism would be far less than has been observed in Hawaii.

6. VOLCANIC HAZARDS

6.1. POTENTIAL VOLCANIC HAZARDS OF THE EASTERN SNAKE RIVER PLAIN

6.1.1. Rhyolite Volcanism

Explosive rhyolite volcanism has not occurred in the vicinity of the INEL for at least 4 million years, and future eruptions seem highly unlikely, because this type of volcanism is very infrequent (return periods of 10^5 to 10^6 years) and has shifted to the Yellowstone area during the past several million years. Several rhyolite domes formed to the south of the INEL about 0.5 million years ago, but these are anomalies during a time of predominantly basaltic volcanism, and similar features are unlikely to form again. Based on past patterns of volcanism, the unlikely eruption of future rhyolite domes would probably occur along the axial topographic ridge near Middle Butte and East Butte (Kuntz and Dalrymple, 1979; Fig. 13). Rhyolite domes in this region are ancient, nonexplosive and infrequent; it is reasonable to conclude that rhyolite eruptions would be very unlikely at the INEL in the foreseeable future.

However, explosive rhyolite volcanism is possible at Yellowstone, and based on the volume of past eruptions, this could result in hazards associated with airfall tephra deposits at the INEL. The possibility of Yellowstone pyroclastic surge or flow deposits reaching the INEL is nonexistent, because of the travel distance and mountain barriers between the two localities. The U.S. Geological Survey has identified the Yellowstone caldera as a third-order site of ongoing volcano monitoring (Bailey and others, 1983), but the eastern Snake River Plain is not named as an area of concern.

6.1.2. Basaltic Volcanism

Figure 13 shows the locations of fissures and vents associated with postulated INEL volcanic rift zones, and the long-axis topographic ridge of the ESRP. The most recent volcanic activity occurred about 2,100 years ago, along the Great Rift (Kuntz and others, 1986a,b), which is the farthest of the four zones from the INEL. Because regional topography slopes gently southward, lava eruptions from the Great Rift would not reach the INEL.

Probability estimates of Kuntz (1978a) suggest that a volcanic eruption may occur in the Arco-Big Southern Butte area within the next 10,000 years. Based on past volcanism, future eruptions would probably not be explosive and hazards would be those associated with flowing lava, which would pond in topographically low areas. Depending on locations of the source vents, lava flows could reach portions of the two proposed SSC site locations.

According to Kuntz and Dalrymple (1979), potential hazards from volcanism associated with the Lava Ridge-Hells Half Acre rift zone are governed chiefly by three factors: (i) topography, (ii) location of volcanic vents, and (iii) recurrence interval of volcanism. The east central portion of the INEL lies in a topographic depression referred to as an "eruptive basin" by Kuntz and Dalrymple (1979). This "basin" is bounded by the Lava Ridge-Hells Half Acre volcanic rift zone to the east and northeast, volcanoes and rhyolite domes of the long axis topographic ridge of the ESRP on the south and southeast, and by the Arco volcanic rift zone to the west and southwest. Future eruptions along any of the three ridges could affect structures within the basin. Since most vents along the rifts are shield volcanoes, future hazards would likely be lava flows engulfing nearby structures.

Recurrence intervals of volcanism along the Arco-Big Southern Butte and Lava Ridge-Hell's Half Acre volcanic rift zones are poorly constrained, but seem to be on the order of 10^3 to 10^4 years. Data presented in Kuntz (1978b), and Kuntz and Dalrymple (1979) suggest that volcanism may recur on average every 3,000 years at the Arco-Big Southern Butte and Lava Ridge-Hell's Half Acre volcanic rift zones.

Based on geochronology and geologic mapping (Kuntz, 1978a,b; Kuntz and others, 1979; Kuntz and Dalrymple, 1979; Kuntz and others 1980; Kuntz and others, 1984), some general statements can be made about future volcanism along rift zones crossing the INEL. The

Circular Butte-Kettle Butte volcanic rift zone in the northeastern part of the INEL is highly unlikely to erupt in the foreseeable future, because volcanism has not occurred there in more than 10^5 years. The southern portions of both the Arco-Big Southern Butte and Lava Ridge-Hell's Half Acre volcanic rift zones have been active within the past 20,000 years. The Arco-Big Southern Butte volcanic rift zone erupted the North and South Robbers lava flows about 12,000 years ago, with neither of these reaching the INEL. The Cerro Grande lava field also erupted from this rift zone about 11,000 years ago, and lava flows travelled about 15 km from source, encroaching onto what is now the southern INEL boundary. The youngest lava flows in the vicinity of the INEL erupted 5,200 years ago at the Hell's Half Acre lava field.

It is well to recall that the youngest dated vent *within* the INEL boundary is about 300,000 years old. Although basaltic volcanism has occurred in the vicinity of the INEL during the past 10^4 years, past patterns of volcanism suggest that future volcanism within the time frame of human endeavors such as the SSC (10^1 to 10^2 years) is very improbable.

6.2. OBSERVED HAZARDS IN HAWAII: RELEVANCE TO THE EASTERN SNAKE RIVER PLAIN

This section deals with volcanic hazards of the Hawaiian Islands, and makes comparisons with hazards that could occur on the Snake River Plain. Hazards resulting directly from eruptions such as lava flows, tephra falls, volcanic gases, and pyroclastic surges are discussed, along with less direct hazards such as ground deformation and volcanic earthquakes. Prehistoric eruptions of the eastern Snake River Plain were similar to historical eruptions in Hawaii, where we have the benefit of "real-time" geological observations. Most Hawaiian eruptions form lava flows that chiefly endanger property; explosive eruptions are relatively rare, but are more likely to threaten people. A more detailed discussion of Hawaiian volcanic hazards is found in Mullineaux and others (1987), from which this overview is largely taken.

6.2.1. Direct Hazards

Of all direct volcanic hazards, **lava flows** have occurred most frequently both on the Hawaiian Islands and the Snake River Plain, and are the greatest hazard to property. Lava is erupted from single vents and from long fissures, and typically forms lobate flows that extend downslope from vents. Lengths and areas of lava flows vary greatly, depending on the rate and volume of effusion, and the topography over which lava moves.

According to Mullineaux and others (1987), Hawaiian lava flows generally advance at speeds less than 3 to 5 km per hour, but voluminous flows on steep ground can reach speeds

of 9 km per hour, and channelized lava streams on steep slopes can reach speeds of 55 km per hour. Hawaiian lava flows range from a few meters to more than 50 km in length, and from a meter to about 3 km in width. Flow thickness depends on viscosity and topography. Pahoehoe lava is relatively fluid and forms flows that are thinner than more viscous aa flows. Individual pahoehoe flows range from tens of centimeters to as much as 3 m thick, with buildup of tens of meters when numerous flows move along the same path. Individual aa flows are generally 2-8 m thick, but can be as thick as 20 m.

The chief threat posed by lava flows is to immobile property. Lava flows burn, crush, bury, and surround structures that lie in their paths, and reduce the value of land that is covered. Surprisingly, advancing lava exerts little force against objects, and diversion of lava flows has proved successful in some instances, by (i) construction of barriers and channels, (ii) use of explosives to block or divert lava streams, and (iii) use of water to cool and solidify advancing flow fronts.

Because the eastern Snake River Plain is a region of very low topographic relief, and because prehistoric lavas have mostly been fluid pahoehoe, future lava flows will probably have thicknesses of several meters to about 10 meters, will generally move slowly at rates less than a few kilometers per day, and will become ponded in shallow depressions. Facilities in low-lying areas would be most susceptible to damage, and the specific effects would be engulfment (but not toppling), and burning of flammable structures. Lava flow paths are easily predicted using topographic maps, and diversion structures would probably succeed in such low-relief terrain.

Local **eruptions of tephra** in Hawaii occur frequently, but do not represent a severe hazard to people or property. Tephra generally consist of coarse fragments produced by mild lava fountains; these fragments fall close to their source vents, where they form spatter cones and ridges or become part of lava flows, but smaller particles can be carried by the wind to form widespread ash deposits. Tephra can also be formed by explosive eruptions associated with magma-water interaction (hydrovolcanism); these tephra generally consist of sand-sized pieces of previously solidified rock, and can fall several kilometers from source.

Tephra deposits seldom endanger people or animals, who can move out of the range of falling material; however, tephra can seriously affect vegetation, manmade structures, and machinery. Property may be burned or damaged by impact of fragments. Ash fall can cause discomfort and injury to eyes and the respiratory system, and can smother vegetation, clog water and sewage systems, and damage machinery.

Eruption of widespread ash is unusual during basaltic eruptions, and the eastern Snake River Plain is no exception. The rock record shows that mild effusions of basaltic lava are the rule (Greeley, 1982), that magmatic tephra deposits are generally localized near vents (as at

Craters of the Moon; Kuntz and others, 1986a), and that widely-dispersed, fine hydrovolcanic tephra deposits are uncommon and are largely restricted to the southern portion of the eastern Snake River Plain (Hackett and others, 1986). No explosive basaltic eruptions are known to have occurred in the vicinity of the INEL.

Pyroclastic surges are relatively infrequent in Hawaii, but they present great danger to human life. Pyroclastic surges are clouds of ash, rock fragments, and gases that move outward from source vents at high speeds. Surges are commonly caused by steam explosions associated with (i) interaction between ground water and molten rock in a fluctuating magma column, (ii) sudden depressurization of shallow hydrothermal systems, and (iii) streams or sea water flowing directly into conduits during eruptions.

Pyroclastic surge deposits of the Snake River Plain have resulted from interaction between ground water and basaltic magma, but are generally confined to the southern portion of the plain (Hackett and others, 1987; Fig. 7). Hydrovolcanism near the INEL is highly unlikely because the depth to the water table is generally several hundred feet.

Volcanic gas emissions are common during all types of eruptions, but represent relatively little danger to people or property. Gas can be expelled from vents that have never erupted lava, and can be released for many years after eruptive activity ceases. Some reactive gases can damage vegetation, mechanical equipment and live tissue, while dense, odorless gases such as carbon dioxide can pond in low areas and cause asphyxiation. The emission and distribution of gas cannot be controlled, but basaltic magma does not generally contain large abundances of toxic gases, and the effects are generally restricted to a few hundred meters from vents.

6.2.2. Indirect Hazards

Ground fractures, subsidence, and earthquakes commonly occur together as a result of subterranean magma movement. Deformation of the ground is especially common in summit areas and rift zones, but is usually not severe. Summit tilt associated with magma intrusion in Hawaii is generally less than a few hundred microradians (less than a few decimeters of uplift, over a 1 km distance). Ground fractures in rock and soil result from magma movement, earthquakes, or subsidence of rock in the Hawaiian Islands. Four kinds of subsidence are noted in Hawaii: (i) subsidence of entire islands, (ii) subsidence of parts of a volcano's flank, (iii) settling of small areas as a result of underground magma movement, and (iv) local collapse of the roofs of lava tubes (Mullineaux and others, 1987). Basalt volcanoes of the Snake River Plain show evidence of only the latter two, which are small-scale phenomena. No basaltic calderas, or other large-scale ground deformation associated with shallow magma storage are known on the eastern Snake River Plain.

Thousands of earthquakes occur each year in the Hawaiian Islands, and some tectonic earthquakes have reached $M_R = 7$. However, those resulting from movement of magma generally have Richter magnitudes less than about 3.5. Most volcanic earthquakes are so small that they cause no damage and can only be detected by instruments. Small-magnitude earthquakes would probably occur along with volcanism on the Snake River Plain. As in Hawaii, monitoring instruments could then be used to detect future magma movement, and batches of basaltic magma beneath the eastern Snake River Plain would probably take months or years to rise to the surface from 60-to-90-kilometer-deep source regions in the upper mantle.

7. SUMMARY OF PERTINENT GEOLOGICAL INFORMATION

1. Explosive rhyolite volcanism occurred near the INEL about 4 to 6 million years ago. Since that time, rhyolite volcanism has shifted to Yellowstone, and is unlikely to occur again on the eastern Snake River Plain.

2. The latest rhyolite volcanism near the INEL occurred about 500,000 years ago, when Big Southern, Middle and East Buttes were formed. These features are monogenetic volcanic domes, constructed by the non-explosive effusion of viscous rhyolite magma.

3. During the last 2 to 3 million years, basaltic volcanism and the growth of shield volcanoes has characterized the eastern Snake River Plain.

4. Basalt eruptions of the eastern Snake River Plain, as deduced from volcanic landforms and deposits, have been predominantly Hawaiian-type effusions of fluid lava flows and small spatter cones. Strombolian-type eruptions involving the growth of cinder cones have generally been uncommon, but do characterize local areas such as Craters of the Moon, 30 km to the southwest of the INEL.

5. Explosive basaltic hydrovolcanism is uncommon, and is largely restricted to the southern portion of the eastern Snake River Plain, where depth to the aquifer is shallow.

6. Quaternary basaltic volcanism of the eastern Snake River Plain has been partly localized along northwest-trending volcanic rift zones. Three of these volcanic rift zones cross the INEL: the Arco-Big Southern Butte, Lava Ridge-Hell's Half Acre, and Circular Butte-Kettle Butte volcanic rift zones.

7. Geological and limited geochronological data suggest that basalt eruptions could occur from the Arco-Big Southern Butte or Lava Ridge-Hell's Half Acre volcanic rift zones within 10^3 to 10^4 years. The Circular Butte-Kettle Butte volcanic rift zone is considered to have very little potential for future eruptions.

8. Isolated basaltic eruptions have occurred in the vicinity of the southern INEL boundary as recently as 5,200 years ago, and these small lava flows travelled to the south, away from the INEL.

9. The youngest dated volcanic vent within the INEL boundary is several hundred thousand years old.

10. The latest volcanism of the eastern Snake River Plain occurred about 2,100 years ago, from several vents along the Great Rift. The most voluminous of these recent effusions occurred at Craters of the Moon, 30 km southwest of the INEL. Future eruptions from Craters of the Moon are likely within the next 1,000 years.

8. CONCLUSIONS: VOLCANIC HAZARDS ASSESSMENT FOR THE PROPOSED SSC

Specific predictions can only be made for well-studied eruptive centers, based on thorough records of recent or historical volcanic activity. This is clearly not possible for the eastern Snake River Plain, a vast region with no historical eruptions, and with very long (10^2 to 10^4 years) apparent recurrence intervals during prehistoric volcanism. At best, the general prediction can be made that basalt lava flow eruptions will almost certainly occur on the eastern Snake River Plain within the next 10^3 to 10^4 years. These eruptions will probably take place along the Great Rift, 30 km to the southwest and downslope of the INEL.

Since the useful lifespan of the SSC and other INEL facilities is of the order 10^1 to 10^2 years, the probability of future volcanic events affecting the SSC seems exceedingly small, especially for an SSC ring constructed within the INEL boundaries (Fig. 13), where no volcanic vents have erupted during the past 10^5 years. If a larger ring were to be constructed to the southwest of the INEL and closer to the Great Rift (Fig. 13), then the risk would be somewhat greater (but still very small), since volcanism at Craters of the Moon may occur within the next 1,000 to 2,000 years.

In all cases, the hazard most likely to occur with future volcanism of the eastern Snake River Plain is basalt lava flows, which could engulf structures or cause their destruction by burning. Facilities in low-lying areas would be at greater risk than those on high ground. A secondary hazard is minor ground deformation associated with the subsurface intrusion of magma along volcanic rift zones. The scale of ground deformation would likely be small; i.e., tens of centimeters of uplift over a several-kilometer distance, or the opening of centimeter-to-decimeter-wide tensional fractures.

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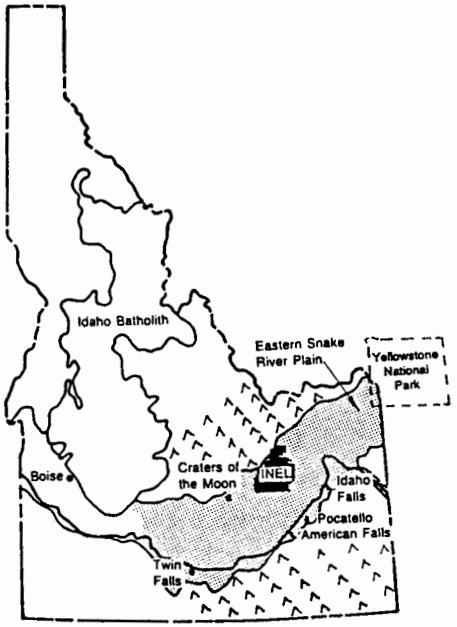

Figure 1. Location of the Idaho National Engineering Laboratory (INEL), showing major cities, Snake River Plain (shaded), and surrounding Basin and Range mountains of southeastern Idaho.

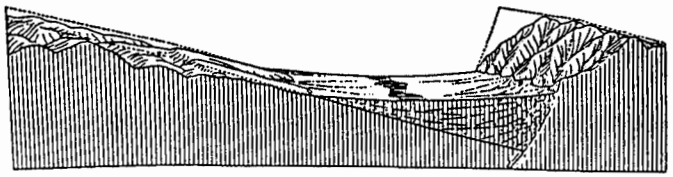

Figure 2. Geologic block diagram showing typical topography of the Basin and Range province, and the block faulting believed to have shaped it (from King, 1977).

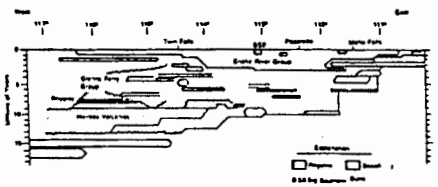

Figure 3. Volcanic rock units of the eastern Snake River Plain (modified from Armstrong and others, 1975).

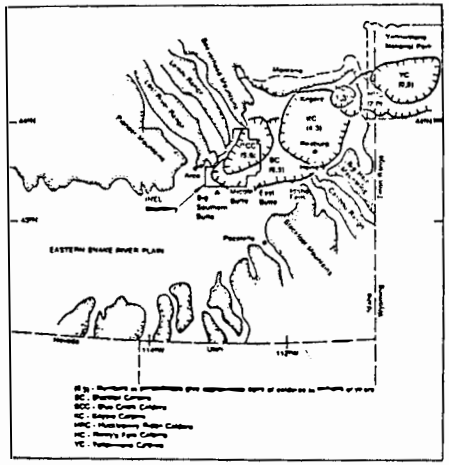

Figure 4. Rhyolite calderas of the Eastern Snake River Plain and Yellowstone Plateau. Locations and ages of Tertiary calderas are from Morgan and others (1984); Quaternary calderas are from Christiansen (1984).

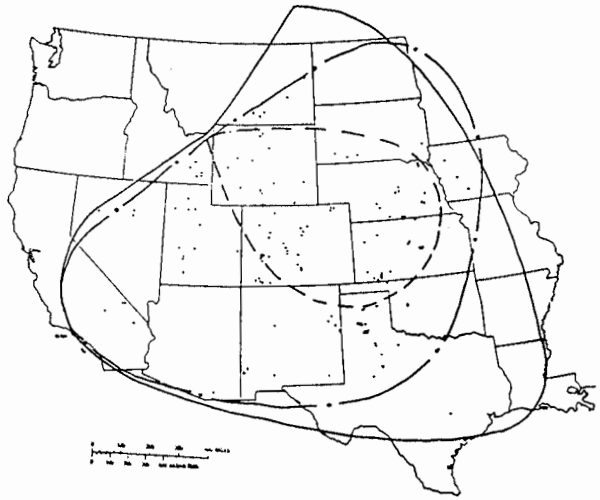

Figure 5. Map showing the inferred distribution of Huckleberry Ridge (solid line), Mesa Falls (dashed line), and Lava Creek Ash (dash-dot line). Modified from Izett and Wilcox (1982).

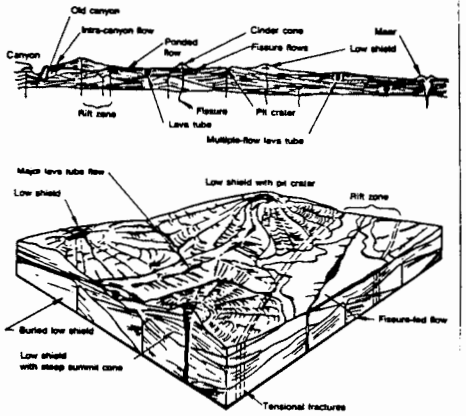

Figure 6. Features of basaltic volcanism on the eastern Snake River Plain (modified from Greeley, 1982).

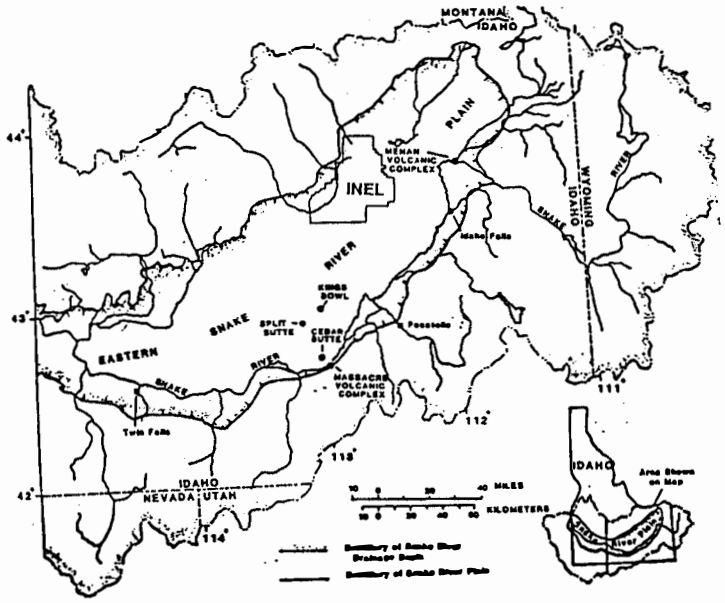

Figure 7. Locations of major hydrovolcanic features of the eastern Snake River Plain: Menan, King's Bowl, Split Butte, Cedar Butte, and Massacre are volcanic centers with tuff cones, tuff rings and phreatic explosion craters. Hachured line shows topographic margin of eastern Snake River Plain (modified from Hackett and others, 1987).

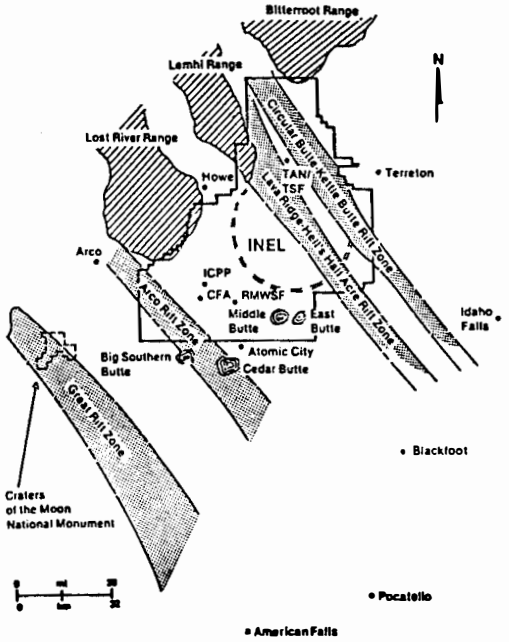

Figure 8. Postulated volcanic rift zones of the eastern Snake River Plain, based on data of Kuntz (1978a,b); Kuntz and others (1979, 1980, 1984, 1986a,b); Kuntz and Dalrymple (1979). Dashed circle within INEL shows possible location of SSC ring.

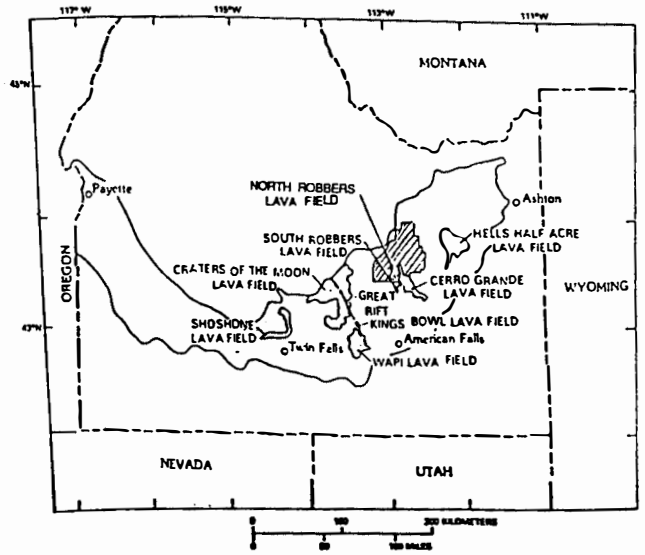

Figure 9. Index map of southern Idaho showing locations and radiocarbon ages of latest Pleistocene and Holocene basaltic lava fields (from Kuntz and others, 1986b). Ages (in years before present) of lava fields are: Hell's Half Acre (5,200); Cerro Grande (13,400); North and South Robbers (12,000); Craters of the Moon (15,000 to 2,100); Wapi (2,300); Kings Bowl (2,200); Shoshone (10,100).

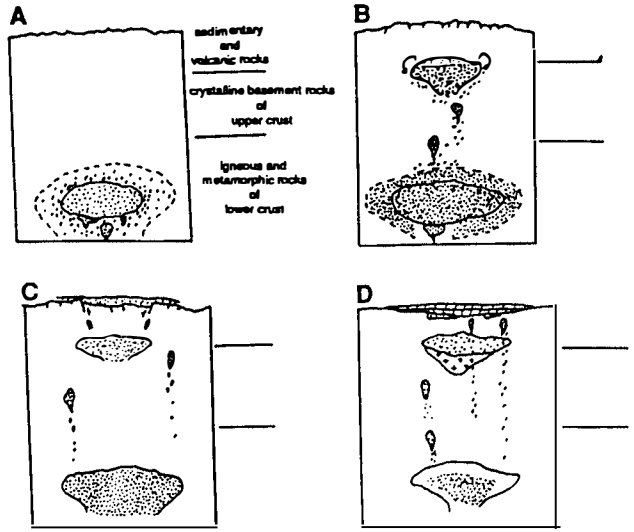

Figure 10. Schematic petrologic model for the Snake River Plain-Yellowstone Plateau province (modified from Leeman, 1982): A. Incipient basalt ascent; B. Formation and segregation of crustal melts with arrows indicating possible hydrothermal circulation; C. Predominantly rhyolite volcanism fed by high level magma chamber; D. Predominantly basaltic volcanism fed from deep crustal or upper mantle magma body. Scale is not given, but depths of about 40 kilometers and 10 kilometers to the mafic and silicic bodies, respectively, are suggested.

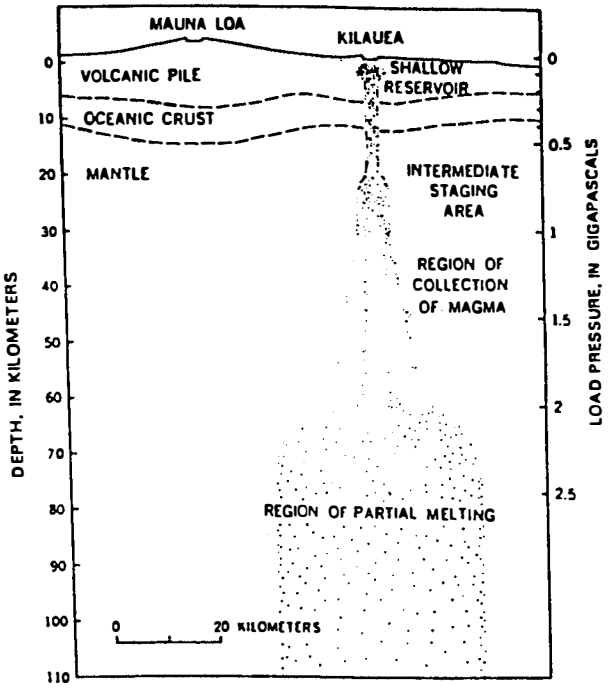

Figure 11. Schematic cross section of Kilauea Volcano, showing regions of melting, transport, and storage of magma (from Wright, 1971).

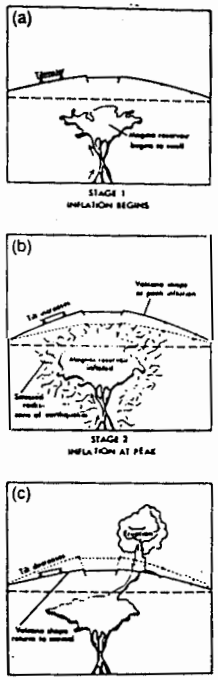

Figure 12. Ground deformation at Kilauea summit, related to filling and emptying of the magma reservoir: (a) Inflation begins; (b) Tiltmeters on the summit record the amount of inflation; (c) Summit deflates as magma drains laterally to feed a rift zone eruption. Vertical scale greatly exaggerated. (From Tilling, 1983)

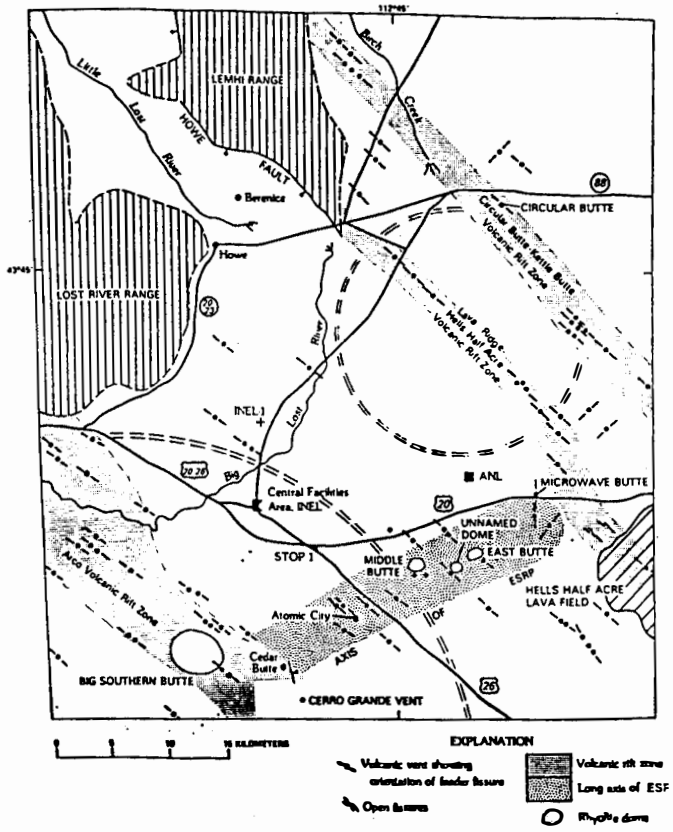

Figure 13. Map showing volcanic rift zones and other vents in the vicinity of the INEL (modified from Kuntz and Dalrymple, 1979). Possible locations of SSC rings are shown as dashed circles.

Geologic faults near the proposed site of the Superconducting Super Collider in eastern Idaho

by
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Idaho State University
December, 1987

Executive Summary

This report concerns the location and activity of geologic faults in eastern Idaho, in order to assess the potential fault hazards and earthquake hazards to the proposed Superconducting Super Collider (SSC) at the Idaho National Engineering Laboratory. The information presented herein is a compilation of data and interpretations from published documents, discussions with earth scientists, and original research by the author. The report concludes that no active faults have been found at the proposed SSC site, and of all the active faults within 100 miles of the proposed SSC site, the faults located 40-100 miles north of the site along the central Lost River, Lemhi, and Beaverhead Ranges are the most likely to slip, at an indeterminate time in the future.

No faults have been recognized at the proposed site of the SSC. The basaltic lava at the proposed site emerged from vertical conduits, or vents, which extend several miles into the earth. These vents are now filled with volcanic rock. Little, if any, past displacement is evident along the vents, and the chances that displacement would occur along an existing vent in the next 50 years appear negligible.

Just north of the proposed SSC site is the boundary between the Snake River Plain and the Basin and Range Province. Normal faults, oriented parallel to the boundary of the plain, are exposed in places but these faults are few and their displacement small. None of the faults show evidence of recent activity. Geophysical investigations of the subsurface suggest that a fault is present along the edge of the plain near Arco, Idaho. This fault is inferred to have about two miles of displacement, but is covered by a mile thickness of basalt and shows no evidence of offset at the surface.

The Basin and Range Province contains a number of faults along the flanks of the major ranges. Along these faults, the mountains have been uplifted relative to the valleys. The cumulative offset along each fault, which may be several miles, is the sum of recurrent, three to fifteen foot offsets. These relatively small offsets have recurrence intervals of thousands to tens of thousands of years, indicating that several million years have been necessary to uplift the mountains to their present elevations.

The location of active faults in the Basin and Range is indicated by steep and high ranges, by steep and high fault scarps in surficial gravel deposits, by the offset of young gravels exposed in trenches, and by historic seismicity.

These criteria suggest that many of the range-front faults within 100 miles of the proposed SSC site have been active in the past million years. The most active range-front faults appear to be those on the western flanks of the Lost River, Lemhi, and Beaverhead Ranges, which have been active during the past 100,000 years. The central segments of these faults have been active during the past 15,000 years, and are considered to be the most likely location of faulting in the future. Because of incomplete characterization of the recurrence intervals of these faults, and the natural deviation of fault timing from the recurrence interval, the age of future movement is indeterminate.

Introduction

The state of Idaho has proposed to the federal government that it construct a particle accelerator, referred to as the Superconducting Super Collider (SSC), at the Idaho National Engineering Laboratory (INEL) in eastern Idaho. If Idaho is one of the states selected for final consideration, in 1988 it must submit an Environmental Impact Statement. One environmental concern is the possibility that faults, or seismic waves generated by earthquakes on nearby faults, will damage the SSC. This report will discuss the location and activity of faults in eastern Idaho, in order to assess the potential fault and earthquake hazards to the SSC.

Federal guidelines require that all faults within 100 miles of the proposed SSC site be characterized, in particular those faults with the potential to slip during the next 50 years. An unusually large number of geologic and geophysical investigations in eastern Idaho have addressed this problem, due to the fact that more than 50 nuclear reactors have been operated at the INEL during the past 30 years. In addition, a 1983 earthquake centered 60 miles north of the proposed SSC site caused renewed study of the fault hazards, and resulted in detailed characterizations of several active faults in eastern Idaho.

Although many active and potentially active faults have been identified in eastern Idaho, earth scientists cannot predict with certainty if these faults will slip during the next 50 years. First, large earthquakes along the major faults in eastern Idaho have a suspected recurrence interval of thousands to tens of thousands of years, plus or minus hundreds to thousands of years. Fifty years is a fraction of the natural deviation from this recurrence interval. Second, to measure the recurrence interval of a fault the ages of several prehistoric earthquakes must be known. These ages are commonly constrained to within a few thousand or ten thousand years of the actual earthquake, a time

range comparable to the recurrence interval itself. Third, earthquake frequency varies from fault to fault, requiring extensive study of each fault, which has yet to be completed.

The description of faults is facilitated by the use of some specialized terminology. An explanation of these terms can be found in the appendix.

Geology of Eastern Idaho

Tectonic activity in eastern Idaho occurs in two geologic provinces (figure 1). From Twin Falls to West Yellowstone is the Snake River Plain, a 50 mile wide strip of volcanic rocks as old as 14 Ma (millions of years before present). North and south of the plain are the mountains and valleys of the Basin and Range Province, which has formed since 20 Ma. The geologic processes which formed these provinces continue today, and are responsible for the active faults in the region.

Eastern Idaho also contains a number of inactive faults, which formed tens to hundreds of millions of years ago. These older faults reflect ancient mountain-building events, called orogenies, in which the earth's crust was stressed and locally uplifted. The major orogenic events which affected eastern Idaho, and their inferred age span, include:

Antler Orogeny	350-370 Ma
Sevier Orogeny	60-90 Ma
Challis Orogeny	42-50 Ma
Basin and Range Orogeny	0-20 Ma
Snake River Plain	0-12 Ma

Before this paper focuses on the active faults, it will summarize the older, inactive faults and the geologic processes responsible for their formation.

Inactive Faults

From about 600-370 Ma, a shallow ocean covered the western U.S. including Idaho. Sandstone, mudstone, and limestone were formed on the seafloor, until about 370 Ma when these rocks were deformed by stresses of the Antler Orogeny. At this time, rocks in central Idaho were faulted and uplifted out of the ocean, to form islands. Within

thirty million years the stresses ended, these islands were eroded down to sea level, and relatively quiet sedimentation recommenced. The evidence for this orogenic event in eastern Idaho is the presence of 370-350 Ma conglomerates within the Copper Basin Formation, which are inferred to be the sediments eroded off of the uplifted highlands to the west. The faults which accomodated this ancient uplift have not been found, but are inferred to be present because local uplift of the earth's crust can only occur along faults. These faults should be preserved in the vicinity of the much younger Pioneer Mountains, but the specific location and geometry of the faults which may have formed at this time is, as yet, unknown.

A shallow ocean covered Idaho until about 200 Ma, when the ocean receded westward as most of the western U.S. was uplifted to form a broad coastal plain. At some time between 90-160 Ma, the rocks in eastern Idaho were first deformed by east-west compressive stresses of the Sevier Orogeny. In response to these stresses, the upper crust was shortened and thickened as sheets of rock, tens of miles across and a few miles thick, moved upward and eastward along thrust faults. These faults were north-striking, dipped gently (0°-30°) to the west, and typically had a stair-step profile characterized by long flats and short ramps (Figure 2a). The faults formed at or near the surface and continued to a depth of 6-10 miles, where they coelesced into a very gently dipping detachment fault, below which no faulting occurred. Uplift along the thrust faults resulted in the formation of mountains throughout eastern Idaho, but by about 60 Ma uplift had ceased and the mountains were partially eroded to rugged hills.

Today in eastern Idaho, younger sedimentary and volcanic rocks cover most of the former surface traces of the Sevier thrust faults. Only in the uplifted mountains of the more recent Basin and Range province are parts of a few thrust faults exposed. These surface traces, as well as subsurface data including seismic reflection lines and cores from oil and gas wells, provide evidence for the style and three-dimensional geometry of the thrust faults. Cross-cutting relations between the thrust faults and contemporary rocks indicate that thrust faulting in Idaho probably occurred over tens of millions of years, but ended by 50 Ma since the faults do not offset rocks younger than this. Except for a few which have been reactivated during the Basin and Range orogeny, the Sevier thrust faults are inactive.

From about 50-42 Ma, east central Idaho was blanketed by volcanic rocks of the Challis Volcanic field. As volcanism progressed, an incompletely characterized set of northeast-striking normal faults formed (Bennett, 1986).

No recent movement has been documented along these normal faults, suggesting they are improperly oriented to accomodate movement in the Basin and Range and are presently inactive.

During the past twelve million years, the Snake River Plain has formed across southern Idaho. The rocks in this province consist of a lower section, several miles thick, of rhyolite ash flow tuff, mudstone, and sandstone, and an upper section, less than a mile thick, of basalt lava. These rocks were deposited over the pre-existing rocks and structures and completely obscure them. The locus of volcanism apparently migrated to the northeast through time (Armstrong and others, 1975), and is now centered beneath Yellowstone National Park. The cause of volcanism and origin of the Snake River Plain is inferred to be a fixed mantle plume, which melted the lower crust beneath eastern Idaho as the North American continent drifted southwest over the fixed plume (Armstrong and others, 1975).

Within the plain the only fractures recognized are those which acted as conduits for the basalt lava. These fractures are vertical and generally north northwest-striking, with an unknown, but probably small, amount of offset (Kuntz and others, 1984). No evidence of recent movement is indicated along these fractures. A mile beneath the surface of the plain, the ash flow tuffs are most likely offset along vertical cylindrical faults (Embree and others, 1982). These faults formed because the surface collapsed after large volumes of magma were extruded by explosive eruptions. Movement along these types of faults occurred concurrently with volcanism, which has ceased in the Snake River Plain. In addition, the faults do not offset the surficial basalts and are inferred to be inactive. Several miles below the surface, below the volcanic rocks, folded and faulted rocks of the Sevier thrust belt may be present. If so, these rocks are probably too deep to deform in a brittle manner and need not be discussed further.

The transition from the volcanic basin of the Snake River Plain to the uplifted mountains of the Basin and Range is poorly understood. The rocks adjacent to the plain are downwarped and are cut by some northeast-striking faults (Kuntz and others, 1984), but the downwarping is too gentle and the offset on faults too little, and at places in the wrong direction (Rodgers and Zentner, in press), to account for the subsidence of the plain. Subsurface studies using gravity and seismic reflection techniques suggest the north edge of the plain near Arco is bounded by a normal fault with two miles of offset, but this inferred fault is buried under a one mile thickness of basalt and has no surface expression (Pandrauz and Akermann, 1982). Faults parallel to the boundaries of the plain do not appear to cut any rocks younger than about 3 Ma, and little seismicity has been recorded along its boundaries, suggesting that the faults which exist here are presently inactive.

Active faults

In eastern Idaho, active and potentially active faults are present in the Basin and Range Province. This province includes all of eastern Idaho except the Snake River Plain, and is characterized by north-trending mountain ranges and intervening valleys. The formation of the mountains and valleys is due to movement along range-bounding normal faults, in which the mountains are uplifted and the valleys downdropped.

The range-bounding normal faults are large planar surfaces, typically 20-100 miles long and 6-10 miles deep. The faults strike north to northwest and dip 40°-60°. Movement along the faults results not only in the uplift of mountains relative to the valleys, but also in east-west extension.

Many, if not most, of the range-bounding faults in eastern Idaho are located on the western sides of the ranges. The faults are regularly spaced, about every 20 miles from west to east, and appear to be rotational faults. In rotational faulting, the fault blocks tilt to the east as the faults tilt to lower westward dips (Figure 2b). Thus, a range and the adjacent valley to the east are part of the same fault block, which is rotated so that the range is tilted up as the valley is tilted down. This results in asymmetric profiles of the mountains and valleys: the mountains have steep western flanks and gentle eastern flanks, and the valleys are lowest on their eastern side.

The uplift of the ranges relative to the valleys is counteracted, in part, by concurrent erosion of the ranges and deposition in the valleys. Overtime, layers of sand and gravel are deposited in the valleys, resulting in rather thick accumulations of unconsolidated sediments. Rotational faulting in eastern Idaho has produced valleys with an asymmetric thickness of alluvial fill: thin on the west but up to two miles thick on the east, near the range-bounding fault.

Once formed, a range-bounding normal fault is characterized by recurrent slippage. Slip typically occurs in seconds or minutes and results in about 3-15 feet of diplacement. Thousands of years may pass between slips, but over a few million years the cumulative displacement along the fault is significant. Forexample, a fault characterized by ten feet of slip every ten thousand years would, in five million years, have a cumulative displacement of nearly a mile.

The difficult task of estimating the age of fault slippage is accomplished using several techniques. One method makes use of the height and steepness of the fault scarp in alluvial gravels: subdued scarps suggest that no activity has occurred in late Quaternary time, but high scarps indicate that late Quaternary activity has occurred. Similarly, the height and steepness of the range relative to the valley may be indicative of the age of movement. Numerical estimates of the ages of movement along a fault can be obtained by dating layers of alluvial gravels, using radiometric techniques and the thickness of carbonate coats, which overlap the fault or are offset by the fault.

Investigation of the normal faults in eastern Idaho suggests that of the numerous faults in the area, only a few show evidence of slippage in the past 15,000 years (Witkind, 1975). These faults are considered to be active and the most likely to slip in the future. Normal faults which do not show evidence of slip in the past 15,000 years are considered potentially active. All of the active and potentially active faults known to exist in Idaho are located on a map by Witkind (1975). The timing of range-bounding normal faults which appear to be active is discussed in the following section.

Lost River Fault

The Lost River fault extends 5-120 miles north of the proposed SSC site along the western edge of the Lost River Range (figure 4). Recent activity of the Lost River fault is indicated in several ways: the Lost River Range has a steep western flank and contains the highest point in Idaho, the fault scarps in alluvial gravels are steep and high, and, in 1983, the fault slipped to produce a magnitude 7.3 earthquake. Public concern after the 1983 earthquake resulted in detailed study of the timing and geometry of the Lost River Fault (see numerous articles in Stein and Buckham, 1985), and these studies have made the Lost River fault one of the best characterized faults in the Basin and Range Province.

The Lost River fault is not one continuous fault, but is actually composed of several fault segments (Figure 4), distinguished by contrasting trends and heights of the fault scarp. The most active of these is the Thousand Springs fault segment, which slipped about 6 feet in 1983. This segment dips about 50° southwest, extends to a depth of about 9 miles, and has a minimum cumulative displacement of 2 miles (Crone and others, 1985). The Thousand Springs segment bounds the steepest and highest part of the Lost River Range, suggesting it is the most active of the Lost River fault segments. Study of gravels cut during previous faults suggests that no more than a few thousand years had passed since the previous slip (Scott and others, 1985), a relatively short recurrence interval.

Just south of the Thousand Springs segment is the Mackay segment, characterized by a number of late Quaternary fault scarps. In a trench excavated across one scarp, a 6.6 ka volcanic ash was cut by the fault and organic matter dated at about 4 ka was covered by scarp-derived gravels, suggesting that the last slip along this fault segment occurred about 4,000 years ago (Hait and Scott, 1978; Scott and others, 1985). The recurrence interval of this fault has not been estimated.

The Arco segment is located at the southern end of the Lost River Range, about five miles from the proposed site of the SSC (Figure 4). Excavation and analysis of gravels at the scarp indicate a cumulative displacement of about 60 feet since the lowermost gravels were deposited (Malde, 1971; Pierce, 1985). Dating of the different gravel layers indicates that this displacement occurred episodically between about 160 ka and 30ka (Pierce, 1985), and that no displacement has occurred since 30 ka. If strain has continued to accumulate at the same rate as it did from 160-30 ka, then the fault is now highly strained and slippage is long overdue (Figure 5). However, it seems unlikely that the fault could withstand this much strain without faulting. Recent work on similar faults in Nevada suggests that slippage occurs in spurts, separated by periods of quiescence (Wallace, 1985). The data for the Arco segment are compatible with such a model (Figure 5), and if this model is viable, then the Arco segment is experiencing a period of quiescence of unknown future duration (Pierce, 1985).

Lemhi and Beaverhead Faults

The Lemhi and Beaverhead Ranges are bound on their west sides by segmented range-front faults (Figure 4). Like the Lost River Range, the central part of each range is the highest and has the steepest range-front, suggesting the central fault segments are the most active. These segments cut the youngest alluvial gravels, indicating displacement younger than about 15 ka. In contrast, the north and south ends of the ranges are lower and have more gentle flanks, and the range-front faults do not cut the 15 ka gravels (Scott and others, 1985). In one trench across the southern end of the Lemhi fault, the cumulative offset on alluvial gravels exceeded 50 feet and was accomplished during four or more episodic slips (Malde, 1971) prior to 15 ka, but the recurrence interval is unknown.

Grand Valley Fault

Swan Valley, Grand Valley, and Star Valley are asymmetric east-tilted grabens along the Idaho-Wyoming border, 80-200 miles southeast of the proposed SSC site (figure 3). On their western border is the Snake River fault, an east-dipping normal fault with minimal offset. On their eastern border is the Grand Valley fault, a seismically active, west-dipping normal fault with significant offset (Oriel and others, 1987). The Grand Valley fault is inferred to merge at depth with, and reactivate, a thrust fault which formed about 75 Ma (Royse and others, 1975).

The Grand Valley fault is segmented and has a diachronous history. The Swan Valley segment has slipped about 5 km since about 10 Ma, mostly between 2.0-4.4 Ma, and very little since about 2 Ma (Anders and Geissman, 1983). To the south is the Grand Valley segment, which does not offset 2 Ma gravels, and further south is the Star Valley segment, which offsets alluvial gravels about 15,000 years old (Piety and others, 1986).

Hebgen Lake Fault

About 120 miles northeast of the proposed SSC site, on the west flank of the Madison Range, is the Hebgen Lake fault (figure 3). The fault dips about 64° to the southwest and is characterized by down-to-the-west displacement. In 1959, this fault slipped to produce a magnitude 7.1 earthquake. The 1959 fault scarps were up to 22 feet high, but more commonly 10 feet high, and generally coincided with older scarps related to previous late Quaternary earthquakes (Myers and Hamilton, 1964). The recurrence interval of the Hegben Lake fault has not been investigated in detail.

Southeastern Idaho

A number of range-bounding normal faults are present south of the Snake River Plain, 50-100 miles south, southwest, and southeast of the proposed SSC site (figure 3). The timing of displacement on most of these is poorly known due to lack of study, and considered by Witkind (1975) to have moved recurrently during the past 20 Ma. Few faults show scarps or other evidence of latest Quaternary displacement, and few are characterized by seismicity (Smith and others, 1985).

Discussion

The Basin and Range Province in eastern Idaho contains several active faults, but predicting which of these will slip in the next 50 years, and what damage, if any, will result to the SSC, is quite difficult. The most recently active faults appear to be the range-front faults on the west flanks of the Lost River, Lemhi, Beaverhead, Madison, and Snake River Ranges. The last two faults are over 100 miles from the proposed site of the SSC, so that seismic waves generated by a large earthquake along them would be considerably dampened before they reached the site. The first three faults are located 5-100 miles north of the SSC site. Each fault is segmented, and along each fault the central segments, 40-100 miles away, appear to have the highest slip rates. The southern fault segments, closest to the SSC site, have not slipped in the past 15,000 to 30,000 years.

Scott and others (1985) proposed three theories to predict the location of future earthquakes and fault displacement along the Lost River, Lemhi, and Beaverhead faults. The first theory suggests that the central segments of these faults will slip next because they apparently have the highest rates of slip. The second theory suggests that Warm Springs or Mackay segments will slip next, because they must keep pace with the Thousand Springs segment which slipped in 1983. The third theory suggests that segments like the Arco and Howe segments, which regularly slipped until 15,000-30,000 years ago, will slip next because they are overdue. Our lack of knowledge about these faults and the nature of movement along them prevents a more precise prediction of the location of future earthquakes.

A fault will slip when the accumulated elastic strain exceeds some threshold value. Detailed study of the recent movement along the Lost River fault and the Hebgen Lake fault indicates that the location and amount of recent slip was nearly identical to that of the previous slips along each fault (Crone and others, 1985; Myers and Hamilton, 1964). Similar relations along other normal faults in the Basin and Range suggest that a range-bounding fault has a characteristic strain threshold, which is not likely to be exceeded (Schwartz and Coppersmith, 1984). If this theory is valid, then the displacement and earthquakes of each fault should recur with a characteristic magnitude. Thus, the 1959 and 1983 earthquakes may be characteristic of these faults, and larger earthquakes would not be expected.

Seismic waves generated when strain is released along faults indicate the location of active faults. Realizing that seismicity does not identify all active faults (not every active fault has released strain during the past two decades of monitoring), it is nevertheless useful to recognize regions of active seismicity in eastern Idaho. The map in figure 6 shows that earthquakes with moderate to large magnitudes are concentrated in two areas: from Salt Lake City, Utah

to Yellowstone National Park, named the Intermountain Seismic Belt, and in central Idaho, named the Idaho Seismic Zone. The Snake River Plain is noticably aseismic, as is the Basin and Range Province within about 40 miles of the Snake River Plain.

Scott and others (1985) suggest that the region of high seismicity is a parabola-shaped zone centered about the Snake River Plain and Yellowstone area (figure 6), and interpret the faulting in this zone to be due to heating of the crust. As volcanism, caused by the passage of a mantle plume, progressed northeast across the plain, a wake of deep crustal heat would migrate outward away from plain, causing the crust to become hot, buoyant, thin, and extend. Passage of the heat wake would result in cooling, subsidence, and decreased rates of thinning and extension. If this theory is valid, the seismic parabola would reflect the present location of the heat wake, and the aseismic zones adjacent to the Snake River Plain would reflect passage of the heat wake. Using the Lost River, Lemhi, and Beaverhead faults to test this theory, we find that their central segments (active since 15,000 years ago) lie in the seismic zone, and their southern segments (inactive for at least 15,000 years) lie in the aseismic zone. Thus, the geologic evidence does not refute the theory, and additional supporting evidence is being sought (Anders, pers. comm. 1987).

Summary

Of the numerous faults which formed in eastern Idaho during the past 400 Ma, only the range-bounding normal faults of the Basin and Range Province are considered to be active or potentially active. These faults, shown in figure 3, are characterized by recurrent slips of 3-15 feet and, based on historic evidence, earthquakes with magnitudes of six to seven.

The timing of movement along range-bounding faults in eastern Idaho is diachronous. The ages of uplift of mountains south of the Snake River Plain suggests that the Basin and Range Province has propogated eastward during the past 12 Ma. The parabolic distribution of seismicity in eastern Idaho suggests that the locus of activity has migrated outward from the Snake River Plain. Active faults appear to slip every few thousand to a few tens of thousands of years, suggesting that the faults with the greatest potential slip during the next 50 years are those which have slipped since about 50 ka. Which faults have slipped in the past 50 ka is not well known, but the faults which have slipped during the past 15 ka is fairly well known. These faults, the central segments of the Lost River,

Lemhi, and Beaverhead faults, are likely to be the next ones to slip. Whether this occurs in the next 50 years is not possible to predict, based on the present state of knowledge concerning these faults in particular and the mechanics of faulting in general.

If a large earthquake did occur along one of these central fault segments, the seismic waves would travel 40-100 miles before reaching the proposed SSC site. Along their path, the seismic waves would be dampened by the unconsolidated sediments in the valleys of the Basin and Range and by the interbedded volcanic rocks and sediments of the Snake River Plain. The impact of seismic waves generated along the central segments of these range-bounding faults to the proposed SSC would probably be very small, as was the impact of seismic waves generated during the 1983 Borah Peak earthquake to facilities at the INEL.

Appendix

When describing faults, three parameters are important. The fault style concerns the nature of movement along the fault, and includes normal faults, which result in horizontal extension and vertical thinning, thrust faults, which result in horizontal shortening and vertical thickening, and strike-slip faults, which result in side-by-side displacement. The fault geometry concerns the orientation of the fault, and the direction and amount of displacement along the fault. A fault's orientation is specified as follows: the strike, which is the azimuth of the horizontal line within the fault plane; the dip direction, which is the azimuth water would flow down the fault plane; and the dip, which is the angle between the fault and a horizontal plane, measured parallel to the dip direction. The fault timing concerns the age of formation of the fault, and the ages of slip along the fault.

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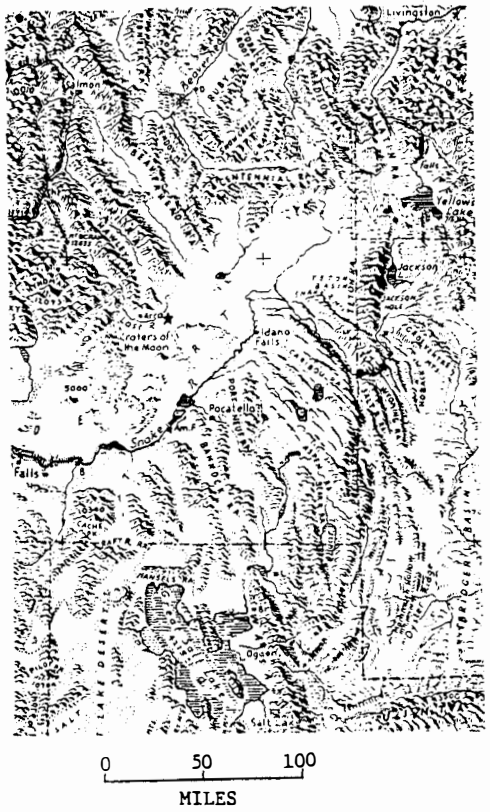

Figure 1: Map showing the physiography of eastern Idaho and adjacent states. Two provinces are evident: the flat, northeast-trending desert of the Snake River Plain, and the north-trending mountains and valleys of the Basin and Range. The star indicates the proposed site of the SSC.

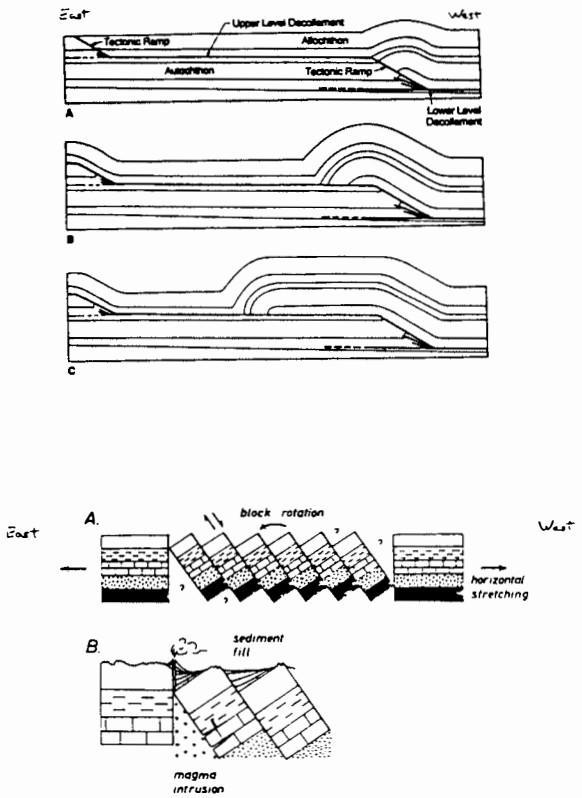

Figure 2: Styles of faulting in eastern Idaho. (2a) Diagrams a, b, c show the progressive movement of upper plate strata over thrust ramps and thrust flats. Figure and caption after Dennis (1987). (2b) Development of a half-graben structure on the principle of rotational normal faulting. The spaces created by rotational faulting may be filled by sediments and volcanic rocks at the surface, and intrusive rocks at depth. Figure and caption after Ramsay and Huber (1987).

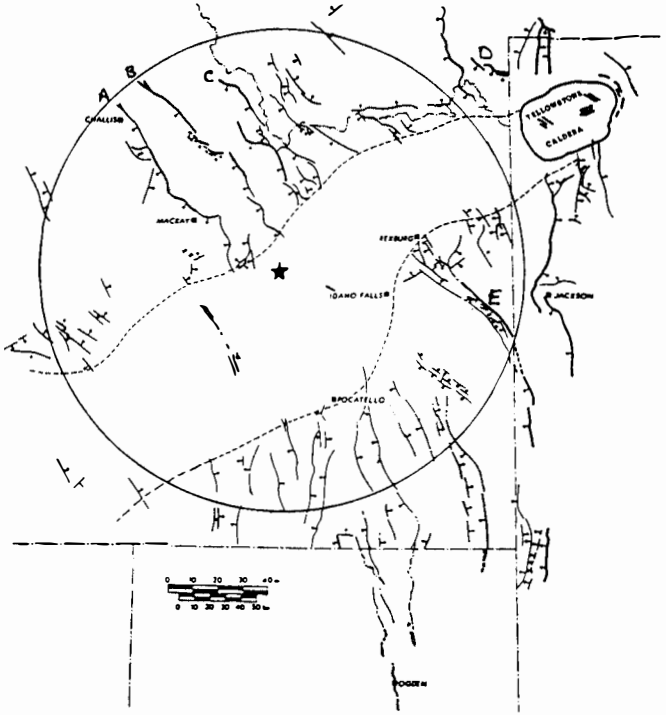

Figure 3: Distribution of Late Tertiary and Quaternary normal faults. The star indicates the proposed site of the SSC, and the circle encompasses the area within 100 miles of the proposed site. Heavy lines = faults with Holocene-Late Quaternary displacement (past 15,000 years), light lines = faults with Quaternary-Late Tertiary displacement (past 2 Ma). The letters identify specific range-bounding faults discussed in the text, including (A) Lost River fault, (B) Lemhi fault, (C) Beaverhead fault, (D) Hebgen Lake fault, and (E) Grand Valley fault. After Smith and others (1985).

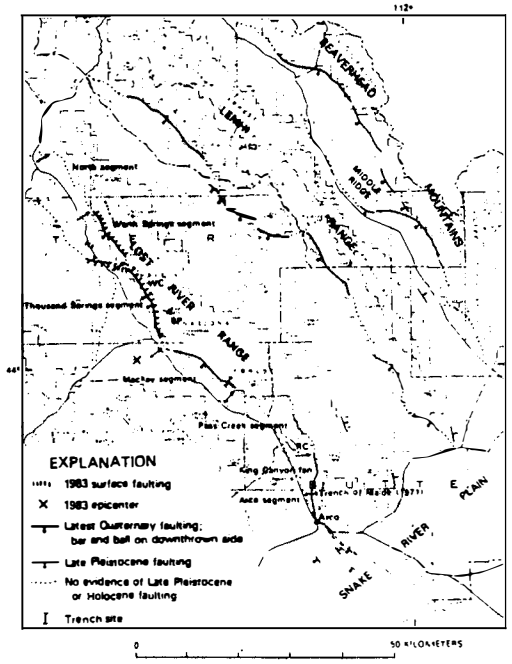

Figure 4: Map showing the location of the Lost River, Lemhi, and Beaverhead range-bounding fault segments. Figure taken from Pierce (1985).

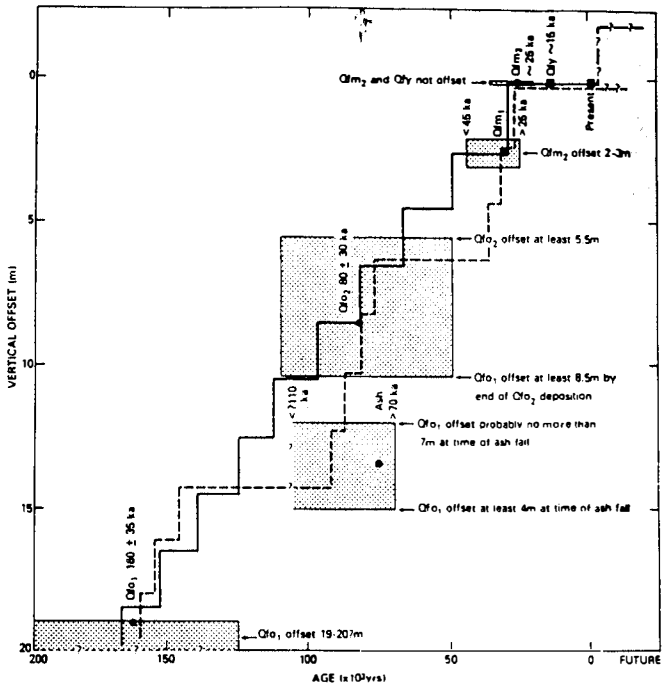

Figure 5: Apparent constraints in the history of faulting along the Arco segment of the Lost River fault and two contrasting patterns of offset versus age that fit these constraints. Solid line is constant strain accumulation model, which implies that another displacement is long overdue. Dashed line is model of clustering of offsets in time separated by intervals of quiescence, which is compatible with either continued quiescence, or with renewed offset. To simplify this illustration, individual offsets are arbitrarily assumed to be 2 meters. Figure and caption after Pierce(1985).

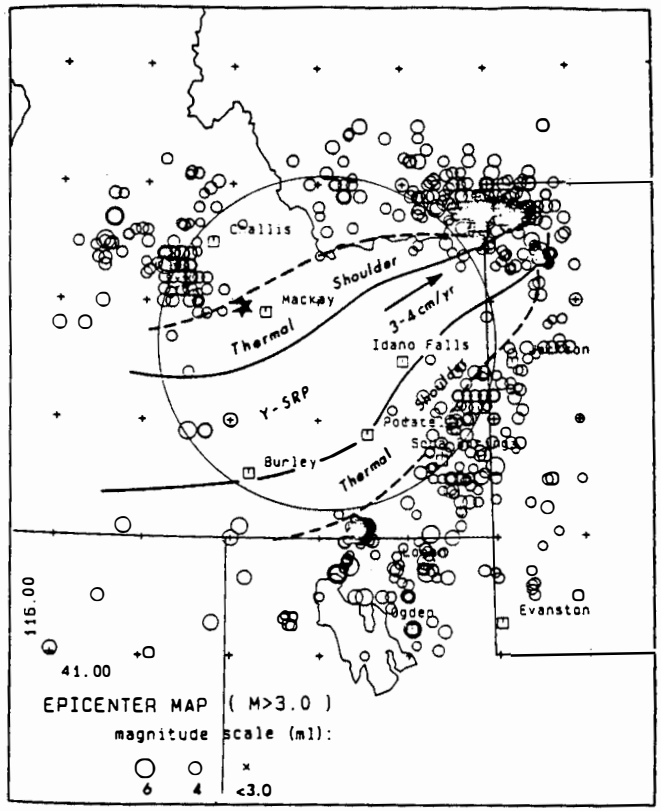

Figure 6: Seismicity of central Idaho and the central Intermountain seismic belt. The star indicates the location of the 1983 Borah Peak earthquake. The solid line marks the boundary of the Yellowstone-Snake River Plain volcanic province. Dashed line corresponds to the plausible edge of lithospheric. thermal subsidence shoulder. Note the parabolic distribution of seismicity. The circle encompasses the area within 100 miles of the proposed site of the SSC. Figure and caption after Smith and others (1985).

April 14, 1988

RECEIVED
APR 15 1988
SIS Project Office

Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, ID. 83402

Dear Sir:

Recently, I have become very concerned over the Special Isotope Separation (SIS) plant issue. I have listened to many people discuss the pros and cons surrounding the topic and I have yet to truely hear any logical arguments that pertain to the development of such of facility.

I am a native New Yorker who has been a resident of Idaho for nine years and a fisheries biologist for four years. Much of the work that I am involved in relates to the enhancement of anadromous salmonid streams in the Salmon River country. Enhancement efforts are needed to rehabilitate streams that have been destroyed by logging, mining and grazing practices. At the time, these practices were deemed important and necessary. In retrospect, however, the damage that is left in the aftermath of so called necesaary actions is irrevocable. Now, many years after the fact, the citizens of Idaho wonder what happen to the beauty of the resource. It's plain to see that we destroyed it for the sake of something or another (In the case of Bear Valley Creek, a major tributary to the Middle Fork Salmon River, we rapped it for strategic metals).

I currently reside in Pocatello and to be quite frank I am disgusted with the overall selfish blue collar mentally that prevails here. All people care about is their own pocket book. An example of this can be cited from last week's overwhelming negative vote to raise taxes to fund a new and bigger library. With this type of people being the majority of the voters, it is easy to see how the SIS issue has such vast support.

W352

I am sure you have heard all the pleas and reasons why the plant should not be build out at the INEL site, so I won't bore you with my reasons. It just seems to me that the native citizens of Idaho do not realize how precious little quality land is left in the United States, and that there won't be any quality of life at all in this state, if and when there is a problem out at the site. Why should we care about

6.5.5 economic development for a mere 6-7 years, Idahoans will survive without it. We should instead care about what we as adults will leave for our children.

1.1 So I vote no for any development of the SIS in Idaho or anywhere else.

437

Dear Sir

I am in favor of building S.I.S. at INEL, INEL site has a excellent safety program & records, Idaho needs the jobs. 5.24.23

Thankyou

M Meek
96W 100 N
Blackfoot Ida
83221

W353

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SIS Project Office

April 12, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols,

Please enter the following statement on our behalf concerning the Draft E.I.S. on the S.I.S. project.

1.1 We oppose the approval of the S.I.S. project for the following reasons.

4.13 1) Moral Grounds: We, as citizens of this planet should do all in our power to preserve the earth for future generations by protesting all forms of nuclear weapons.

5.30.4.12 2) Environmental Grounds: According to a Times-News article Twin Falls March 18, 1988 the INEL is already being considered to join the EPA Super Fund Cleanup site list. In fact Mr. Wayne Pierce, EPA Resource Recovery and Conservation act senior compliance official is talking about $30 million being needed to cleanup toxic material already damaging our ecosystem.

5.12.1 The INEL is located on top of the Snake River aquifer which is the lifeline of Southern Idaho. A release into the aquifer would permanently damage our way of life in Southern Idaho. Obviously, the potential good that this project can bring to Southeast Idaho is far offset by the potential disaster.

5.4.1 The EIS also calls for 30 year "temporary" waste storage vaults. These "temporary" vaults give the potential for long term waste storage. This is a further risk to our environment.

5.27.3.4 Idaho depends on agriculture and tourism which can both be destroyed in a matter of seconds by a release of plutonium. We have too much at stake to take any risk to our fragile environment.

3) Need: Our own Secretary of Energy John Herrington stated on February 23, 1988 "We're awash in plutonium...we have more plutonium than we need" We believe he is right and as tax payers we cannot afford to waste a billion dollars of our hard earned resources on the S.I.S. It is projects like this that make taxpayers question the sanity of government officials. Lets make do with the plutonium we have, after all it has the ability to destroy the earth several times already. Isn't that enough? 4.15.5

Respectfully submitted,

Sue Farnsworth

Frank & Sue Farnsworth
President & Vice President
Idaho Opal & Gem Corp.

FF/kag

438

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478 YELLOWSTONE AVE.
SUITE L
POCATELLO, ID. 83201
208-232-0800

April 14, 1988

RECEIVED
APR 15 1988
SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Id. 8302

Dear Mr. Nichols:

My name is Tom Sahlberg and my residence is 222 Rosewood Avenue, Pocatello, Idaho. I am what you would call a native Idahoan being born, raised and residing in Pocatello for the past 64 years. However 4 years of that time was spent in the U.S. Marine Corps. during World War II. Being born and raised in Idaho I do feel that I have a vested interest in this area of our State. I also have owned and operated my own business since 1950.

3.2.2 I feel that the SIS project is a very viable program for Eastern Idaho. I have been acquainted with neighbors, friends and relatives all who have worked at the INEL sight since its beginning some four score years ago. The INEL is one of Idahos finest resources and plays a very important role in the economy and well being of Idaho.

439

5.24.23 Add to this the fact that the INEL has one of the best safety records in the Nation and is a popular employer in Eastern Idaho.

The use of laser technology in the separation of fuel-grade plutonium process is a very modern and most up to date method in the handling of this material.

Unfortunately this has become a very emotional issue with special interest environmental groups, who I might point out for the most part do not live in Idaho, and are trying to tell the people in this area what is good and what is bad for them.

3.4 Our production capacity of plutonium has been reduced to a level that could seriously affect our ability to maintain the advantage we have in maintaining our nuclear deterrent advantage that we now have.

One of the reasons that we are able to hold such hearings as this one, is due to the fact that this Nation is strong militarily and both offense and defensive weapons discourage aggression on the part of any nation.

If our Department of Defense, who over the past decade has had some of the most experienced and distinguished citizens as its Secretary, deem the use of plutonium vital to our National Defense we should therefore proceed immediately with this project.

5.27.6.1 The additional employment during the construction of this project will also benefit the economy here in Eastern Idaho. The support of the education facilities at Idaho State University both in the Vocational Technical School and the Academic Community are able to furnish excellent educational and technical support for this project.

5.30.1.5 I have studied the environmental impact statement of the SIS draft and do not find anything including possible damage to the aquifer that should prevent this project from being located at the INEL.

MICRO SOLUTIONS

MOUNTAIN STATES OFFICE
P.O. BOX 68
478 YELLOWSTONE AVE.
SUITE L
POCATELLO, ID. 83201
208-232-0800

5.27.9.2 Recent grants for cancer research at the BORON III are just a tip of the Iceberg as to what is happening with the laser beam in this research. Certainly there will be additional spin offs from the use of the laser in the plutonium separation process.

1.1 In conclusion previous testimony has shown that the majority of the people living in Idaho are in favor of this project. Lets get on with it.!

Sincerely yours,

Tom Sahlberg

ts/b

Boon Phomboutdy
520 Cochise
(208) 233-0197
Pocatello, Idaho 83204

5.27.7.9

There are many reasons why I'm supporting SIS. Creating new jobs and stable employment is mainly the big issue. We can not turn our backs and ignore the idea that Idaho's economics and population has been declining. You go outside and tell me that unemployment is not a problem. It is, and we must preserve what is given to us for our children and theirs. Dear friends! We want to bring back businesses that we had lost. Businesses makes Idaho strong.

There are reasons why some people is saying no. They're afraid of more advance nuclear weapons, and ruining the environment. We can not go on forward to the twenty-first century, unless we step into reality. The reality is SIS is here and is going to stay no matter what we do. It has affected everybody and everything. I strongly support SIS. SIS is a benefit to Idaho's industries, businesses, and educational-research for our children's future. I believe that SIS is not a killing weapon. SIS keeps our defense stronger from countries that will eventually try to destroy us.

If Idaho have trusted INEL for years, why not SIS. It does not have to be a weaponry factory, but a place to advance our technology and advance Idaho. Idaho was number one when INEL was constructed, and we could be number one again.

3.4

3/21/88
Boon Phomboutdy

440

1.1

Roberta Howell
Box 250
McCall, Idaho

What sense does it make when every person capable of listening and reading, realisesthat the S.I.S is wrong? What sense does it make that we in Idaho create more bombs? What sense does it make when Pres. Reagan and Gorbachov are trying to come to terms with the realisation that we are destroying the earth?

1.1

4.13

Basically there is no sense being made in the direction of the S.I.S... only money, only fear.

Idahoans have more intelligence than to continue the destruction of the earth.

Roberta Howell

P.O. Box 193
Gooding, ID 83330

April 13, 1988

Dear Mr. Nichols:

I wish to express my opinion about the proposed Special Isotope Separation project. I was out of Town during the hearings, otherwise I would have spoken at that time.

5.27.5.3 I, like many other proud citizens of Idaho, am concerned about what it will do to our state in terms of reputation. We don't want to be known as the plutonium state. We want to encourage businesses and individuals to relocate here, and having the SIS will not enhance our reputation.

441

5.1.38 The danger of contamination to our groundwater is great, even with a minor accident. Many Idaho farmers and residents would be affected by this. Why risk it?

5.30.3.1 There is still no adequate site for storage of the waste. Above ground storage is too short-term.

5.30.3.8 If new weapons are considered necessary (which I seriously question), why can't the plutonium in the nuclear weapons being retired through the treaty with the USSR be used?

4.3

6.5.5 We have a responsibility to future generations. Manufacturing something that ~~deadly~~ deadly with a half life of 20,000. is irresponsible. There are too many catastrophes in nature that could occur in the next 20,000 years, not to mention what might occur politically. Can you imagine if our ancestors of even 10,000 years ago had left something as deadly in storage. We probably would not be able to decipher the language of their warnings enough to understand the dangers. Is this how we want to be remembered in the millenia ahead - as the generation that manufactured all that toxic material?

2.7.8 What if these weapons being manufactured were ever used? What about the effect on the environment and the planet?

1.1 It is beyond my comprehension how so-called intelligent people can be so short-sighted. Lets become part of the solution instead of encouraging people to compound the problem.

Sincerely
Barbara Veranian

W358

442

J.W. THORNTON WINE IMPORTS

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APR 15 1988
SIS Project Office

April 14, 1988

Dr. Clay Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols,

I am writing to register my adamant opposition to the SIS project and in particular to its proposed location at the INEL.

My opposition is broad based and centered on the following points:

4.3 Lack of Need. With a greater than adequate nuclear arsenal already in hand and agreements toward arms reduction on the horizon, further production of weapons grade plutonium is both pointless and a disuse of tax dollars.

5.1.36 Lack of Safety. Accidents in transport and storage of radioactivity are a very real and finite probability. With the proposed SIS site only 80 miles from my home and livelihood, any finite probability is unacceptable.

5.27.10 Lack of Significant Economic Benefit. Most pro-SIS sentiment stems from a desire to boost Idaho's economy. While in favor of the latter, I see the SIS producing only short term "boom type" economic results with no lasting benefit. Further, I see a negative impact on our tourism based revenues. The SIS is a dangerously wrong prescription for Idaho's ailing economic health.

5.27.3.3

2.5.4 Lack of Sound and Impartial Environmental Impact Statement. The draft EIS for the SIS done by the DOE must be discounted because of the vested interests therein. It can be of no real scientific value until it is corroborated with an EIS prepared by a team of impartial (non-DOE) and multi-disciplined researchers.

Box 2289 Ketchum, Idaho 83340 Phone (208) 726-3876

2.10

In order for the present SIS hearing to be true and democratic it must equally tally the votes (i.e., opinions) of all Idahoans participating. Please record my vote as "NO" (OPPOSED) to the SIS project for Idaho. 1.1

Yours truly,

R.J. Gertschen, President

RJG/jw
cc: U.S. Rep. Richard H. Stallings
Senator Steve Symms
Senator James McClure
Governor Cecil Andrus

Box 2289 Ketchum, Idaho 83340 Phone (208) 726-3876

W359

RECEIVED

APR 15 1988

SIS Project Office

STATEMENT ON LOCATING THE SPECIAL ISOTOPE SEPARATION FACILITY AT IDAHO NATIONAL ENGINEERING LABORATORY

April 14, 1988

1.1 Please enter the following statement as testimony on the Environmental Impact Statement for locating the Special Isotope Separation (SIS) at the Idaho National Engineering Laboratory

I am a retired engineer doing some consulting in the nuclear field. I have lived and worked in Idaho for 36 years and now reside in Sun Valley. I favor locating the SIS in Idaho for a number of reasons including the following:

5.2.1 (1) If the USA needs more weapons grade plutonium, then the SIS is the best method of producing it. No new plutonium will be produced. Only existing plutonium will be upgraded.

5.28.6 (2) The SIS will undoubtedly be very useful in the future for other isotopic separations not related to weapons.

(3) The Idaho Chemical Processing Plant (ICPP) at INEL is ideal because the secured area is already available and technical knowhow and experience already exist there. I'm sure that the personnel at Westinghouse Idaho Nuclear Company, which operates ICPP, are capable of operating this new plant in a safe manner.

5.24.23 In summary, if the SIS is to be built in in the USA, it should be built in Idaho at the INEL.

Sincerely,

David M Paige

David M. Paige, Consultant
6 Buck Lane
P.O. Box 1629
Sun Valley, ID 83353

W360

4/12/88

Dear Mr. Nichols:

I want Lend my Support to the SIS project for the following reasons. First as an Electrician who has worked at the site for many years and have first hand knowledge of the safety precautions & Environmental protection that is in effect there. I have no fear that there will be any danger to citizens or S.E. Idaho. Also, I support it so that my Eight about children might might have the opportunity to work in the area they love - instead of having to travel to other states for job opportunities. Thirdly, I feel that Idaho must have

1.1

5.24.23

5.27.4.5

W361

12 April 88

Mr. Clay,

this letter is to voice support for the SIS project. I understand that opposition at the recent hearings was nearly overwhelming. 1.1

Numerically this small group of vocal people are a small portion of the area population.

Secondly, important decisions are not based on who spoke loudest or longest.

The facts are that SIS is good for the area, the state of Idaho, and the nation, and in that order. 5.27.6.1

Dan Fabness
Box 814
Salmon, Idaho
83467

RECEIVED
APR 14 1988
SIS Project Office

5.27.6.1

-2-

Some Development in order to survive we have a desperate need for funds for our schools, our roads, and yes funds for our environment, The Pantanuk River Cleanup, Deforestation, etc. Connecticut receives 80% OR IS Income from Defense Related Industry. - and they have the highest per capita income in the USA. All the States that are prospering - Receive big Bucks from Defense Spending - we need our share.

I don't think the time has arrived as yet when we can unilaterally cut back on our military strength. I pray Sometime that we will be able to.

Thank you,
Gerald Swanson

W362

Zirbel Transport, Inc.
P.O Box933.Lewiston Idaho83501 (208)743-3528

April 11, 1988

RECEIVED
APR 13 1988
SIS Project Office

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 Doe Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

1.1 I would like to send you this letter by way of showing our Company's support for the location of the SIS in Idaho.

We are strong believers in the State of Idaho and the Commerce and Industry that exists here. We are more than confident that the State of Idaho can perform the functions required of the SIS in an admirable matter.

Again, please accept this as our letter of support and encouragement, to locate SIS in Idaho.

Thank you very much.

ZIRBEL TRANSPORT, INC.

Norm Galey C.P.O.

Norm Galey
Business Manager

am

W363

RECEIVED
APR 14 1988
SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
785 Doe Place
Idaho Fallls Id. 84402

Dear Sir,

I am writing this letter in SUPPORT of the SIS, being built in Idaho. I am sure you have already heard every reason from new jobs to country, so I will just register my support for this project. 1.1

Thank you,

Charles W. Cornell Jr.

Charles W. Cornell Jr.
95 Benton Dr.
Blackfoot Id. 83221

W364

RECEIVED
APR 14 1988
SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
785 Doe Place
Idaho Fallls Id. 84402

Dear Sir,

I am writing this letter in SUPPORT of the SIS, being built in Idaho. I a

1.1 sure you have already heard every reason from new jobs to country, so I will just register my support for this project.

Thank you,

Cindy Cornell

Cindy Cornell
95 Benton Dr.
Blackfoot Id. 83221

446

W365

Phil Casper
680 W. Quinn #16
Pocatello, Idaho 83202

April 13, 1988

Mr. Clay Nichols
Idaho Operations Office
785 Doe Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

I am concerned that the Super Isotope Separator may not be built in Idaho. We need it and Idaho needs the boost to its economy. I am a construction electrician and I have worked in Idaho for the last 13 years. During that time I have worked at the INEL site many times. I have observed the precautions that they take with radioactive materials and I really would not worry about the operation of the SIS plant. As it will provide a Weapons grade refining process for Plutonium, it makes me feel better that we do not fall behind the rest of the world in the production of such materials because our peace is directly poportional to our strength. Also, if the Plutonium is not used for weapons it could possibly used for Nuclear power production. I see the SIS Project only as a plus for Idaho.

5.27.6.1

5.24.23

4.15.4

My family and I thank you for your efforts in our behalf.

RECEIVED
APR 14 1988
SIS Project Office

Sincerley,

Phil Casper

Phil Casper

W366

Ed Bamberry
Business Representative
232-4873

International Association

of BRIDGE, STRUCTURAL AND ORNAMENTAL IRON WORKERS . . . Affiliated with A.F.L.-C.I.O.

LOCAL UNION NO. 732
458 NORTH ARTHUR — P.O. BOX 1180
POCATELLO, IDAHO 83201

April 13,1988

Dr. Clay Nichols
SIS Project Manager
U.S. Department of Energy
785 D.O.E. Place
Idaho Falls, Idaho 83402

447

Dear Sir,

1.1 At the regular meeting of the Ironworkers of Local 732, a resolution was made and unanimously passed to support the construction of the S.I.S. project at the INEL site.

RECEIVED
APR 14 1988
SIS Project Office

Sincerely yours,

Ed Bamberry

Ed Bamberry
B.A./Local 732

W367

ACI OF IDAHO inc.
CONCRETE SAWING • CORE DRILLING • DEMOLITION
JOINT SEALING • CRACK ROUTING • EPOXY INJECTION
P.O. Box 2461 • Idaho Falls, Idaho 83403-2461
Telephone (208) 523-3930
Toll-free 1-800-367-8461

RECEIVED
APR 14 1988
SIS Project Office

April 12, 1988

Dr. Clay Nichols
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

Due to the fact that the mining industry is slow, timber is really hurting and the farming industry is in trouble, we want our standard of living maintained.

The SIS supports:

1. Financial tax base for better schools.
2. Roads and their maintenance.
3. Regional Medical Center - better health care.
4. Shopping centers and malls - competitive pricing - keep major stores.
5. Library, swimming pool and new airport.

5.27.6.1

We have the technology now. A highly trained work force, use them or lose them, they will not sit and wait for the price of the potato to go up, they will move on. Who will support all the things that we have become accustomed to?

5.27.11.3

Now is the time for SIS and Idaho to lead, follow or get out of the way. If we do not want SIS we will not have to beg more progressive states to take it.

1.1

The people of Idaho want the nicer things in life but it takes industry to have these things, no longer can we depend on agriculture, timber and mining.

Sincerely,

Russ Squires

Russ Squires
Vice-President

"SERVING THE CONSTRUCTION INDUSTRY THROUGHOUT THE INTERMOUNTAIN STATES"

Boise, Idaho (208) 384-0500 | Salt Lake City, Utah (801) 261-5552 | Idaho Falls, Idaho (208) 523-3930

W368

100 North Morningside
Idaho Falls, ID 83402

April 12, 1988

RECEIVED
APR 14 1988
SIS Project Office

Dr. C. R. Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

As a citizen interested in the general welfare of our country and the local area, I decided to participate in the SIS Project activities on my own time by attending the scoping meeting and part of one hearing in Idaho Falls. I have read the SIS DEIS (DOE/EIS-0136 dated Febuary 1988) and wish to offer my comments. While I do work at the INEL, I do not work for WINCO, the contractor who would operate the proposed facility, nor have I had any direct association with the SIS Project during the NEPA process. I reiterate that my comments are offered as a private citizen who has been an engineer for 30 years, a majority of of which time was spent working in systems engineering, safety, and environmental fields.

In general, I am satisfied with the SIS DEIS. While many participants at the hearings questioned the need for the SIS Project, a political question, I accept the need as determined by the President of the United States and authorized with funds by the two Houses of Congress. My comments are generic in nature and should apply to all three sites being considered.

Having worked on one project dealing with mixed oxide fuel and on a proposal effort for production of a different plutonium isotope, I have some appreciation that activities related to plutonium require special care, especially where it can be released in aerosol form. However, I do feel that adequate measures (e.g., design, construction, and operation) can be taken to make the risk to the public and site workers acceptable. It may cost more. A proper attitude at all levels is essential. There are two major concerns about the DEIS that I feel should be resolved before a selection decision is reached within the DOE. One pertains to Section 4.1.3, "Potential Impacts of a Spectrum of Postulated Accidents." The other pertains to Section 4.4, "Environmental Consequences of No Action."

5.24.21

In Section 4.1.3 there is a lack of completeness in the describing of the public health effects for a number of postulated accident cases. Because the omitted data are for the more severe impacts, I am disturbed and question how someone can make a final judgment about the public health risks involved. For example, the second paragraph in Section 4.1.3.1 (Page 4-20) summarizes the health effects in terms of early fatalities and latent cancer fatalities, but only for full filter efficiency. Radionuclide concentrations are provided on subsequent pages for accident cases with lower filter efficiencies, but no health effects are shown. If the cases are being presented in the document, the predicted health effects should also be shown for the benefit of the reader. I suggest that the predicted health effects for all cases be included in the text for the postulated accident in question. A tabular form would be helpful. A weakness in the presentation, which may be a result of the early stage of the project, is the lack of accident case probabilities which are important in any assessment of risk. If this cannot be included in the FEIS, I suggest that in any case a probabilistic risk assessment, a very helpful tool in assessing risk, be undertaken as part of the engineering-safety assessment process to ensure adequate consequence-mitigating barriers are included in the SIS design and operation.

5.13.11

5.1.21

The No Action Consequences section (Section 4.4) is weak for several reasons. The consequences of not achieving the flexibility and contingency objectives are not explained and should be. It would also seem to me that there would be increased environmental consequences for the blending approach assuming the same planned production rate as if the SIS were operating. This should be discussed and not just by cross reference to the SRP L-reactor FEIS. I suggest significant environmental impacts for the blending operation be summarized in SIS FEIS. Would the production rate at other facilities be reduced because of SIS production rate and hence lessen the environmental impacts at these other facilities? Last, since the SIS DEIS was prepared, the DOE's capability to produce weapon's grade plutonium has been further reduced. The N-reactor at Hanford will be shut down indefinitely. The L-reactor remains limited to 50% power for how long? These conditions should be included in the FEIS. It appears to me to make a better case for your flexilibity and contingency objectives.

5.2.6

5.2.17

5.2.14

Very truly yours,

Roderic W. Thomas

448

W369

Statement for SIS Hearing

I am Dr. Fred H. Tingey, Director, Idaho Falls Center for Higher Education and a consultant to the Nuclear Industry. Prior to becoming Director of the Idaho Falls Center, I occupied positions of responsibility both at INEL and Hanford with the then operating contractors for those sites. My consulting assignments have taken me into essentially every DOE and Licensee facility in the United States and in addition, some foreign national installations. My comments which follow are my own. I do not profess to represent any group or organization nor am I speaking for my employer.

4.15.1 I view with great concern the opposition that has been voiced at the hearings and elsewhere with regard to the SIS project. Though this opposition has mainly focused on the need for additional weapons grade plutonium rather than locating the SIS facility at INEL, the issue has taken on a significance much greater than it deserves. It would appear to me that

2.8.2 Environmental and Safety Concerns of the SIS project should have been the principal issue of the hearings, yet few participants even attempted to address these issues. Instead, it became an emotional outpouring of unsubstantiated inferences and innuendos by the anti-nuclear lobby motivated by a hidden agenda.

It is my firm conviction that in order for this nation to survive and enjoy the standard of living we are accustomed to, nuclear energy must become a national policy. It is not a question of whether this will happen, but when. If a vocal minority can block something as benign as the SIS to be located in a region which is probably the most pro-nuclear of anywhere in the United States, what about an NPR or a commercial fuel separation plant or in fact anything nuclear anywhere.

5.27.9.2 I believe it imperative that we push forward with upgrading our entire nuclear complex. The laser separation technology is an exciting and new technology that has potential for much spin-off. Current need has been demonstrated by the Hanford back-log of fuel material. Those in responsible position in the government who should know of our future needs say that it is necessary.

1.1 I say, then, let's get on with it!

RECEIVED
APR 14 1988
SIS Project Office

Fred H. Tingey

W370

April 13, 1988

Dear Mr. Nichols:

I am writing to you as I was unable to attend the public hearings regarding the proposed S.I.S. Project I am unconditionally against the building of this project and am fundamentally against the purpose of this project As a well educated and reasonably informed citizen, I see no need at all for this facility anywhere. I object to it not only as a cog in the machine of war but also for its potential hazards to the environment In this country we have too often seen impact studies favorably slanted because of [illegible] low level profiteering - directly or indirectly - by those who do the studies + write them I am not entirely anti-technology + the sciences that go with it BUT in the area of nuclear science etc we are playing with the death of this planet one way or another We should have backed off decades ago but the egotism of Western science (government and business) has been left unchecked. When are we, especially Americans, going to start dealing with our out-of-control egos and see the devastation that

1.1
4.1
6.1.1

~~Lack~~ of discipline + reverence for the realities + manifestations around us living? When are we going to truly realize (meaning insight living & appropriate action) that we can't fuck with Mother Nature? And there are always consequences to every act?

That right - legal, communal or spiritual - does anyone in this state have the ~~to~~ advocate something this dangerous to their fellow man - and to the lands that literally support their butts in space — solely because they want a better economy & more jobs? How incredibly short sighted, incredibly greedy + spiritually impoverished (regardless of what spiritual tradition they claim to practice) How dare they!! Has it occurred to anyone that maybe the area around Idaho Falls was never meant to support that many people to begin with? And maybe that in order to have avoided that happening a few people might not have been able to indulge themselves with so many kids? Oh, God forbid anyone suggest to us Americans that we can't just procreate all over the place (because the call of biology is running our thinking or just because our egos tell us it's our right - to indulge ourselves with out considering the impact, the responsibilities + the liabilities of doing so). So there's people who live in Idaho Falls who think this project will help their finances (not as much so, as they're being led to believe -- I saw that with work in the Peninsulas who built in Batavia Illinois + there wasn't much significant impact folks) So those people might have been born + raised in Idaho Falls + now have kids + times are rough. Some might be displaced farmers. So what? Only? The 20th century doesn't cut it. You can move where there's more work or if you can't handle the emotionally wrenching realities of that, then stay put, make do and shut up. Because that is the economic reality of life since economics in its capitalist forms was invented. And if you want to argue that you really want to raise your kids there cuz it's wonderful - where you grew up + all your friends + family are + or + or ... then I have to say to you is did you really take a good look at all this before you went + brought more mouths (and egos + confusion) to this planet? Now you should take. Face the consequences of your own actions + shut up. Trying to back

yourself out of your financial situation ~~later~~ now (due to your unwillingness to face the reality of modern life) by counting the $$ like a flock of starving vultures is morally despicable & I know this is shocking language — but how else in this day + age does anybody first, get someone's attention + second, maybe shake them out of their slumber + into some emergent wakefulness + reflection.

Idaho is a wonderful, beautiful land, a great natural resource to be protected by us all for those who will need (even more than just want) to visit + live here in even the near future as life in our urban areas continues to quickly + radically deteriorate. We must think of ourselves as custodians, you can even imbue the notion that those of us who are here (by birth or our own motivation) are meant to be here — if that is a useful operational concept for an individual. The writer + poet Gary Snyder (also a friend of Jack Kerouac + Allen Ginsberg) has a central theme in his works from out his life: developing a sense of place, meaning a true appreciation, reverence + understanding for our surroundings, its rhythms, its structure + what it does for us — and (as at least for a spell

~~too~~ it is in life. This means more than becoming a glib nature-lover. It is more a kin to living with it, beside it, in it. Watching the biggest + smallest patterns, long short big small wide narrow — as many ~~[illegible]~~ phases of ~~the~~ seeming polarity + perspective. When we start to live like that again — and it's been over a thousand years for this ~~Euro~~-American culture — then maybe we will have the wisdom to work with the scientific understandings that have emerged (or been rediscovered, as many modern physics scientists are finding out) during this century. Until then beware of them, develop a sense of place as best you can wherever life puts you at a given time. I believe it was Alan Watts who said something like we don't really know in which direction progress lies....

I beg you to reflect on this + the testimony of all those others who have spoken out against this project. If you can't stop it from happening at all, please stop it from happening in one of our country's (not natural treasures....

Sincerely,
Leslie Stevens
Ketchum ID 83340

(my only public oratory in my life)

W371

Karen Mccall
Box 862
Hailey, Idaho 83333

Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

April 9, 1988

Dear MR. Nichols:

I am writing to submit the following comments concerning the Draft Environmental Impact Study for the proposed SIS facility to be constructed at the INEL site in southeastern Idaho.I wish 1.1 to have it put on the record that I am in complete opposition to this facility.I suggest that the DOE take no action to construct the SIS Project in Idaho or anywhere in the U.S. My opposition is expressed in the following letter.

1. The DEIS states that the SIS project is needed to "provide a redundancy in production capacity... in the DOE'S production of nuclear materials for national defense. Websters New World dictionary defines "redundant" as "more than enough, over-abundant, excessive, superfluous". From all that I have read for the past ten years of active anti-nuclear involvement, the DOE has had and continues to enjoy an over-abundance of nuclear material, a surperfluous capacity to destroy the earth and all forms of life many times over,and an excessive stockpile of plutonium at the Hanford site to continue production there for the next 7 to 8 years. I quote Energy Secretary John S. Herrington when speaking before a congressional panel last February. "Plutonium-we're awash in plutonium. We have more plutonium than we need" I was always taught as a child and continue to believe now that excessive acquisition, frivolous consumption and redundancy were not admirable or moral behavior. I, therefore, object to the 4.7.3 DOE's statement of purpose that redundancy is "needed".

2. There are inumerable hazards to the environment that could be the result of the construction of the SIS facility. I will briefly list some of the concerns we all should have. 6.1.1

a. Transportation accidents involving trucks or trains carrying irradiated fuel from the Hanford site to INEL. 5.29.87

b. Plutonium is a highly volatile and at high temperatures exceeding 1000 C (a temperature to be exceeded in the SIS process)can result in explosions and large, highly lethal releases to the atmosphere.

c. The construction site for the SIS sits on a geologically unstable zone. A major earthquake in 1983 measuring 7.3 had its epicenter only 50 miles from the propsed site for the SIS. 5.10.1

d. The INEL sits above the largest aquifer in the western U.S. Potential contamination could virtually destroy agriculture and aquaculture in a large portion of the state. 5.12.1

e. Emissions of Freon into the atmosphere will contribute to an already frightening destruction of the ozone. This is a problem with increasing degree of threat to the continued existence of life on earth. 5.9.3

As a resident of the state of Idaho I am proud to live in one of the few remaining states in this nation that can claim that it has pristine rivers, clean air to breathe, wide open spaces and a sense of what this vast continent was to the first to come west and discover the glory and majesty of the open plains, the incredible splendor of the mountains and the freedom that space offers. If the SIS plant is built in Idaho or anywhere (I am opposed to the construction of the facility anywhere) we are accepting not only the destruction of a rich beautiful environment, but we are also destroying a major part of America's heritage. The west's economy is in the process of shifting from the the practice of depleting its resources to realizing that the potential income from tourism is monetarily more beneficial to each state's economy. Citizens from all over the country come

to Idaho to enjoy the mountains, the desert, the rivers and the beautiful scenery. I have heard many people from other states tell me that if there is a huge nuclear weapons plant built in Idaho they would decide not to visit the state. Tourism would virtually dry up and the future ecomny of the state would suffer dramatically. Are we prepared to sacrfice everything for the insane and very sick whims of a few people who are ignorant enough to believe that the temporary employment of several hundred people is more important than the future of our state's pristine beauty, our most valuable asset?

5.27.3.3

6.2

I am an extremely patriotic person. I love this country and I have fought many long battles to protect the qualities that many consider to be the essence of this incredible, diverse nation. If the powers in Washington continue to be short-sighted, we, the people will have no future. Our children will never know the beauty of our nation because it will have been, river by river, mountain by glorious mountain destroyed by the greed of those who only think of themselves, those who refuse to see into the distance and visualize a place for all mankind to live safely.

6.5.5

We must start a new way of thinking and stop the seemingly endless race to defend ourselves with nuclear weapons. We only make ourselves less secure.!!!!

" Picture a bright blue ball spinning, spinning free, dizzy with eternity. Paint it with a skin of sky, brush it with a cloudy sea, call it home for you and me. A peaceful place so it looks from space. A closer look reveals the human race. Full of hope, full of grace is the human face, but I'm afraid we may lay it all to waste. There's a fear down hear we can't forget, hasn't got a name just yet. Always awake always around singing ashes to ashes all fall down" (From "Throwing Stones" by the Grateful Dead)

With sincerest love for the protection of the planet Earth,

J. Karen McCall

J. Karen McCall

RECEIVED
APR 14 1988
SIS Project Office

MICHAEL WYTYCHAK III
ATTORNEY AT LAW
P.O. BOX 1888 COEUR D'ALENE, ID 83814
(208) 765-3595

DATE April 11, 1988

TO Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

SUBJECT SIS Project Hearings

I am writing to urge the DOE to take the NO ACTION ALTERNATIVE to placing the SIS Project in Idaho. The SIS is a waste of taxpayers money because the United States does not need any more plutonium, especially with the ratification of the INF treaty. I also feel that the jobs made available by the Project would be paid for by contaminated groundwater, dangerous releases of radioactivity, and an ecomony based on an unstable industry. Please include this memo in the hearing record for the SIS. Thank you for your consideration.

1.1

4.3

5.27.6.1

6.2

372

SIGNED Michael Wytychak III

W373

RECEIVED
APR 14 1988
[redacted] Office

Tim Yoder
2700 N 30th
Boise, Idaho 83703
4/12/88

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
Idaho Falls, Idaho 83402

Dr. Nichols,

I would like to express a few comments on the proposed SIS project to be built at the INEL.

I do not agree with the idea that there exists a "need" for more plutonium, and consequently, more weapons. We are presently capable of destroying our earth, our habitat, several times over. I believe once should be sufficient, should those in power deem it necessary to destroy us and our children. This proposed project should raise serious questions to those with any moral fiber. Must we again spend our resources of time, money and environment on materials of genocide? I am certainly tired of wasting money on weapons of death when people here in the U. S. and internationally are dying for lack of food, water, and shelter.

1.1

4.13

6.3

5.6.2 This proposed SIS project is yet another assault on our fragile desert environment. The western desert environment may appear dry and lifeless, but it is rich with its own unique population of vegetation and wildlife. Despite all the calculations prepared on the impact of the SIS on the environment, safety is not guaranteed and has not been proven. Three Mile Island, Chernobyl, and countless other disclosed and non-disclosed accidents are evidence of serious danger to human, animal, and plant life. The placement of an additional nuclear facility near an earthquake fault, on porous lava-type rock and over our Snake River aquifer is unsound. No one plans an accident, but they do happen.

5.24.25

5.10.5

At the hearings, the proponents of the SIS project cited only the creation of jobs as a possible advantage of locating the project at the INEL. The construction jobs are certainly temporary and many times originate outside the state of Idaho. The operational jobs created may also be temporary but of longer duration. Do we really want our people applying their skills for the production of weapons? Would those proponents of this project be so willing to build a facility to hire 440 people to produce the instruments, suction catheters, and needles used to induce abortions?

5.27.7.4

5.27.7.2

Thank you for your consideration,

Tim Yoder

454

W374

Alex Higgins
P. O. Box 552
Ketchum, Idaho 83340
April 7, 1988

Mr. Clay Nichols
785 Doe Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

FOR THE HEARING RECORD:

Since I have been a long time resident of the State Idaho and presently raising a family here, and further intend to spend the rest of my life in this State, I feel obligated to comment on the Special Isotope Separation project being considered at the Idaho A.E.C. site east of Arco.

One of the reasons that I love this State and intend to live here, is because of it's natural beauty, unpolluted environment, and healthy lifestyle. It seems to me that because of these attributes, if the State is properly protected environmentally, we will have an inherent commodity which cannot be measured in dollars today, but certainly will be in the future. To jeopardize these attributes for a project, that by all appearances is not needed, seems absurd. 6.1.2

I can only say that I strongly protest the Special Isotope Separation project, and urge you to consider this as a grave mistake. 1.1

Thank you for your consideration.

Very truly yours,

Alex Higgins

AH/js

455

W375

RECEIVED
APR 13 1988
SIS Project Office

APRIL 4, 1988

O WHOM IT MAY CONCERN:

WISH TO VOICE MY OPPOSITION TO THE PROPOSED PLUTONIUM PLANT TO E LOCATED IN IDAHO. I IMPLORE YOU TO CONSIDER THE GLOBAL MPLICATIONS OF CONTINUED NUCLEAR WEAPONS PRODUCTION. ULTIMATELY ONE MUST COME TO THE CONCLUSION THAT WE, AS HUMAN BEINGS, ARE ALL BROTHERS UNITED ON THE PLANET AND THE ARGUMENT IN FAVOR OF NUCLEAR PROTECTION CAN BE QUESTIONED WITH " PROTECTION FROM WHAT?... FROM WHOM?" THOSE WHO ANSWER "FROM THE ENEMY" ARE SIMPLY NOT IN TOUCH WITH WHO THEY THEMSELVES ARE AND THEIR RELATIONSHIP WITH THEIR FELLOWMAN- THEIR BROTHERS ON EARTH. WE MUST PUT A STOP TO NUCLEAR WEAPON EXPANSION AND FOCUS ON WORLD PEACE. 1.1 4.13

IF THE INFORMATION WE RECEIVE IS ACCURATE? IT IS PLAIN THAT FEW IDAHOANS WILL BE GIVEN NEW JOBS IN THIS FACILITY. THE ENVIRONMENTAL IMPLICATIONS AND POSSIBLE HAZARDS NEED NOT BE DETAILED, SINCE WE ALL KNOW TO SOME DEGREE HOW DANGEROUS PLUTONIUM AND ITS ISOTOPES ARE AND HOW MUCH DEVASTATION EVEN A SMALL SPILL OR ACCIDENT CAN PRODUCE. 5.27.7.3

IF WE DECIDE TO HAVE THIS FACILITY IN IDAHO IT WILL ONLY BE FOR A SHORT TERM ANYWAY. SHALL WE PROSTITUTE OURSELVES, OUR STATE AND OUR FUTURE GENERATIONS OF HUMAN AND ANIMAL BEINGS FOR SUCH LITTLE BENEFIT? 6.2

SO, FOR THE RECORD I WHOLEHEARTEDLY OPPOSE THE S.I.S. PROJECT AS WELL AS ANY FUTURE DEVELOPMENT RELATING TO NUCLEAR WEAPON PRODUCTION.

THANK YOU!!

JAMES M. TANZINI
5699 FORTRESS COURT
BOISE, IDAHO 83703

W376

RECEIVED
APR 13 1988
SIS Project Office

April 8, 1988

P.O. Box 3718
Ketchum, ID 83340

Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Clay Nichols:

I am writing this letter in regards to the Special Isotope Separation (SIS) plant proposed to be built at the INEL site in Idaho.

I am opposed to the plant being built here in Idaho, or anywhere else. The following are my reasons:

6.3 1. Economic: With the federal deficit in the shape it is in I would like to see less federal spending projects of this nature. We can't afford it. I would like to see the federal government only spend money on the bare necessities, until there is no federal deficit.

5.10.7 2. Engineering: INEL is now located over a fault line. Original site location for the INEL was insane, should we continue the insanity with yet another nuclear related industry?

6.1.2 3. Environmental: Another site location blunder, along with the fault the INEL is located over the Snake River watershed.

5.1.42 4. History: Chernobyl, 3 mile island, Hanford Nuclear reservation, the Savannah river nuclear plant, etc. Idaho can't afford any accidents. As it is, when you mention Idaho to an out-of-stater they reply "Ohio?...Iowa... OH! Potatoes!" An accident would surely make a lasting impression.

4.14 5. Philosophical: I am opposed to the arms race, especially during a time of great opportunity such as now. Why increase our capability to build more arms when we are trying to decrease our arsenals.

I feel the proponents of this issue may be seeing the short sighted rewards for such a project and are missing the risks. Let's cultivate Idaho's natural beauty, show her off as the gem that she is. Idaho has a commodity that is increasing in value far beyond the proponents of this issue obviously can see, her natural beauty. Don't spoil the atmosphere here by cultivating this SIS plant designed to create material needed in the building of nuclear warheads.

Sincerely

Larry M. McConnell

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W377

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APR 13 1988
SIS Project Office

In today's world, a strong defense should be one of our top priorities. I submit that we already have enough nuclear weapons to defend ourselves. I came to this conclusion after studying the facts that are available to the general public. For example, I quote here Dr. Carl Sagan from his book Cosmos, page 320. "All the bombs dropped on all the cities in World War II amounted to some two million tons, two megatons, of TNT...By the late twentieth century, two megatons was the energy released in the explosion of a single more or less humdrum thermonuclear bomb:one bomb with the destructive force of the Second World War. But there are tens of thousands of nuclear weapons." It seems clear that our existing nuclear arsenal harbors immense destructive capability. 4.13

President Reagan apparently agrees. He has already signed the INF treaty with the Soviet Union, and hopes to have a treaty reducing the number of long-range nuicear weapons ready for signing during his trip to Russia in May of thie year. The president obviously realizes that we can reduce our existing nuclear arsenal without jeopardizing national security.

A legitimate need for more weapons grade plutonium has not, in my mind, been demonstrated. Congress may well agree. What we really need around here are more jobs, not more weapons grade plutonium. I understand that the S.I.S. technology has potential applications to many other elements, not the least of which would be the refining of uranium for use as fuel in nuclear reactors. So I implore the D.O.E. to let us build the S.I.S. and put this wonderful technology to more produotive use. 4.1. 5.28.6 1.1

Brad Hendrickson
194 W 21st
Idaho Falls, Idaho

Dear Sir

I was born in N. Idaho & lived here more than two-thirds of my life: I was unable to testify at the recent hearings about the Special Isotope Separation Project, but i would like to register my opinion for the record.

As an Idaho native & citizen of earth, I

1.1 feel it is my duty to preserve a liveable environment on this planet. Therefore i oppose the running of the Special Isotope Separator, here or anywhere. You can go ahead and build it, just never use it; perhaps there could be a way to pay people to not produce nuclear waste & weapons just like we pay some farmers to not grow food?

I believe that the risks involved are to dangerous no matter what the chance of accident is computed to be. We are talking about the possible contamination beyond liveability of our only

6.2 planet - it's just not worth the risk, no matter how small. There are better ways of defence, than building poison. I am sure that other testimony has already adressed most of the specifics so i won't bother to repeat them. Suffice it to say that i strongly object to this project & believe there are many other ways to deal with any & all aspects of this situation - jobs more peacefully oriented - truthfully sharing the joy of life instead of propaganda of fear to fuel the war machine - etc.. I would be happy to give you several plans to economically put thousands of people to work in environmentally much more sound, undestructive ways. Things we could do here & now to upgrade everyones existance.

Even the normal operating of S.I.S., without

5.9.1 accident, is toxic - releasing flourocarbons, besides being a moral outrage to all life, in it's existance & purpose. I vote FIRMLY NO S.I.S.!

sincerely Tom F. Seaman Box 1870 Ketchum 83340

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APR 13 1988
SIS Project Office

April 12, 1988

Dear Mr. Nichols,

I am writing in response to the SIS project debate. My name is Gillian Wynn, and I am currently a student at Yale University. Although I do not live in Sun Valley year-round, I spend my summers and winter breaks there and have since 1970. My family has a home on the Fairways that we built when I was three years old. Even though we are "second-homers" in Idaho (our permanent residence is in Las Vegas), I have always felt that Sun Valley was my *real* home, and I plan to live there for the rest of my life. I love Idaho for reasons which may seem obvious, but I must stress those reasons for they are the ones that are directly threatened by the SIS project.

I have always felt that Sun Valley was one of the last precious and most eloquently preserved environments in the United States. Air, water and land pollution have not yet become a real problem, and the town has not fallen victim to over-crowding or mass commercialism. I want for Idaho to be a prosperous state, yet at the same time I want Sun Valley to remain "the best-kept secret around." This may be a selfish attitude, and in fact it would be if there was a viable cause for concern over the economy in Idaho. As it stands, however, Idaho is one of the richest states in the country, thanks to the farm industry.

Mr. Nichols, I understand that you must consider the benefits to the economy that the project would provide, but you must also consider the costs. If there were to be any effect on the environment by the SIS plant, it would seriously disrupt the agriculture industry. Of course you realize this, and you may believe that no real threat exists. I want to stress that any doubt *whatsoever* is enough to make the risk too high. Yes, a plant could provide new employment opportunities, but at the cost of an entire industry.

6.2

5.27.2

5.27.3.1

5.27.3.1 Please do not forget that Idaho is an agricultural state, not a nuclear plant region. My other home has already become a nuclear test site and is on the top of the list for eligible locations for a toxic dump site; unfortunately, I was unable to prevent it. I am afraid of the precedent this project would set for nuclear plants in Idaho. When do we say that is enough? How many more plants might we build? Where do we drew the line?

True, I am a young student at a liberal university, but it was once said, "If you are not liberal when you are young, you have no heart." I bring this up only because I believe that in times when something you love and see unmatched beauty in is in danger, you must go with your heart and stand up for what you know is instinctively right. It is now a morel decision. We as humans have to stop waeting our environment, whether it is with nuclear weapons, toxic waste or factory pollution. We have to confront the thought that any damage done to our environment is irreversible.

This issue has turned into one of economy versus environment. The economy can go through many cycles and benefit from many different

6.1.1 projects; the environment is much more delicate and may never racover from a damaging phase. The economy can be measured in monetary figures, the environment is priceless.

Listen to the people, and listen to your heart. Realize that the installment of the SIS plant in Idaho is the equivalent of forcing a woman to

1.1 house her own rapist.

Sincerely,

Gillian Wynn

W380

MARSHALL BROTHERS COMMERCIAL AND INDUSTRIAL REAL ESTATE

STATION SQUARE 200 SOUTH MAIN BOX 200 (208) 232-1121 POCATELLO, IDAHO 83204

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APR 18 1988
SIS Project Office

DEPT OF ENERGY
785 DOE PLACE
IDAHO FALLS, ID., 83402

WE HAVE 10 ADULTS IN OUR FAMILY 1.1
THAT VOTE 'YES' FOR SIS.

WE NEED IT AND EXPRESS OUR CONFIDENCE
IN THE INEL -

THANK YOU!

Glen L. Marshall

APRIL 15, 1988

W381

RECEIVED
APR 18 1988
SIS Project Office

Don Ofte, INEL Manager
United States Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Ofte,

Request that you place the enclosed letter dated February 26, 1988 to Secretary of Energy Herrington in public written testimony in regards to DOE/EIS 0136, February 1988, Draft Environmental Impact Statement, Special Isotope Seperation Project.

Thank You.

Best Regards,
William Hyde

Copies to;
Senators McClure and Symms
DOE; Herrington
Inspector General Layton
Clay Nichcols, SIS Project Manager

Fleit, Jacobsen, Cohn and Price

Encloseure; Letter to Secretary Herrington, dated February 26, 1988
Outlining security violatios of the INEL.
lt

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February 2o, 1988

RECEIVED
APR 18 1988
SIS Project Office

Secretary John Herrington
United States Department of Energy
1000 Independence Ave.
Washington D.C. 20585

Dear Secretary Herrington;

How can the DOE even consider locating a plutonium producing plant like the Special Isotope Seperation, that requires high security, at the Idaho National Engineering Laboratory?

In 1986, INEL management, DOE Inspector General and the FBI condoned and concealed a vicious, fraudulent, slanderous 4 year campaign by INEL employees to obtain business secrets. The INEL employees used conspiracy, fraud, slander, bribery and extortion to obtain information. These INEL employees had high security clearances.

5.25.6

In 1987 the same INEL employees managed to steal proprietery information from a DOE program. The proprietery information was in the possession of and the responsibility of the federal government so the INEL employees actually stole the information from the federal government. The INEL employees still have the high security clearances

In 1988 the INEL employees have criminal federal law violations against them and will under go FBI investigation. These INEL employees still have the high security clearances.

All of this was condoned and concealed by INEL management, DOE Inspector General and the FBI.

How can the government claim that it protects the national interest when it issues high security clearances to protect secrets then turns around and condones and conceals the stealing of secrets by the same people who are issued the clearances?

Your fox took 4 years to raid my chicken coop across the street do you really think that your's is safe with him in it?

The INEL has shown continuous irresponsibility in joining with other federal agencies to violate everything that stands for national security.

Sincerely,
William Hyde

Copies to:
Senators McClure and Symms
Represenative Stallings
FBI Director Sessions
DOE; Idaho Operations Office, for inclusion
in SIS environmental impact statement.
National Security Agency

Note; I know that at least one of the INEL employees is employed by Westinghouse Idaho Nuclear Company which is the INEL prime contractor for the SIS project.

DOE/EIS-0136 Draft Environmental Impact Statement, Special Isotope Seperation Project. Paragraph 4.1.5 Safeguaards and Security, Pages 4-36 and 4-37.

W382

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APR 18 1988
SIS Project Office

April 9, 1988

ATTN: Mr. Clay Nichols
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

We would like to state for the record that we are opposed to the SIS project being built in Idaho, or anywhere, for that matter. 1.1

Aside from the painfully obvious environmental, health and economic risks that plutonium production poses, we feel that dealing in nuclear weapons would be morally deficient to the standards of Idahoans. 4.13

We have seven children, Mr. Nichols. We would like to see a peaceful and healthy future for them, not world devastation. 6.5.5

We urge you to take the "no action" alternative.

Sincerely,

Mr. and Mrs. Lynn R. Crown
Route 1
Filer, Idaho 83328

Lynn R Crown
Nola E. Crown

460

W383

15 April 1988

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APR 18 1988
SIS Project Office

Dr. Clay Nichols
SIS Project Manager
U.S.D.O.E.
785 D.O.E. Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

We are opposed to the SIS Project sited for the INEL, for numerous reasons! Excluding the moral question of producing radioactive plutonium for nuclear warheads there is the more immediate question of how do we protect the purity and integrity of the land in our stae of Idaho? 1.1 4.13

Even though new jobs are needed for many in our state, we think it a serious mistake for this enterprise to be conducted in such a manner. Nuclear accidents can and DO happen!!!!!!! This site area, though rural in nature occupies a geological area of possibly dire consequence. Do we know what would happen if there were such an accident in an area where a river disappears into lava formations? There would be detrimental contamination for all of the water in southern Idaho. 5.12.1

Please consider our plea for all of us who live and work in Idaho!

Sincerely:

Christopher Schultz
Linda Shaw

Copies:

1. Richard Stallings
   2nd District Idaho
   1221 Longworth Bldg.
   Washington, D.C. 20515

2. Steve Symms
   James McClure
   U.S. Senate
   Washington, D.C. 20510

3. Governor Cecil Andrus
   State House
   Boise, Idaho 83720

W384

Lucky Dog Retreat

P.O. Box 128 • Island Park, Idaho 83429 • (208) 558-7455

RECEIVED
APR 18 1988
SIS Project Office

April 12, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 We are writing as Idaho citizens opposed to construction of the Special Isotope Separation (SIS) Plant at the Idaho National Engineering Laboratory (INEL), or at any other location. We support the No Action alternative in the draft EIS for the following reasons:

4.13 1. The national need for additional volumes of weapons-grade plutonium has not been sufficiently demonstrated in the EIS.

As a nation we are in the process of arms negotiations with the Soviet Union to reduce, not increase, our nuclear arsenal. We have adequate supplies of bomb material now, with enough warheads to wipe out every major city in the northern hemisphere (24 megatons) with plenty to spare. Even if the eight-year supply of feed plutonium were needed and processed, the life of the SIS still would be limited without lifting the ban on
5.26.2 commercial fuel reprocessing. We oppose any measure which would pressure this nation into such fuel reprocessing and increased plutonium buildup.

2. INEL is ill-suited for additional volumes of transuranic waste.

Despite the presence of SWEPP, brought about by storing Rocky Flats TRU waste at INEL, the Site is better off resisting additional volumes of transuranic waste for "temporary" storage. Since WIPP is not yet accepting waste due to a
5.30.2.5 myriad of problems, since Tru-Pact is not yet licensed and since States are still arguing about transportation routing issues, it seems unwise to assume that TRU waste from SIS would easily leave the Site. With the Snake River Aquifer questions always looming, the Site is not environmentally acceptable for any more TRU waste storage.

3. Idaho is ill-prepared to meet the challenges of a plutonium transportation emergency.

Idaho is limited in its capabilities as first responders to hazardous and radioactive materials accidents. Although INEL personnel are called in for radioactive incidents, the first

Lucky Dog Retreat

P.O. Box 128 • Island Park, Idaho 83429 • (208) 558-7455

responders (State Police, EMTs, etc.) would need special training and equipment to deal with such emergencies. This needs to be addressed in the final EIS, with special attention to the costs of such preparedness. 5.7.10

4. The image of Eastern Idaho as a desirable tourist destination would be severely threatened.

As owner/operators of a mountain resort, we could be ecstatic over new, potential customers coming to Idaho for SIS construction and operation. On the contrary, we find it more valuable for our national image to promote Idaho's clean air and water, and a wholesome, pure image of unadulterated wilderness. Locating a plutonium processing plant here would certainly not enhance the area's image and would likely detract from its promising tourism potential. The EIS needs to address this negative, economic aspect of the project in a serious manner. 5.27.3.3

5. America cannot afford to build the SIS given our nation's deficit and budget realities.

As loyal Americans, we understand that a healthy economy and populace are as important as weaponry in maintaining our national defense. It is time for the hard choices to be made in reducing the defense budget, not increasing it with unnecessary capital expenditures such as the SIS. As a nation, we must move away from viewing ourselves as the world's only defender of freedom and begin to share these responsibilities with other world powers. Nations like Japan and Germany who have prospered since World War II thanks to the help of our national defenses now should have an opportunity to share the load. 6.3

Thank you for your consideration of our views.

Sincerely,

Peter and Janice Jensen

Peter and Janice Jensen

cc: Congressman Stallings

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W385

wedgwood properties

P.O. Box 352 • Blackfoot, Idaho 83221 • (208) 785-5900

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APR 18 1988
SIS Project Office

April 14, 1988

Dr. Clayton Nichols
SIS Project Manager
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

As Chairman of the Economic Development Committee for the Greater Blackfoot Area Chamber of Commerce, I would like to register my support for the SIS project. I feel that any time we can bring highly technological projects to this area of Idaho, we will be inhancing the potential for economic development to this area. 1.1

I also believe that it is imperative that the United States become the front-runner for new technology and that when we provide more of these high-tech jobs we are making it possible for our young students to stay interested in math and science. We need to provide those projects that will make us a world leader through the expertise of our children. 5.27.6.1

I realize that the world probably has more knowlege in the area of arms control that we need at this time, but I question whether it will be enough to protect our country in the future. The only way we can remain the political force that we have achieved in the world is to provide the new technology that will allow us to remain in this enviable position. 4.15.4

Please keep up the good work in regards to the SIS project. I hope it will be built in Idaho so that it will directly affect our children's future. Thank you so much for the opportunity to respond to the proposal.

Sincerely

Lynda Ferrin
Chairman of the Economic Development Committee
Greater Blackfoot Area Chamber of Commerce

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W386

My family & Most of [illegible] are in Support of locating the S.I.S. Project At The I.N.E.L. here in Idaho. Keep up the Good Work - Tom D. Lee & Walker family

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APR 18 1988
SIS Project Office

208/237-5486

1.1

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W387

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APR 18 1988
SIS Project Office

275 Camarillo Way
Twin FAlls, ID 83301
April 15, 1988

Clay Nichols
785 DOE Place
Idaho, Falls, ID 83402

Dear Mr. Nichols:

1.1 This letter is written to convey my strong opposition to the Special Isotope Separation Project that is being considered for the state of Idaho. I oppose building the SIS anywhere; however, as a citizen of Idaho I oppose the possible location at INEL.

5.27.9.2 The proposed SIS plant is to be used for the refinement of plutonium for use in nuclear warheads. Information that the INEL would become a leading laser research laboratory is misleading and without factual foundation. What is truth is that INEL would become a leading nuclear weapons production site with the beginning of plutonium production.

4.15.5 The United States does not need more nuclear weapons. We already have enough to destroy the Soviet Union or any other adversary many times over. And we do not need more plutonium. The United States can maintain its need for plutonium with the current stockpile.

5.30.3.1 My major concern is the DOE's long history of disregard for public and environmental safety and health. In areas of waste disposal there are studies to show dangerous levels of radioactive wastes and chemical pollution which endanger the lives of our citizens. To even consider Idaho as a permanent dumping ground for the wastes generated at the SIS plant is beyond my comprehension.

6.2 Lastly, the argument that SIS would help solve Idaho's economic problems is misleading. The economic benefit would appear to be shortlived - only over a period of seven to eight years. Plus the risk to two of Idaho's strongest industries, tourism and agriculture, could be ruined if there were an accident at the SIS plant or on the highways while transporting the plutonium. I am not willing to play Russian Roulette with the citizens of this state or of any area.

Sincerely,

Joyce L. Cameron
Joyce L. Cameron

cc: Sen. James McClure
Sen. Steve Symms
Rep. Richard Stallings

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W388

4/15/8:

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APR 18 1988
SIS Project Office

Dear Dr. Nichols,

Please let it be known in the record that J. Mark Daniel Seiler oppose the building of the S.I.S. It is my sincere hope that no action is taken. My reasons are many and lengthy, but I prefer not to go into detail with you. Thank you very much for inviting my opinion. 1.1

Good day

Mark Seiler
605 Logan St.
Boise, ID 83712
344-1981

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APR 18 1988
Project Office

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APR 18 1988

SIS Project Office

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

12 April 1988

Mr. Nichols;

1.1 I would like to register my sincere opposition to the planned SIS project being considered for construction at INEL. Please put a solid mark in the "NO" column for me.

4.15.4 My opposition to SIS is based on several beliefs. I feel that it almost goes without saying that it is not required. The amount of nuclear weapons curently at the disposal of United States forces would allow us to virtually tattoo the Soviet Union during an unrestricted global thermonuclear exchange. Any Soviet city over 10,000 population would receive about 80 missles. In my mind that should do the job. We simply do not need to build more.

5.12.1 I have a more personal reason for my opposition. During the early 1980's I worked for a period of time at INEL. The contractor for which I was an employee completed a sample well drilling project just inside the site's southern boundry. There were approximately 15 wells dug with the purpose of sampling ground water moving off the site within the Snake River Acquifer. The company I worked for was not involved in the sampling, but it was not difficult for those marginally involved to learn the findings. The groundwater leaving the site was "glowing". Did the public ever hear of this? Was any discussion of the samples every distributed to anyone not in the INEL management group? The answer to both questions of course is no. For this reason I cannot accept the most sincere reassurances by you and your people that the SIS project would be safe. Your record of keeping the public truly informed about safety concerns at INEL is non-existent. If you dont make problems public, how can I believe your safe SIS propaganda?

So for what it's worth, I vote "NO". I also promise I will do everything in my power to see that the SIS is never built.

Sincerely;

Scott W. Fugit

W390

April 14, 1988

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APR 18 1988

SIS Project Office

Dr. Clay Nichols
SIS Project Manager
785 DOE Place
Idaho Falls, ID 83402

Dr. Nichols,

1.1 This letter voices my opposition to construction of the SIS project at the INEL. I have read the DEIS and it does not satisfy my concerns about protection of Idaho's environment. I favor the no-action alternative.

5.12.1 My primary environmental concern about the proposed SIS facility is its location over the Snake River Plains aquifer. One has only to refer to any textbook of Idaho geology to realize the immense environmental and human consequence of radioactive contamination of this water source. My family lives "down-stream" from the INEL site, and while I realize that it could be centuries before contamination due to usual operations might be detected, I also realize that a catastrophic accident has potential to contaminate my family's drinking water in my lifetime. The DEIS did not adequately address my concern about protection of the aquifer.

5.30.4.12 Storage and disposal of by-product radioactive waste from the operation is another of my concerns. As pointed out in the April 10 issue of the Twin Falls Times-News, the DOE has a poor track record when it comes to storage of radioactive material. It seems that INEL may soon join Hanford on the Super Fund list. The DEIS states that the SIS-generated by-product material, consisting principally of plutonium-238, 240, and 241, would be stored until such time as DOE evaluates the applicability of the material for other missions. This means that highly radioactive material will remain on-site indefinitely and, given past performance by DOE, I have little confidence that it will be managed safely. In addition, the Times-News reported that there are concerns that the WIPP disposal facility in New Mexico has potential for future contamination. This is the so-called permanent storage site for SIS-generated waste. The DEIS does not address alternative dispositions for the radioactive waste if the WIPP site should not be acceptable. It is my opinion that construction should not even be considered until safe methods for disposal of the by-product are ensured.

5.4.1

5.30.2.1

2.1.1 Several other issues surfaced in my review of the DEIS relating to transportation of materials, emergency responses to accidents, and others. Suffice it to say that I felt the DEIS inadequate

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in a number of these areas. In addition, I question DOE's assessment of the need for more weapons-grade plutonium given our current arsenal. It seems to me that we have adequate destructive potential now to satisfy national security interests for thousands of years to come (given the half-life of plutonium-239). To my way of thinking, then, funding the SIS project would cost billions of dollars to make a product that is not needed. Better use of those funds could surely be made. 4.13

In summary, I do not feel that construction of the SIS project at the INEL is worth its considerable risk to Idaho's environment. The DEIS inadequately addresses a number of major issues about the safe operation of the proposed project. In addition, I question DOE's assessment of need for more weapons-grade plutonium. I favor the no-action alternative.

Sincerely,

Kenneth E. Harris
Sarah J. Harris

Kenneth E. Harris M.D.
Sarah J. Harris
Route 4, Box 7353
Twin Falls, ID 83301

W392

RECEIVED
APR 18 1988
SIS Project Office

1352 East Lewis
Pocatello, ID 83201
April, 16, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

Please enter the following statement on our behalf concerning the Draft E.I.S. on the S.I.S. project.

We oppose the approval of the S.I.S. project for the following reasons: 1.1

1. The end product of the S.I.S. project is to produce plutonium for the manufacture of nuclear weapons. Nuclear weapons can be used to destroy human life. This is immoral. 4.13

2. The environment in Idaho is at risk through the possible release of plutonium into the Snake River aquifer. Such a release would permanently damage our way of life in southern Idaho. Recent newpaper articles have reported that some $30 million may be needed to cleanup toxic material already damaging our ecosystem at the INEL site. Further, the EIS calls for 30 year "temporary waste storage vaults. These "tempoary" vaults give the potential for long term waste storage. This is a further risk to our environment. 5.30.2.1

The potential good (jobs and economic revival) that this project can bring to southeast Idaho is far offset by the risk to our environment. If economic revival were the only reason for the S.I.S. we and our government can think of many ways to use a billion dollars for the betterment of its citizens. 6.2

3. Secretary of Energy John Herrington stated on February 23, 1988 that "we're awash in plutonium...we have more plutonium than we need". We believe this governmental official has access to classified information or he wouldn't have made such as statement. If he is correct, we as a nation cannot afford to waste billions of dollars on projects such as the S.I.S. Let's make do with the plutonium we have! 4.2.1

Respectfully submitted,

Alan E. Stanek
Janette E. Stanek

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W393

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APR 19 1988
SIS Project Office

April 18, 1988

Dear Mr. Nichols,

I am writing this letter to explain some concerns I have about the proposed SIS project.

1.1 First, for the following reasons, I don't feel that the SIS should be built at all:

4.13 · I disapprove of the production of plutonium from a moral standpoint

4.15.5 · In light of the recent treaty agreements and ongoing negotiations, we have an adequate supply of Pu.

5.24.33 · I feel that WINCO overemphasizes production with the resultant weakening in safety at the ICPP. I do not feel that our safety record is as good as it is portrayed. Handling Pu out here scares me.

· I don't want to be working in the weapons-production area.

Please keep in mind, when looking at the public response to the SIS project, that not all those opposing it have made their feelings known. Many of the professionals that I work with have not felt able to express their opposition to this project because they fear for their careers. For example, one individual had a newspaper clipping that was negative to SIS. He wanted to hang it up in his office, but decided not to because of the negative response it might generate from his manager. These types of feelings are justified when, at staff meetings, management asks employees to participate in the SIS parade and to express their support for SIS at the public hearings. It is also difficult to feel free to testify at the hearings when upper management personnel are visibly present. Other site people may also feel to uncomfortable to express their opinions.

5.2.9 One other concern I have, is why Idaho Falls is the preferred site for the SIS. If it has to be built at all, it should be built at Hanford. This community is facing many layoffs. We are receiving many job inquiries from people anticipating layoffs from Hanford. Building SIS there makes more econmic sense. It will help a depressed area. I wonder how much money will be spent just moving Hanford residents to Idaho Falls if the SIS is built here. It seems to me that the DOE should take more responsibility for the Hanford community.

I am not sure you can even use this letter as public testimony since I do not feel that I can sign my name. But, I hope you will consider it when you are making decisions.

393

Signed,
A ICPP employee

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W394

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APR 19 1988
SIS Project Office

ROMAN CATHOLIC DIOCESE OF BOISE P. O. BOX 769 BOISE, IDAHO 83701-0769

April 16, 1988

Doctor Clay Nichols
I.N.E.L.
Idaho Falls, Idaho 83405

Dear Doctor Nichols:

In re: Special Isotope Separator Hearings

It was not possible for me to attend any of the hearings on this issue which were held recently in Idaho. Thus, I would like to present my views to you in writing. I understand that April 22 is the deadline for presenting letters of testimony.

It is my firm conviction that the refining of plutonium is a grave moral issue. Such plutonium would be used to make more nuclear weapons at a time when the nations already have far more than enough to destroy our civilization many times over, and when the United States and Russia are working on a nuclear arms reduction treaty. 4.13

It is a matter of morality that the nations not equip themselves for such destruction. The risks are overwhelming. Millions of people are dying from starvation, millions more live in substandard conditions, totally beneath the requirements of human dignity. How can we in good conscience deprive these poor of their rights and spend millions of dollars which are theirs by right for more unneeded weapons? 6.3

Deterrence, whatever its merits or demerits, is not the issue here. Existing weapons more than satisfy the demands of deterrence. 3.4

Idaho's economy is very important. But it is to be debated whether our economy would benefit all that much if SIS were located here. However, I fail to see that economic considerations should take first place over the moral issues involved in the SIS. 5.27.6.4

Thank you for listening. I pray that this will assist you and others in making the proper decision. 1.1

Sincerely yours,
Bishop Sylvester Treinen
Catholic Bishop of Idaho

394

Telephone (208) 342-131

W395

RECEIVED
APR 19 1988
SIS Project Office

For the record
DEIS

March 17, 1988

Liz Paul
SNAKE RIVER ALLIANCE
P. O. Box 1731
Boise, ID 83701

Dear Ms. Paul:

1.1 I would like to comment on the "outrageous" proposal to install the SIS Project in Idaho! There are four Snug stores located in the Ketchum/Sun Valley area. Other Snug stores are located in major resorts in Utah and Colorado.

Through the years, all Snug stores in Colorado and Utah, have grown along with the growing visitors to those areas. Idaho business has been steadily decreasing as the Utah and Colorado resorts compete more effectively for available tourism.

5.27.3.4 Tourism in Idaho needs to be enhanced through a carefully developed program to emphasize our pristine, unspoiled wilderness and beauty. The SIS Project is totally inconsistent with the development of the tourism in Idaho. The jobs that the SIS would create would be more than offset by the lost tourism jobs. The Project is also inconsistent with the goals of people that have bought summer or winter homes in the Sun Valley area. The Project would cause many people to sell their homes, and would eliminate future buyers for existing homes and future residential development. Additional jobs would be lost in the real estate development and construction industries.

5.27.17 In summary, this Project is inconsistent with the future development of tourism and real estate in this State, and should be STOPPED!

Sincerely,

THE SNUG COMPANY

Darrell de Fabry
President

DF/jh

395

THE SNUG COMPANY/ BOX 127 / SUN VALLEY, IDAHO 83353 / 208-622-9302

467

W396

RECEIVED
APR 19 1988
SIS Project Office

D.V.H. ENTERPRISES INC.
International Marketing

3-28-88

Gentelman,

This is my letter of Support for No Action alternative, Not to construct and operate the SIS projea in Idaho.

I Don't let us make this tragic mistake.

1.1

Sincerely.

David Heimbach

396

DAVID V.V. HEIMBACH P.O. Box 2762 Sun Valley, Idaho 83353 U.S.A.
Telephone: (208)726-8535 Telex 6974412-DVH-UW

W397

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APR 19 1988
SIS Project Office

MAGGIE BLAIR
Acupuncture
P.O. BOX 3591, 128 SADDLE ROAD
KETCHUM CHIROPRACTIC CLINIC
KETCHUM, IDAHO 83340
Telephone (208) 726-4554

I oppose the building of the S.I.S. at the I.N.E.L. for several reasons. The foremost are the politicol and ethical questions of creating more plutonium at a time of nuclear disarmament, especially when we have existing stockpiles and it is not as if the stuff goes bod with a shelf-life of 20,000 years. 1.1

Other more immediate concerns are the disposal of the waste materials generated. The I.N.E.L. is not an appropriate site for long-term storage. It is over a major aquifer and is a geologically active area. At this time, there seems to be nowhere to store these wostes safely. The site in New Mexico is under investigation to its suitability. It seems foolhardy to go ahead with a project that has these kinds of major unresolved problems. 4.14 5.30.2.1

I am a native Idahoan, borne and raised in Pocatello. Many of my friends and their families are employed by the I.N.E.L. I realize the importance of jobs in Idaho but I can't condone this type of "war" oriented plant. Generally, the I.N.E.L. has been a research facility and I think the S.I.S. is in contradiction to this reseorch-oriented philosophy. Also, the way the laws are written right now, the S.I.S. would have about a 7-year life expectancy before it runs out of things to process, thus creating a boom and bust situotion. If you've driven through Challis lately, ane can see the effects of this type of economy. In terms of having a weapons grade nuclear plant in the state, what will the effects be on tourism and agriculture should on accident occur? Will having the S.I.S. here have an effect on other types of businesses that might want to come to Idaho? These are questions thot have not been adequately addressed. 3.3.1 5.27.10 5.27.2

In conclusion, I stand opposed to the building of the S.I.S. in general and specifically at the I.N.E.L. 5.27.3.3

397

468

W398

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SIS Project Office

We the people of Idaho will not support anymore nuclear activity in Idaho or anyplace else, for that matter. The dangers of our clear air and water being polluted is a very realistic fear, and too great a loss. 1.1

With the nuclear weapons reduction, that is so important to many people and countries, why build more of these disaster areas? Why not use the money to improve on the clear up of pollution, caused by nuclear waste? 6.3

Granted the job opportunities and money spent while building this plant sound appealing, in an already depressed state. But this is only a short term financial stimulation. With overwhelming long term problems. The people of Idaho would rather be a bit financially set back, than sell ourselves short. And loose what so many still wished they had, clear air and water. 5.27.10

Our roads are not designed for transporting these dangerous chemicals to and fro. And to make roads more safe would completely ruin our state. 5.30.3.1

We already have a temporary waste dump that sits on our only major water source for Southern Idaho. The pollution from this temporary dump is seeping into the ground and air. And no one is doing anything about it. This problem needs to be cleaned up, and many like it.

I just can't understand the thinking of the DOE.

398

-2-

Do they think the waste will just disappear? Safety and waste disposal from any plant should be the first concern. And I don't feel the DOE has handled this matter properly.

5.30.4.14

We say no to nuclear weapons. And no to the SIS.

Patrick + Karen Simpson
PO Box 1234
Ketchum, Idaho 83340

469

W399

1823 San La Rue
Twin Falls, Idaho 83301
April 15, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83401

Dear Dr. Nichols:

I am writing to give my protest against the SIS Project. My main reason for not wanting the project built at the INEL site or any other site, is I believe we already have too much plutonium available for nuclear weapons. 1.1

It is my belief that the Department of Energy should study ways to dispose of all the toxic wastes already present, before creating any additional wastes. 4.15.5

Our "fragile" island earth home is very precious and we all need to take much better care of it, and become stewards of the earth. 5.30.5.1

I urge our elected officials to vote against the SIS project.

Very truly yours,

Joyce E. Ballard

Joyce E. Ballard

jb
cc: Senator James A. McClure
Senator Steve Symms
Congressman Richard Stallings

W400

RECEIVED
APR 19 1988
SIS Project Office

April 15, 1988

Dr. Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Dr. Nichols:

1.1 I oppose the SIS plutonium plant project for several reasons.

5.29.87 First, the plutonium to be produced is extremely hazardous. The risk of transporting this product on public highways is too great. Any accident would endanger thousands of lives and ruin the enviornment.

5.27.7.2 Second, the supporters for this project are interested in an increased economy only. If the economy should increase, it will be short lived.

5.27.6.11 Third, the reported $1 Billion cost to build this project will in reality turn into a figure much greater. The U.S. government cannot afford this project when it is already in severe debt.

4.3 Fourth, the U.S. government is in a good position to continue to negotiate arms reduction with the USSR. We cannot jepordize any progress made by building more nuclear bombs.

I strongly recommend this project not be built.

Sincerely,

Paul M. Bohl

Paul M. Bohl
2531 Grandee
Boise, Id. 83704

CC: Governor Cecil Andrus
Representive Richard Stallings

470

400

W401

FOR THE HEARING RECORD

430 North 8th East
Mountain Home, Idaho 83647
April 15, 1988

RECEIVED
APR 19 1988
SIS Project Office

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 D.O.E. Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols,

This letter is a comment, for inclusion in the hearing record, on Draft Environmental Impact Statement--Special Isotope Separation Project, DOE/EIS-0136D, which I will hereinafter refer to as the Draft.

The Draft is inadequate on many counts. The two general areas of critique below illustrate its failures, but sadly do not exhaust them.

1. Waste Management. The Draft states that TRU waste, or a portion thereof "would ...be transported to the SWEPP and then to the WIPP for disposal." (p.2-47, italics mine).

5.30.2.1 This is seriously misleading. Nothing requires the Department of Energy to transport any of this radioactive waste to WIPP in New Mexico. The New Mexico site is already rumored to have developed problems. Regardless of the truth of these rumors, the Department could, if it so decided, or if required to do so by Congress, change its stated intentions and refuse to ship the material. Idaho could be forced to swallow its own nuclear waste, with INEL becoming the permanent dumpsite.

5.30.2.5

5.30.1.18 The Draft fails to recognize the possibility, perhaps even the likelihood that this will happen. Much less does it explore the environmental impact involved, including the potential for water contamination of the Snake River Aquifer.

2. Accidents. Accident scenarios in the Draft are inadequate.

a. Design Basis Accidents. The Draft states, about such accidents, that "Critical safety systems are expected to fulfill their safety functions and maintain their integrity for Design-Basis Accidents (DBA)..."

5.1.3 This expectation is not justifiable. The SIS technology is admittedly experimental and developmental. Current designs are preliminary (Draft, see p. S-3, paragraph 1). The final design and its accident potential is not therefore known. It is not possible to reach reliable conclusions about accidents which have their basis in an unknown design. Still less can one reach conclusions about the relationship of such accidents to critical safety systems.

b. Release of Radioactivity. Figures purporting to be realistic extimates

401

5.1.13 of the release of radioactive material in the event of an accident seem far too low--far lower than conservative. An independent scientific estimate projects conservatively that a major accident could easily cause a surface deposition of fallout with significant effects to 160 miles from the INEL or more. The Draft fails to assess the economic, medical, social, and ecological impact in terms of cities, farms, and homesteads abandoned, immediate and delayed deaths and injuries, and other results.

5.29.57 c. Radioactive Waste Transport Accidents. The Draft fails to address the serious deficiencies observed in the management of hazardous waste transportation spills occurring in Idaho. For example, months after such a spill in a northern Idaho river resulting in a substantial fish kill, Federal, state and county agencies have yet to sort out who was responsible for coordinating the emergency response and who will be responsible in future accidents.

5.7.21

2.1.6 The Draft should be discarded and a new draft developed from the ground up to provide a realistic account of environmental impact.

Only then can government agencies and citizens be properly instructed on the impact of their choices on their future.

Sincerely,

Frank C. Romesterio

471

W402

April 15, 1988

Dr. Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Dr. Nichols:

I would like to express my strong disapproval of locating the SIS plutonium plant in the state of Idaho. 1.1

As a citizen who is very concerned about our environment, I feel that the SIS project poses too great a risk to the health and safety of our population. Any accident in the factory or in the transport of nuclear materials over our highways could have tragic consequences for our state. 5.29.87

Let's have a nuclear-free Idaho!

Sincerely,

Peggy L. Bohl

Peggy L. Bohl
2531 Grandee St.
Boise, Idaho 83704

cc: Governor Cecil Andrus
Representative Richard Stallings

402

W403

ORRY ROBERTS
423 Purdue
Boise, Idaho 83706

April 18, 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Sir,

1.1 After reading the article and seeing the map of the projected plutonium routes in THE STATESMAN on Sunday, April 17, 1988, I must write to voice my protest to the building of the special isotope separator at the INEL in Idaho Falls.

6.5.5 One hundred or so jobs in Idaho would be a big boost to our economy, but surely we must think more of our future and future generations than the immediate economy of one end of the state.

5.10.4 The proposed route through largely populated areas is dusturing, but I feel more strongly about the possibilities of an earthquake in the INEL area and the devastating consequences of that kind of event, which no one can predict or rule out.

Please mark this protest for your hearings record.

Sincerely,

Lorry Roberts

Lorry Roberts

472

W404

18 April 88

Hello -

I care about Idaho and her resources.

We need to be so careful about her natural resources, like 5.12.1 the Snake River Plain Aquifer. This water is so precious and valuable. We must be very careful not to lose it.

The disposal of radioactive waste is a terrible dilemma. Let's 5.30.3.1 not leave it where it can do the most harm, above our natural water resource.

Thank-you,

Christine Roberts
MTN. Home

Resident Blaine County
Box 1847
Ketchum, Id 83340

4.16.88

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APR 19 1988
SIS Project Office

Mr Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, Id 83402

Mr Nichols,

1.1 I would like to go on record as opposing the building of the Special Isotope Separator. I do not want this project being built in Idaho or any other state

2.1.1 The dangerous and destructive ramefications of this site presented to our environment have not been adequately addressed in the draft Environmental Impact Statement by the Department of Energy or the Environmental Protection Agency.

5.12.1 The present pollution to the Snake River aquafer, (Idaho's heartbeat) by the INEL is enough damage to Idaho. We do not need to be subjected to the refinery of plutonium or transportation of plutonium.

5.24.27 I do not want one of my tax dollars going toward the building of this project. The site does not present one socially redeeming quality to the world or Idaho. Again, Count my vote against the Special Isotope Separation Project.

Sincerely,
Debbie McNamara

405

473

Sawtooth Board of Realtors
REALTOR®
Sawtooth Multiple Listing
1st Street Building, Suite 104, Box 1937, Ketchum, Idaho 83340
(208) 726-7764

April 18, 1988

RECEIVED
APR 19 1988
SIS Project Office

Mr. Clay Nichols
785 Doe Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

FOR THE HEARING RECORD:

We, the Board of Directors of the Sawtooth Board of Realtors, feel an obligation to express our concern over the Special Isotope Separation Project being considered for construction at Idaho's A.E.C. site east of Arco, Idaho.

Regardless of whether or not there is an actual need for more plutonium, or that such a project could be developed and maintained in an environmentally safe manner, or, further, that a portion of the State would benefit economically from the project, it is our opinion that such a project is not compatible with the present and long-term potential available for the State of Idaho, to be known and promoted for it's natural beauty, unpolluted environment, and healthy active lifestyle. 6.2

The Idaho tourist industry has unlimited potential if managed and marketed properly, but more importantly, people are discovering Idaho, not as only a vacation spot, but also a place to live and raise families. Idaho should concentrate on protecting it's natural treasures and protecting an image of an environmentally safe State. 5.27.3.3

We, therefore, oppose the development of the S.I.S. Project in the State of Idaho. 1.1

Very truly yours,
SAWTOOTH BOARD OF REALTORS

William R. Woodward
President

406

W407

William A. Ferguson
1019 N. 5th ST
Boise Id. 83702

RECEIVED
APR 19 1986
SIS Project Office

To Whom it may Concern

Being a registered Voter and resident of Idaho Since 1973 I am also Concerned about the Welfare of this great State.

If my one letter is of any importance then I would have to say I'm opposed To SIS in this state

1.1

Thank You,
William Ferguson

407

474

W408

RECEIVED
APR 19 1986
SIS Project Office

April 5, 198

Please consider these thoughts of Dr. Peter Bowler as an addendum to my previously submitted testimony, and issue a new SIS EIS adequately addressing all impacts.

Will Small
Will Small
POB 405
Picabo, ID 83348

Mr. Clay Nichols,
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RE: Comment upon the Draft Environmental Impact Statement, Special Isotope Separation Project, Idaho National Engineering Laboratory, Idaho Falls, Idaho

Dear Mr. Nichols:

I greatly appreciate this opportunity for public comment upon the Draft EIS for the Special Isotope Separation Project and thank the DOE for conducting public hearings on the matter. I have some specific comments on the DEIS and look forward to the DOE's consideration of testimony taken at the hearings and written reviews to achieve what all involved wish - a high quality, legally compliant Final EIS which meets both the spirit and the legal requirements of the NEPA process. In this spirit of constructive, cooperative endeavour I offer the following brief comments for the record of the SIS Environmental Impact Statement.

As issued, the Draft EIS is not legally adequate and does not meet NEPA guidelines nor the legal tests which frame adequacy in the context of a NEPA document. Legal compliance with NEPA is not met in any of the key criteria, including the development and selection of Alternatives, the scope of the alternatives, the impacts the full range of alternatives (including primary, secondary and cumulative impacts, as well as synergistic conditions over the life of the project and other projects currently existing at the INEL), inadequate mitigation designs for the suite of influences the project could effect upon the environment, and the deficiencies in the adequacy of discussion of the alternatives, the lack of objective analysis and lack of completeness of both DOE and independent research (the depauperate citation of primary references), and the lack of adequate support for the ultimate choice among even the Alternatives presented.

DEIS inadequacy

2.1.1

To assist the EIS preparation team in understanding the requirements of design, structure, completeness and scope of an EIS under NEPA, I am attaching a copy of Richard S. Mallory's excellent paper titled "The Legally Required

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Contents of a NEPA Environmental Impact Statement," and ask that it be incorporated in the EIS record.

5.30.5.10 What is the anticipated life of the project, how long would transportation to and from the INEL occur, and how much waste would be generated over the project's lifetime?

5.5.1 Decommissioning Please describe exactly the decommissioning methodology, estimate its cost, and present its timeline for implementation by month in the year the project is terminated. Please define the quantity and types of waste decommissioning will generate, where they will be permanently stored, and the transportation route out of Idaho by which they will be transferred.

Transportation Transportation safety for movement of radioactive materials from Hanford, Washington to the INEL and from the INEL to Rocky Flats, Colorado is a central concern to the INEL Alternative, and raises a suite of issues which must be fully addressed in the Final EIS. Please provide documentation (i.e., affadavits of approval) for legal transport of the projected radioactive materials through all states, counties, cities and townships which would be traversed on all routes.

5.29.87

5.29.103 On a detailed map, please clearly designate all potential shipment routes, the rational for selected final routings, and cite all cities or smaller population centers which fall within potential accident impact areas along each route.

Indicate shipment schedules by season for all radioactive materials and provide a listing of the precipitation (rain and snow should be separately displayed), heavy winds (which could impact safety of either the DOE transportation vehicles or civilian vehicles utilizing the same roads), and freezing temperature regimes for the entire route from Hanford to INEL and from INEL to Rocky Flats. (Isobars would be adequate, with an accompanying table of miles per route segment in each category.)

5.29.39 Please present traffic densities and traffic accident data, focusing particularly upon climatic periods which could be hazardous to the transportation of radioactive materials.

Explain the articulation of shipment routes away from population centers, areas of identified traffic density, and areas which have predictable hazard such as snow, ice, rain or high winds.

List all major grades and mountainous routes encompassed in the transportation process. If any of these has special characteristics which could influence transportation safety, describe safeguards established to insure protection.

Are any areas along the transportation route subject to sudden or seasonal flooding (flash floods, for example)?

Indicate the sesmic history, magnitude of historic sesmic events, and periodicity of activity for the entire routes along which radioactive materials would be transported.

Cite corresponding levels to which all bridges, tunnels and overpasses are sesmically certified along the selected shipment routes.

Are there any major construction or reconstruction activities anticipated along the transportation routes during the project lifetime? If so, indicate alternate shipment routings, the year(s) of their anticipated utilization and any special safety considerations they require.

Contamination Halo Diagrammatically illustrate the traveling halo (or potential contamination zone) throughout the transportation corridors from Hanford to INEL and from INEL to Rocky Flats, taking into account wind patterns, drainage direction, and so forth, were the maximum crdible accident to occur (such as a terrorist bombing or some other event which could broadcast radioactive material into the environment).

5.29.77

Cleanup Please describe "cleanup" readiness, procedures, and equipment which would accompany all radioactive shipment vehicles as a part of the transportation convoy. Explain how radioactive material would be contained, removed, and transported from the site in the event of an accident which widely dispersed radiation laden materials into the environment. Explain how public safety would be assured under all foreseeable circumstances. How, for example, would radioactive material be removed from a body of water or if it were in particulate condition (from an explosion, for example), and so forth.

5.29.66

Explain the procedures for permanently isolating contaminated areas in the event of a serious accident.

Identify any areas which through which the transportation route passes which impact soveriegn nations, such as treaty recognized "usual and accustomed" fishing sites, tribal lands, and so forth. Similary, discuss any such sites which could receive impact from an accident during transportation (as discussed above). Provide documentation of sovereign nation agreement for passage through such lands.

Sovereign Territories

5.29.82

Liability for Impacts Discuss liability responsibility for all anticipated and potential impacts of the project throughout its lifetime as a project, and for the lifetime of any impact produced by an on- or off-site accident. Is the DOE liable for all human, wildlife, private property and public domain assets for the life of the project or any project related impacts (clearly including transportation to and from the facility)? For all intents and purposes, these could be essentially permanent situations considering the longevity of potential contanminants. Please elucidate the level of liability ($20 billion, $30 billion, etc.) for which the project is covered - presumably by the DOE - and demonstrate that this monetary value would fairly and justly compsenate the public for temporary and permanent losses at the site and throughout the corridor through which project related radioactive material is to be transported.

3.6.2

5.30.2.1 Waste Storage

5.30.3.3

5.30.1.1

5.30.2.5

5.30.1.4

It is my understanding that the WIPSS storage facility which accepted INEL generated waste until recently can no longer house waste due to water incursion in the salt dome area. Please document the quantity and categories of waste of all kinds currently stored at INEL and the timeline for their removal, since the INEL cannot be a legal repository. Indicate the source of all legally noncompliant waste (since the INEL is not a storage facility) and the shutdown schedule for onsite waste generating sources. Since the DOE wishes to achieve legal compliance with regulatory mandates regarding radioactive waste storage, it is important that these requests be addressed to adequately answer public concern that the INEL could become a de facto waste repository. By indicating the quantity of material onsite, the shutdown schedule of waste generating operations, and the removal schedule, concerned citizens would be better informed about the waste situation and the seriousness of the DOE's efforts to continue legal compliance could be better documented.

Identify the storage facility which will be the recipient of all SIS produced radioactive waste, the route and method of transfer, and the projected lifetime of that storage facility (as well as any historic problems which have terminated waste acceptance for any period of time). If there are different waste storage facilities to be utilized during various times of the SIS project lifetime, similarly identify them. Clearly the SIS cannot be constructed without thoroughly planned waste handling procedures and destinations for its entire lifetime.

2.7.10 Present a discussion of current targeting of sites within INEL by other superpowers, and explain the nuclear targeting anticipated for the SIS facility. Briefly discuss SIS capabilities to withstand direct nuclear attack (hardening, for example) and the quantity of plutonium and other radioactive materials which would be anticipated to be dispersed from the site in the case of a nuclear strike.

5.25.5 (Similarly, present methodology for protection from terrorist attacks ranging from gate-breaking as in the Beirut tragedy to bombarbardment from trucks on the adjacent roads, to aerial attack <by a small plane on a suicide mission, for example>. Demonstrate that protective measures would adequately shield the site.)

2.1.1 Existing research and data are inadequately presented throughout the document, but particularly with regard to onsite research. Literature citations focus upon consultant work for the DOE with inadequate referencing of primary research publications. A majority of the citations in the DEIS are not available to the reviewing public. Please place copies of all consultant and DOE generated documents in a good selection of Idaho libraries, i.e., Idaho State University, Boise State University, University of Idaho, College of Idaho, College of Southern Idaho, the Idaho State Libary, and public libraries in Twin Falls, Idaho Falls, and

2.11.5 Pocatello. Without access to cited consultant studies, the adequacy of the EIS cannot be assessed.

For example, a suite of research has been conducted by the EPA and USGS as part of gaining a better understanding of the Snake River Plain Aquifer and its qualification for Sole Source Aquifer designation. These significant studies are not cited directly in the DEIS and do not appear to be considered in the Draft document. A few of these include:

5.12.4

Marshall, Wendy (Compiler). March, 1984. Support Document for the EPA Designation of the Snake River Plain Aquifer as a Sole Source Aquifer. U.S. Environmental Protection Agency, Region 10.

Lindholm, G.F., S.P. Garabedian, G.D. Newton and R.L. Whitehead. 1983. Configuration of the Water Table, March, 1980, in the Snake River Plain Regional Aquifer System, Idaho and Eastern Oregon. U.S.G.S. Open-File Report 82-1022.

U.S. Geological Survey. 1984. Water-Resources Investigations, Report 84-4001. Hydrologic, Demographic, and Land-Use Data for the Snake River Plain, Southeastern Idaho. By E.W. Young and M.L. Jones; prepared in cooperation with the Environmental Protection Agency. This document includes a suite of plates relevant to the DEIS.
Plate 1. Land Use and Ownership, Water Use, and Contributory Drainage Area to the Snake River Plain.
Plate 2. Depth to Water, March, 1980, in the Snake River Plain Aquifer.
Plate 3. Water-Table Contours, March, 1980, in the Snake River Plain Aquifer.
Plate 4. Water-Level Hydrographs and Locations of Selected Wells, Snake River Plain Aquifer.
Plate 5. Estimated 1980 Recharge To and Discarge from the Snake River Plain Aquifer.
Plate 6. Spring Flows and Annual Spring Discharge, and Locations of Selected Springs, Snake River Plain Aquifer.
Plate 7. Water-Qulatiy Sites on the Snake River Plain Aquifer and Snake River.
Plate 8. Generalized Soils Overlying the Snake River Plain Aquifer.
Plate 9. Population Distribution, Snake River Plain and Contributory Drainage Area.
Plate 10. Waste-Water and Solid-Waste Disposal Sites, Snake River Plain and Contributory Drainage Area.
Plate 11. Locations of Current Ground-Water Level Observation Wells, and Proposed Observation Wells and Water-Quality Sampling Sites, Snake River Plain Aquifer.

Please include a thorough discussion of the likely designation of the Snake River Plain Aquifer as a Sole Source Aquifer, as this designation appears compellingly

supported by the evaluating research. Ms. Wendy Marshall (FTS 399-1890; 206-442-1890) and Mr. Gerald Opatz (FTS 399-1225; 206-442-1225) in the Region 10 EPA office can address any questions regarding Sole Source designation timelines and the studies cited above. Discuss Sole Source Aquifer designation and the implications it would have for the water withdrawal and water percolation ponds for the proposed project.

5.10.7 Similarly, I note that there a number of glaring ommissions of other studies actually done at the INEL. For example, Malde's (1971) USGS Open-File Report entitled "Geologic Investigation of Faulting near the National Reactor Testing Station, Idaho" is not cited, nor is his formal publication of an update of this study published last year. As is stated at the end of the paper (p. 163), "Lacking clear evidence to the contrary, it must be assumed that earthquakes as large as the 1959 Hebgen Lake earthquake (magnitude 7 to 7.25, say) might occur anywhere in the active zones near the Snake River Plain on the east, north and northwest." It should be noted that the Borah Peak earthquake in 1983 was itself 7.1 to 7.3. The relationship of the SIS site to the Howe area faults and their potential for sesmic activity should be elucidated.

As is noted on page 3-16, "...core samples at RWZMC have detected the presence of plutonium at depths of 33 meters (110 feet) and 70 meters (230 feet)." In view of the identified plumes of contaminated water now percolating through the INEL area, please discuss the impact of the additional hydrologic percolation load which SIS would generate at the proposed ponds. What will be the effect of introducing more water in the percolation system; explain how the DOE can state with certainty that this would not form an enhancement to conducting the existing plumes into the aquifer. Please discuss projected water loads to be percolated for the life of the project and the relationship of the percolation drainage area to sites with identified radioactive or other contaminants. Please provide a map indicating the location, depth and sampling regime for the new test wells which must be established below (down gradient) the SIS site.

5.30.4.9

5.30.5.14

Describe safeguards to keep accident contaminated water out of the environment, so that it could not percolate into the groundwater system.

5.30.1.2

Please provide a map with all waste burial areas and potential down-gradient plumes of contamination in relation to the SIS percolation ponds, and explain how adding water to the system will not increase conductance of already contaminated, slowly percolating water. How would wet year events influence percolation from the ponds? How will wildlife be kept from utilizing the ponds (ducks, etc.)? How will seasons with freezing weather influence percolation rates; will the ponds be allowed to freeze over? What is their anticipated depth on a seasonal basis?

5.30.1.1

5.6.10

5.21.1

Describe aerial and hydraulic venting or loss in the event of a serious accident, such as an act of terrorism. During a post accident period, explain how the contaminated area would be isolated, its watershed contained and removed, wildlife (as well as man) prevented from entering, and surface dust prevented from leaving the ground (through applications of coagulants, etc.).

5.1.16

5.7.16

Were a major contaminating event to occur, it could reach roads open to the public. Describe rescue methodology and standby readiness for off-facility care of public victims in the case of an event.

5.7.18

The Hanford Reach of the Columbia River is inadequately described. Since the Hanford site is not the preferred alternative, I will merely attach the USFWS analysis of the site (which is not referenced in the DEIS). The significance of the Hanford Reach of the Columbia River as the last mainstem spawning habitat for chinook salmon, as well as being a final Columbia River refuge for several now habitat limited molluscs (Lithoglyphus columbianus, the Columbia River Spire Snail, and Fisherola nuttalli,the Giant Columbia River Limpet), and the remarkable wildlife values it sustains on the islands in the reach cannot go undocumented in the FEIS. Please include the attachments regarding the Hanford Reach in the EIS record.

5.6.11

One of the legal failures of the DEIS lies in its failure to present a full range of alternatives. For example, ratification of the recent INF treaty will provide an alternate source of a significant quantity of weapons grade plutonium. Please construct several alternatives presenting temporal sequences of weapons grade plutonium as alternate sources of redundancy material. One alternative should cite and quantify plutonium made available from the dismantlement of INF warheads. Another should examine the zero option and other discussions currently underway, since weapons manufacture should logically track in spirit and fact disarmament endeavours which are in the national interest and are being seriously pursued. For example, with the availability of the decommissioned INF warhead plutonium, explain how long the SIS could be kept from producing the redundancy backup material. Could the production date of the facility be set back for a year, more, and so forth. If the zero option methodology were accepted, explore other operation setback options (if warheads were reduced by 50%, etc.).

2.13.17

4.4.6

Please explain at what point a redundancy system would no longer be required in a disarmament sequence. Presumably at some quantifiable point, adequate plutonium would be available to produce new weapons as old ones were dismantled, and ultimately with the termination of the production of plutonium utilizing weapons entirely, the planetary (and national security) problem becomes how to store and handle the enormous quantity of plutonium now contained in warheads. In this context, please present ultimate storage plans for all plutonium produced because it

5.2.15

will surely last long enough to see the elimination of its need. A facility producing a radioactive material with extended longevity must be accountable for its product's containment for the entire lifetime of its potential damage to the environment - regardless of whether it spends ten or even fifty years unexploded in a warhead. Please describe the ultimate storage site for sufficient halflives to no longer be potentially harmful to man or other components of the environment. 5.30.3.2

Thank you again for your consideration. Please include these comments and the attached documents in the EIS record. I look forward to receiving the Final EIS in which all of these concerns are specifically addressed.

Respectfully submitted,

Peter A. Bowler, Ph.D.

Residences:

560 St. Anns Drive
Laguna Beach, CA
92651

Star Route
Bliss, Idaho
83314

Academic affiliation:

Dept. of Ecology and
Evolutionary Biology
University of California
Irvine, California 92717

478

W409

547 Dee Drive
Jerome, Idaho 83338
April 7, 1988

Dr. Clay Nichols
SIS Project Manager
U.S. Dept of Energy

Dear Sir:

We have listened to and read carefully the information that has been presented concerning the SIS. Our conclusion is that we do NOT want our government to build such a plant. 1.1

Reasons:

Plutonium is the most dangerous substance known to man. 5.24.27

We have more than we need already.

To stockpile and to transport it creates potential hazards which could cause irreparable damage. 4.15.5

The world needs to spend more money (as a deterrant to war) on learning how to resolve conflict through negotiation, not guns. 3.4

Even if such a plant were 100% safe, I would not want it built in Idaho, because we do not want our economy to depend on munitions production. 5.1.42 4.13

We would rather have the skills and creative minds in Idaho put to use building useful products for mankind.

If the politicians just must want to pump gov't. money into Idaho, let them give us the billion dollars, and I'll bet we could develop some some useful long-lasting industries. 5.27.7.17

Sincerely,

Mr. and Mrs. Vernon Kendall

409

W410

RECEIVED
APR 19 1988
SIS Project Office

15 April 88

1.1 Sir,

I do not want the SIS project to be built at the INEL site (or anywhere in Idaho.) I don't think it will be a safe project and storage of Nuclear Wastes certainly is not safe. Lastly I strongly
4.15.5 oppose the production of weapons grade plutonium, here or anywhere.

Sincerely
Greg Fasano
Box 1602
JACKSON Wyo. 83001

410

W411

April 10- 88

To whom it may concern 1.1

I am violently opposed to the SIS project. We don't need any more nuclear bombs We can destroy the world 10X over 4.13
with what we have in storage right now. I surely will remember the politicians who are disregarding the will of the people and keep on destroying the world.

411

Mrs. Gertrud M Cooper

W412

RECEIVED
APR 19 1988
SIS Project Office

April 18, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

RE: SIS

Dear Mr. Nichols:

1.1
4.15.5

Please be advised that we are registered voters of District 32 in Idaho and are totally opposed to the construction of the SIS facility in southeast Idaho. Since the plutonium production capacity is unnecessary, we are opposed to the location of such a potentially dangerous plant anywhere.

Please do whatever is possible to prevent construction of this facility.

Sincerely,

Mary Lou and Paul B. Hansen
RRI Box 1838
Tetonia, Idaho 83452
208-456-2570

480

412

W413

April 15, 1988
Box 541, Hailey, ID. 83333

Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

RECEIVED
APR 19 1988
SIS Project Office

Re: SIS Project

To the DOE Hearing Officer,

I have listened to and read carefully the pros and cons to building the SIS Project in Idaho at the INEL sight.

I strongly urge that this project not be built anywhere. I cannot accept that it is perfectly safe. Or that more weapon grade plutonium is really necessary.

1.1

My husband and I planned never to bring children into this world for reasons such as possible nuclear wars and nuclear accidents. But as accidents do happen, I got pregnant last December. Now I have a baby in my womb and I am very joyful for that. I am proud to raise this child in Idaho, where much wilderness and fresh air still remains. My husband and I don't make a big wage. As my husband is a carpenter, his work can be seasonal. I understand the fear of many Idahoans that work is often scarce. But quite frankly, I do not want to raise my family in such close proximity to the planned SIS plant.

4.13
6.5.5

I hope my future son or daughter will be able to continue living in Idaho for his/her life and will be able to find suitable employment. I realize the SIS would bring several jobs to Idaho, but even if it were operating for more than 8 or 9 years, I would rather my child had the lowest paid, lowest prestige job in town than was a high paid engineer at a weapon grade plutonium producing plant.

Sincerely,

Judith Stoltzfus

413

W414

150 Valleyview Drive
Pocatello, ID 83204
April 17, 1984

RECEIVED
APR 19 1988
SIS Project Office

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

I have reviewed the Draft Environmental Impact Statement (DOE/EIS-0136 February 1988) on the proposed construction and
1.1 operation of a Special Isotope Separation Project using the AVLIS process technology and on the selection of a site for the project.

Of the alternatives considered in the Draft EIS, I favor #4: no action -- not constructing and operating the SIS Project. Since the purpose of the SIS Project is to process fuel-grade
4.13 plutonium into weapon-grade plutonium for national defense purpose and since both the use and threatened use of nuclear weapons is morally unjustifiable, the SIS Project should not be constructed.

Sincerely,

Alberta M. Phillips

ALBERTA M. PHILLIPS

414

481

W415

RECEIVED
APR 19 1988
SIS Project Office

15 April 1988
619 No. Arthur
Pocatello, ID 83204

Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

This is my written comment on the SIS project, which I understand is admissible through April 21, 1988.

I fail to see how the SIS is to be regarded as economically advantageous to an area which is especially depressed when what has caused depression throughout the country is the very sort of 5.27.6.11
spending this project would be contributing to. I am speaking of our exorbitant national debt, the majority of which has gone toward the production of defense, and has resulted in trade deficit and devaluation of the dollar.

This is not to mention the absurdity of manufacturing more weapons when there are already enough to kill everyone on earth. Or the moral implications which that implies. Who is to say that 4.14
the next administration won't have more sense than to endorse Reagan's present war-mongering machine, and then the SIS would be viewed as unnecessary. I have just recently been enlightened to the fact that we (the US government, that is) truly are standing in the way of world peace because we really don't want it. Not considering that defense is our biggest industry. Now if that doesn't make the SIS immoral, I don't know what it does.

Can't we find more peaceful applications for our tremendous knowledge, other ways to employ the facility at INEL, which would 3.3.1
be for the benefit rather than the detriment of mankind? I personally believe the world would be far better off spending the same amount (or even a fraction of it) on well-directed educational and social programs. I think it's sad if we as 6.3
Idahoans must resort to this means of helping our economy, and have one more reason for thinking of leaving a state where I've spent nearly my entire life.

I'm sure you've had plenty of arguments using statistics on these issues. I'm not into statistics so much at the moment, but several years ago was active in the group Nuclear Counterbalance, 5.1.45
which opposed the locating of a Slagging Pyrolysis Incinerator at the INEL. At that time I devoted two months of my life to the study of nuclear energy, safety and waste disposal factors. In the midst of our involvement the TMI accident occurred. But that is nothing compared to the spectre of the bombing of Hiroshima, which is all that can possibly accompany the proposal to produce plutonium with the SIS.

Sincerely,

Anne Merkley

415

W416

RECEIVED
APR 19 1988
SIS Project Office

March 25, 1988

TO WHOM IT MAY CONCERN:

RE: SIS Project - INEL

My name is Pamela Ivory. I am an Idaho resident, and am employed by a department store in Boise as a Department Manager and Buyer.

5.27.7.16 I believe that anything we can do to attract new business and projects like the SIS for Idaho will be a benefit to everyone within the State. The millions of tax dollars generated will surely help solve some of our lack of funding for our education system.

We elect people to public office who should be capable of making decisions as to whether or not we need this type of project. Our system also employs many very-well paid and well-trained people who have the responsibility to design and build a facility like the SIS. In my opinion, we should
3.2.2 trust these people to do their best, and to support their decisions.

The SIS project benefits outweigh any possible harm it could do. I have the confidence that our scientists and engineers will probably discover new uses for the laser they want to
1.1 build. I strongly support Idaho for the SIS.

Pamela Ivory

PAMELA IVORY
315 Clear Creek Drive
Meridian, Idaho 83642

482

416

W417

RECEIVED
APR 19 1988
SIS Project Office

April 1, 1988

Dr. Clayton Nichols
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I wish to lend my full-hearted support to the proposed SIS Project. I believe that an overwhelming majority of citizens in our state support the SIS Project both politically and in its environmental and economic impact on Southeastern Idaho. 1.1

There may be those who express some concern over the necessity of the SIS in regard to the defense of the United States, but I do not feel it is a proper issue. It has already been resolved by Congress. The key issue, I do believe, is the environmental and economic impact on Southeastern Idaho, and in this regard I see only positive results. 4.15.4 5.27.6.1

I only wish every industry in the State of Idaho could have the safety record the INEL has had. I am far more concerned with the Railroad that traverses through Pocatello and possible accidents there than I am at living right next door to the SIS project. 3.2.7

Families in Southeastern Idaho have been hard hit economically, and the SIS project and its economic impact on Southeastern Idaho would only go to strengthen our communities and make them a better place to live. Southeastern Idaho also has a lot to offer to the SIS Project such as the great site at the INEL Plant, the local university and colleges, and a very supportive populace living in this area. 5.27.12.5

Sincerely,

Lorie Murray

Lorie Murray

LM:tl

5291Q

417

RECEIVED 4/14/88

APR 19 1988

SIS Project Office

1.1 I support the SIS project for Idaho. With the development of this project, it would contribute to the growth and stability of Idaho. SIS would mean jobs and would benefit all the area.

5.27.12.4

Norman Read
268 W. 19TH ST.
Idaho Falls, Idaho
83402

418

483

GREATER BLACKFOOT AREA CHAMBER OF COMMERCE
Lengthening Our Stride in Business and Agriculture

BLACKFOOT, IDAHO

P.O. BOX 801 • PHONE 208/785-0510 • ZIP CODE 83221

APR 19 1988

April 15, 1988

Dr. Clay Nichols,
SIS Project Manager
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Re: Written Testimony In Support of SIS Project

Dear Dr. Nichols:

As President of the Blackfoot Chamber of Commerce, I am submitting this written testimony to be made part of the record of the SIS Project decision making process.

The Blackfoot Chamber of Commerce strongly supports the location of the SIS Project at the INEL Site. The Chamber bases its support upon the following facts. 1.1

The Blackfoot Chamber of Commerce recognizes that there is a great need for the SIS Project. The SIS, after it is constructed, will provide the United States with the only new source of plutonium in the country. The production of weapons grade plutonium is essential to our nation's defense system. Without this project the United States is extremely vulnerable in negotiations for arms control. Our national security and scientific expansion shall benefit tremendously from the SIS Project. 4.15.4

The Board of the Blackfoot Chamber of Commerce has reviewed the Draft Environmental Impact Statement. We believe that the environmental health and safety impacts at the INEL, which are more particularly described in the Draft Environmental Impact Statement, are equal or less than those projected for the other two (2) alternative sites.

The safety precautions of the project are above and beyond the Department of Energy standards. In addition, the INEL has the best safety record among the Department of Energy facilities. The combination of these two items greatly reduces any risk to the populations health or to the environment. The Impact Statement 5.24.23

(continued)

POTATO CAPITOL OF THE WORLD

419

akes it clear that the radiation dose and risk of health effects
aring normal operations are less than 1/10,000,000,000 of one
ercent of the natural background radiation. Furthermore, in the
nlikely event of an accident in transporting plutonium, the risk is
nly 2/100,000 of one percent of natural background radiation.
hese percentages are well within the acceptable range. Finally, it
ppears that all waste will be in a solid state and would represent
very small increment in relation to the amount of waste currently
eing generated and managed at the INEL.

5.30.5.7

Idaho is in great need of a major new development such as the
IS Project. In the past several years Idaho has been suffering
rom an economic recession. Only now have we bottomed out from that
ecession. It would be a great boost to Idaho's economy to receive
he SIS Project. The SIS will create 400 construction jobs within
daho during the first two or three years, and thereafter will
reate 750 permanent jobs when it goes into full production. The
ncrease in the work force would be a benefit to the Blackfoot
rea. At the present time, because of the recession, we have
umerous of vacant residences in Bingham County. In addition, there
re a number of vacant businesses available for the increase in
upporting jobs created by the increase in jobs at the INEL.
inally, there is ample educational and transportation available to
upport the increased employment at the INEL. A large number of
urrent employees at the INEL have always resided within Blackfoot.
lackfoot is a "hub" for the INEL. It has always supported the INEL
nd will continue to support the INEL. The INEL is a major part of
ur economy.

5.27.7.15

5.27.11.1

Based on the foregoing, it is our desire for the record in this
atter to reflect The Greater Blackfoot Chamber of Commerce's full
upport for the location of the SIS Project at the INEL.

Very truly yours,

John Ranck, President

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Please enter the following into the public record on the hearings regarding the Special Isotope Separator project:

S.I.S.? We cannot afford it!

During the 1984 presidential campaign the Young Republicans at Boise State University displayed posters screaming "Spend, spend, spend, Tax, tax, tax" under a picture of Tip O'Neill, symbol of the spendthrift policies of the liberals.

Meanwhile the "fiscal conservatives" of the Republican administration were not reversing the policy, just altering it to "Spend, spend, spend, Borrow, borrow, borrow." Our deficits reached historic levels and in 1985 we became a debtor nation for the first time since World War I.

5.27.6.11

In attempting to achieve military hegemony we are expending our human and natural resources developing instruments of destruction, most of which can never be used because of their danger to our and the world's environment and health.

6.3

Japan and West Germany, by contrast, following World War II transferred their technology from martial goods to quality consumer products. Consequently, they are winning the international economic war. Japan, particularly, is spending much of its surplus profits buying American real estate and other assets. She reportedly already owns 50% of Los Angeles' commercial property.

More and more analysts are warning of the "Decline of America." They say we need to recapture our creative and innovative energies to successfully compete in the global marketplace.

If our fear of communism reaches the stage of paranoia, a debilitating disorder, there is danger our priorities will not change and our worst enemy could be us.

1.1 No S.I.S. anywhere!

Sincerely,

Helen Langworthy
2075 Mortimer Dr.
Boise, Idaho 83712

485

W421

RECEIVED
APR 19 1988
SIS Project Office

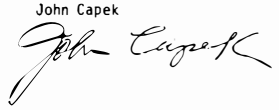
April 17, 1988
324-8th Street
Idaho Falls, Id. 83401

Dr. Clay Nichols
SIS Project Manager
DOE-ID

Dear Dr. Nichols:

The SIS project has many positive elements which, in my estimation, would greatly benefit the United States and the technology sector of the country through the "Technology Transfer" procedure. 5.27.9.1
The negative aspects of this project have been overplayed, and are very small compared to the major factor of increasing the national defence. 6.2
I am for the SIS project being built at the INEL.
Positive benefits for the United States will come from this project. 1.1

John Capek



cc:

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W422

For the Hearing Record

Mar. 21, 1988

RECEIVED

APR 20 1988

SIS Project Office

Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Sir:

1.1 As one who is opposed to the (Special Isotope Seperator) I would just like to say I am opposed to it for the same reason any sensible person should be. There are more than enough nuclear weapons in the world now. Enough,is enough,is enough! At a time when the rest of the

4.13 human race is begining to develop a little more sanity concerning nuclear weapons,we here in Idaho seem to be going in the opposite direction. As usual we appear to be completely out of touch with contemporary thought.We have such a tremendous amount of overkill capability now that the whole thing has become a nuclear nightmare.

4.2.1 The Secretary of Energy has himself stated that we have more than enough Plutonium for our present needs. That we are actually awash in it. So what is the justification for still more?

Likewise,with the possible exception of our own narrow interests I can see no economic justification either. At a time when our own

5.27.6.11 government is swimming in red ink,we cannot afford a massive boondoggle like this. We are all fond of giving lip service to government fiscal responsibility until it comes to something we ourselves want and then it's a whole different story. Well as far as I am concerned the buck should stop right here. If there was ever something that could be classified as a porkbarrel project this is it. There is more lard in this thing than a Christmas goose.

Then of course,there is the question of environmental problems

5.30.4.14 which are almost too numerous to mention. The problems at Hanford are an excellent example. It has been estimated that at present funding levels it willtake three hundred years to clean up the waste at this facility. A news release from the Dept.of Energy the other day said it would cost at least one hundred billion dollars to clean up th waste at it's other sites. Is that what we want here? It' certainly not what many of us want here. One I.N.E.L. spokesman was quoted as saying the amount of waste generated by the (Special Isotope Seperator),8000 cubic feet per year was just a drop in the bucket compared with whats already stored here. In closing I would just like to say that I think we live in one of the most beautiful little corners of the world here. I for one would like to see it stay that way. Thank You.

Sincerely,

Harry J. Guelzow

Harry J. Guelzow
P.O.Box 962
Idaho Falls,ID 83402

486

W423

BAGNARD,
ADAMS & COMPANY

Commercial Real Estate

130 4 Eastman Street
Boise, Idaho 83702
(208) 336-1500

April 19, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

Would you please make note that my wife and I are opposed to SIS.

1.1

Thank you very much.

Sincerely,

David L. Bagnard

DLB/mb

487

423

W424

John Broschofsky
Fine Art of the American West

April 19, 1988

Dear Mr. Nichols,

As an Idaho resident for seventeen years, mother of two children and business owner I am writing to object to the D.O.E.'s consideration of building the SIS project here (or anywhere!) 1.1

1.) I feel that weapons production is immoral business. I do not support the current militaristic madness. 4.13

2) The nuclear project is environmentally dangerous - too much possibility of "accidents" and too many un-knowns. 5.24.30

3.) The D.O.E needs to concentrate it's effort in cleaning up the nuclear waste messes already existing. 5.30.5.1

4.) The cost is a waste of taxpayer's dollars for a "redundancy" in the plutonium stockpile. 4.13

I feel the "no action" alternative is the only acceptable course for the D.O.E. to take. Why can't you use your budget to do something positive to improve mankind?? 6.3

Sincerely,

Mirette Broschofsky

424

Box 1362 • Ketchum, Idaho 83340 • 208-726-8908

W425

Carol J. Galpin
P.O. Box 285
Sun Valley, Idaho 83353

Dr. Clay Nichols
SIS Project Manager/U.S. D.O.E.
785 DOE Place
Idaho Falls, Idaho 83402

DATE: April 14, 1988

Dear Dr. Nichols:

1.1 I am absolutely against the SIS project in this country, much less in my back yard in Arco, Idaho. My conerns are many including pollution of our aquifer and the obvious health hazards in the event of an "accident". The
6.2 job opportunities in the long run will be a short term quick fix. To my way of thinking, a broader look at this situation should bring you to decide NO to SIS.

Sincerely,

Carol J. Galpin

CJG/cg

cc: Congressman Richard Stallings
2nd District Idaho
1221 Longworth Building
Washington D.C. 20515

Senator James McClure
Senator Steve Symms
U.S. Senate
Washington D.C. 20510

Governor Cecil Andrus
Statehouse
Boise, Idaho 83720

RECEIVED
APR 20 1988
SIS Project Office

425

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W426

The Bozeman Greens
Box 49, SUB
Bozeman, MT 59717

RECEIVED
APR 20 1988
SIS Project Office

Mr. Clay Nichols, SIS Project Mgr.
Idaho Operations Office, USDE
785 DOE Place
Idaho Falls, ID 83402

April 15, 1988

Dear Mr. Nichols:

The Bozeman Greens thank you for your attention to the following comments on the Draft Environmental Impact Statement for the Special Isotope Separation Project.

The Greens are a nationwide political movement founded on the principles of ecological wisdom, social responsibility, grassroots democracy, and non-violence. We support selection of the No Action alternative, as the SIS project violates all four of our basic principles. 1.1

I. Ecological Wisdom. We are concerned about the integrity of the ecosystems around the proposed SIS sites. The DEIS ignores many of the potentially severe environmental consequences of the SIS. The DOE has seriously contaminated the environment at its Hanford, Savannah River, Rocky Flats, Fernald, Los Alamos, Oak Ridge and Livermore nuclear weapons design and production facilities. We are convinced that leaks and accidents are a certainty; they are only a matter of time. 5.30.4.14

A. The Greater Yellowstone Ecosystem: Given the likelihood of an accident, the SIS presents an unacceptable risk to the unique and diverse wildlife and plants of the Greater Yellowstone Ecosystem. It is one of the few nearly intact major ecosystems remaining in the Earth's temperate regions. Maintenance of the health of the biotic communities of the GYE should take precedence over any real or imagined need for more plutonium. 5.6.3

B. The Snake River Aquifer: This is far too valuable a water source to risk its contamination from this questionable project. The Aquifer supplies water to all of southern Idaho, and its continued high quality is essential to the well-being of all residents of the area, both human and non-human. 5.12.1

C. Transportation and Storage: Plutonium feed would be transported from Hanford to the INEL in the form of Plutonium Oxide powder, a highly radioactive substance which would be extremely difficult to recover in the event of an accident. 5.29.93

The SIS would generate 440 tons of TRU waste annually, which would be shipped to the Waste Isolation Pilot Project in New Mexico. However, the Department of Transportation has not approved a transport method for TRU waste, nor has WIPP been proven a safe storage facility; in fact it is plagued with problems. The INEL has been a temporary storage facility for TRU wastes for years, resulting 5.29.45 5.30.2.1

426

5.30.4.9 in the contamination of sediment beds 230 feet below ground. Millions of curies have been released into the soil, air, and ground water. This is permanent and unacceptable damage to the environment. It must stop.

2.7.8 D. Nuclear War: The environmental consequences of Nuclear War would be severe and of global consequence. "Nuclear Winter", a climatic condition likely to follow such a war, may mean extinction for most species of life on Earth. In spite of DOE rhetoric to the contrary, the SIS would result in the production of more nuclear weapons, increasing the likelihood of total devastation of Earth in the event of nuclear war.

3.4 II. Social Responsibility: The SIS project has many aspects which we consider socially irresponsible. In the DEIS abstract, for example, part of the justification used is "to provide redundancy in production capacity". The Random House College Dictionary defines redundancy as an "overabundance or excessive profusion or proliferation". The Greens believe that the SIS will contribute to the overabundance, the excessive profusion, and the excessive proliferation of weapons grade plutonium and nuclear weapons in general, and is therefore not socially responsible. (We're not sure any amount is socially responsible, however.)

3.3.2 The draft EIS did not touch upon the psychological impacts on the local population of a shift in focus of the INEL from generally peacetime applications of nuclear technology to military applications. What would be the moral impact on both children and adults in the community, being economically dependent on instruments of war? The

2.7.10 DEIS should address this question, as well as the impact of increased fear and despair in the human community. Becoming a prime target in a nuclear exchange is not a positive for most people!

5.1.36 The nuclear industry has never taken a long-term view of its impacts. Though just a few serious accidents have occurred to date, accidents are inevitable. Nuclear accidents are not forgiving. Thinking in terms of thousands of years is difficult for all of us, but the nuclear industry, with the most power to negatively affect the future, has yet to come to terms with the realities of the time periods it is dealing with. Storage leaks, transportation accidents, and obsolete equipment problems of nuclear activities will haunt the world into geologic time. The proposed facility is expected to complete processing of legal SIS feed plutonium in six to eight years. That's not long in the context of geologic time. The DEIS must think ahead and address these impacts.

5.27.10 In regard to the local economy, the Greens believe that community-based economies are preferable to federally mandated economies. Yet people will work at the SIS. What will happen to these people when the legally available plutonium has been processed? The SIS will cause a boom and bust in the local economy. The DEIS does not consider any impact on the structure of the community as a result of this.

4.10.2 III. Grassroots Democracy: In a society whose strength is based on grassroots democracy, decisions must be made by the people who are affected by the decision. Freedom of information is fundamental in making sound decisions. The public has not been allowed access to the

4.10.5 Nuclear Weapons Stockpile Memorandum (NWSM) to judge if the SIS project is even needed at all. By this denial of access, our government has placed most of the decision-making power in the hands of an agency, the DOE, whose vested interest in the project will certainly bias it in favor of the SIS. This is an authoritarian approach which undermines the American democratic process.

2.8.7 Another concern of ours that reflects on DOE's lack of concern for grassroots democracy is the selection of public hearing sites. Although this project is national in scope, federally funded, and located on public lands, all three public hearings were held in Idaho. DOE has tried to reduce SIS to an Idaho issue. What of neighboring states? What of the rest of the nation? Public hearings should be held outside of Idaho in such a way as to reflect a regional and national viewpoint of the public's concern on the SIS project.

2.7.8 IV. Non-violence: The SIS project will produce a substance, plutonium 239, whose sole use is as an explosive in nuclear bombs. The DEIS should include a full analysis of the environmental effects of using these bombs, both in war and in testing. Why does it make no mention of these effects? This is a large and glaring oversight.

4.8.1 The SIS facility is not needed for peacetime stockpiling of plutonium. DOE's recent decision to put the N reactor in cold standby makes this abundantly clear. The real objective for DOE is to have a facility that can rapidly produce great quantities of weapon-grade plutonium in war time. "... the SIS Project would provide flexibility in rapid increases in plutonium production capacity in that the throughput of the facility could be expanded much more rapidly than could reactor-based production." (DEIS, p. S-1)

2.7.8 Given our current level of plutonium production and our current supply (approximately 120 tons of weapons-grade), under what conceivable circumstances would the US government possibly feel a need for "rapid increases in plutonium production"? Only if most of our existing stockpiles and missiles were destroyed; only in a NUCLEAR WAR! Therefore, the DEIS must consider the environmental effects of such a war.

These are our primary objections to the SIS project. In light of them, we feel that the No Action Alternative must be selected.

Sincerely,

Juliet A. Tabler

Juliet A. Tabler
The Bozeman Greens

W427

2..55 Hillcrest Drive
Twin Falls, Idaho
April 18, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho

Dear Dr. Nichols:

I would like to express my appreciation for the SIS hearings held in Twin Falls last month. At that time, I submitted a brief written statement of opposition to establishing the SIS at the Idaho National Engineering Laboratory. This letter is written to declare some of the reasons I oppose the proposed DOE Special Isotope Separation Project. After listening to several hours of testimony at the Twin Falls SIS hearing, my opposition position is only firmer.

1.1

As a registered nurse, I am very concerned about the health and environmental risks posed by this project. The parts of the Department of Energy's Draft Environmental Impact Statement which I've read raise more questions than answers. The DEIS opening "Disclaimer" causes me to have even more reservations about placing the SIS in Idaho. Apart from the possibility of an accident at the facility itself, having the SIS at the INEL increases the probability of exacerbating the existing problems of hazardous/radioactive waste storage at INEL and of transportation of these dangerous materials in our state. Medical scientists are just beginning to realize the possible long term detrimental effects of exposure to various increments of radiation.

2.3

5.30.4.1

5.23.8

In the past, I have toured INEL with health profession colleagues, heard speakers from INEL, and used printed information distributed there. I value INEL for its research services, its education potential, and its contribution to Idaho's economy. I believe that placing the SIS there would detract from, rather than enhance, INEL's assets. INEL has the opportunity of being the location for a neutron beam Power Burst Facility to be used to treat Glioblastoma Multiforme brain cancer. Will medical personnel want to share this site with a plutonium refinery? I do not think these two facilities would be compatible.

3.3.1

6.3

As a taxpayer, I think about the huge federal deficit and wonder why the government would choose to spend money on a dubious and controversial project like SIS. There are significant arguments against the need for additional plutonium-239, as well as many questions re: the SIS project's capability of producing revenue, given the uncertainties about number, type and duration of proposed jobs associated with this endeavor.

4.15.2

5.27.6.1

When I compare the unknown, possible, future economic benefits of SIS with the potential threat to Idaho's proven industries such as agriculture and tourism, my decision is that SIS definitely is not worth the risk. Idahoans must do everything we can to protect the Snake River Aquifer and the pristine nature of our state. Even a perceived contamination risk could injure Idaho's economic base.

6.2

5.12.1

If the DOE has money to spend in Idaho, I suggest that it should contribute to efforts to clean up present radioactive waste storage problem ares. The DOE could also support research and development programs at INEL related to peaceful uses of nuclear energy, such as in medicine or for electrical power. I believe that progress in domestic utilization of nuclear energy has been seriously impeded by the public's association of nuclear energy with nuclear weapons, a few dramatic accidents, and radioactive waste mismanagement. I hope that our nation can use this period of earnest negotiations on nuclear arms reduction to redirect resources toward correcting unresolved difficulties of radioactive waste management, and toward improving the safeguards at nuclear reactors. Then we will be prepared to proceed with prudence, effectiveness and confidence whenever the nation needs to increase the production of nuclear energy. Meanwhile, the United States would be demonstrating good faith in international politics by refraining from adding to an already extravagant nuclear arsenal.

5.30.5.1

6.3

Beyond the health, safety and economic concerns I have, another question haunts me. Can, or more importantly should, a project like SIS be justified on the grounds that it is necessary for national security, i.e. for maintaining the deterrence strategy? For guidance on such complex questions posed in today's world, my religious beliefs direct me to traditional Christian literature and to more recent documents prepared by Christian groups, affiliated with various denominations, that have studied peace and justice issues. I have found in these references two major points that help me put decisions relevant to war and peace in perspective.

4.14

4.13

First, its almost impossible to imagine how the use of nuclear weapons, especially given the prevailing strategy of 'Mutual Assured Destruction', could ever meet two of the traditional Christian criteria for waging a "Just War". How does one reconcile the two 'jus in bello' principles of 1)'discrimination' (force should not be directed against- and in fact should avoid- non-military targets) and 2)'proportionality' (the harm done by the force used must not outweigh the value of the end objective) with the latent destructive realities of this nuclear era? We cannot rely on nuclear weapons for a defense policy without admitting to ourselves and to others that we would use them. My Christian upbringing warns me that the worship of a technological idol is not the way to insure peace.

Second, "nuclear deterrence", like many other man-made plans, started out a practical idea, then reached a point of diminishing returns, and now has outlived its usefulness to become a liability. The Episcopal Joint Commission On Peace reported: "A strategy of nuclear deterrence is at best a necessary evil for the short term... Christians who accept nuclear deterrence as morally defensible can do so legitimately only if at the same time they understand its primary purpose to be buying of a little more time to work for other, more peaceful, less apocalptic alternatives." Similar statements can be found in the writings from other religious organizations. Adding to a surplus stockpile of weapon-grade plutonium is not only redundant (to which the DOE attests in the DEIS section on "Need For And Purpose Of SIS Project"), it is antagonistic to the sincere pursuit of more hopeful options for peaceful coexistence among nations.

3.4

4.14

427A

490

My eleven year old son's worries about nuclear weapons have influenced my interest and involvement in this issue. He says that if a kid's opinion counts, he votes NO to the SIS. My mother-in-law, Wilma Eaton of Twin Falls, and my sister-in-law, Georgina Wolverton of Murtaugh, Idaho, asked me to relay to you their opposition to the proposed SIS project also.

Respectfully,

Mardo Eaton

Mardo Eaton, R.N.

CC:
Governor Cecil Andrus
Senator James McClure
Senator Steve Symms
Congressman Richard Stallings

491

W428

4003 No 15th
Coeur d'Alene
Idaho 83814
4/17/88.

Dr Clay Nichols
Dept of Energy
785 DOE Place
Idaho Falls, Id.
83402

RECEIVED
A.
[illegible] Office

Dear Dr. Nichols: 428

We do not want the Special Isotope Separator built at the Idaho National Engineering Laboratory so we can produce more weapons grade plutonium and tritium for nuclear bombs. 1.1

We should be concentrating on disarmament treaties such as we hope to conclude with Russia in the near future. 4.14

The INEL sits right over an

5.30.3.1 aquifer which may already be contaminated by plutonium from the INEL. We don't need any more nuclear waste to dispose of.

6.3 We have many domestic needs eg housing for low income & homeless, disposal of toxic waste including nuclear, clean water for drinking, clean air, drug dependency etc.

We should be building new bridges, modernizing our factories and spending most money in research in medicine!

4.9.4 Senator Hatfield says we have a reserve of plutonium and don't need any more.

3.2.8 Give people jobs cleaning up the toxic waste at the Hanford reservation.

No SIS PLEASE

Sincerely yours,
Mrs Colin Patchin

428A

492

W429

Dr. Clay Nichols
785 DOE Place
Department of Energy
Idaho Falls, Idaho 83402

April 19,1988

Dr. Nichols,

I would like to go on record as being strongly opposed to the proposed SIS project. I believe it is not only a very bad project for the people and environment of Idaho, but that it is something we don't need or want for the nation. 1.1

We have enough plutonium stockpiled already and with arms reductions plutonium will be recycled from the warheads further reducing the justification for this project. 4.3

I don't think that Idaho should accept the risk of more plutonium being transported across the state. I think it is foolish to consider increased storage of nuclear and toxic waste above the Snake River Aquifer, even if that is only a temporary solution. This aquifer supplies drinking water to over 40 communities and critical irrigation water to many of our states farmers. Plutonium causes cancer, genetic damage and birth defects. It has a half life of 24,000 years. 5.12.1

I am concerned with the leakage at the New Mexico site where SIS waste would be sent. Where is DOE going to put the waste if New Mexico's site can't be used safely? I am also concerned with DOE's poor environmental and public health/safety record at other weapons production facilities. We are already beginning to realize that we have a huge future problem nationwide with regard to nuclear wastes. Let's not add to this with waste from a questionably needed facility. 5.24.27 5.30.2.1 5.30.4.14

Of the 750 people working on SIS, you've stated that 1/2 to 2/3 of those already work at INEL, leaving 250-300 new positions. This does not justify the risk in my opinion, particularly when such work exposes our citizens to higher risks from radiation. With federal deficits and arms reduction we should be cautious with our dependence on federal contracts. Already 46% of the INEL budget is with defense projects. After the 7 to 8 years that the project runs we will find ourselves on the busted end of the boom. 6.2 6.4.4 5.27.10

In conclusion I find this to be a very poor use of taxpayer money, which poses unacceptable risks to the health and safety of the people and lands of Idaho (and New Mexico). 6.3

Sincerely,
Rich Bloom

Richard Bloom
Rt. I, Box 3303
Driggs, Idaho 83422

W430

Dr. Clay Nichols
785 DOE Place
Department of Energy
Idaho Falls, Idaho 83402

April 19,1988

. Dr. Nichols,

1.1 I would like to go on record as being strongly opposed to the proposed SIS project. I believe it is not only a very bad project for the people and environment of Idaho, but that it is something we don't need or want for the nation.

4.3 We have enough plutonium stockpiled already and with arms reductions plutonium will be recycled from the warheads further reducing the justification for this project.

5.12.1 I don't think that Idaho should accept the risk of more plutonium being transported across the state. I think it is foolish to consider increased storage of nuclear and toxic waste above the Snake River Aquifer, even if that is only a temporary solution. This aquifer supplies drinking water to over 40 communities and critical irrigation water to

5.24.27 many of our states farmers. Plutonium causes cancer, genetic damage and birth defects. It has a half life of 24,000 years.

5.30.2.1 I am concerned with the leakage at the New Mexico site where SIS waste would be sent. Where is DOE going to put the waste if New Mexico's site can't be used safely? I am also concerned with DOE's poor environmental and public health/safety record at other weapons

5.30.4.14 production facilities. We are already beginning to realize that we have a huge future problem nationwide with regard to nuclear wastes. Let's not add to this with waste from a questionably needed facility.

6.2 Of the 750 people working on SIS, you've stated that 1/2 to 2/3 of those already work at INEL, leaving 250-300 new positions. This does not

6.4.4 justify the risk in my opinion, particularly when such work exposes our citizens to higher risks from radiation. With federal deficits and arms reduction we should be cautious with our dependence on federal contracts. Already 46% of the INEL budget is with defense projects. After the 7 to 8

5.27.10 years that the project runs we will find ourselves on the busted end of the boom.

6.3 In conclusion I find this to be a very poor use of taxpayer money, which poses unacceptable risks to the health and safety of the people and lands of Idaho (and New Mexico).

Sincerely,

Nancy Fitz Bloom

Nancy Fitz Bloom
Rt. 1, Box 3303
Driggs, Idaho 83422

493

W431

Rte. 2
Buhl, Id. 83316

Dr. Clay Nichols
U.S. Department of Energy
785 DOE Place,
Idaho Falls, Id. 83402

Dear Sir:

I am opposed to the siting of the SIS plant in Idaho for the following reasons:

1. It is the wrong time. After 4 decades of acute enmity with the USSR we are coming to a time of making treaties to limit the use of nuclear weapons. Both sides, and the world, have come to doubt the security of excessive nuclear bombs. 3.5.2

2. We already have more than enough plutonium;reports are that we are"awash in plutonium", following the rapid build-up in these late years. If 400 bombs are enough to cripple Russia, then why do we need to keep on increasing the over-kill factor? How many times dead is really dead? 4.2.1

3. The DOE has a dismal record for pollution. The Savannah River plant is notoriously polluting. Hanford Reservation has had repeated and continuing leaks and widely acknowledge pollution. I am opposed to building the SIS plant 5.30.4.14
over the Snake River aquifer, as this groundwater is vital to all southern Idaho. Pollutants from previous activity have already migrated south of the Arco boundary, and who will guarantee how much, or how long it will take to reach our homes 5.12.1
farms and cities.

If the DOE regulations are so excellent, then why not keep these plutomium refining plants adjacent to the present sites? What is all this hauling of 5.29.31
dangerous materials across our entire country, and across our State?

4. The justification cited for the plant in Eastern Idaho is that it will bring jobs that are badly needed heee. This is the teaser, but largely a figment of the imagination. Leaders seek to touth their efforts on behalf of their 5.27.7.4
constituents. Perhaps some few grunt jobs will fall to Idahoans, but all of the engineers, the equipment and technology will be imported into the state, In the long run, there will be few jobs for the people of Idaho.

Again, I am opposed to the building of the SIS Plant, and especially in our State of Idaho. 1.1

Yours,

Andrew H. Holderreed

cc. Congressman Richard H. Stallings

RECEIVED
APR 20 1988
SIS Project Office

431

W432

April 18, 1988

Tony Lutz
PO Box 2252
Ketchum, ID 83340

Clay Nichols
Dept of Energy
785 DOE Place
Idaho Falls, ID 83402

To Whom It May Concern,

1.1 I would like to submit my comments on the proposed Special Isotope Seperator facility to be constructed at the INEL. I oppose the construction of this facility.

4.15.5 My opposition is based on my belief that there is not a strategic need by this country for more plutonium and plutonium production. It is well known that the United States already has substantial reserves of plutonium. In addition to this supply of plutonium, the plutonium from obsolete warheads can certainly be recycled. This is not to mention the supply of plutonium that will be made available under the strategic missle aggrement and future missle aggrements reductions that the United States and the USSR will be negotiating

2.1.1 Also in my consideration there is ample evidence that the risks to the enviornment have not been adequately addressed. The technology to be used at this plant is obviously not as safe and tested as the technology of a nuclear power plant. The containment of the plutonium leaves open the possibility of

5.24.7 extremely dangerous releases of plutonium should there be an accident. And then there is the problem of the wastes produced by the plant, where they will be

5.30.3.8 stored, and the risks inherent in the long term storage of the wastes.

Then there the risks posed by the greatly increased transport of plutonium

5.29.33 throughout the United States should this plant be put into operation.

And finally the risks of possible earhtquakes has not been properly

5.10.1 addressed.

Anthony D. Lutz

Anthony D. Lutz

W433

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

April 18, 1988

Dear Dr. Nichols,

We would like to share our Concern as a family about the SIS project in Idaho. After attending one of the Boise hearings and doing a cursory review of the volumenious EIS document, we believe that there are some serious problems that have not been addressed well or clearly in the Draft Environmental Impact Statement (please note enclosures). One has to wonder why Idaho would even to act on this Project unless complete assurances are given for the safety and well-being of present and future Idaho citizens and their environment. We hope that Idaho's leaders will not lose their personal integrity in the push for "economic development" on this SIS issue.

1.1

5.24.25

433

Sincerely,
The Kinney Family
3409 Hillcrest Dr.
Boise, Idaho 83705

Molly 5th grade
I'm in fifth grade and very concerned.

Toby 7th grade

Rebecca 16 yr. old

Mary

4337

Table S-1. Consequences of the Proposed Action (PA), Alternatives, and Continuation of Present Practice

Category	Proposed Action (PA) and Preferred Alternative--construct and operate SIS Project at the INEL	Construct and operate SIS Project at the Hanford Site	Construct and operate SIS Project at the SRP	No Action--continuation of present practice
		PROGRAMMATIC IMPACTS		
Need	Would provide DOE with needed redundancy in production capacity, technological diversity, and flexibility in the DOE nuclear materials production complex.	Same as PA.	Same as PA.	Would continue to provide plutonium but would not provide needed redundancy, technological diversity, and flexibility.
		CONSTRUCTION IMPACTS		
Land area required	26.9 acres within the ICPP area and about 22 acres outside existing ICPP area, of which 11.2 acres would be temporarily disturbed for a substation distribution line, and additional acreage for borrow areas.	18 acres within the 200-East Area and 104 acres outside 200-East Area, of which 25 acres would be temporarily disturbed for a transmission line, and additional acreage for borrow areas.	20 acres outside existing F-Area and additional acreage for borrow areas and other support facilities.	Not applicable--facilities currently in place and operating.
Socioeconomic impacts	No large in-migrating construction workforce or major adverse impacts expected; beneficial impacts would include a decreased unemployment rate, indirect job	Same as PA. No large in-migrating construction workforce or major adverse impacts expected; beneficial economic impacts expected to be similar to those for PA.	Same as PA. No large in-migrating construction workforce or major adverse impacts expected; beneficial economic impacts expected to be similar to those for PA.	Not applicable--facilities currently in place and operating.

S-14

5.29.69 Since the SIS Project is an innovative rather than standardized system, much more adequate
5.24.18 death and long range projections on all areas need to be given. We do not see assurances
[redacted] on transport of material & accidents (training needed for transport drivers and training
5.10.18 for emergency crews in outlying rural communities along transportation line. No long range ecological assurances. Has the fact that there are occasional earthquake tremors in the INEL area been considered?

Table S-1. Consequences of the Proposed Action (PA), Alternatives, and Continuation of Present Practice (continued)

CONSTRUCTION IMPACTS (continued)

Category	Proposed Action (PA) and Preferred Alternative--construct and operate SIS Project at the INEL	Construct and operate SIS Project at the Hanford Site	Construct and operate SIS Project at the SRP	No Action--continuation of present practice
Socioeconomic impacts (continued)	opportunities, and contributions to tax base.			
Ecological habitat	Habitats and wildlife associated with sagebrush vegetation community would be lost or displaced; successional recovery of all but 2.8 acres outside ICPP area and minor areas for transmission line; no critical habitats, wetland habitats, or habitats for rare or endangered species would be affected.	Same as PA, except a smaller amount of acreage (i.e., about 9 acres) might be affected during construction.	Habitats and wildlife associated with 20 acres of pine and admixtures of hardwoods would be lost; no wetlands impacted.	Not applicable--facilities currently in place and operating.
Effluents and emissions	Typical of those associated with a large construction project; effluents and emissions would be well below applicable environmental standards and mitigative measures would be	Same as PA.	Same as PA.	Not applicable--facilities currently in place and operating.

BALD MOUNTAIN VETERINARY CLINIC

Mr. Clay Nichols
SIS Project Manager
785 DOE Place Idaho Falls, Id. 83402

4-19-88

To Whom It May Concern:

I firmly support the No Action alternative proposed in the Draft Environmental Impact Statement concerning the Special Isotope Separation Project. 1.1

I am opposed to building S.I.S. at I.N.E.L. for the following reasons:

1. You cannot guarantee the purity of the Snake River Aquifer. I say this as a person trained in geology, physics, biochemistry and medicine. To pretend that you can guarantee purity is dishonest to the people of Idaho. 5.12.1
2. The discharge of large amounts of freon into the atmosphere will further damage the ozone layer. 5.9.3
3. The cost of the facility and the cost of cleaning up the waste generated by it is extremely high. I do not want my tax dollars spent this way.

I have lived in Idaho for six years and plan to continue my veterinary practice here. I will do everything in my power to prevent S.I.S. from being built in Idaho. 6.3

Sincerely,

Claire S. Lodahl, D.V.M.

RECEIVED
APR 2 - 1988
SIS Project Office

CLAIRE S. LODAHL D.V.M. (208) 788-4111
4110 Glenbrook Drive, Box 2478, Hailey, ID 83333

434

W435

Vera Noyes
2624 North 36
Boise, Idaho 83703

RECEIVED
435 APR 20 198
SIS Project Office

April 17, 1988

Dear Mr. Nichols,

Please include my name 1.1
amongst those opposing the
location of the S.I.S. at I.N.E.L. 6.2
It is obvious the dis-
advantages far outweigh
any reason to build it
here. Even the remotest 5.12.1
possibility of damage to the
Snake River Aquifer should
also for generations and
generations.

Please let common sense
win this one for Idaho.

Sincerely -

497

W436

3-26-88

SUBMITTED BY:
DAVID J.GUTIERREZ
824 E STATE ST # 3
BOISE,IDAHO 83712

WHY S.I.S.?

ANY HINT OR RUMOR OF A LEAK OR CONTAMINATION OF ANY KIND WOULD RUIN IDAHO$' AGRICULTURAL INDUSTRY-NO ONE WANTS TO EAT NUCLEAR VEGETABLES. 5.27.2

THE PRESENT AND FUTURE OF IDAHO IS OUR NATURAL RESOURCES - NO ONE CAN GARAUNTEE US THAT A TRUCK TRANSPORTING HAZARDOUS MATERIALS WILL NOT GET IN A WRECK WITH ANOTHER CAR, WILL NOT BLOW A TIRE AND RUN INTO A RIVER,OR WILL NOT GET HIJACKED BY SOME EXTREMEST GROUP. 5.29.95

IT'S NO SECRET TO THE RUSSIANS WHERE WEAPONS PLUTONIUM IS MADE; SO I GUESS THEY CAN JUST AIM ONE OF THEIR MISSLES RIGHT AT US. I DON'T WANT MY LIFE OR YOURS ON THE LINE FOR WEAPONS WE DO NOT NEED OR FOR A NUCLEAR FACILITY NO ONE ELSE WANTS IN THEIR BACK YARD. 2.7.10

I.N.E.L. IS ALREADY A CANDIDATE FOR SUPERFUND CLEAN UP MONEY - THAT MEANS THERE IS ALREADY A HAZARDOUS WASTE MESS AT THE SITE - ADD A LOT OF PLUTONIUM, SHAKE WELL, AND WE SHOULD HAVE A VERY UGLY SITUATION. 5.30.4.12

NO ONE CAN ASSURE US THAT WE WILL NOT HAVE A RADIO-ACTIVE "INCIDENT" - NO ONE CAN GARAUNTEE THAT - THERE IS ALWAYS A CHANCE OF SOMETHING GOING WRONG,AS IT HAS IN THE PAST AT OTHER SITES. THE RISKS AREN'T WORTH IT. STATISTICS - FILE- REPORTS- THEY MEAN NOTHING RIGHT NOW- AT ~~ANY~~ ANY STAGE,.DURING TRANSPORT OR PROCESSING, ANYTHING CAN HAPPEN 5.24.25

I AM ALSO VERY ALARMED AND CONCERNED THAT NEITHER OUR LOCAL ELECTED OFFICIALS OR ANYONE ELSE CONNECTED WITH THE BUILDING OR PLANNING OF THE S.I.S.- HAS ON A PUBLIC BASIS - IN A WAY THAT EVERY CITIZEN WHO COULD BE AFFECTED BY AN ACCIDENT IS INFORMED- HAS BOTHERED TO TELL US WHAT WE SHOULD DO- WHERE WE SHOULD GO- SHOULD AN INCEDENT OCCUR- SHOULD SOMETHING HAPPEN I DON'T WANT IDAHO TO END UP AS AN UNFORTUNATE STATISTIC ON THE RECORD BOOKS. 5.7.8

RECEIVED
APR 20 1988
SIS Project Office

PLEASE! No S.I.S.

436

W437

4-18-88

Dear Mr. Nichols,

1.1 Although we were not at the SIS hearings, I would like it on record that my husband and I strongly oppose the Special Isotope Separator at the INEL.

Thank you,
Lois J. Hefferman
1310 N. 15th
Boise, Idaho 83702

437

W438

Andy & Deborah Hedden-Nicely
2808 Maywood Avenue
Boise, Idaho 83704

April 19, 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Sir,

As a growing family living here for the last six years we have come to appreciate the unique qualities Idaho offers it's citizens. We feel very strongly that the special isotope separator at the INEL in Idaho Falls is harmful to Idaho, and to our way of life. We would like to express in the strongest way possible our objections to this project. 6.1.9 1.1

Sincerely,

Andy and Deborah Hedden-Nicely

438

498

W439

Toni M. Roberts
2306 Pleasanton Avenue
Boise, Idaho 83702

April 19, 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

I was unable to attend the hearings in Boise regarding the SIS. I appreciate this opportunity to express my views.

1.1 I am against the Special Isotope Separator. I do not feel it
4.15.4 is necessary for the defense of America and do I think it is safe.

Thank you for allowing my "vote" to be recorded regarding SIS.

Sincerely,

Toni M. Roberts

499

RECEIVED
APR 20 1988
SIS Project Office

439

W440

2117 Euclid Ave.
Boise, Id. 83706
April 14, 1988

Dr. Clayton Nichols
SIS Project Manager
Idaho Operations Office
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

My concern is about the Special Isotope Separation Project. Please enter my letter in the hearing record. I attended the first hearing March 26 but was unable to speak due to the reschedule. 5.13.6

My college training is a B.S. Ed. and my courses inc uded biology, geology and chemistry. Presently I work as a nurse having graduated from Boise State University. It is the health risk which worries me if the SIS should be built. 5.27.7.17

While some jobs are promised with construction and later with operation of the new plant, even if these new jobs would employ Idahoans rather than bring in new workers, these people will be working on munitions rather than benefit for our people. This present project has a very definite limited life of seven years refining military spent radioactive fuel but it could continue to refine commercial fuel if authorized by Congress, which would require major policy changes. I also objection to the cost involved, presently $100 mi lion in this year's budget, when human needs today are more pressing. 5.22.6 6.3

The major health risk occurs in 1) attitude of our population to radioactive material; 2) present ability of contractors to handle and prevent contamination with radioactive material; 3) people in our country who presently bear detrimental effects from accidental exposure to radioactivity wittingly or unwittingly through unsafe practices; 4) inabi ity of present technique to contain waste products within reasonable economic scale for the 24,000+ years of plutonium's half-life decay. 3.2.1 5.30.3.1

While radioactive material in some fields is handled with great care, the present SIS project will be overseen by the Dept. of Energy and their past record with our neighbor, Hanford, has not been impressive. Despite the supposed careful use and disposal, Hanford, is being shut down because the buried waste barrels have been leaking into the area above the Columbia River and hence polluting the water table, eventually the river with waste radioactive products. A group of Washington ranchers are suing the government for loss of health (high incidence of thyroid cancer); these people lived downwind of Hanford and were breathing radioactive waste discharged into the air by Hanford, despite their own regulations contrary to 5.30.4.14

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APR 20 1988
SIS Project Office

440

3.2.9 this practice. The present plant in Savannah, Georgia that promised the community to be a safe neighbor has been revealed as a polluter of the local water table. Citizens have few resources to chan e practices of the
3.2.25 Department of Energy as much is ruled classified. Further DOE is policed internally, not responsive to an external audit. Even the need for the
4.10.2 proposed SIS project is not being justified by the DOE as it would involve revealing classified information.

5.29.95 Present plans for the SIS include transporting, first the spent fuel for reprocessing and the later the waste material to another state, New Mexico, for final dispose , inherent with additional hazard for people who will live
5.30.5.7 near and/or travel those same road or rails. Presently there are 4.4 million cubic feet of unwanted plutonium-contaminated waste at INEL; the proposed SIS would generate 7,770 cubic feet (440 tons) annually.

5.30.1.14 Governor Cecil Andrus in his first term requested information on present waste storage at Idaho National Engineering Laboratory (INEL), later requesting transfer of the waste storage out of state. This was not done. It seems more likely that Idaho will store the waste considering the problems involved presently: 1) no other site willing to store the 20 year old "
5.30.2.6 temporary" radioactive waste in Idaho; 2) proposed New Mexico storage dump has developed leaks and scientists say that makes it useless for storage; 3) there is presently no acceptable design for non-leaking storage caskets for transportation or burial.

5.30.4.9 Idaho has its own problems as present waste storage shows plutonium contaminated sediment beds 230 feet below the storage sites. INEL site has
5.10.5 two additional hazards--a nearby geologically active area witnessed by the Challis earthquake 4 years ago, which affected building foundations in Boise and the most important, the Snake River Plain Aquifer. This aquifer stores
5.12.1 fresh water from the mountain and creates life in the desert. Waste pollution from INEL would occur slowly but once in the aquifer there is no present known way to remove it and plutonium's half life is over 24,000 years.

6.1.1 While advocates are willing to chance technology overcoming such obstacles stated above, we as a nation have learned the irrevocable hazards of nuclear energy in incidents as Three Mile Island and Chernobyl--these were non-plutonium accidents but nevertheless dramatic, lethal, costly, and with possible low-level effects not to be seen for years. It makes me wonder why as a nation we are so eager to supply overabundance of non-essential plutonium fuel when the risks are so extremely lethal, extending over a time period greater than our human recorded history. All is takes is one poor judgement, one critical rule disobeyed, one policy not foreseen to create a disaster, one accident no one can foresee--our past history of handling atomic testing in Utah in the 1950's provides examples of miscomprehension of the dangers of radioactive materials and some very tragic human events.

4.14 While it is unclear as to the need to develop more plutonium fuel as
1.1 other such fueled warheads are bein destroyed, I strongly urge that the SIS project not be built.

Thank you for the opportunity to register my opinions in the hearing record.

Respectfully,

Carole Lamet

Carole Lamet

cc: Gov. C. Andrus
Sen James McClure
Sen. Steven Symms
Rep. Larry Craig
Rep. Richard Stallings

500

W441

501

718 S. 12th Ave.
Bozeman, MT 59715
April 18, 1988

Mr. Clay Nichols, SIS Project Mgr.
Idaho Operations Office, USDE
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 I am writing to you to comment on the Draft Environmental Impact Statement for the Special Isotope Separation Project, to express opposition to the proposed project and to support the No Action alternative.

2.7.2 I support selection of the No Action alternative, as the SIS project violates moral and ethical values of any person who is in harmony with this thin biosphere around them and the basic principles of life itself.

5.1.36 I am very concerned about the integrity of the ecosystems around the proposed SIS sites. The DEIS ignores many of the potentially severe environmental consequences of the SIS. The DOE has seriously contaminated the environment at its Hanford, Savannah River, Rocky Flats, Fernald, Los Alamos, Oak Ridge and Livermore nuclear weapons
5.30.4.14 design and production facilities. We are convinced that leaks and accidents are a certainty; they are only a matter of time.

5.6.3 Given the likelihood of an accident, the SIS presents an unacceptable risk to the unique and diverse wildlife and plants of the Greater Yellowstone Ecosystem. It is one of the few nearly intact major ecosystems remaining in the Earth's temperate regions. Maintenance of the health of the biotic communities of the GYE should take precedence over any real or imagined need for more plutonium.

5.12.1 The Snake River aquifer is far too valuable a water source to risk its contamination from this questionable project. The Aquifer supplies water to all of southern Idaho, and its continued high quality is essential to the well-being of all residents of the area, both human and non-human. I feel that the problems encountered at places such as Hanford, where we are just waiting to see what the damage to the water system will be should be covered in the EIS.

5.29.93 Plutonium feed would be transported from Hanford to the INEL in the form of Plutonium Oxide powder, a highly radioactive substance which would be extremely difficult to recover in the event of an accident.

5.29.45 The SIS would generate 440 tons of TRU waste annually, which would be shipped to the Waste Isolation Pilot Project in New Mexico. However, the Department of Transportation has not approved a transport method for TRU waste, nor has WIPP been proven a safe storage facility; in
5.30.2.1 fact it is plagued with problems. The INEL has been a temporary storage facility for TRU wastes for years, resulting in the
5.30.4.9 contamination of sediment beds 230 feet below ground. Millions of

curies have been released into the soil, air, and ground water. This is permanent and unacceptable damage to the environment.

The environmental consequences of Nuclear War would be severe and of global consequence. "Nuclear Winter", a climatic condition likely to follow such a war, may mean extinction for most species of life on Earth. In spite of DOE rhetoric to the contrary, the SIS would result in the production of more nuclear weapons, increasing the likelihood of total devastation of Earth in the event of nuclear war. 2.7.8

The SIS project has many aspects which are socially irresponsible. In the DEIS abstract, for example, part of the justification used is "to provide redundancy in production capacity". believe that the SIS will contribute to the overabundance, the excessive profusion, and the excessive proliferation of weapons grade plutonium and nuclear weapons in general, and is therefore not socially responsible. 3.4

The draft EIS did not touch upon the psychological impacts on the local population of a shift in focus of the INEL from generally peacetime applications of nuclear technology to military applications. What would be the moral impact on both children and adults in the community, being economically dependent on instruments of war? The DEIS should address this question, as well as the impact of increased fear and despair in the human community. Becoming a prime target in a nuclear exchange is not a positive for most people! 3.3.2 2.7.2

The nuclear industry has never taken a long-term view of its impacts. Though just a few serious accidents have occurred to date, accidents are inevitable. Nuclear accidents are not forgiving. Thinking in terms of thousands of years is difficult for all of us, but the nuclear industry, with the most power to negatively affect the future, has yet to come to terms with the realities of the time periods it is dealing with. Storage leaks, transportation accidents, and obsolete equipment problems of nuclear activities will haunt the world into geologic time. The proposed facility is expected to complete processing of legal SIS feed plutonium in six to eight years. That's not long in the context of geologic time. The EIS must think ahead and address these impacts. 5.1.36

Community-based economies are preferable to federally mandated economies. Yet people will work at the SIS. What will happen to these people when the legally available plutonium has been processed? The SIS will cause a boom and bust in the local economy. The DEIS does not consider any impact on the structure of the community as a result of this. There are various examples of these poor types of pork-barrell projects, such as the Rifle Colorado oil shale project -- a major detriment to the community and a waste of taxpayers money. 5.27.10

A great blow for grassroots democracy is the selection of public hearing sites. Although this project is national in scope, federally funded, and located on public lands, all three public hearings were held in Idaho. DOE has tried to reduce SIS to an Idaho issue. And even then, DOE refused to hold a hearing in Coerdelane, where the 2.8.9 2.8.6

441A

SIS, page 3.

community went ahead and held their own. What of neighboring states? What of the rest of the nation? Public hearings should be held outside of Idaho in such a way as to reflect a regional and national viewpoint of the public's concern on the SIS project. How about communities downwind of the project -- like Jackson WY.

2.7.8 The SIS project will produce a substance, plutonium 239, whose sole use is as an explosive in nuclear bombs. The DEIS should include a full analysis of the environmental effects of using these bombs, both in war and in testing. Why does it make no mention of these effects? This is a large and glaring oversight.

4.8.1 The SIS facility is not needed for peacetime stockpiling of plutonium. DOE's recent decision to put the N reactor in cold stand-by makes this abundantly clear. The real objective for DOE is to have a facility that can rapidly produce great quantities of weapon-grade plutonium in war time. "... the SIS Project would provide flexibility in rapid increases in plutonium production capacity in that the throughput of the facility could be expanded much more rapidly than could reactor-based production." (DEIS, p. S-1)

Given our current level of plutonium production and our current supply (approximately 120 tons of weapons-grade), under what conceivable circumstances would the US government possibly feel a need for "rapid increases in plutonium production"? Only if most of our existing stockpiles and missiles were destroyed; only in a NUCLEAR WAR! Therefore, the DEIS must consider the environmental effects of such a war.

2.13.16 I see this EIS as a failure of the NEPA process by failing to do a worst case scenario analysis on the potential impacts of such a project as required by the Codes of Federal Regulations for cases where insufficient data is available. Therefore I ask that a worst case scenario analysis be done in the FEIS.

Thank you for your time.

Sincerely,

Richard R. Meis

502

W442

John M. Lowry
646 W. Young
Pocatello ID 83204

March 25, 1988

TESTIMONY IN RESPONSE TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE SPECIAL ISOTOPE SEPARATION PROJECT

I thank the Department of Energy and the hearing examiners for the opportunity to make this statement. It is clearly a monumental task to collect and evaluate the testimony.

I am a thirty year resident of southeast Idaho. I am a past member of the Machinists' Union and the Teamsters' Union. I have worked as a laborer, truck driver, and mechanic. I oppose the proposal for building the SIS project. 1.1

First, I oppose it on economic grounds. Considering the projected brief six to eight year span for the SIS operation, and considering the ongoing arms reduction negotiations, the SIS could not make a lasting contribution to our economy. It would create a short-term spurt with negative after-effects. Only a year ago I left a job because of our dwindling economy, and I am now retraining for a new vocation, so I am sensitive to this issue, and I strongly believe that we must have a steady, long-term basis for recovery. 6.2

Second, I oppose it on the grounds of safety. Given plutonium's shelf-life of 20,000 years; given its extreme toxicity; given the potential for accidents and the resulting contamination of the atmosphere, the workers, the environment, and the Snake River Plain Aquifer; and given the uncertainty of the Waste Isolation Pilot Project in New Mexico, I do not believe that the Draft EIS adequately addresses the question of safety. 6.1.1 5.30.2.1

Third, I oppose the SIS because I disagree strongly with the position that we need it for national defense. According to the dot chart (see attachment), which has been reviewed and found to be accurate by U.S. Senate staff, the United States and Russia now share enough fire-power to destroy all the large and medium sized cities on the face of the earth, not once, but sixty times over. Because of this fact, I find the Draft EIS statement of need for "redundancy," "flexibility" and "technological diversity" in plutonium production absurd and preposterous. 4.13 4.7.1

I therefore support the no action alternative on the Draft EIS for the Special Isotope Separation Project.

-end of statement-

442

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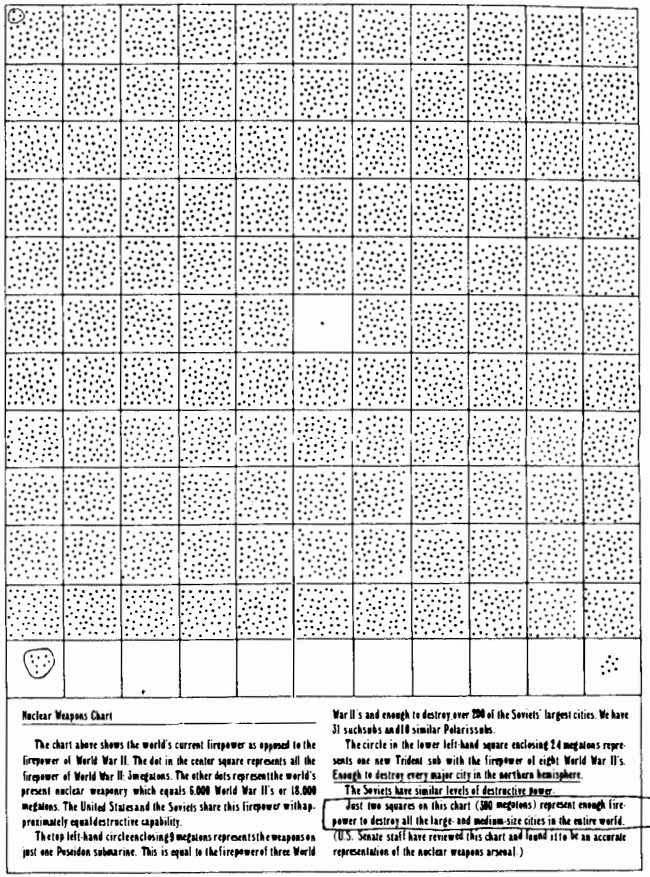

Nuclear Weapons Chart

The chart above shows the world's current firepower as opposed to the firepower of World War II. The dot in the center square represents all the firepower of World War II: 3 megatons. The other dots represent the world's present nuclear weaponry which equals 6,000 World War II's or 18,000 megatons. The United States and the Soviets share this firepower with approximately equal destructive capability.

The top left-hand circle enclosing 9 megatons represents the weapons on just one Poseidon submarine. This is equal to the firepower of three World War II's and enough to destroy over 200 of the Soviets' largest cities. We have 31 such subs and 10 similar Polaris subs.

The circle in the lower left-hand square enclosing 2.4 megatons represents one new Trident sub with the firepower of eight World War II's. Enough to destroy every major city in the northern hemisphere.

The Soviets have similar levels of destructive power.

Just two squares on this chart (360 megatons) represent enough firepower to destroy all the large- and medium-size cities in the entire world. (U.S. Senate staff have reviewed this chart and found it to be an accurate representation of the nuclear weapons arsenal.)

CHART IS COMPRISED OF 60 DOUBLE-SQUARE SETS

A Solution: Read

THE TRIMTAB FACTOR

by HAROLD WILLENS

442A

W443

April 19, 1988

RECEIVED
APR 20 1988
SIS Project Office

Dr. Clayton Nichols
S.I.S.Project Manager
US Dept. of Energy
785 OOE Place
Idaho Falls, IO 83402

Oear Sir:

I am writing to express my support for the S.I.S. project and for having it located at the I.N.E.L. 1.1

It seems obvious to me that the only reason we have not had a major war for some 40 years and that Russia is now willing to negotiate bi-lateral disarmament is because we have remained strong. For us to uni-laterally reduce our nuclear arms capability would appear to me to be inviting disaster. This project, according to our experts, is the most feasible way to keep our plutonium supply at a safe level. 3.4

I have lived in Blackfoot all my life (60 + years) and have always found the I.N.E.L. to be an asset to our area and a good neighbor. Their safety record and willingness to work with the surrounding communities has been excellent. I know men who have worked at the "site" for over 30 years and they have always spoken highly of the safety and competency of the operations. 5.24.23

This area is definitely in a depressed state right now and the effects of this project would be beneficial to the whole economy. Education at all levels, and especially I.S.U., would benefit tremendously by the stimulus this project would bring. 5.27.15.1

I believe a large majority of the people in our area would welcome this project and that we are ready, willing, and able to host it. Thank you for this opportunity to express my views.

Sincerely,

Charles R. Horrocks

Charles R. Horrocks
135 Goodwin Dr.
Blackfoot, ID 83221

443

SCWC Corp.
669 W. Quinn Rd.
Bldg. #5
Pocatello, ID 83201
(208) 237-0046

April 18, 1988

SIS Project Manager
U.S. Department of Energy
785 DOT Place
Idaho Falls, ID 83402

Dear Sir:

We want to give you our support for the SIS Project.

Yours truly,

The employees of SCWC Corp.

Lynn Eaman
Jess Atkison
Dennis A Turman
Lynn D. Hargis

NAME: GLEN M. WILSON
ADDRESS: 10203 CLAUDIA Rd.
CITY: BOISE IDAHO
OCCUPATION: LABORERS (Lo. 1538)

I am here to testify in favor of building the S.I.S. project at the I.N.E.L. 1.1

It used to be that construction jobs in Idaho were filled with Idaho workers. Now we see a lot more out of state contractors that bring with them out of state workers. These same workers take their money back home with them, and Idaho is the loser. We dont find that to be the case at the I.N.E.L.

They have tried to use Idaho workers first, and only if there were not enough qualified workers did they resort to recruiting out of state. I feel that the contractors at the I.N.E.L. have the interest of Idaho first, whether it be the community at large, the envirement, or the safety of the workers which their record shows. I would much sooner work at the I.N.E.L., than for an out of state contractor who is mainly concerned with his short term gains. Idaho, and construction workers need this project. 5.27.12.2

Glen M Wilson

W446

NAME: Jerry Voller
ADDRESS: 230 E Kenny
CITY: Meridian Idaho
OCCUPATION: Roofer

1.1 I would like to speak in favor of building the S.I.S. project at the I.N.E.L.

5.27.4.5 I have lived in Idaho for 18 years. I have never seen construction work so depressed. I don't think there is a family, that has not been effected by having some family member, or their children forced to leave the state because there was no work. Or they left because the work they had paid so little, they could see no future in Idaho.

5.27.7.16 If the S.I.S. is going to be built somewhere, are we going to say "no" to over (400) construction jobs, "no" to (410) direct and (340) indirect permanent positions, and are we going to say "no" to (1,050) supporting jobs within the community at large? Count them, the possibility of over (2,200) jobs. Do I want the S.I.S. project to come to Idaho? Yes, I want to be able to work for a change.

Jerry Voller

RECEIVED
APR 20 1988
SIS Project Office

446

505

W447

From:
Stephen W Drayton
235 James Ave.
Chubbuck, Idaho
83202

April 18, 1988

To: Mr. Clay Nichols
Idaho Operations OFFICE
785 DOE Place
Idaho Falls, Idaho
83402

RECEIVED
APR 20 1988
SIS Project Office

Dear Sir

I wish to go on file as supporting the SIS project in Idaho. I believe that the more the DOE site does will eventually pay off in many more support businesses in our eastern Idaho cities. And of course that will put more money in circulation and will help our already established businesses. 1.1 5.27.9.1

447 Stephen W Drayton

W448

4-13-88

Dear Sirs —
I feel Idaho should be the place to build the SIS complex. It will boost Idaho's economy by providing jobs both in construction and operation.

1.1

5.27.7.16

Vote Yes for SIS

Leonard Wolff
304 Palo Alto
Caldwell Id
83605

"Retired" IBEW 291

448

W449

american equipment, inc.
54 EAST 2700 SOUTH • SALT LAKE CITY, UTAH 84115 • (801) 487-4673

am-quip®

April 18, 1988

Dr. Clay Nichols, Acting Project Manager
SIS Project Office
Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

I want to express my support for the SIS project.

1.1

I have worked with local contractors for over twenty years, and found them to be hard working and highly ethical.

5.27.12.2

I have also worked with engineers at the INEL site for over 20 years, and found them to be competent and concerned about cost reductions and highly designing reliable systems.

5.24.23

I also know of the high safety rating the INEL has proved over the years.

For these reasons, among others, there should be no choice, INEL should be awarded the SIS project.

Sincerely,

AMERICAN EQUIPMENT

Kenneth Zimmerman

KZ/bmt

449

506

W450

8799 Augusta Court
Dublin, CA 94568
April 18, 1988

Dr. Clay Nichols
US Department of Energy
785 DOE Place
Idaho Falls, ID 83402-1133

Dear Dr. Nichols:

1.1 As an 18 year resident of the Idaho Falls area who recently accepted a temporary work assignment near Oakland, CA., I would like to go on record as supporting the construction and operation of the Special Isotope
5.24.30 Separation Facility near Idaho Falls. I plan to return to Idaho Falls and feel that the operation of SIS would not detract nor adversely affect the quality of life in the area.

As a private citizen who has read the project's environmental impact statement, I firmly believe that the entire project can be built and operated safely without impact upon the environment or the public.

4.15.4 This facility must be completed to keep a strong deterrent to keep the world at peace and prevent a nuclear holocost. Please record my comments as supporting the SIS project.

Thank you for your help with this matter.

Sincerely,

Neil R. Zack

RECEIVED
APR 20 1988
SIS Project Office

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W451

April 19, 1988

Dear Mr. Nichols

Please note our approval of the SIS project. We firmly hope that it will be built here and be operational soon. 1.1

Enhancing the economy of the Idaho Falls area is only part of the advantages. Nuclear industries need to be furthered as our natural resources begin to fade away. 5.27.6.1

Sincerely,
Mary Jane Barker
Donna L. Barker

W452

Comments on the Draft Environmental Impact Statement
DOE/EIS-0136
Special Isotope Separation Project

I am a registered Professional Geologist in the State of Idaho and have been a resident of southeast Idaho for 19 years. During that time I have been involved in geologic mapping and research on the Eastern Snake River Plain (ESRP) and the surrounding mountain ranges from Arco to Island Park on the north and from Ashton and the Tetons to Blackfoot on the east and south. Most of my research has been concerned with the investigation of the volcanic and tectonic history of the ESRP and associated geological hazards.

I have examined the Draft Environmental Impact Statement on the SIS Project and the INEL Environmental Characterization Report as well as the assessments of volcanic and seismic hazards on the INEL recently completed by the Idaho State University Geology Department in connection with the Proposed Superconducting Super Collider project. I believe that the information contained in these four documents are as accurate as can be produce at our current state of knowledge and that they do a very credible job at assessing the risk from seismic or volcanic events on or near the INEL. 5.10.1

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Extensive work done by the U.S.G.S. and university geologists and geophysicists over the past 15 years has suggested that the Snake River Plain has been created as the North American plate moved westward over a fixed hot spot in the earths mantle. This created a sequence of events including, in order: explosive rhyolitic volcanism and caldera formation; subsidence accompanied by milder basaltic volcanism; and deposition of river and lake sediments. Rhyolitic activity commenced in the Boise area about 15 million years ago, progressed up the plain to the area of the INEL by about 5-6 million years ago and reached the Yellowstone area about 2 million years ago. This model indicates that since the hot spot is now located under Yellowstone (100 miles northeast of the INEL) the likelihood of explosive rhyolitic volcanism in the vicinity of the INEL is essentially zero. 5.10.9

It also suggests that faulting and associated earthquakes resulting from subsidence of the ESRP has also, for the most part, moved east of the INEL. 5.10.19

My personal mapping experience along the margin of the ESRP suggests that most of the northeast trending faults associated with the subsidence of the plain west of Idaho Falls were most active during Pliocene time and very few show evidence of movement since the early Pleistocene (about 2 million years ago). I have seen no evidence of activity occurring on any of these faults within the past several tens of thousands of years. As a result of these observations I would not consider earthquakes generated by northeast trending ESRP boundary faults to be a significant hazard. 5.10.7

Geophysical evidence and geologic modeling suggests that in the wake of the hot spot the nature of the crust beneath the ESRP has been modified. The upper crust is anomalously thin beneath the plain and is likely still too warm to produce significant local earthquakes. This may be the explanation for the aseismic nature of the ESRP as compared to the surrounding regions (see enclosed printout of events recorded on the Ricks-Teton Seismograph Network).

At present the area of the INEL is at the stage where there is potential for basaltic activity and it is almost a certainty that such activity will occur

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5.10.10 somewhere on the ESRP at some time in the future. However, these basaltic eruptions are relatively mild, producing lava flows which are generally localized along rift zones having recurrence intervals on the order of 1000-10,000 years. This along with the fact that there has been no apparent activity within the INEL boundary in the last several hundred thousand years suggests that the risk to the proposed SIS facility from basaltic lava flows is quite small(Hackett and others, 1987).

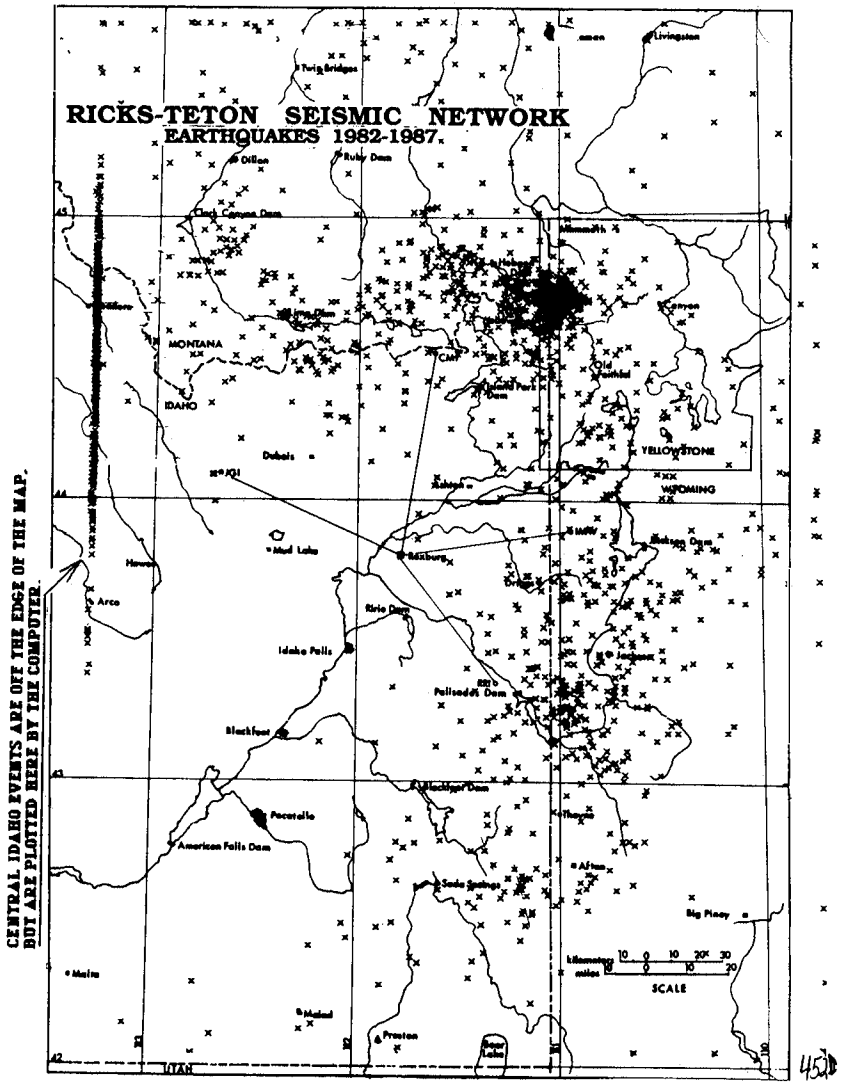
The geologic hazard of greatest concern to the proposed SIS facility is regional earthquake activity associated with the range front faults of the Basin and Range Province on either side of the ESRP. With respect to this hazard I concur with the conclusions of Rodgers (1987). Regional

5.8.1 earthquakes of Richter magnitudes on the order of 7 have occurred in the past and will undoubtedly occur in the future, although with our present state of knowledge it is impossible to predict which fault segments will move next or when. Seismic evidence and field observations suggest that there has been little activity along the range-front faults within about 40 miles of the ESRP during the past several tens of thousands of years and that the site of future activity will most likely occur in the Intermountain Seismic belt and the Idaho Seismic Zone to the east and north of the plain respectively. Although the possibility of a regional earthquake occurring during the active life span of the SIS cannot be ignored it seems likely that such an event would be of approximately the same size and distance from the INEL as the 1959 Hebgen Lake and 1983 Borah Peak earthquakes. In the event of such an earth quake the seismic waves would be greatly attenuated as they traveled the 40 or more miles to and through the plain to reach the SIS site. The fact that no significant damage occurred to existing facilities on the INEL during the Borah Peak and Hebgen earthquakes indicates that properly engineered and constructed structures can withstand the ground motion generated by such regional earthquakes.

It is not possible to guarantee zero risk in any endeavor. One can only evaluate the apparent risks and take steps to minimize or prevent problems. 5.10.1
In the case of the proposed SIS project I believe the DOE has done this. The Draft EIS has addressed the potential geologic hazards in a credible manner. The potential for volcanic or local seismic events is negligible over the life span of the project and in the remotely possible event of a large regional earthquake during its use, a properly designed facility should not sustain significant damage. It should also be noted that the seismic risks are at least as great at the two alternative sites evaluated in the Draft EIS. From the standpoint of geologic hazards, I believe that the INEL is as good a site as can 1.1
be found for the SIS project.

DR. GLENN F. EMBREE
120 Larkspur Lane
Rigby, ID 83442
4/18/88

509



W453

April 20,1988

Dear Sir:

I am in favor of the SIS project to be built at the INEL site. 1.1

Sylvia Hendricks

Sylvia Hendricks

W454

April 20, 1988

Dear Sir:

1.1
5.27.6.1
3.2.7
5.25.3

I am in favor of the SIS project to be built at the INEL site. My reasons are simple: 1- The job and employment provided in this area would be highly beneficial to the area. 2. The site record has an excellent track record for these kinds of facilities. 3. The security arrangements for these are already in place and would provide a great savings for our country. 4. Finally, the remote location provides a buffer zone from populous areas in case of an accident increasing the safety margin. Therefore if the facility is to be built - it should be built here.

Dennis K Hendricks

Dennis K. Hendricks

511

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454

W455

Jean Terra
3015 Cantrell Lane
Boise, Idaho 83706

April 17, 1988

I am opposed to building the special isotope separator (SIS) at the Idaho National Engineering Laboratory. We should be making every effort to reduce the world's supply of nuclear weapons instead of producing material to create more weapons. Please add my name to the list of Idahoans opposed to this project. 1.1 4.13

APR 2 [illegible]

Jean Terra

455

W456

The SHOSHONE-BANNOCK TRIBES

FORT HALL INDIAN RESERVATION
Environmental Coordinator . . (208) 238-3825

ENVIRONMENTAL PROGRAM
P. O. BOX 306
FORT HALL, IDAHO 83203

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/21/88

April 19, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

RE: Draft Environmental Impact Statement, Special Isotope Separation Project, Idaho National Engineering laboratory, Idaho Falls, Idaho.

Dear Mr. Nichols:

512

The Shoshone-Bannock Tribes (Tribes) have completed review of the Draft EIS on the Special Isotope Separation Project. Analysis of this document has raised a number of serious concerns.

The Shoshone-Bannock Tribes are a sovereign government obligated to protect the individual and communal interests of the successors-in-interest of Indian signatories to the Fort Bridger Treaty (hereinafter Treaty) of July 3, 1868, 15 Stat. 673. That Treaty secured the Fort Hall Indian Reservation as a permanent homeland for the Shoshone and Bannock Peoples. The Reservation is located approximately 40 miles to the southeast of the Idaho National Engineering Laboratory (INEL), and is thus very much within the region of influence.

5.27.14.2

456

The major concern of the Tribes centers around the essential concept of "permanent homeland". In addition, Article 4 of the 1868 Treaty expressly retained and reserved for Tribal members the right to hunt, trap, fish and gather natural resources for subsistence and cultural purposes "on the unoccupied lands of the United States," State v. Tinno, 497 P. 2ds 1386 (1972).

In Shoshone Tribe v. United States 11 Ind. Cl. Comm. 387 [1962], the Claims Commission found that the Tribes' historical economy "was based mainly on hunting, gathering, fishing and trading," 11 Ind. Cl. Comm. at 404, and that the Tribes "aboriginally exclusively used and occupied" an enormous territory encompassing all of eastern Idaho, 11 Ind. Cl. Comm. at 412, including the site of Idaho National Engineering Lab. These "off Reservation Treaty hunting and fishing rights" are of enormous importance to the subsistence and cultural fabric of the Tribes. The Tribes are not willing to risk irreparable damage either to their "permanent homeland" or to their off-Reservation Treaty rights.

5.27.14.3

The Draft EIS as it currently appears needs extensive revision and augmentation. Baseline data upon which to formulate an analysis of impacts is inadequate, making it not only impossible to understand the full ramifications of implementation of the preferred alternative, but to assess whether unacceptable risks exist to the Tribes' homeland and treaty rights.

2.13.19

The Tribes' primary concerns may be grouped into 4 main categories: assessment of the need for weapons grade plutonium; impacts on the Snake Plain Aquifer; transportation safety; and

456A

socio-economic impacts. All analysis and comment pertain to the preferred site at INEL.

The Need for Weapons Grade Plutonium:

The proposed project is extremely controversial. At the apparent center of the controversy is the fact that the purpose of the SIS is to produce weapons grade plutonium, and that the handling and transportation of plutonium poses extreme risks to the affected population.

5.24.27

5.29.97

The continued production of nuclear weapons is a moral issue perhaps outside the scope of this EIS. However it is essential that the issue of true need be confronted. It is appropriate and essential that this EIS address the Secretary of Energy, John Herrington's February 23, 1988 statement "We're awash in plutonium ... we have more plutonium than we need." The EIS analysis must go beyond simply referring to the Nuclear Weapons Stockpile Memorandum.

4.13

4.2.1

4.1

The priority issue here is to carefully and thoroughly analyze the Nation's current inventory of weapons grade plutonium and the capability to provide redundancy in production capacity and technological diversity. This analysis must be carefully documented in the EIS. Since this is of such worldwide, national, and local importance, the question of need cannot be preemptively dismissed. A thorough analysis may well indicate that a more economically, environmentally and morally satisfactory solution exists than the construction of a new SIS facility.

4.7.1

4.1

Impacts to the Snake Plain Aquifer

Short of a serious accident resulting in contamination of the region, the greatest risk to the environment from normal operations of the SIS would accrue to the Snake Plain Aquifer. The existing situation concerning contamination of the Aquifer has been given a very cursory treatment in the DRAFT EIS. In fact this discussion is so brief as to make it impossible to determine the extent of contamination from previous activities, or to predict the ability of INEL to safely handle, transport and store additional hazardous and radioactive waste generated by the SIS as well as other ongoing activities at the Site.

5.12.1

5.30.1.5

Adequate assessment of the existing condition of the aquifer, and its vulnerability to additional contamination must address the following concerns in detail:

- The probability that there will be two or three Superfund sites located at the INEL facilities as a result of the Department of Energy/Environmental Protection Agency agreement to look at potential problems and perform corrective actions.
- Trichloroethylene in drnking water at the Test Area North.
- Chromium in the perched water zone above the aquifer at the Test Reactor Ponds.
- Trichloroethylene and carbon tetrachloride in the groundwater at the radioactive waste management complex.
- Tritium contamination of the aquifer migrating off the INEL site.
- Mercury contamination of injection wells at the Chemical Processing Plant.
- Low-level Radioactive waste contamination of the groundwater at the Chemical Processing Plant.

5.30.1.6

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3.2.4 This extremely poor track record of handling hazardous and radioactive wastes safely (despite verbal assurances from INEL personnel at recent meetings with the Tribal government that INEL is a safe facility) does not inspire confidence in INEL's capability to correctly handle and store hazardous wastes nor in INEL's willingness to fully disclose past abuses and assess current capability.

5.12.3 The EIS must utilize the most current data available in its assessment, including the U.S. Geological Survey monitoring reports of the INEL site. The EIS must also develop a detailed

5.30.1.3 analysis of the vulnerability of the aquifer to additional contamination, utilizing the most up-to-date geological information available.

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Transportation Safety

5.29.2 The assessment of transportation related risks is inadequately addressed in the DRAFT EIS. Of particular concern to the

5.29.40 Shoshone-Bannock Tribes is the rail line, Interstate 15 and

5.29.33 Interstate 86 that bisect the Reservation. Cumulative impacts of increased number of shipments associated with WIPP shipments and the SIS will be significant, contrary to the assessment in the DRAFT EIS. One of the factors completely omitted from analysis

5.7.14 is the negative impact on the Tribes' infrastructure requiring increased emergency response personnel and equipment required to effectively handle incidents related to the increase in the shipments of radioactive and hazardous wastes.

Social and Economic Factors

The Council on Environmental Quality Regulations[1] stress the consideration of socio-economic factors when conducting environmental impact analyses. Many major Federal actions, such as the proposed action, stimulate secondary effects in the form of associated investments and changed patterns of social and economic activities. The Council on Environmental Quality in its 1973 guidelines[2] require that such population and growth impacts should be estimated if expected to be significant and an assessment made of the effect of any possible change in population patterns or growth upon which the resource base, including land use, water, and public services, of the area in question.

5.27.1.10

The assessment of the socio-economic impacts of the proposed project at INEL is completely inadequate. The project will require an estimated 440 construction workers, 440 operating personnel and 600 workers for jobs generated indirectly. This is a major force that will significantly affect economic and social factors in the region of influence (ROI).

5.27.1.1

5.27.6.1

Meaningful assessment of the economic, demographic, public service, soical and fiscal impacts of large-scale development projects requires that important interactions among these impact categories must be taken into account. It is clear that a most

5.27.1.1

[1] Council on Environmental Quality, "National Environmental Policy Act--Regulations", Federal Register, Vol. 43, No. 230, Nov. 29, 1978, pp. 55978-56007.

[2] Council on Environmental Quality, "Council on Environmental Quality Guidelines", Federal Register, Vol. 38, No. 147, Aug. 1, 1973, pp. 20550-20562.

5.27.4.2 cursory look at these complex factors has been done in this DRAFT EIS. Simply characterizing the expected population growth as a percentage of the region's overall population, and dismissing that as having little or no impact is unsupportable and fails to meet the intent of the Council on Environmental Quality's regulations and guidelines. Broad statements such as "the

5.27.11.5 population growth that would be associated with in-migrating operating personnel is not expected to have major impacts on local governmental services and community infrastructure"[3] are unsupported by any indication of firm data or the use of a model.

A project of the magnitude contemplated by the proposed action must be analyzed thoroughly and professionally. Issues that must be included in such an analysis include:

5.27.1.9 (1) increased employment: peak year and long term
(2) increased personal income
(3) Migration of large numbers of newcomers into the community
(4) Housing: rural, urban

5.27.1.10 (5) Tax base and infrastructure cost for:
- . Education
- . Recreation
- . Libraries
- . Hospitals
- . Fire protection
- . Police protection
- . General government
- . Public works
- . Water supply
- . Sewer system
- . Streets

(6) Land values
(7) Government revenues and expenditures
(8) Transportation problems
(9) Increased stresses between divergent cultural groups
(10) Changes in local social structure, polity and culture

[3] Draft Environmental Impact Statement, Special Isotope Separation Project, Idaho National Engineering Laboratory, U.S. Department of Energy, February, 1988, pg.4-7.

To adequately analyze and assess each of these factors Canter, et al[4] point out the need to utilize a suitable economic/demographic model. Such a model evaluating community-specific impacts of major projects would provide for linkage of the economic and demographic sectors. This model would be responsive to the number of impact categories deemed necessary and the degree of spatial and temporal disaggregation of their outputs. Based on a review of available models, Canter, et al 5.27.1.7
recommend BREAM/PAS and NEDAM (Bureau of Reclamation Economic Assessment Model/Planning and Assessment System; North Dakota Economic-Demographic Assessment Model). These models offer state-of-the-art methods, are user friendly and have been subjected to extensive professional scrutiny, and have been widely used in assessments of other large-scale projects.

The issue of "overcrowding at selected schools"[5] must receive a thorough analysis. School systems within the ROI of a 5.27.11.6
project can represent a major category of impacts. Pertinent information on baseline conditions must be obtained, and should include the nubmer of instructional personnel; the geographic location of available personnel and school facility space in relation to the location of project demands; and the condition of facilities, school capacity and capability of the school system

[4] Canter, L. W., S. F. Atkinson, F. L. Leistritz, 1986. Impact of Growth, A Guide for Socio-Economic Impact Assessment and Planning, Lewis Publishers, Inc., Chelsea, MI. pgs. 33-74.

[5] Draft EIS, p. 4-7.

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to meet current needs, plans and projects for the future. Future baseline conditions both with and without the project should be calculated. An assessment of predicted impacts and their significance should then be conducted. Information for conducting such a study is found in Henningson, et al[6] and in Canter[7].

5.27.1.6 5.27.1.9 Another serious lack of information in the DRAFT EIS is that required to show how rapidly a community will have to meet project-induced demands. Also lacking are temporary requirements which shows the difference between the peak project demands and the long term or stabilized demands. The information in the DRAFT EIS on construction worker availability in the local community is too sketchy to allow verification of whether there 5.27.11.3 is in fact an adequate construction workforce with the proper mix of skills. Without this information it is impossible to know if 5.27.11.1 temporary facilities and services will be required to accomodate an influx of qualified temporary workers during the construction phase.

5.27.13.3 No attempt has been made to assess the overall effect on land use plans/regulations existing in the ROI. The project's effects on physical land use and land values can be measured quantitatively in acres and dollars, while effects on urban land and regional land use plans and regulations can be measured

[6] Henningson, Durham and Richardson, Inc., 1982. Guidelines for the Application of the EIAP to the ICBM Modernization Program. Prepared for the U.S. Air Force Ballistic Missile Office, Norton Air Force Base, California, Santa Barbara, California.

[7] Canter, Impacts of Growth, pgs. 85-98.

qualitatively. Any secondary growth caused by the project may directly such plans and/or regulations.

The assessment of housing availability[8] needs more sound data and analysis. An inventory of housing stock should be done which should include the number of units by housing type--single family, multiple family and temporary housing. The geographic location of available permanent and temporary housing in relation to the project demands. 5.27.11.4

There is no basis in the Draft EIS for the selection of the INEL site over the SRP or Hanford sites. The pro's and con's of each alternative, particularly the no action alternative, have not been analyzed and presented. 2.12.5 5.2.5

In summary, this document represents a sketchy first attempt to get a grasp on the environmental consequences of developing an SIS project. However it contains so little solid data and analysis as to cause it to fall far short of National Environmental Policy Act requirements. 2.1.4

The Shoshone-Bannock Tribes request that detailed baseline data and indepth analyses be conducted on water quality, socio-economic, transportation, and safety factors. 2.13.19

Respectfully submitted,

Susan Broderick
Environmental Coordinator

[8] Draft EIS, p. 3-4, 3-5.

516

Stacy Pell Livermore
1904 East "O" Ave.
La Grande, OR
97850

March 15, 1988

Dr. Clay Nichols
785 DOE Place
Idaho Falls, ID
83402

RECEIVED
APR 26 1988
SIS Mailroom Officer
postmarked 4/24/88

Dear Sir,

1.1 The DOE proposal to build a plutonium refinery at the INEL is totally illogical and irresponsible.

As a resident of the Grande Ronde Valley, and the mother of a healthy one-year-old son, I oppose the shipment of plutonium oxide and any other hazardous waste by rail and highway through our "backyard." We live
5.29.60 three blocks from the main rail line and 1/2 mile from the freeway. Derailments and accidents DO happen, and these toxic materials could escape into my enviroment, and my son's.

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There is no need for more plutonium.

2)
The U.S. has more than enough nuclear weapons already. The U.S. and U.S.S.R. have the capability to destroy the earth many times over. Why do we need more plutonium? (If you are in a small room with gasoline up to your knees, how many matches should you stockpile to ensure a fire?) 4.15.5

We live in a beautiful valley here, the one the Nez Perce called "Cop Copi," "The Valley of Peace." We want no part of hazardous waste transport or nuclear weapon production.

The DOE proposal to build a plutonium refinery at the INEL belongs in the garbage!

Sincerely,
Stacy Livermore

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W458

April 20, 1988

DR. Clav Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

RECEIVED
APR 26 1988
SIS Project Office

postmarked april 21, 1988

Dear Dr. Nichols:

I appreciate the opportunity to comment on the Draft Environmental Impact Statement- DOE/EIS-0136

SPECIAL ISOTOPE SEPARATION PROJECT - COMMENTS

The Special Isotope Separation (SIS) Project is complex bevond the the concern for the simple effects on the flora and fauna of the physical structures and operations.

Concerns of the Project involve:
1. ETHICAL and LEGAL
2. TECHNICAL-
3. "ENVIRONMENTAL"

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1. ETHICAL and LEGAL

2.7.3 These issues are not discussed- if discussed in other reports, they are not referenced. The issues concern the fact that we (USA) have agreed, as a member of the International Atomic Energy Agency (IAEA) not to use power reactor plutonium in weapons. This is circumvented by the objective to use "DOE owned" fuel grade plutonium (and not commercial reactor plutonium?). The "DOE owned" plutonium would be

5.26.3 that from N Reactor when it was operated in a power "favorable" dual production mode. Further, I think that legislation prevents anyone other than DOE from "owning" plutonium. All separated plutonium is automatically "DOE owned" plutonium. (I have requested Non-Proliferation legislation from my Congressman, but have not yet received it).

4.7.1 It is stated that separation of the isotopes in the "DOE owned" fuel grade plutonium satisfies DOE's resonsibility "for developing and maintaining a capability to produce all nuclear materials required for the defense program of the United States."
"The SIS Project is needed by DOE to provide a redundency in production capacity and technological diversity with respect to the current dependence of weapon grade plutoniumon production reactor availability and to produce a timely response to potential increases in approved needs for weapons grade plutonium." (pg s- 1) This statement is never validated in the report, in fact experience in the Manhattan Project might indicate the opposite to be true. Isotopic separation of U-235 in the Calutrons was much slower and less desirable for large scale production than was the reactor/chemical separation path. Further, the SIS produces no new plutonium, if it is limited to the current "DOE owned" stock. The alternatives of New Reactor Capacity vs. SIS should be studied objectively with the DOE objectives stated. Only if Commercial Power Reactor plutonium is considered as an available feed can the SIS be considered as a source of new plutonium. 5.2.18

At one time, it was considered undesirable, by the state of Idaho, to store and process plutonium on the Snake River Plain above the Snake River Aquifer. The status of this history should be reviewed. 5.30.5.9

2. TECHNICAL

Physical Processes
These processes are unique and specially developed for the project.

Chemical Processes
Some of the processes specified have been under development for quite some time, but have never gained acceptance as production processes. Much diversion and reworking can be anticipated. Scrap recovery from such processes have led to formidable problems. The use of chloride processes- vice fluoride processes, may be a plus, assuming good engineering; however, it should be anticipated that these processes will not perform in "text book " fashion. 5.24.19 5.24.10

Alternatives

The advantage of INEL in site selection is not clear. Based on the presented information, Hanford would appear to be superior. Rocky Flats would have the advantage of consolidating plutonium operations and experience, and should be considered. INEL has no plutonium experience. Design and operation of the SIS Plant will be heavily dependent upon pragmatic plutonium handling knowhow. 2.12.5 2.2.1

Alternatives are not adequately evaluated and discussed. (Sections 2.5 ; particularly Section 2.5.2) simply stating them as "considered but not analyzed in detail," carries no weight in evaluation logic! The logic of selecting the SIS Project over the Reactor concept is not clear. 5.2.3 5.2.14

An important alternative which is not considered in any detail is a change in "weapons grade" specification. Is six percent 240 an absolute maximum ? With todays diversity of weapon types and proposed battle field uses it is questionable that all weapons require six percent 240. Raising the specification could result in a very rapid blend off of the N Reactor inventory. 5.2.16

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SUMMARY AND CONCLUSIONS

The title "Special Isotopes Separation" is misleading. During the 1960's and 70's we did . indeed, separate "special" isotopes; Np-237, Am-241. Cm-242 and 244 at Hanford , and that very special isotope Cf-252 at SRP; while ORNL produced a variety of special isotopes for sale. A more descriptive title would be "Upgrading Fuel Grade Plutonium to Weapons Grade Plutonium".

5.22.6 The SIS Project does not support the DOE objective of "... developing and maintaining capability to produce all nuclear materials ..." unless Commercial Power Reactor plutonium is considered as a feed source.

2.2.1 Site selection is not obvious, and would appear to favor Hanford, on the basis of presented information. The Rocky Flats site should be considered. On the basis of consolidating plutonium operations and

5.2.3 experience in handling plutonium, it would appear that Rocky Flats would be the favored site

5.2.16 The rigid requirement of six percent Pu-240 for weapons grade plutonium should be questioned.

5.6.1 For the SIS Project, the environmental effects of construction and operation of the SIS Project on the flora and fauna are inconsequential.

M. J. Szulinski

M. J. Szulinski
1305 Hains
Richland, WA 99352

(509) 946 8670

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Box 1726
Ketchum, Id.
April 20, 1988

Dr. Clay Nichols
785 D.O.E. Place
Idaho Falls, Id.

RECEIVED
APR 26 1988
SIS Project Office
pre Transmittal 4/27/88

Dear Dr. Nichols:

My husband and I would like to go on record as being against the construction of the SIS. plant in Idaho, (or anywhere else for that matter) 1.1

For one reason, we feel it is too dangerous to process something as deadly as plutonium over an aquifer which is the lifeblood for several thousand Idaho farmers. Our state's farm industry is hurting enough without the word getting out that Idaho potatoes are irrigated with water that flows under a plutonium processing plant 5.12.1

Even if there is never an "accident," we don't need a reputation of "Famous Glowing Potatoes." 5.27.2

For another reason, I think we should be looking at reducing our Federal Deficit instead of adding another billion dollars to it. 6.3

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Sincerely
Dorbin + Chris Key

W460

RECEIVED

APR 25 1988

SIS Project Office
postmarked 4/21/88

Christine M. Kelly
Dep't of Forest Resources
Utah State University
Logan, Utah 84322-5215

Idaho Operations Office
U.S. Dep't of Energy
785 DOE Place
Idaho Falls, ID 83402

Re: Special Isotope Separation Project Draft Environmental Impact Statement.

For the record, I wish to submit a public comment on the SIS Project dEIS.

2.13.1 I would like to begin by expressing my gratitude for the NEPA process --- a process that, as I view it, has two major purposes. First, if done correctly, the process assures that federal agencies will include consideration of environmental issues in their decision-making processes. Second, again if done correctly, the NEPA process allows concerned publics to participate in federal agencies' decision-making processes.

2.12.2 I stated "if done correctly" because the SIS NEPA process has not been conducted in a manner that meets these two fundamental purposes of NEPA. With respect to the first purpose, DOE made major decisions regarding the SIS project completely outside the NEPA process. For example, the "Go-No Go" decision was made before the NEPA statement was prepared, as evidenced by DOE's prohibiting the dEIS preparers from assessing the basic issue of need for the project. It appears that the assignment

4.1 given to the preparers of the statement was merely a NEPA analysis on the location for the project, not an analysis of whether the project should be built nor of alternatives to meet the plutonium need without construction of this specific facility. (That is, at first blush it appears the preparers were to assess location. As I will discuss below, even the location question was decided before the NEPA process.) You may argue that this NEPA purpose was met by inclusion of the No Action alternative in the dEIS. Unfortunately, however, this

5.2.6 alternative was included merely as a formality to meet the CEQ regulations and was never actually considered in the Department's decision to go ahead with the project. At a public forum in Pocatello, when I asked Mr. Eigeren (the hearing officer for the project) why the No Action alternative was included since the need question was decided outside the NEPA process, his response was that it was included because it was required by law. So you've met the letter of the law but not the spirit, not the purpose.

2.12.5 Another example is DOE's decision on location for the project was apparently also made outside the NEPA process. Although the dEIS addresses three sites, only one site has been seriously considered by DOE, as evidenced by the location of all three public hearings in southern Idaho. If DOE has not yet made its decision on location, as it should not until the NEPA process is completed, DOE should have held additional hearings at least in Washington and South Carolina. After all, if the location decision has not yet been made, these two locations also have a good chance of receiving the project even though INEL is the preferred site.

DOE has also inadequately provided for the second major purpose of the NEPA process, that is, providing for public participation in the decision-making process. This point is also most clearly seen by your decision to hold public hearings only in southern Idaho. Shouldn't there also have been hearings in Washington and South Carolina in case there is a change in the preferred alternative between the draft and the final EIS? It seems DOE is not particularly interested in what the publics have to say about location or any issues of the SIS project. 2.8.7
Maybe if DOE had conducted hearings in the Tri-Cities where the N-reactor was recently shut down, public comments would have been overwhelmingly in favor of locating the SIS project there. Yet DOE seems not concerned with the publics' views since it has already decided to build the project at INEL.

In addition to public hearings near the proposed locations for construction, there should have been hearings in places accessible to concerned publics along the transportation routes from Hanford to INEL, from INEL to Rocky Flats, and from INEL to WIPP. All of these publics should have been encouraged to participate as they may be seriously affected by this project in the event of an accident during transport. However, instead of 2.8.7
making diligent efforts to involve these publics as required by CEQ regulations (40 CFR 1506.6), DOE has hardly even informed them of the project. For those of us non-Idahoans who have heard of the project, we've no way of knowing how directly we may be affected since no transportation routes are presented in the dEIS. So much for DOE's diligent efforts to involve the public. (Rather, it denied requests for a hearing outside southern Idaho, even for a hearing in northern Idaho.)

Another fault with the dEIS is the inadequate analysis of 5.30.1.13
waste disposal. Instead of including this major aspect of the proposed project in this NEPA analysis, DOE refers to past and future EISs to address waste disposal. Disposal of the waste created by the proposed project is an inherent part of the project, for if this project is constructed and operated, waste materials will necessarily by produced. Yet, DOE has separated out the waste problem as though it is a different project entirely. Is DOE breaking the project into fragments for NEPA purposes so that each EIS will appear to include only minimal 2.13.12
impacts? The issue of waste disposal must be included in this EIS to adequately meet NEPA requirements.

Another problem I find with this EIS is the lack of believability of the claims of low impacts and sufficient safeguards associated with operation of this project. Because of

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3.2.19 the high security of the area, lack of impacts and lack of accidents are not readily verifiable. If an accident does occur, how will we know? If our air, water, land, or fish and wildlife resources are severly impacted during operation, how will we know? In addition to this inherent lack of verifiability, the
2.3 disclaimer on the inside cover of the dEIS makes fools out of any of us who might choose to believe the EIS's claims of low impacts.

2.9 Finally the document is inadequate in that it is not understandable. CEQ regulations require that EISs be written in plain language. Yet this document is understandable probably only to nuclear engineers.

1.1 I hope that this project will be shelved, particularly in light of the way DOE minimizes its obligations "to use all practicable means . . . to improve and coordinate Federal plans,
2.13.9 functions, programs, and resources to the end that the Nation may ---

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences . . . ." (NEPA, Section 101.)

Sincerely,

Christine M. Kelly

Christine M. Kelly

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Nuclear Proliferation: Studies and Strategies for Stopping Spread of the Bomb

NUCLEAR CONTROL INSTITUTE

1000 Connecticut Avenue, N.W., Suite 704, Washington, D.C. 20036 (202)822-8444

April 21, 1988

RECEIVED

APR 25 1988

SIS Project Office
Postmarked 4/21/88

Dr. C.R. Nichols
SIS Project Manager
U. S. Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Comments on
Draft Environmental Impact Statement
(DOE/EIS-0136 February 1988)
Special Isotope Separation Project

Dear Dr. Nichols:

On behalf of Nuclear Control Institute, I am submitting comments on the Draft Environmental Impact Statement (DEIS) issued in February 1988 for the Special Isotope Separation (SIS) Project.

Nuclear Control Institute (NCI) is a non-profit research institute that is concerned with the spread on nuclear weapons capability to non-weapon states and to terrorist organizations. NCI monitors nuclear programs in the United States and other countries, conducts independent, non-partisan research and analysis on nuclear proliferation, and disseminates this information to the public and to government offficials.

The DEIS fails to justify the need for the SIS facility 4.1

The proposed SIS plant is not needed. The DEIS states the that purpose of the SIS plant is to convert DOE-owned fuel-grade plutonium into weapon-grade plutonium through removal of certain undesirable isotopes. However, by the 4.15.1

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5.26.1 5.1.27 5.3.8 5.24.3 5.1.42 3.5.1 5.29.104 4.2.1 4.10.1 4.9.5

time the SIS facility is scheduled to go into operation in 1995, only some 6 to 9 metric tons (MT) of fuel-grade plutonium will be available for purification in the plant. This is hardly a justification for continued investment in the $1 billion SIS project. The SIS plant is a dangerous enterprise that will produce a ton of highly toxic plutonium vapor annually. It creates the possibility of serious plutonium dispersal accidents through leakage, fire, criticality and hydrogen explosion. It creates a serious proliferation risk. It adds new routes for plutonium shipments on U.S. highways where the transports could be subject to accidents of considerable consequence.

The U.S. does not need to produce more weapon-grade plutonium for nuclear weapons. Energy Secretary John Herrington stated earlier this year, "We're awash in plutonium. We have more than we need." (Seattle Times, Feb. 23, 1988.) According to a report by Senator Mark Hatfield last October, the demand for nuclear materials has been inflated. The five-year projection in the 1983 Nuclear Weapons Stockpile Memorandum over-estimated the number of warheads that actually would be built by 35 percent. The report points out that the plutonium requirements for a modernized nuclear weapons arsenal "can be met largely through retirement and dimantlement of old weapons." Other sources cited are scrap recovery and plutonium held in reserve. Added to this is the plutonium recovered from warheads retired under the INF agreement and the anticipated START agreement.

Under the INF agreement, about 500 nuclear warheads will be retired in the next three years. Under the still to be completed START agreement, some 3500 to 4000 nuclear warheads will be retired by the U.S. over a period of five to seven years. Thus the weapons reductions will be a source of about 16 MT to 18 MT of weapon-grade plutonium. This amount represents more than twice what the SIS plant could purify from fuel-grade plutonium feed. Moreover, the plutonium from retired weapons already will be available when operations of the SIS plant just are getting underway.

4.3

In fact, on-going arms reduction negotiations offer an opportunity to make materials production policy part of the arms reduction process. As an agreement separate but related to START, the U.S. has the opportunity negotiate an agreement not to build an SIS plant and other production facilities in return for similar concessions from Soviet Union.

2.7.13

The proliferation impact of the SIS plant is not discussed

3.5.1

The proposed SIS plant is a nuclear proliferation hazard. Yet, the risk of proliferation is not discussed at all in the DEIS. Construction and operation of the SIS plant will increase the possibility that plutonium from commercial spent fuel will be used in nuclear weapons in the U.S. and abroad. The operation of the SIS plant in the U.S. is likely to be cited by other nations to legitimize their use of AVLIS technology for the purification of plutonium. This will increase the risk of proliferation in those non-nuclear weapon states, such as West Germany and Japan, that are planning to reprocess commercial spent fuel and recycle the recovered plutonium in light water reactors.

Plutonium purification by a non-weapon state could be justified to increase the efficiency of reactor operations with plutonium fuel and reduce radiation exposure to workers who fabricate the fuel. But purification would make the plutonium even more attractive than it already is to nations or terrorists for use in nuclear explosive devices, thereby exposing this plutonium to an increased risk of diversion by nations or terrorists.

5.1.30

The only legal barrier now blocking the use of plutonium from the commercial spent fuel of U.S. nuclear power plants in nuclear weapons is the Hart-Simpson-Mitchell amendment to the Atomic Energy Act. This law was enacted by Congress in 1982 to thwart a DOE plan to use civil plutonium in weapons. The very existence of the SIS plant would increase the pressure to repeal the Hart-Simpson-Mitchel amendment. The use of U.S. commercial nuclear reactors as bomb factories would set an example for other countries to do the same.

5.26.2 3.5.1

The DEIS refers to the possibility for expanding the SIS plant to provide rapid increases in production. The FY 1989 Congressional Budget Request describes the SIS plant as allowing for "sprint/surge" capacity. What could this mean but that once the projected supply of DOE-owned fuel-grade plutonium runs out in the early 2000's, the SIS plant will be used to make weapon-grade plutonium from the plutonium in the civil spent fuel of U.S. commercial nuclear power reactors for the nuclear weapons program?

4.8.2

The DEIS does not resolve the waste disposal problem

5.30.1.13

The DEIS states that plutonium-containing transuranic (TRU) wastes from the SIS plant will be shipped for disposal

5.30.2.1
5.30.4.7

to the Waste Isolation Pilot Plant (WIPP) in New Mexico. The recent discovery of a water leak into the WIPP facility, has caused DOE to curtail its plans for storage of TRU wastes there. (New York Times, March 11, 1988.) The Radiactive Waste Management Complex (RWMC) at INEL is the temporary disposal site for TRU waste. Now a leak at the RMPC facility has been discovered and TRU waste is moving toward the ground-water beneath INEL. (New York Times, April 17, 1988.) In light of these occurrences, the DEIS has still to deal with the issue of disposing of the highly toxic SIS wastes.

Will safeguards and physical security at the SIS plant be adequate to meet the changing threat?

5.25.1

The DEIS does not give assurances that safeguards and security measures at the proposed SIS plant are based on an up-to-date assessment of the outsider and the insider threat. In recent years, DOE has been lax in implementing such measures. Security forces at Savannah River failed to repel mock attackers who succedded in throwing simulated plutonium

5.25.4

buttons over the fence and escaping. At the Pantex plant, a mock insider removed a simulated plutonium component from the plant without detection and threw it over the security fence to a waiting accomplice. At Los Alamos, a nuclear-device assembly facility was shut down when it was discovered that terrorists could have forced their way in and stolen plutonium components or fully assembled devices.

The terrorist threat in the U.S., particularly from foreign terrorist groups, is increasing. Just two years ago, a RAND report for DOE on potential adversaries to U.S. nuclear programs was able to conclude that the threat from domestic terrorist groups is "not high at this time" but that "state sponsored terrorist groups could constitute a significant danger to nuclear weapons sites." (Bruce Hoffman, RAND/R-3351-DOE.) At that time no foreign groups had carried out operations against American targets within the United States. (Bruce Hoffman, Peter deLeon, et. al., RAND/R-3363-DOE.)

However, witness these recent events: the arrest in New Jersey on April 14 of a known Japanese Red Army terrorist carrying three bombs--the first capture of a Japanese Red Army operative in America; the arrest in Vermont in October 1987 of three Canadian citizens of Lebanese origin trying to smuggle explosives across the border into the U.S.; the warning issued over Radio Teheran by the Iranian government on June 9, 1987 that "U.S. centers and nuclear reactors can

be more vulnerable than the [Silkworm] missile bases of the Islamic Republic of Iran."

According to the report of the Nuclear Control Institute's International Task Force on Prevention of Nuclear Terrorism, the probability of nuclear terrorism, including attacks on nuclear facilities, is increasing. (Preventing Nuclear Terrorism, Lexington Books, 1987.) The actual threat clearly is growing. The defined threat against which DOE facilities are protected must be changed accordingly. Is this happening? Is physical protection at the SIS plant being designed for the threat environment of the year 2000?

5.8.4

The insider represents a particularly serious threat. It is now widely recognized that vulnerability of DOE facilities to one or more compromised workers or guards working with accomplices on the outside could be a real problem. Indeed, a committee of the National Academy of Sciences that is currently reviewing safeguards and physical security at DOE facilities has been briefed extensively on this matter. However, the DEIS is silent on the question of how the insider threat at the SIS plant is being addressed.

5.25.1

In conclusion, the DEIS is severely deficient in failing to justify the need for the SIS plant in relation to the grave proliferation, terrorism and safety risks involved. The fact is that the plutonium is not needed for weapons, and therefore there is no sound basis on which to proceed with the project.

4.15.1

Sincerely yours,

Milton M. Hoenig

Dr. Milton M. Hoenig
Scientific Director

W462

United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW
WASHINGTON, D.C. 20240

ER 88/101

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/21/88

APR 20 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

The Department of the Interior has reviewed the draft environmental impact statement for the Special Isotope Separation Project, Idaho National Engineering Laboratory (INEL), Idaho Falls, Idaho and has the following comments.

Grazing

5.11 Lands on the INEL reservation are leased for livestock grazing by the Bureau of Land Management (BLM). Existing memoranda-of-Understanding (MOUs) between this Department and the Department of Energy (DOE) indicate DOE will give all possible consideration to the needs of local livestock operators whose livestock graze on the reservation. Exclusion of these lands from grazing use will seriously affect a good number of the licensees and permittees grazing livestock in these areas. However, grazing as a specific activity on the reservation is not identified in Chapter 3, Affected Environment, nor assessed for impacts in Chapter 4 of the draft statement.

The final statement should contain a description and maps of the lands currently leased for grazing on the INEL reservation in Chapter 3. Impacts to grazing on the reservation should be described in Chapter 4, accompanied by site-specific maps showing those lands that could not be leased for grazing if the Special Isotope Separation Project is constructed and operated. This information would be helpful to our BLM in determining which permittees would be affected should you proceed with the proposed action.

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Construction and Operation At The Hanford Reservation, An Alternate Site

5.16.2 We believe construction and operation of the proposed project on the Hanford Reservation in Washington State would require additional water withdrawals from the Columbia River. The Columbia River in the proposed project vicinity is used during various times of the year by adult and juvenile chinook, sockeye, and coho salmon and by steelhead trout, and the survival rates of outmigrating smolts of these species are affected by the river's discharge levels. Although the total yearly volume of water to be withdrawn for the project is insignificant in comparison to the total annual discharge of the river, the timing and rate of withdrawal are important and should be addressed in the final statement. However, if the volume of water needed is removed from the river at a constant rate over the entire year, its impact would appear to be insignificant.

Further, it is unclear how the water at the Hanford Reservation would be removed from the river. If new pumping facilities would be needed, a Section 10 and a Section 404 permit from the Army Corps of Engineers may be required. If a permit is required, the U.S. Fish and Wildlife Service (Service) would review the permit application. The Service may concur, with or without stipulations, or object to the proposed work, depending on the effects to fish and wildlife resources identified and impacted at that time.

SPECIFIC COMMENTS

5.1.29 Page 2-34, 2.1.3—Resistance to Natural Forces - We consider range fires to be a natural phenomenon. The discussion in this section should be expanded to include an assessment of range fires in close vicinity of the proposed project because we believe range fires are likely to occur in this area. The final statement should indicate whether the structure will be designed to withstand this possible hazard.

5.3.12 Page 2-39, 2.1.5.1—Atmospheric Emissions - The discussion in the first and second paragraphs of this section should mention the radioactive atmospheric emissions outlined in Table 2-4 and discussed on page 2-41. This clarification is needed because following identification of various emission points, the text concludes in these paragraphs that there will be no radioactive atmospheric emissions from the exhaust systems associated with this project. The information in the first two paragraphs of this subsection should be revised to indicate radioactive releases are expected.

We hope these comments will be helpful to you.

Sincerely,

Bruce Blanchard, Director
Environmental Project Review

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Natural Resources
Defense Council

1350 New York Ave., N.W.
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April 21, 1988

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/21/88

Clay Nichols
SIS Project Manager
SIS Project
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

Please find enclosed the Natural Resources Defense Council's comments on the Department of Energy's Draft Environmental Impact Statement, Special Isotope Separation Project, DOE/EIS-0136, February, 1988. In your recent conversation with Jason Salzman of our staff, you indicated that these comments would be considered timely if they were postmarked by April 21, 1988.

Sincerely,

Dan W. Reicher
Senior Project Attorney

Enclosure

525

Natural Resources
Defense Council

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Dan W. Reicher
Attorney

463

COMMENTS OF THE
NATURAL RESOURCES DEFENSE COUNCIL
ON THE

Department of Energy's
Draft Environmental Impact Statement,
Special Isotope Separation Project,
DOE/EIS-0136, February, 1988

Dan W. Reicher, Esq.
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April 20, 1988

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463A

The Natural Resources Defense Council, Inc. (NRDC) submits the following comments on the Department of Energy's (DOE) Draft Environmental Impact Statement, Special Isotope Separation Project, DOE/EIS-0136, February, 1988. These comments incorporate by reference oral and written testimony given by NRDC Senior Staff Scientist Thomas B. Cochran, Senior Staff Attorney Dan W. Reicher, Research Associate Jason Salzman and Intern Laura Keresty at DOE hearings on the DEIS in Idaho Falls, Boise and Twin Falls, Idaho on March 25, 26, 28, 1988. The comments also incorporate by reference oral and written testimony given by Dr. Cochran and Mr. Reicher at scoping hearings on the DEIS in Boise, Idaho on February 26, 1987.

NRDC is a national environmental organization with almost 75,000 members and a staff of over 120 lawyers, scientists, resource specialists and support personnel at offices in New York, Washington and San Francisco. NRDC pursues a broad range of environmental, energy and defense issues. The organization has long been concerned about safety and environmental problems at DOE's nuclear weapons production facilities. Over the past twelve years, the NRDC Nuclear Program has won a series of lawsuits to enforce federal environmental laws at DOE facilities including Hanford, Washington; Oak Ridge, Tennessee; and the Savannah River Plant, South Carolina.

Summary

The Draft Environmental Impact Statement (DEIS) is totally inadequate. It is incomplete, misleading and unclear. It is also a sham because of the unprecedented inclusion of a waiver relieving DOE of all responsibility for the adequacy of the document. Under applicable law and regulations the DEIS must be reissued for public comment prior to preparation of a final EIS. 2.1.1

A. The Draft Environmental Impact Statement (DEIS) Is Completely Inadequate

Members of the NRDC Nuclear Program have, over the years, reviewed literally scores of draft and final Environmental Impact Statements. The DEIS on the SIS facility is one of the worst we have seen. Below we comment on some of the inadequacies in the DEIS. 2.1.5

1. The DEIS is a Sham Because of the Unprecedented Inclusion of a Waiver Relieving DOE of All Responsibility for the Adequacy of the Document 2.3

One need look no further than the inside of the cover page to find striking evidence that the DEIS is a sham. There one finds the following statement highlighted by a black border:

> DISCLAIMER
> This book was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product or process disclosed, or represents that its use would

> not infringe privately owned rights References herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof. [emphasis added]

This disclaimer is an outrage, pure and simple. In effect, the Department is saying in the DEIS: "The SIS is safe, economic and necessary but if we're wrong it's not our fault (and this isn't necessarily our opinion anyway)." Under the National Environmental Policy Act (NEPA), an EIS is supposed to represent the views of a government agency about a major federal action with significant environmental effects. It is also supposed to present accurate and reliable information. With this disclaimer DOE is thumbing its nose at both of these requirements.

We have recently reviewed our extensive collection of EIS's prepared by the DOE dating back to the early 1970's. Not a single EIS, draft or final, contains a disclaimer. We have also spoken recently with a former chief counsel of the President's Council on Environmental Quality, the federal agency which oversees the EIS process government-wide. He indicated that he was aware of no EIS's containing a disclaimer of any sort.

2. The DEIS Fails to Discuss the Need for the SIS Facility Adequately

Serious questions exist concerning the need for the SIS facility.[1] None other than DOE Secretary Herrington recently admitted, "We are awash in plutonium. We have more plutonium than we need."[2] Yet the DEIS devotes exactly one and one-half pages to this critical issue despite the fact that fifty commentors at the scoping hearings raised it, more than twice the number than addressed any other issue.[3]

DOE justifies its decision not to provide a comprehensive discussion of need arguing, in part, that "national security [issues].... are outside the scope of an EIS."[4] DOE is simply wrong on this point. "There is no support in either the statute or the cases for implying a 'national defense' exemption from NEPA." Concerned about Trident v. Rumsfeld, 555 F.2d 817, 823 (D.C. Cir., 1977).

DOE also argues that it cannot discuss need in depth in the EIS because "quantitative information on defense material requirements, inventories, production capacity, and adverse

4.2.1

4.2.2

2.7.7

4.10.2

[1] See "Testimony of Thomas Cochran, Ph.D. and Dan W. Reicher, Esq. to the Department of Energy Concerning the Draft Environmental Impact Statement on the Special Isotope Separation Facility," March 25, 1988.

[2] Testimony before the House Appropriations Subcommittee on Interior and Related Agencies, U.S. House of Representatives, Feb. 13, 1988.

[3] Implementation Plan for the Special Isotope Separation (SIS) Production Plant Environmental Impact Statement, January, 1988 at 39-44.

[4] Id. at 40

impacts on weapon system deployment is classified."[4] DOE's contention is correct as far as it goes. However, in recent EIS's DOE has, in fact, discussed such classified national security information. DOE has done this in a classified appendix to the EIS. For example, DOE included a classified appendix in the EIS on the decision to restart a plutonium production reactor at the Savannah River Plant.[5] DOE explained in that EIS: "The discussion on the need for L-Reactor is, by necessity, qualitative in nature because quantitative information on defense material requirements and production capacity is classified; detailed quantitative discussion on need is contained in a classified appendix..."[6]

4.11.2

A classified appendix allows members of Congress and their staff, with security clearances, to review DOE's justifications for a project. DOE's failure to include a classified appendix suggests that an analysis which laid out the real story on the need for SIS simply could not withstand Congressional scrutiny.

4.11.1

On a related note, it is curious that on page LP-1 of the DEIS, which provides a "List of Preparers and Reviewers" for each section of the document, not one of the 29 people listed is indicated as a preparer of Section 1, "Need and Purpose." Nine people are listed as reviewers, but none with expertise on the

2.5.2

[4] Implementation Plan for the Special Isotope Separation (SIS) Production Plant Environmental Impact Statement, supra at 40.

[5] Final Environmental Impact Statement, L-Reactor Operation Savannah River Plant, May 1984, DOE/EIS-0108.

[6] Id. at vi.

need for SIS. Could it be that the justification for SIS is so weak that no one is willing to take credit for it?

2.5.2

3. The DEIS Fails to Consider Reasonable Alternatives to Development of SIS

5.2.12

One of the most serious flaws of the DEIS is its failure to address reasonable alternatives to development of SIS. In particular, the DEIS rejects as unreasonable a whole category of production alternatives to SIS. These include increased blending, use of a new fuel lattice in the reactors at SRP, construction and operation of a new production reactor, conversion of the WNP-1 reactor at the Hanford Reservation to plutonium production, recycling of existing weapon-grade plutonium from retired weapons, and accelerated weapon-grade plutonium scrap recovery. The DEIS does not even mention use of the N Reactor at the Hanford Reservation, which DOE is renovating at a cost of more than $100 million and will place in standby status in case a future need for plutonium production capacity develops. The DEIS also does not mention use of a "plant scale" SIS demonstration facility at the Lawrence Livermore National Laboratory in California which, we have been informed, has the same laser power as the proposed SIS plant. The LLNL facility, once completed and tested, could be placed in standby status, like the N Reactor, for use in an emergency.

5.2.14

5.2.13

The DEIS rejects all production alternatives to SIS with the summary comment: "none of the alternatives considered would provide the desired redundancy, technological diversity, and

5.2.2

flexibility as is provided by the SIS Project." DEIS at 2-68. This is a convenient but inadequate justification. In effect DOE 5.2.2 is saying: "Even though there are a variety of sources and ways to produce weapon-grade plutonium, none of them are reasonable alternatives because they do not accomplish the desired objective in exactly the same way as SIS."

The Department has so specifically tailored its statement of need for SIS, i.e. "redundancy, flexibility, and technological diversity," that it is able to conclude that no other plutonium source is a "reasonable" alternative. In the DEIS, DOE carefully avoids positing the need for SIS more generally, i.e. to insure an adequate plutonium supply in the late 1990's and beyond. If the need were so stated then a variety of existing and potential plutonium sources and supplies could be evaluated, separately and in combination, as reasonable alternatives to determine whether they could meet projected plutonium requirements including emergencies. Looked at programmatically these sources might very well provide the desired level of "redundancy, flexibility, and technological diversity."

4. The DEIS Fails to Consider Critical Information Regarding Waste Disposal

5.30.3.1

The DEIS blithely assumes that the large quantity of long-lived radioactive wastes containing plutonium ("transuranic wastes") that will be produced at the SIS will be disposed of at 5.30.2.1 a facility DOE is developing in an underground salt formation in New Mexico. DEIS at p. 1-4. In fact, there is some doubt that

the facility -- known as the Waste Isolation Pilot Plant (WIPP) -- will operate and if it does whether it will be able to accept the full complement of wastes it was designed for. 5.30.2.1

About four months ago a panel of geologists from New Mexico revealed to a Congressional committee that enough water was leaking into the WIPP facility to possibly corrode waste containers and create a mobile radioactive "slurry" which could move to the surface and release radioactive materials in quantities exceeding EPA standards.[9] Early this month, a panel of experts from the National Academy of Sciences reported that there are "major uncertainties" concerning a variety of factors necessary to determine whether radioactive wastes can be disposed of safely at WIPP.[9] The DOE has determined that it will sharply 5.30.2.1 reduce the amount of wastes it plans to dispose at WIPP over the next five years because of these problems.[10]

The problems at WIPP may reduce or even eliminate the capacity of the facility to accept wastes from SIS. It could 5.30.2.5 render Idaho a de facto disposal site for the disposal of wastes not only from SIS but from INEL generally. The DEIS must state how the DOE will dispose of SIS wastes designated for WIPP if WIPP is unavailable.

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[9] "Report on Brine Accumulation in the WIPP Facility," National Academy of Sciences, 1988 at 1.

[9] Id. at 6.

[10] New York Times, March 11, 1988 at A1.

5.22.4

5. The DEIS Fails to Address the Economic Consequences of a Shutdown of the SIS Facility

NRDC testimony last year regarding the scope of the DEIS forced DOE to confirm that the primary mission of the SIS -- conversion of fuel-grade plutonium to weapon-grade -- is limited to seven to eight years. The DEIS discusses no further mission for the plant. Thus seven to eight year after the plant goes on line it could close down forcing hundreds of employees out of work and curtailing businesses dependent upon the facility. The DEIS fails to address the serious economic consequences of this occurrence. The February 17, 1988 Idaho State Journal reported that Mr. Don Ofte, INEL Manager, admitted that "the DEIS does not answer questions about what economic impact the shutdown of the SIS project would have when its expected seven-year lifespan comes to an end."[11] The DEIS must analyze the economic impacts of the closure of the SIS plant after its seven- to eight-year mission.

5.22.3

6. The DEIS Fails to Assess the Impacts of the SIS Facility Based on the Full Extent of Potential Feed Material and Operating Life

The DEIS quantifies the amount of wastes and radioactive and non-radioactive emissions the SIS plant will produce. But at no point are these figures related to the amount of feed material, including fuel-grade plutonium, that will actually be processed

[11] Idaho State Journal, February 17, 1988 at B-1.

at the SIS facility and over what period of time.[12] The point is that there may be a significant amount of potential feedstock and a significant number of years of operating time over the plant's useful life that are not taken account of in the DEIS. 5.22.3

In fact, DOE admits that the Fast Flux Test Facility (FFTF) fuel from Hanford would provide a "significant source of feed material for SIS processing..." DEIS at 1-3.[13] Apparently, though, DOE is not considering this feedstock in determining environmental impacts. The DEIS also does not consider processing of weapon-grade plutonium returned from retired warheads[14] even though DOE admits: "[t]he plant does provide for contingency production...should some of these returns require processing."[15]

DOE claims that if the FFTF fuel were processed at SIS any transportation impacts or risks "would be bounded" by annual transportation impacts or risks from transporting other feedstock. DOE's analysis, however, fails to take into account 2.13.11

[12] Quantitative information concerning the size of the U.S. fuel-grade plutonium inventory is not classified. See notes and tables accompanying Nuclear Weapons Databook Vol. II, U.S. Nuclear Warhead Production at 76.

[13] The DEIS refers to "various fuel-decladding schemes" for FFTF fuel including a cryptic reference to an "existing facility" licensed by the NRC. The DEIS should discuss these schemes and identify the NRC facility cited. 5.26.4

[14] It is also not clear whether plutonium from British reactors on hand at Hanford is part of the feedstock being considered in the DEIS. 5.26.1

[15] SIS Implementation Plan, DOE/ID-10168 at 42.

2.13.11 cumulative impacts from transport as well as processing of feed materials such as FFTF fuel.

5.22.3 DOE has admitted that there is only about seven to eight years worth of material to process at the SIS facility. Yet the SIS plant is being built with a 30-year design life. It is not clear in the DEIS how long the SIS is assumed to operate to produce the amount of wastes and emissions specified. The point is that the longer the plant is assumed to operate the more waste and emissions that will result and also the greater the amount of time during which an accident could occur.

5.8.16 Additionally, the DEIS states that "[t]he SIS Project would contain two separator lines within the PPB [Plutonium Processing Building]...." DEIS at 2-8 (emphasis added). In contrast, DOE's recent budget submission to Congress states that the "Plutonium Processing Building (PPB) will be constructed to house the four separator lines...."[1*] (emphasis added). This is a potentially serious discrepancy.

According to the DEIS, a separator line is "two or more separator units in a series, including glove boxes, component-handling vacuum systems, and laser light adjustment and transmission systems." DEIS at GL-4. The apparent doubling in the number of separator lines in DOE's recent budget submission versus the DEIS could reflect an increase in the amount of plutonium that will be or could be processed at the SIS facility.

[1*] Congressional Budget Request, Atomic Energy Defense Activities Construction Data Sheets, FY 1989, DOE, February, 1988 at 322.

If this is the case the entire DEIS may underestimate substantially the environmental impacts of the SIS facility. This would be a fatal inadequacy. 5.8.16

7. The DEIS is So Laden with Bureaucratic Gobbledygook As to Be Impenetrable by the Average Reader 2.4

Under the NEPA regulations an EIS must be "clear and to the point." 40 CFR §1502.1. The DEIS is anything but. One need only get as far as the third paragraph of the document before being engulfed by the following:

> The SIS Project is needed by DOE to provide a redundancy in production capacity and technological diversity with respect to the current dependence of weapon-grade plutonium production on reactor availability and to provide a timely response to potential increases in approved needs for weapon-grade plutonium.

With a sentence as obtuse as that DOE has effectively classified even the unclassified version of its justification for SIS.

The DEIS is laden with terms that are never adequately explained. Foremost among them are the DOE's SIS triumvirate: "redundancy, flexibility, and technological diversity." These terms are critical to assessing DOE's justification for the SIS facility but are never explained.[3] 4.7.1

8. DOE Has Prepared the DEIS Prior to Completion of a Final Safety Analysis Report 2.13.15

A critical element of the DEIS is its discussion of safety of the SIS facility. In addition to numerous problems regarding the assumptions DOE makes about potential accidents, the DEIS is

2.13.15 flawed because it cannot and does not reflect what may be the most important safety document, the Safety Analysis Review (SAR). In a March 23, 1988 response to a Freedom of Information Act request submitted by NRDC, DOE noted that the SAR on SIS has yet to be completed. SAR's for other DOE facilities are generally the most complete and in-depth documents regarding safety. The DEIS must consider the findings of the SAR.

2.1.6 B. The DEIS Is So Inadequate That It Must be Reissued for Comment

We find that the DEIS is so incomplete, misleading and confusing that it must be reissued for public comment prior to preparation of a final EIS. The federal regulations governing the preparation of EIS's state very clearly: "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." 40 CFR §1502.9. Moreover, the case law is clear that an inadequate draft EIS cannot be "cured" by the summary addition of information in the final EIS or a supplemental EIS. As one court has held:

> There cannot be responsible decisionmaking when data appears in the final EIS without being subject to the critical evaluation that occurs in the draft stage....The failure to include....data in the draft impact statement denied the plaintiffs the "opportunity to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom."

Appalachian Mountain Club v. Brinegar, 394 F.Supp. 105, 121-122 (D.C.N.H. 1975).

Here DOE has not only excluded vital information but also misstated and misinterpreted critical facts and wrapped the whole document in language so obtuse as to effectively eliminate meaningful public review and comment. DOE may attempt to eliminate these inadequacies in the final EIS. INEL manager Don Ofte, for example, stated that the economic impacts of a shutdown of the plant after seven to eight years -- an issue as we note above that was not covered in the DEIS -- will be addressed in the final document.'' However, such an after-the-fact "fix" flies directly in the face of legal requirements. "Supplemental information which has not been processed in the same manner as a draft EIS, cannot resurrect a deficient impact statement." Appalachian Mountain Club, 394 F.Supp. at 122. There is only one conclusion that can be drawn: DOE must reissue an adequate DEIS for public comment prior to issuance of a final EIS.

2.1.3

2.1.6

'' Idaho State Journal, February 17, 1988 at B-1.

533

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT ON THE
SPECIAL ISOTOPE SEPARATION PROJECT

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February 23, 1988

MAJOR OMISSIONS IN THE ENVIRONMENTAL IMPACT STATEMENT

3.5.1 The Department of Energy's Draft Environmental Impact Statement on the proposed Special Isotope Separation Project omits any mention of two serious effects of the construction and operation of the SIS. The first is the effect of bringing this technology to maturity in the U.S. on the further proliferation of countries having nuclear weapons. The second is the effect

4.14 on short and long term prospects for nuclear arms control and disarmament agreements and treaties, not only between the U. S. and the Soviet Union, but also other nations that have or may be acquiring nuclear weapons.

4.7.1 Furthermore, the justification given in the EIS for producing more weapon grade plutonium than is now or prospectively will be available to the U.S. is so vague, expressed only "as needed by DOE to provide redundancy in production capacity, technological diversity, and flexibility in DOE's

4.15.8 production of nuclear materials required for national defense," that it is not supportable. No credible conditions under which the plutonium from the SIS would be needed for national security reasons are presented.

5.2.16 Finally, the EIS makes no mention of the option of direct use in some U.S. nuclear weapons of the relatively small quantities of fuel grade plutonium proposed for feed material for the SIS, rather than building the SIS to convert the plutonium to "weapons grade," in the extremely unlikely circumstance that existing stockpiles of plutonium in the 1990s will not be sufficient to meet the real security needs of the U.S.

EFFECTS ON PROLIFERATION OF NUCLEAR WEAPONS

Construction and operation of the SIS facility will stimulate further proliferation of nuclear weapons in several ways.

It will bring to maturity a technology for converting plutonium from the world's growing stockpile of spent power reactor fuel to a form that makes it much easier for countries that have not already done so to acquire reliable, high yield nuclear weapons, using plutonium that has already been 3.5.1
produced in more than two dozen countries. This plutonium now amounts to about 500,000 kilograms worldwide, and is expected to grow to more than 1 million kilograms by 1995. These huge quantities represent an advanced state of "latent proliferation" in countries that possess the plutonium. Some of these countries can be expected to follow the U. S. lead in providing the means for converting this plutonium into a form that is much more suitable for the initial stages of nuclear weapon development.

Adoption of SIS technology by countries that do not now have nuclear weapons, but have fuel grade plutonium, would make it possible for them secretly to develop efficient, reliable first generation nuclear weapons without nuclear tests with yields that could be remotely detected.

Since the SIS plant is for military purposes, it will be viewed by most of the world as a new, and especially dangerous element of a continuing arms race. In particular, it will be seen as further evidence that the United States does not intend to fulfill its obligations under the Non- 3.5.2
proliferation Treaty. This can be expected to contribute to decisions by more and more countries to develop their own nuclear weapons.

EFFECTS ON FUTURE ARMS CONTROL AND DISARMAMENT NEGOTIATIONS

Going ahead with construction of the SIS plant will indicate to the rest of the world that the United States intends to use every available

4.14 means to continue increasing its huge stockpile of plutonium for weapons--now about 100,000 kilograms, incorporated into most of its inventory of about 24,000 warheads--whatever progress may be made in reducing the world's nuclear arsenals during the next decade.

Such action will be viewed by most people (including Americans) as an act of bad faith by the U.S. government in the context of current and impending negotiations with the Soviet Union for sharp reductions in their nuclear arsenals. It is quite credible that it could quickly become a major obstacle to further productive negotiations related to nuclear arms control or disarmament generally. It would certainly block any attempt to negotiate a verifiable treaty on stopping further production of nuclear weapon materials in the United States and the Soviet Union.

LACK OF JUSTIFICATION OF THE NEED FOR MORE U.S. WEAPON GRADE PLUTONIUM

4.4.6 No credible case is made for the U.S. needing more weapon grade plutonium than could be supplied by recycling plutonium in existing or prospective U.S. nuclear weapons and accumulated plutonium scrap.

4.7.1 Vague references to needs for "redundancy," "technological diversity," and "flexibility" of supply of this material, more of which is not needed in the first place, display insensitivity not only to the fiscal restraints needed to achieve a balanced federal budget, but also to the above ways that

6.3 construction of the SIS facility is likely to <u>adversely</u> effect national and global security.

ALTERNATIVE OPTIONS IN CASE OF SOVIET "BREAKOUT" IN PLUTONIUM PRODUCTION

In the unlikely event of a breakdown of future, verifiable U.S. and Soviet treaties calling for deep cuts in stockpiles of nuclear weapon materials and their means for production, the U.S. would have several options for rapidly responding in ways that would maintain our nuclear deterrent forces, without using an SIS facility.

The 10 tons or so of fuel grade plutonium earmarked as feed material for the SIS could be used <u>directly</u>, without removal of any plutonium isotopes, in nuclear weapons with all the essential characteristics of those that use weapon grade plutonium. This would not require new nuclear tests to assure their reliability and performance. Such weapons would require more plutonium, but not substantially more, than similar weapons using weapon grade material. (Such weapons require degrees of sophistication and experience well beyond those that are credible for nations in the initial stages of nuclear weapon development.) 5.2.16

A more extreme option would be to use lower grade (primarily higher plutonium-240 content) plutonium from spent power reactor fuel. The quantities of this plutonium in spent fuel in the U.S. now exceed the nation's stockpile of about 100 tons of weapon grade plutonium. The U.S. now has the design and test experience to produce reliable, efficient, light weight, and high yield fission and thermonuclear weapons using this reactor grade plutonium, with some moderate compromise in performance and efficiency. 5.26.2

Another option would be to make greater relative use of highly enriched uranium than in the present stockpiles, with some significant decrease, in some weapons, in yield-to-weight ratios.

It is common to all the above options that the conditions for any or all of them to be exercised would be extreme and not highly credible.

INCLUSION

Instead of proceeding with construction of the SIS plant, the U.S. government should press for verified, international prohibition of use of this technology for making materials suitable for use in nuclear weapons. 2.7.13

1.1

W464

HIBBS LABORATORIES

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/23/88

PHONE 343-7830
2808 CASSIA
BOISE, IDAHO 83705

April 23, 1988

Dr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

1.1 I would like to put in a plug for the S I S project. So much of the news media has been emphasizing the use of plutonium for military buildup, but little or no mention has been made that it is important for meeting long term energy needs.

5.27.9.2 Also, the laser technology associated with the S I S project is not limite to defense applications, so like most highly technical projects we can expect considerable benefit from "spin off" technology.

2.10 One item that has bothered me prior to, and during, the hearing was the active recruiting being done in this area with meetings at the YWCA to tell people what to write and how to write it, so you would be flooded by letters against the project. This would amount to my sending you several hundred copies of my letter but printing other names to it. I sincerely hope that the review committee will be able to discount many of those letters for what they are.

I would not have been concerned about this activity had they solicited comments both pro and con rather than only the ones against the project.

Sincerely,

Robert A. Hibbs

Robert A. Hibbs, PhD
Director

RAH/lh

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W465

April 23, 1988
Boise, Idaho

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/23/88

RE: SIS

Dear Mr. Nichols:

My intention has been to compose a statement. No time for that now. My thoughts on SIS are as follows.

Pro	Con	
1. Jobs? (we don't need more non-productive, government financed jobs)	1. We don't need it	6.2
	2. We can't afford it	
	3. It is too dangerous	
	4. Non-productive	
	5. Morally reprehensible	3.3.1

INEL's purpose is, as I understand it, research. Let's not degrade it to bomb plant. 1.1

Sincerely,

Edith F. Cleaveland

Edith F. Cleaveland
411 West Melrose St.
Boise, Idaho 83706
(208) 336-9523

cc: Symms
McClure
Craig
Stallings

465

Box 42
Lake Fork, Id. 83635
April 21, 1988

RECEIVED
APR 25 1988
SIS Project Office
Postmarked 4/21/88

Clg Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, 83402

Dear Mr. Nichols.

1.1 I am writing this letter in order that my feelings about the SIS issue may be known to you. I am a farmer-logger-millworker and lifetime resident of Idaho. I am entirely opposed to the SIS project. Some reasons for my opposition are:

5.27.2 1. The immense potential health and economic threat that escaped plutonium represents to South Idaho, etc.
5.1.6 2. The fact that the project is to be located in a geologic fault area.
3. To great material for furthering nuclear proliferation is morally corrupt.
3.5.2 4. Costly government pork barrel projects are irresponsible in such a time of budget deficit.

5.27.6.11

Sincerely,

Art L. Troutner, Jr.

466

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April 9, 1988

(1)

RECEIVED
APR 25 1988
SIS Project Office
Postmarked 4/20/88

Mr. Cloy Nichols
Department of Energy
INEL
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols:
This may be regarded as written comment, a formal statement concerning my objections to locating the SIS project on DOE lands on the INEL in Idaho. (Eastern) 1.1

My wife and I are opposed to locating the SIS project in Idaho at the INEL for the following reasons:

1. Historically, it is our feeling that the DOE and its spokes persons have been less than honest with the American public. In short, the DOE and its public relations people have just flat lied to us about anything and everything. Therefore the trust, the confidence and the credibility of the DOE with us is lacking. If you would like an example, I have a good one; Rocky Flats weapons assembly project near Denver, Colorado. I think I needn't say more, a glaring example nationally, enough problems to discourage even the most ardent DOE supporters. 3.2.2

2. What I do see is some administrators, specialists, technicians, trades people, managers and consultants coming from California and high rollers from back east coming in to take the high paying positions. 5.27.7.4

467

5.27.7.1 2. I foresee some secretaries and file clerks, and oh, maybe some maintenance people coming from the Idaho Falls - Pocatello area. But Idaho is not known for it's over abundance of high tech, high skills people such as nuclear engineers, physicists, technicians, nuclear specialists or other nuclear wizzards whom may be on Idaho's unemployment list waiting to be hired in the whole state. So, Let's now go to the negative side. Let's look at the risks.

2.7.10 A. Obviously having SIS in Idaho will make Southern Idaho a prime target for any enemy of the U.S. in the event of a nuclear holocost. What makes a better target than a place that produces plutonium for nuclear warheads? Either

5.1.30 another country or terrorists would find INEL a plum.

2.7.2 B. Fear, stress, threat of death, mutilation, contamination, stagnation and sterilization. Plant, animal, and human life as we know it could cease to exist. Agriculture as we know it could be ruined, the ability to grow and harvest edible foods could

2.7.8 disappear, and for how many years? NO ONE KNOWS. The death of fish, wildlife, plants, domestic animals, and Humans is a real possibility. This could come about as short term or long term or some of both depending on the contamination I suppose. Now that is real fear & stress. (that thought)

6.2 3. One would have to ask what are the risks, and what are the benefits! The benefits are that the DOE will produce some plutonium for warheads to be assembled at Rocky Flats most likely. Well I don't know what benefits Idaho would get exactly.

3. In theory I imagine or (cannot imagine) that this production of plutonium for warheads is suppose to be good for the nation as a whole.

Well I question the benefit here, because it is known that we have enough nuclear warheads now in existence to blow up the whole planet several times over. If it doesn't blow up completely, there are enough warheads to render the earth and everything on it sterile forever more - this is in the benefit column! 4.13

The argument for the State then comes back to financial benefits. Jobs, employment, work for the many people whom are jobless in a poor state like Idaho. Alright, Lets get down to it. How many existing nuclear power wizzards are out there in the breadlines are going to be put to work as GS or GM 14 or 15 positions as managers, or consultants, technicians, supervisors, in technical support or administrative positions? From the state of Idaho! Very few I think. I see no specialist 5.27.7.1 jobs coming about, what I do see are some truck driver specialists, security guards, service jobs, waitresses, maids, cooks in the city of Idaho Falls at $3.35 per hour for seven years at most. Maybe! 5.27.7.4

4. The possibility of all of Southern Idaho being totally wiped out is not far fetched from my perspective. This I am basing on the contamination of existing ground water aquifer of the Snake River Plain alone. 5.12.1

(4.)

5.30.5.10 The transportation of hazardous waste in, across or through the state or worst of all - deep burial of any kind of radioactive nuclear waste in this state will substantiate my worst fears.

6.1.9 5. People see the SIS project and INEL as a threat, most of do any way. Most people don't stay in Idaho because they are getting wealthy at their jobs. They stay in Idaho because of the values of the land. Vacation, relaxing, Evergreen forests, mountains, deserts, wildlife, fishing, boating, camping, clear water and good climate. That's what makes people stay in Idaho. If there were an abundance of jobs and an abundance of people, there wouldn't be the great outdoor life style. Wide open spaces, deserts, mountains, plains. If there becomes an abundance of pollution, stagnate water, contamination, diseases from hazardous waste, Idaho wouldn't be so great to live in. Have you tried New Jersey?

5.30.2.5 Idaho is not the cess pool of the west nor do we want it to be that way! Have you tried New York? Most people in Idaho see the SIS project and INEL as a threat to their very existence. INEL and SIS are not what Idaho is all about. Clear streams and rivers, non polluted lakes and mountains, clear air & clean water, healthy fish & game as well as healthy humans do not mesh well with plutonium, nuclear power, warheads, burial of contaminated low level or <u>even</u> high level waste, so take it somewhere else, have you tried Ohio? Indiana or the land of Lincoln?

467C

(5.)

Fear, stress, peace of mind or no peace of mind. 2.7.2
We are reminded of this daily, of fear of nuclear war between our country and another country or countries. Now just compound this anxiety with living in fear of nuclear war <u>and</u> SIS. Both of these creates psychological NIGHTMARE. Compound these fears with 6.5.5
parents of infants, or children whom may wish to see their children grow up healthy and live normal lives, having there life time on earth. Hopefully, a plutonium free future. The very nature of plutonium warheads, weapons production, nuclear warheads is a downer, it is negative. There is nothing good you can say about it. Nothing anyone wants to hear or listen too. It kills as or kills some one else or kills everybody, no winners, if it doesn't kill it cripples, maims, causes sickness and disease and then kills. Tumors, cancers, melodys, pain, suffering and death. There is no joy in plutonium or nuclear waste high or low level - Sorry.

If nothing ever happens, no accidents ever occur, no problems in seven years. SIS goes away. It still will have caused undo stress and anxiety 5.1.42
worry, it has the potential for error (SIS) has the potential for accident, has the potential for catastrophic destruction. Air, water and ground pollution and contamination which is probably worse than a big explosion because water and ground pollution can exist for - ever and ever where air pollution might not? But then again it might. That's not much of a legacy to leave southern Idaho with after seven years. Bhopal India, Chernobble, three mile Island and others. Mistakes, errors, doesn't matter what or who caused them now.

467D

Nuclear accidents have caused a lot of problems. Times-Beach! We don't need that here. Have you tried Mass or Pennsylvania?

5.1.42 Air & Ground pollution are one of the potential risks, it's a possibility. Accidents happen under the best of circumstances. Faulty engineering, faulty construction, human error, geologic conditions, act of nature, the cause really doesn't matter but the accident does, error is error and death is death! Ask yourself as I have asked myself: if an accident did happen, a bad one: the worst one: what is the price to be paid in Idaho? In any state? Even New Jersey! Can we afford it? What's the price tag? What is the bottom line? Who loses and how much? Dollars, Lives, what's a lake or stream worth?, what is a domestic well worth?, or the drinking and domestic water supply of a city or town worth? Say Twin Falls - 26,000 + Humans??? Hmmm

6.2 Can the benefits outweigh the cost of a potential accident?

5.30.1.14 There is one way to guarantee this contamination and pollution can become a reality. Just bury high-low or active waste in the ground up there at INEL. That is the plan isn't it! Any hazardous nuclear waste products that don't break down for a few million years ought to do it.

It doesn't take any mental giant to figure out what that will do.

The result of that little activity given enough time and the geology of the Snake River plain in reference to the aquifer should stiffen even the smallest hairs down your spine. 46NE

Now that would be a doozy. You see here Mr. Nichols, I'm giving the benifit of the doubt that what I am speaking about has not already happened. Has it? With not much contamination at all, the possibility of polluting the Snake river, Clear water the Columbia river and some of the Arctic Ocean is terrible and that is just the main rivers not counting all the tributaries and back waters plus all the cities, towns, irrigators and domestic water supplies along the way. Now that would be a real achievement. Contamination of plants, fish, domestic stock, wild life and water supply, agricultural products, irrigation systems. Irreversable, long term deterioration and contamination of the water supply from which grows life to everything. That is guaranteed. No doubts and no assumptions, ground water pollution will occur. I say we have too much to lose. So would New Jersey! Thank you

John W. Steele

5.12.1

5.30.4.14

467F

W468

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/21/88

2.7.9 To: CLAY NICHOLS
RE SIS TESTIMONY

ADAMS for PEACE, YES.
1.1 NOT BOMBS. I OPPOSE
THE SIS PROJECT.

THOMAS BOYD
9700½ USTICK RD
BOISE, IDAHO
83704

W469

4-22-88

Dear Mr. Clay Nichols,
I don't know if its to late to voice our opinion, but my wife and I stand in support of building the S.I.S. project. 1.1

Thank you.
Steven Cobbley
Tamara Cobbley
68 W. RICH LA
Blackfoot ID
83221

W470

Karen Ankersmit
Box 3241
Jackson, WY 83001
(307) 733-5760

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/21/88

Clay Nichols
DOE
785 DOE Place
Idaho Falls

Dear Mr. Nichols,

I would like to express my opposition to the building of the Special Isotope Separator (SIS). I am against it for several reasons.

1.1 We do not need to be extracting weapons grade plutonium when this country is (and should be!) working towards arms reductions. We don't need more nuclear weapons or the fuel for it, we need peace on this earth.

5.3.11 Secondly, I am concerned, as a downwind citizen of Jackson, of increases in radioactive vapors coming from INEL and the SIS.

5.30.4.5 Thirdly, I am against producing radioactive waste. I refer you to an article in the front section of the Sunday New York Times (4/17/88) which reports that toxic wastes from INEL have already reached the Snake River Aquifer and that plutonium wastes are already halfway to the reservoir. Are you going to wait until the Snake River Aquifer is irrevocably poisoned before ceasing your policy of producing ever more nuclear waste? This country can no longer afford to continue to produce nuclear waste without a 5.30.3.1 good method of permanently safe storage. Furthermore, I believe we can no longer in good conscience produce nuclear waste at all, now that we know it's deadly environmental impact and our inability to safeguard against it.

Lastly, I do not want to support or condone weapons production in any way, anywhere, especially not in my backyard!

Sincerely,
Karen Ankersmit

Karen Ankersmit

470

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W471

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
APR 25 1988
SIS Project Office
postmarked 4/22/88

Mr. Nichols,

I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho. 1.1

Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may lead to a better disposition of the waste. 4.9.4 5.28.7

Please bring us S.I.S.

Thank you,
Julie Brown

471

W472

Postmarked 4-22-88

RECEIVED
APR 25 1988
SIS Project Office

WM. B. LOWE
BOX 3266
KETCHUM, IDAHO 83340

Dear Mr. Nichols,

As you are situated amidst the ebb and flow of the SIS debate, please take very seriously into account the facts (and their implications) that were detailed most recently in an article which appeared in (among other newspapers) the New York Times dated April 17, 1988.

This article discusses recent and current problems that the INEL has been and still is experiencing in its attempts to store radioactively toxic waste. 5.30.4.5 Specifically, it recounts the INEL's inability to contain the waste in safe storage, the leaking of the waste into the surrounding ground, and the highly probable eventuality of the waste reaching and 5.12.1 contaminating the underlying aquifer - the water source of much of Southern Idaho's farming 4.13 and agriculture. The article goes on to make the point that the real challenge facing ~~our~~ not only our country but the world as a whole and the nuclear industry in particular, is not to build more weapons or create more electricity. The true challenge, and very real problem, is to avoid destroying through uncontrolled poisoning the bounty 472 and beauty of this quite remarkable planet and the well-being of its equally remarkable inhabitants.

Idaho is as beautiful and bountiful and remarkable and wonderfully inhabitable as any spot on earth. Nevertheless, some of her inhabitants and an unaccountably large percentage of her so-called leaders are suggesting that Idaho would be a good place to exacerbate the unsolved problems of nuclear waste. For the one thing we know about the SIS project - know better, in fact, than how many bombs will be armed or how many jobs will be created or how much economic benefit will befall the state - the one thing we really know is that more nuclear waste will be produced. And right now we are unable to adequately dispose of the waste we already have. Does this make sense to you? 5.30.3.1 6.2

Of course, the government has been and still is saying that the problems of nuclear waste storage are being solved. That's nice. The fact is, however, the problems have not been solved. Not at INEL, not in New Mexico, and not at the still-being-planned site in Nevada. What in the world makes you or anybody else feel confident that even the current leaks (like the one at INEL) can be truly stopped. We have yet to see it happen. 5.30.3.1 5.30.4.14

Consider this. Would you get on an airplane that was leaking fuel because the airline told you they would get it fixed while on route? What if they then told you that in fact they wanted to increase the leak but not to worry they would get you to your destination because they were already working at fixing the problem? Would you

472A

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fly then? Or you say "wait until the leak is fixed."

6.2 Do the state wide benefits of a few hundred jobs really offset what faces thousands if the current leakage at INEL reaches the aquifer? What is the new employee going to do when he finds his neighbors are moving out because there is radiation in the water supply which has contaminated the soil on which he grows crops and raises livestock? What is the state going to do to keep its young from leaving the poisoned earth? How will tourists

5.27.3.3 feel about visiting the state that once grew potatoes and wild trout? I can guarantee you that some number of potential visitors to the State have altered their plans after reading this article.

6.3 Where the $1 billion earmarked for SIS should go is to the research and development of a cure for the existing, life-threatening condition of uncontrolled radioactive leaks. This polemic, however, necessitates a greater discussion with many more variables and ~~many~~ far fewer objective criteria. It is simpler and immediately more important to examine the proposed SIS project at the INEL. And the issue here is whether to deal with a known problem first (a problem that is big and going to get bigger), or for the sake

5.30.5.1 of unknown economic benefits risk creating a situation that is insoluable. Keep in mind the airline will always tell you they can solve the problem. Sometimes it's good to use your own common sense and not fly.

Thank you for your time and consideration of this matter.

William R. Lane

4728

W473

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

April 22, 1988

1-DRE
1-CRN
1-T. Hall
1-File

REPLY TO ATTN OF: WD-136

Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), we have completed a review of the Draft Environmental Impact Statement (DEIS) for the Special Isotope Separation Project. We provided scoping comments for this DEIS on December 11, 1986. The proposed project includes construction and operation of a Special Isotope Separation (SIS) Project using the Atomic Vapor Laser Isotope Separation Process technology at the Idaho National Engineering Laboratory near Idaho Falls, Idaho. The project is intended to provide redundancy in production capacity, technological diversity and flexibility in the U.S. Department of Energy's production of nuclear materials for national defense.

5.1.35

Based on our review we rated the DEIS EC-2 (Environmental Concerns - Insufficient Information). The DEIS did not include enough detailed information for the accident analyses to determine if the accidents presented are the worst that can be reasonably postulated. This information may have been developed, but was not included in the DEIS. This and other comments are explained in the enclosure. Also enclosed is a summary of our rating system.

Please feel free to contact us further as you develop your Final Environmental Impact Statement. The contact in our office is Wayne Elson at (FTS) 399-1463.

Sincerely,

Robie G. Russell
Regional Administrator

Enclosures

RECEIVED
APR 25 1988
DOE Project Office

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Returned 4-22-88

544

U.S. ENVIRONMENTAL PROTECTION AGENCY REVIEW COMMENTS

DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

SPECIAL ISOTOPE SEPARATION PROJECT

BACKGROUND

The radioisotope inventory of the Special Isotope Separation Project is large in activity, but limited in its diversity. It is almost exclusively limited to plutonium and contaminating trans-uranics. This makes air quality emission control much simpler than the spectrum of mixed fission products at a facility like the Plutonium Uranium Extraction Project (PUREX). The problems become primarily one of particulate control, for which efficient and reliable control measures exist, with a long history of operational experience. The radiological impacts, as projected in the DEIS are small for normal operations. The impact of the design basis accident would not require large relocations of off-site populations or other acute measures. 5.3.9 5.23.23 5.1.42

GENERAL COMMENTS

The accident analyses were not in sufficient detail to complete a critical review. It cannot be determined whether the accidents described the DEIS are representative of the worst that can be reasonable postulated. For example, it is not clear that the considerable potential plutonium inventory of the Stand-Alone Storage Vault was included in the analysis of earthquake impacts. 5.1.35

We appreciate the difficulty in describing the human radiological dose effects in a DEIS. The DEIS discussion should be modified in the Final Environmental Impact Statement (FEIS) to include less reliance on natural background for a standard of comparison. Perhaps a table with applicable dose limits via air and water, occupational exposure, and emergency response guidelines would be useful. The EIS should not imply that background is a trivial amount, and that any small percentage increment over that amount is therefore not of any consequence. The FEIS should emphasize that the increment will be controlled to be as low as reasonably achievable. 5.23.15

SPECIFIC COMMENTS

(page)

2-17 A basic discussion of the technical problems with handling metallic plutonium in the SIS process steps should be explained in the FEIS in section 2.1.2.1. 5.24.29

2-41 The source for the isotopic distribution in Table 2-4 (Estimated Annual Quantity of Atmospheric Emissions) is not described. We note however that any reasonable variation in the composition would not have a major effect on the dose projections under normal operation conditions or emergencies. 5.23.27

4BA

5.3.6 4-5 The national ambient air quality standards for particulate matter were revised on July 1, 1987. Table 4-3 should be revised to reflect the new PM_{10} standards instead of the old TSP standards.

5.9.5 4-8 Freon emissions are estimated to be 20 tons per year. Stratospheric ozone depletion is a serious problem. Under Section 157(b) of the Clean Air Act the U.S EPA proposes to restrict production and consumption of specified ozone depleting chemicals (52 FR 47489, Oecember 14, 1987). The FEIS should include a discussion of mitigation measures such as recapture and reuse of Freon, use of non-ozone depleting chemicals and chemicals with low ozone depletion weights such as HCFC-22.

5.9.4

4-21 The text states that the average plutonium fraction released to the environment from the processing area in the postulated fire is 0.0005 kilograms. This factor is selected from a document reference that we are not familiar with. Since this factor has a very large effect on the off-site dose calculations and is used over a wide range of conditions, the basis for its selection should be included in the FEIS.

5.1.11

SUMMARY OF THE EPA RATING SYSTEM
FOR DRAFT ENVIRONMENTAL IMPACT STATEMENTS:
OEFINITIONS AND FOLLOW-UP ACTION *

Environmental Impact of the Action

LO--Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA intends to work with the lead agency to reduce these impacts.

EO--Environmental Objections

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

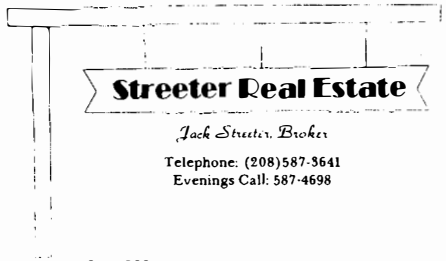
Category 3--Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment

ebruary, 1987

W474



195 North 2nd West
Mountain Home, ID 83647

April 18, 1988

Mr. Jan Hagers
Senior Engineer
Westinghouse Idaho Nuclear Company, Inc.
Box 400, Idaho Falls, ID 83403

"Special Isotope Separation Project - Testimony and comments for the record in Idaho Falls"

This country ushered in the atomic age and we owe the world good husbandry of our brain child. It can provide great benefits - and the possibility of tremendous destruction to mankind as high explosives have.

Without explosives we could not build, without atomic power for future generations the lights could go out and interplanetary travel would faulter.

Let us not throw out the baby with the bath water.

We can tame and control the great forces of nature if we use common sense, goodwill, and conscientious determination. The dollars and cents importance of Idaho National Engineering Laboratory (INEL) and Special Isotope Separation Project (SIS) are very important to the economic well-being of Idaho and the people of the Pacific Northwest. But much more than that the cleaning up of atomic waste, the saving of defense dollars, and most of all the advancement of laser science for health and the contributions to more productive applications in industry will far outweigh all other considerations.

Idaho is the right place and the right time for SIS. There will be interaction between Mountain Home Air Force Base Special Isotope Separation Project, the Idaho National Guard and Idaho Industries. Lets go for SIS.

Jack Streeter
Member - Board of Directors
The Sagebrush Rebellion

Postmarked 4/21/88

RECEIVED
APR 25 1988
SIS Project Office

474

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5.27.12.4

6.3

1.1

W475

April 21, 1987

Attention Nichols;

I was unable to attend any of the hearings - however, I wish to go on your records as being AGAINST the SIS project.

My three daughters are AGAINST as well as my husband,

Thank you,

Mrs. John H. Hemingway

RECEIVED
APR 25 1988
SIS Project Office

Postmarked 4-22-88

475

1.1

W476

1/5

Postmark 1 4-21-88

RECEIVED
— APR 25 1988
SIS Project Office

APRIL 5, 1988

M.D CASSON
5400 HILL ROAD
BOISE, IDAHO 83703

DR CLAY NICHOLS
S.I.S. PROJECT MANAGER
IDAHO OPERATIONS OFFICE
U.S DEPARTMENT OF ENERGY
785 DOE PLACE
IDAHO FALLS, IDAHO, 83402

DR. NICHOLS

MY NAME IS MARK D. CASSON. I AM A MECHANICAL ENGINEER, SPECIALIZING IN INDUSTRIAL CONTROL SYSTEMS. MOST OF THIS DECADE HAS BEEN SPENT OVERSEAS COMMISSIONING ELECTRICAL POWER PLANTS. LAST YEAR I WAS BACK IN THE STATES DOING SIMILAR WORK. I WOULD LIKE TO DIVIDE THIS STATEMENT INTO THREE SECTIONS: AMERICAN GOVERNMENT CREDIBILITY, POSSIBLE RISKS OF OPERATING A SIS PLANT, AND ALTERNATIVE USES OF SIS FUNDS.

476

I AMERICAN GOVERNMENT CREDIBILITY

FOR AN AMERICAN WORKING OVERSEAS,

2/5

EACH YEAR BEGINNING IN 1980 HAS BEEN MORE UNCOMFORTABLE. IT HAS BECOME INCREASINGLY DIFFICULT TO DEFEND THE ACTIONS OF THE U.S. GOVERNMENT. IT'S NOT EASY TO JUSTIFY HUGE MILITARY SPENDING INCREASES, CONTINUED NUCLEAR BOMB TESTING, AND STAR WARS WHILE THE U.S. GOVERNMENT INSISTS THAT WE ARE SEEKING PEACE. OUR ACTIONS SEEM A BIT INCONSISTANT: NUCLEAR DISARMAMENT NEGOTIATIONS, AND INCREASED BOMB GRADE PLUTONIUM PRODUCTION. TECHNICAL ORIENTED PEOPLE IN FOREIGN COUNTRIES OFTEN COMMENT ON THE FACT THAT THE ONLY THINGS THAT THE U.S. PRODUCES THAT ARE THE BEST ANYMORE ARE MISSILES, MILITARY AIRCRAFT, NUCLEAR SUBMARINES AND OTHER ARTICLES OF WAR. IT'S PRETTY OBVIOUS THAT THIS IS TRUE. TO AN EXTENT, THE EYES OF THE WORLD ARE STILL FOCUSED ON THE U.S.. WE NEED TO IMPROVE OUR IMAGE SO THAT THE U.S. CAN TAKE THE LEAD IN THE RESOLUTION OF THE REALLY SERIOUS WORLD PROBLEMS, LIKE: OVERPOPULATION, DEFORRESTATION, AND THE RESULTING GLOBAL CLIMATE CHANGES. I SUGGEST THAT WE SCRAP THE S.I.S. PROJECT AND SET A MORE CREDIBLE COURSE IN THE FUTURE.

3.2.2

3.4

1.1

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3/5

I Possible Risks of Operating a S.E.S. Plant

5.8.3 Every engineer and scientist knows that it is impossible to realize the perfect design. Compromises are always made between efficiency, safety, cost, reliability, etc. The designs of the brightest engineers will always have flaws; in process control there will always be potential operating conditions that were overlooked during plant control system design. The result of these overlooked or underestimated conditions when processing a material such as plutonium could be disasterous.

5.24.11 More than once I have been asked by superiors or customers to de-activate or bypass safety interlock systems so that machines could continue to operate, even though continued operation posed serious safety threats. My refusal of these requests nearly cost me my job on a couple of occasions. When unscheduled down time occurs on process equipment, often drastic and unsafe measures are taken to bring equipment back on line. We've probably both seen "The China Syndrome"; well that kind of activity does occur in industry. Why could it not occur at a S.E.S. plant?

476B

-/5

4/5

II Alternative Uses of S.E.S. Funds

Each year in September and October the Western United States goes to war on our own soil. I'm speaking of forrest fires. Last year the entire fire fighting capability of the nation was deployed in the west; millions of acres went down uncontested. The required 6.3
funds to fight a war of equal magnitude this year do not exist. I propose that funds allocated for the S.E.S. project be used to strengthen our capability to fight our own yearly domestic war. It is very frightening to me to think that we are so vulnerable. If terrorists got serious and blew up Glen Canyon Dam and Grand Coulee Dam as well as set thousands of forrest fires in early fall, what would happen to the U.S.? The lives of millions would be in jeopardy over night, kind of like a limited nuclear exchange.

In conclusion, I would like to add that the Boise Public 2.8.1
Hearings were very refreshing.

476C

W477

5/5

Box 42
Lake Fork, Id. 83635
April 21, 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, 83402

Dear Mr. Nichols,

Iam writing this letter so that my feelings on the SIS issue may be known to you. I am a housewife and lifetime resident of the state of Idaho. I am opposed to the SIS project. Some reasons for my opposition are:

1. The immense potential health and economic threats escaped plutonium represent.
2. The fact that the project is to be located in a geological fault area.
3. Costly government pork barrel projects are irresponsible in such a time of budget deficit.
4. Tocreate material for furthering nuclear weapons proliferation is morally wrong.

1.1
6.1.2
5.10.7
6.3
2.7.2

Sincerely,

Carolyn Trautner

477

Postmarked 4-21-88

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SIS Project Office

2.8.1

IT WAS NICE TO SEE AND HEAR. AMERICANS TRY ING TO MAKE DEMOCRACY WORK. LETS ALL HOPE THAT GOVERNMENT ACTIONS WILL REFLECT THE TRUE FEELINGS OF THE NATION. THANK YOU FOR YOUR ATTENTION,

REGARDS

M. D. CASSON

M.D. CASSON

549

476I

W478

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

1.1 I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

4.9.4 Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may
5.28.7 lead to a better disposition of the waste.

Please bring us S.I.S.

Thank you,

Carl D Carlson
1200 Jackson
Idaho Falls
Ida

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APR 22 1988
SIS Project Office

Postmarked 4/21/88

W479

Dr. Clay Nichols
U. S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Sir;

I know that as a representitive of an organization, I gave an approval of the SIS project. But as an individual, I feel strongly that I should have an independent voice. It is not because of the fact that I work at CPP that I feel the need for the SIS project, but for the technology and expertise that will be brought to Idaho. To stiffle this knowledge and put aside this technology because of fears of unknowlegable people is sad. I for one feel that we as people of a great country such as ours have every right to be the best and we cannot be if we let the opposition of our government take away our rights. Let us build whatever is necessary for the good of our country, and let freedom ring for our Nation. 1.1

5.27.9.1

Thank You,

Birney L. Phillips
Birney L. Phillips

479

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APR 22 1988
SIS Project Office

Postmarked April 21, 1988

550

W480

Donna Bo
226 South Sixteenth St.
Pocatello, Idaho 83201

April 20, 1988

To: Dr Clay Nichols

Re: SIS Project

1.1 I am opposed to the Special Isotope Separator being built in Idaho
4.15.5 or anywhere else because:

1) I don't think any more plutonium production is necessary

2.1.1 2) I'm not convinced that environmental
5.30.4.7 concerns have been adequately addressed. After years of knowing about possible leaking of nuclear wastes into the aquifer, that problem still exists. Additional wastes from the SIS would only compound the problem.

5.27.10 3) Any boon to our employment would only be temporary, and in the long run, would be a detriment to our state economy. I'd rather have Idaho known as a state of scenic wonders than as the "weapons producing state"

480 (over)

I think that our national attention should be focused on reducing nuclear weapons, not increasing them. 4.14

Please enter my opposition to the SIS into your records. Thank you.

Sincerely,

Donna N. Bo

480A

postmarked 4/20/88

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SIS Project Office

Postmark 4-21-88

RECEIVED
— APR 25 1988
SIS Project Office

1/5

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W481

MR. Nichols,
Being From The Magic Valley
1.1 area I would Like to
Express my support of The
S.I.S. Project. There is a
Lot OF Money From Wages
5.27.6.1 That are Made at The D.O.E. site
And spent in The Magic Valley
area. Being a depressed area
I Feel we Need This project
For The economy of our State

Gil Humberger

Gil Humberger
171 Moreland
Twin Falls, Idaho 83301

481

postmarked 4/21/88

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APR 22 1988
SIS Project Office

W482

April 20, 1988

Dr. C.R. Nichols
DOE-SISPO Project Manager
785 DOE Place
Idaho Falls, Idaho 83402

Gentlemen:

I support the SIS Project proposed for the INEL. 1.1
I believe it is needed for national security
and that it will be operated safely. The INEL 4.15.4
has an excellent safety and environmental
protection record, and I'm convinced that there are 5.24.30
no undue health risks, environmental impacts,
transportation risks, or safety concerns associated 6.1.2
with the SIS Project.

Sincerely,

R.D. Nelson

482

postmarked 4/21/88

RECEIVED
APR 22 1988
SIS Project Office

W483

April 17, 1988

Clay Nichols
SIS Project Manager
DOE-Idaho
Idaho Falls, ID 83402

Dear Mr Nichols:

I have waited till the very last moment to voice my opinion on the question of locating the SIS at the INEL facility in Idaho. I have done this to insure that I have had access to as much information as possible so as to make an informed decision.

1.1 After reading the April 17th edition of the Idaho Statesman I can't imagine how any sensible person could possibly support this facility, therefore I strongly object to its presence at the INEL.

6.2 Upon digesting all of the information on this subject I can only conclude that the only reason for its existence is the jobs that this facility would create. Can any sane person be willing to risk the dangers to our citizens and our environment for the sake of a few hundred jobs? Have you folks at the INEL become so engrossed in your plutonium projects that you can't see the forest for the trees? Are we not trying to make this place a

6.5.5 better world in which to live in and raise our children in. You dangle the prospect of a few hundred jobs in our faces and then expect us to be grateful that our tax dollars are bringing jobs to Idaho. Talk about nuclear blackmail!!

Since I am sending copies of this letter to our congressional delegation I would like to add that I am ashamed that our representatives were so taken in by the jobs issue (including the Governor) that they would ignore the health and welfare of their constituents by endorsing this project. But what else can you expect from a politician.

Sincerely,

Art Thiede
Ketchum, Idaho

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APR 22 1988
SIS Project Office

483

postmarked 4/21/88

W484

Dear Mr. Nichol:

I adamently oppose the SIS project. I urge you to support the no ~~Action~~ option! 1.1

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APR 22 1988
SIS Project Office

postmarked 4/21/88

484

Leah Pedersen
PO Box 1778
Hailey Idaho 83333

W485

4/21/88
Box 38,
Ketchum, Idaho

Dear Mr. Nichols,

3.2.1 It would take a long time and many pages for me to list for you all the news clippings I have ammassed regarding this issue , all of which prove to me that the People in charge of producing weapons grade plutonium can't be ltrusted to have any integrity at all in regards to discerning safety considerations.

5.24.27 Take for instance the Mountain Express article dated Sept3 1988 in which Pete Mygatt states that contrary to public belief, plutonium has never caused cancer in a human being. Now according to my book on the subject, "Plutonium is one of the most toxic substances in the world...you could hold aningot of plutonium next to your heart or brain, fearing no consequences. But you can't breathe it. A thousandth of a gram of plutonium taken into the lungs as invisible specks of dust will kill anyone--a death from massive fibrosis of the lungs in a matter of hours, or at most a few days. Even a millionth of a gram is likely,eventually, to cause lung or bone cancer. Plutonium that enters the bloodstream follows the path of calcium. Settling in bones, it gives off short-range alpha particles, a form of radioactivity, and these effectively destroy the ability of bone marrow to produce white blood cells." p. 44 THE CURVE OF BINDING ENERGY by John McPhee 1974

485 4/21/88

Now, either McPhee is a liar, or Mygatt is. Mygatt draws a paycheck to keep the INEL in business, and in my book, that makes his fantasy not just amusing, but criminal as well.

Now this same article mentions the leaching of radioactive waste below the storage facilities. Mygatt says there arenot yet any ideas as to what is causing the leaching or how to deal with it. 5.30.4.7

Well isn't that just SPECIAL, to quote the "church lady" on Saturday Night Live! In other words, there was never ANY DAMNED CONTINGENCY PLAN AT ALL TO DEAL WITH THE POSSIBLE SCENARIO OF LEAKING WASTE???!!!

WHAT THE HELL KINDS OF IDIOTS ARE RUNNING THE D.O.E. ANYWAY? The same idiots probably who are hell-bent on burying the S.I.S. projects' waste in a New Mexico facility dug out of salt. In spite of the protest of dozens of highly qualified scientists that the water leaking through the salt caverns is undoubtedly going to corrode containers of waste, The D.O.E. is going to bury the stuff anyway, and if it corrodes, then figure out what to do with it!! That will be a fun project for the clean up crews, dealing with the glow- stuff-- after the containers have all rotted away from it! 5.30.2.1

Our groundwater supplies across the nation are rapidly being poisoned, to such an extent that builders are warned new construction is being halted in many cities because of lack of fresh water supplies. (Troubled Waters, June Fletcher, Builder Magazine, Aug 1987) 5.12.1
But here in Idaho, Injection wells merrily flushed radioactive wastes into the Snake river aquifer for years without compunction, until the public woke up to what was going on and raised a stink. 5.17.2

554

Now either the D.O.E. people in charge are illiterate and innocent, or they are on the take and figure to be long gone and untouchable by the time groundwater pollution reaches proportions where it can no longer be used to irrigate, flush toilets, or drink. Lee Iacocca told his design engineers to produce a 2000 pound car for under 2000 dollars. The Pinto which resulted would explode on impacts of 28 mph or more. G.M. tests before marketing proved this, but the company got out their calculators and decided that after lawsuits, they would still be in the black. So the car was sold to the unsuspecting public.(Pinto Madness,p.23, CRISIS IN AMERICAN INSTITUTIONS, Little, Brown, Co 1979) These days, Lee Iacocca is walking around a free man, in spite of death by incineration of hundreds of people whose only crime was to pay money for his product. So maybe INEL can market this project.

5.12.1

1.1

But they can't market it safely. There's no way you can keep putting more people, moreradioactivity, and a fragile aquifer in close proximity and have safety. And you're criminal liars if you say you can.

Yours Truly,

Loree Wilcke

Loree Wilcke

555

W486

4/20/88

Yes Yes SIS

For the good of Idaho and Idaho People we need SIS.

1.1

W J Schmidt

486

postmarked 4/21/88

Lane Schulz
BOX 2569
Hailey ID 83333

April 20, 1988

Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 I am opposed to the proposed SIS plant. I feel strongly that it should not be built in Idaho, and suspect that it probably should not be built anywhere.

5.30.1.13 I don't feel that the DEIS adequately covers the issue of waste disposal. We already have more than enough plutonium-contaminated wastes "temporarily" stored at

5.30.3.8 INEL. We have been trying for many years to get the DOE to remove those wastes, which reportedly have already contaminated the ground where they lie. No more, please!

5.7.15 Neither does the DOE discuss in the Draft Environmental Impact Statement what measures would be taken in case of contamination or accident. It is possible, even if remotely so,

5.29.87 that plutonium could be released while being transported through our state. What then? Besides, the INEL is located on the source of fresh water for many thousands of Idahoans.

5.12.1 It seems short-sighted for us to trade a few hundred jobs for potentially contaminated water for so many. Other DOE facilities have been seriously contaminated with nuclear waste, so I have little confidence in the DOE safety record.

3.2.1 Finally, I don't think the DEIS satisfactorily addresses a major issue - do we need to produce more plutonium? I believe that we will soon be awash in plutonium, as weapon reductions continue. Hence my belief that the DOE hasn't proven the need for the SIS facility to be built anywhere.

4.1 I hope that you will study these issues and others further, and abandon plans to build the SIS in Idaho.

Sincerely,

Lane Schulz

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SIS Project Office

postmarked 4/21/88

487

556

Renee Beal
2306 Pleasanton
Boise, ID 83702
April 20, 1988

Idaho operations office
785 DOE Place
Idaho Falls, ID 83402

Re: SIS Testimony

To Mr. Nichols:

As a citizen of Idaho, Ifeel it is my right to voice my opinion on the SIS program. 1.1

Although I do feel that Idaho can use all the jobs it can get, I am opposed to this project. I do not want my children's children growing up bald, mentally or physically deformed, or worse yet, not getting the chance to grow up at all. I think that anything can and will happen, and an accident could kill us all. 6.5.5

5.29.87

Thank you for your consideration,

Renee Beal

Renee Beal

488

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postmarked 4/21/88

W489

.pril 20, 1988

420 Crestline Drive
Boise, ID 83702

Mr. Clayton R. Nichols
SIS Project Office
Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

For The Public Record

Comments On the Draft EIS for Special Isotope Separation Project

Dear Mr. Nichols:

2.1.1 The draft Environmental Impact Statement (DEIS) for the Special Isotope Separation Project is an unreliable document which does not satisfy National Environmental Policy Act requirements. Our comments below address the DEIS inadequacies. We request that the Dept. of Energy completely reissue the DEIS so that meaningful analysis may be performed on this critical proposal.

2.4 **Lack of Clarity/Need For Project**

National Environmental Policy Act (NEPA) regulations state that an EIS must be "clear and to the point." 40 CFR Sec.1502.1. Our reading of the DEIS leaves us with immense confusion as to the need for the SIS project. The justification in the third paragraph of the DEIS 1-2 is totally vague and fails to explain the underlying need for the project. You have also failed to reference any classified documents index that

4.11.1 could support the actual necessity for providing more weapons-grade plutonium. We understand that national security considerations may prevent a layperson from reviewing all details for plutonium stockpile increase, but certainly Congressional decision-makers need a more comprehensive discussion of need and not the gobbeldy-gook of this DEIS. To provide an adequate EIS to the public, your needs discussion certainly could be expanded and more clearly written without national security exposure problems.

If your subcontractor and the DOE must also print the unprecedented "disclaimer" on the inside cover of the DEIS, we have even further doubts about the project. NEPA requires you to fully justify this project and clearly explain its impacts. Be it a mistake or not, this

2.3 disclaimer, that attempts to avoid legal responsibility for "accuracy, completeness, or usefulness" of the DEIS information, is astounding. Its printing alone probably invalidates the entire document. What are we supposed to rely on to analyze this project, if not the DEIS?

Incomplete Disclosure of Waste Plans and No Worst Case Analysis

The DEIS is particularly inadequate in its discussion of transuranic

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waste handling matters. You have stated that an unspecified amount of extremely concentrated plutonium byproducts would be stored onsite in stand-alone vaults "until such time as DOE evaluates its potential applicability for other possible missions." (p.v1) The safety of this storage is not fully analyzed. We do not know how long such highly lethal byproducts would be onsite--one year, two, four, ten? 5.30.1.11 5.4.1

The INEL already is an above ground repository for supposedly other "temporary" transuranic waste from all over the country. If the DOE finds no other "use" for SIS byproducts, they are supposed to go to the WIPP plant in Carlsbad, New Mexico--along with all the other transuranic waste materials we already store in Idaho because of the lack of nuclear waste disposal facilities. Now, Congress and the public have been informed that serious leakage is occurring at the WIPP site. These problems may close the WIPP site and thus prevent the removal of any of these concentrated and other transuranic wastes from INEL to New Mexico. 5.30.2.1

This closure of WIPP and the locating of an alternative permanent disposal site must be evaluated in the DEIS or else the very real possibility exists that the INEL will become a long-term storage site. But this scenario is not evaluated in the DEIS. Sitting above the Snake River Plain aquifer, waste spills, leaks from storage or during handling procedures could cause irreversible losses to Idaho's potato industry, the nation's largest commercial trout producers and drinking water supplies. Since the potential scope of potential impacts is exceedingly broad and not clearly predictable, the DEIS should have engaged in a worst-case analysis. Its failure to do so violates NEPA. 5.30.2.5 5.12.5 2.13.16

Superficial Treatment of Geologic Hazards

Paramount in our concern about waste handling and long-term disposal are the geologic hazards that exist in central and eastern Idaho. Long known for its seismic activity and volcanic events, the INEL area has the potential to experience serious earth movements at any time. The DEIS is particularly startling in dismissing these hazards as "low magnitude." A worst-case analysis and an honest discussion of geologic hazards must be included in a revised DEIS for this project. 5.10.5 5.10.22

Transportation Problems and Accident Response Assessment

Another very real threat concerning SIS routine operations, waste handling and disposal are the safety risks inherent in our state highway and interstate systems. The poor conditions of Idaho's roadways need better analysis in the DEIS. This document also should focus more carefully on the ability to rapidly marshall clean-up expertise from federal and state agencies along the many miles of rural highways which will be supporting waste shipments in and out of Idaho. In addition, many shipments from the Hanford site to INEL will pass near Idaho's largest metropolitan area. Assessing long-term effects of I-84 accidents in the populous Treasure Valley or along valuable 5.29.63 5.29.66 5.29.100

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farmlands such as those in Canyon and Twin Falls Counties should be more thorough than in the present DEIS.

Economic Benefits Are Misrepresented in the DEIS

5.27.10 While the DEIS boasts of job creation in Idaho, the temporary nature of this project requires analysis of the many economic disadvantages and dislocations that will occur when the plant shuts down in 7 or 8 years. Why is there no discussion of SIS shutdown impacts on the local
5.1.38 economies? Further, the economic dislocation and injury caused by just a minor SIS "accident" and its impacts on our agricultural, hunting, fishing and tourist economies have not been evaluated in the DEIS. Even if no accidents occur, the DEIS should also discuss the economic downturn of lost opportunities because of the presence of a nuclear weapons production plant. The INEL sits on a major route for tourists travelling between the Greater Yellowstone/Henry's Fork area and the Sawtooth/Whitecloud recreation areas. Tourism is the fastest growing industry in Idaho today (outfitter revenue increases 10% annually, a
5.27.1.11 fact no other industry can claim), yet the DEIS does not analyze how the SIS would impact this major industry.

2.2.12 Lastly, with a gigantic federal deficit, Congress could stop the SIS during construction or operation in order to save money, or, because
3.2.1 nuclear arms limitation measures may clarify the lack of need for more weapons-grade plutonium. This eventuality is not discussed in this DEIS but it is a very real scenario that should be evaluated so that an informed, proper decision can be made on this project.

5.1.46 We are Idaho natives and are personally quite unhappy with the DOE's poor safety record and the lack of oversight on its programs. Three nuclear criticality accidents have already happened at Idaho's INEL Chemical Processing Plant. With this track record and the present, inadequate SIS DEIS, it is prudent to oppose building this project in Idaho. Before any decisions are made, we need **much better data and discussion**.
2.1.7 SIS economic and environmental impacts must be completely re-evaluated and a new draft statement must be issued that comports with the National Environmental Policy Act. A supplemental DEIS will not suffice because of the numerous failings in the current document.

Sincerely,

Kay Hummel & Jeff Fereday

W490

Dear Mr. Nichols,

Sir.

I believe the proposed SIS project to be a waste, 1.1
and threat to mankind and earth!

"What ever befalls the earth befalls the sons of the earth. If man spit upon the ground, they spit upon themselves. All things are connected."

the poison you plant in 6.5.5
the earth now, will in the ~~future~~ future poison your children and in turn there children.

All things are connected!

love life. 490

Richard Self
Box 322, Ketchum Id.
83340

W491

RECEIVED
APR 22 1988
SIS Project Office

postmarked 4/21/88

4/20/88

Sirs,

A few jobs. Such shortsightedness! If SIS doesn't fly in Idaho, do you think it means anyone will starve? Does it mean the children of these bomb builders will walk naked until their death? No, no, no! No fatalities will result. They will survive somewhere else in pursuit of happiness. Eastern Idaho will endure the embarrassment of "loosing" the filthy production facility. They may even come up with something of value to the future of mankind.

Death factories. What a negative pursuit. Poison that lasts a fractional part of forever. What a noble task. There isn't even an effort to lie and say the bombs are for peaceful purposes. They are for war, death and destruction! To prove we've got the power and our way is the right way. What we claim worthy of protection won't survive the use of these weapons anyway. Win the battle and loose the planet.

We don't want your factory. We don't need your jobs. We don't agree with what you want to do. Since you believe what you bring is valuable and we must have your killing power, do it somewhere else. How about some other part of the universe? I doubt your poison would be welcome anywhere there are thinking, compassionate life forms.

You don't need more plutonium. Conserve what you have. End your tests. Save it for when you really need it. The last day, when fools prevail, and we use the bomb again.

491

Benjamin Schuppe and Helen Stone
Box 543 Hailey, Idaho 83333

5.27.6.1
6.1.13
6.5.5
3.4
1.1
6.3
4.15.5

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W492

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APR 22 1988
SIS Project Office

1.1
2.7.2
4.14
5.24.30

PETITION TO OPPOSE THE SPECIAL ISOTOPE SEPERATION PROJECT

We the undersigned are opposed to the development of the Special Isotope Separation project at INEL in Idaho. It is morally wrong and flies in the face of the recently signed nuclear weapons reduction treaty. It is wholly and simply a weapons production project -- dangerous to life as we know it on earth. It is also not a safe project for the residents of Idaho and neighboring states. We feel the project should be abandoned.

Meis, Richard R.		718 S. 12th Bozeman MT 59715
Adam, Margaret	Margaret Adam	Box 5197 Bozeman MT 59717
Mueller, Holly	Holly Mueller	714 15th Boz. Montana 59715
Sean Knight		P.O. Box 5013 Bozo MT 59717
Treut, Dennis		808 E. Davis Bozeman, MT 59715
Tom Noble		108 E. Beall Bozeman, MT. 59715
Liz Galli		108 E. Beall Bozeman, MT, 59715
Jill Oppenheim		719 S 3rd Ave Bozeman, MT 59715
Ray Peaks		702 So 7th Boze MT 59715
Mary Stoll	Mary Stoll	1000 N 17th #238 "
Dave Michael	DAVE MICHAEL	421 W. CLEVELAND 59715
Mitofsky Elisa		617 S. 5 St Bozeman MT 59715
Pfaff, Elizabeth	Elizabeth A. Pfaff	17 Jefferson CT. Bz. MT. 59715

Please enter this petition into the record

Thank you

492

W493

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

1.1 I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

4.9.4 Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may
5.28.7 lead to a better disposition of the waste.

Please bring us S.I.S.

Thank you,

[illegible]
375 W 20th
Idaho Falls,
Id. 83402

493

RECEIVED
APR 22 1988
SIS Project Office

postmarked 4/21/88

W494

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho. 1.1

Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may lead to a better disposition of the waste. 4.9.4 5.28.7

Please bring us S.I.S.

Thank you,

Richard F. Sanders
2145 Bird Chevelle Circle
Idaho Falls, Id 83403

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APR 22 1988
SIS Project Office

postmarked 4/21/88

560

W495

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

1.1 I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

4.9.4 Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may lead to a better disposition of the waste.

5.28.7 Please bring us S.I.S.

Thank you,

[author block illegible]
1779 Coralyn
Idaho Falls, Idaho 83401

495

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APR 22 1988
SIS Project Office

postmarked 4/21/88

W496

JOHN R. HORAN
RADIATION PROTECTION CONSULTANT
1791 CORONADO ST.
IDAHO FALLS, ID. 83402
208-523-3322

April 19, 1988

Dr. Clay Nichols
SIS Project
785 DOE Place
Idaho Falls, Id, 83402

Dear Dr Nichols,

I presented an oral statement at the March 30, 1988 Construction Hearing in Idaho Falls. I was pre-registered speaker # 84.

I would like the 2 page attachment to this letter, titled "Information on U.S. Experience with the Transport of Radioactive Materials" included as additional written Testimony. This material is based on 10 years of experience in the USA with the shipment of all types of radioactive materials. The data was collected while I was Chief of the Radiological Safety Section in the International Atomic Energy Agency in Vienna Austria.

Sincerely

John R. Horan

496

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SIS Project Office

561

Information on US Experience with the Transport of Radioactive Materials

MISCONCEPTIONS ABOUT THE TRANSPORT OF RADIOACTIVE MATERIALS

* Most people believe that Radioactive materials are the most dangerous materials transported on our highways.
* It is assumed that many people have been killed and injured as a result of the highway accidents involving the transport of radioactivity.
* Many people assume that Radioactive materials are the most common type of hazardous cargo.
* It is widely believed that the amount of radicactivity shipped is almost totally dominated by nuclear power plants and material for nuclear weapons.

All of these assumptions or beliefs are false! !

RADIOACTIVE MATERIAL TRANSPORT FACTS

In the United States in 1984 out of a total of 2,400,000 Radioactive Shipments:

* 85% of the radioactivity (in curies) was for industrial applications
* 67% of the packages were for medical use
* 77% traveled by highway
* 69% were Type A packages (No significant radiation exposure if 100% were released following an accident).
* Only 0.02% of hazardous cargos involve radioactive materials
* Less than 2% of the radioactivity (in curies) were nuclear power plant or weapon material oriented
* Worldwide, not a single person has been killed or injured as a result of radiation expcsure following an accident involving the transport of radioactive materials
* The transport of Radioactive materials are protected by packaging regulations of the International Atomic Energy Agency and have proved to be the safest for any hazardous materials being transported.

USA RADIOACTIVE MATERIAL TRANSPORT ACCIDENT EXPERIENCE

(1971 - 1981)

	36	Raw Materials (ores)
	26	Low Level Waste
	24	Industrial Radiography Sources
	18	Medical Sources
	4	Spent Fuel Casks (2 of which were empty)
Total:	108	Accidents involving 1198 packages

RADIOACTIVE MATERIAL TRANSPORT PACKAGE TYPES IN ACCIDENTS

(1971 - 1981)

	INVOLVED	RUPTURED
"Strong Tight " (Drums)	804	56
Type "A" (Cartons with non-hazardous quantities)	286	5
Type "B" (Survivable containers with hazardous quantities)	108	0
Total:	1198	61 (5%)

Reference Source:

1. International Atomic Energy Agency Bulletin, Vol. 27, Spring 1985, Vienna

W497

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

1.1 I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

4.9.4 Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may
5.28.7 lead to a better disposition of the waste.

Please bring us S.I.S.

Thank you,

Shirley Fortner
530 Lomax Dr.
Idaho Falls Idaho
83402

497

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SIS Project Office

postmarked 4/21/88

563

W498

Dear Mr Nichols:

I believe the proposed SIS project to be absurd. I adamently oppose any such evil. I strongly urge support of the No Action (anywhere) option! 1.1

Steven Straiton
Box 1662
Hailey, Id.
83333

498

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APR 22 1988
SIS Project Office

postmarked 4/21/88

W499

REC
APR 22
SIS Project Office

April 19, 1988

TO: Clay Nichols - DOE

FROM: betsy brunner
1115 N. 22
boise ID 83702

postmarked 4/21/88

1.1 - please include my vote of NO to the sis project - NO to building it anywhere - From the testimonies at the hearings, from my own readings, I believe this to be an incredible danger, far outweighing its benefits to the power mongers pushing for it. as for as all Idahos top elected officials wanting it - well i guess they don't always check out what their constituents want -

6.2

thank you -
betsy brunner

NO to SIS

499

W500

REC D
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

Box 136
Stanley, ID 83278
April 20, 1988

Dear Mr. Nichols,

I am writing to protest the siting of the SIS facility at the I.N.E.L. A major consideration is the amount of waste materials that will be generated. The fact that the New Mexico Waste dump may not work could leave the I.N.E.L. as a waste dump. 1.1 5.30.5.7 5.30.2.5

The S.I.S. will produce 70 million gallons of waste water each year. This will be a twelve percent increase in the waste water slowly percolating into the earth at the site. Because of the importance of the Snake River aquifer to all of Southern Idaho, we must do everything in our power to protect that resource from contamination. 5.21.4

500

564

5.30.4.9

In the April 17, 1988 issue of the New York Times, it was brought out that there has already been a plutonium leak at the I.N.E.L. Despite of our advanced technology and great care, accidents will happen. Please lets work to preserve the purity of the Snake River Aquifer

5.12.1

Sincerely,

Clem L. Christensen

500A

W501

04/21/88

RECEIVED
APR 22 1988
Idaho Operations Office
Postmarked April 21, 1988

April 21, 1988
Filer, Idaho

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

COMMENTS ON THE ENVIRONMENTAL IMPACT STATEMENT
ON THE PROPOSED SPECIAL ISOTOPE SEPARATION PROJECT

My name is George Anthony. I live on Route 2, Filer, the town in which I was born and raised. I derive from a pioneering family dating back to when New York was known as New Amsterdam. I carry on the tradition of my family in exploring new areas, which will will become apparent as I relate my background.

I was going to wear my "Gorbachev suit" but was concerned that my friends wouldn't recognize me in a dark suit and "power" tie. I have just recently been to the Soviet Union where it was expressed to me that the Chernobyl accident had a humbling effect on associated scientists and engineers, and central planners. I hope this new born disease of humility spreads and becomes international.

I have a degree in Physics, writing my masters thesis on criticality of graphite-uranium nuclear reactors in several configurations. At the Hanford Reservation among other activities I have the experience of being the area Physicist for the F Reactor complex which produced plutonium and tritium material for nuclear weapons.

Another physicist and I wrote the critical paper on the incidental production of Neptunium 238-Plutonium 238 which led to the only truly successful thermal source for generating electrical power in a specs satelite.

By drawing upon neutron transport theory, as specialized from the radiative transfer mathematics of the astrophysicists, I also performed a series of calculations on the criticality of moderated plutonium masses of a simple shapes. I will be referring to the results of these still valid investigations in my discussion.

501

595

566

Later in my professional career, this time with AeroJet General I developed the system preliminary design for the Power Conversion Unit of the SNAP-8 nuclear space power supply. The nuclear reactor design was a hydrided yttrium metal matrix containing the plutonium fissionable material. The active core in volume was no more than several cubic feet. It is the moderating influence of the hydrogen that permits such a small core volume and, most significantly, implies a minimal amount of plutonium required to sustain a critical mass.

In this connection, the major collection process for the laser enhanced plutonium from its feed material requires hydriding (adding hydrogen to) the collected product in a recovery tub. The submitted information of the Environmental Impact Statement is too vague for a detailed understanding of this procedure. Even so, the following considerations apply to this potentially hazardous design.

2.1.4

My earlier calculations showed, in keeping with experimental measurements, that only 746 grams of weapons grade plutonium is needed for criticality. In the case of the SIS plutonium processing building the operating design calls for an average 3 kilograms of plutonium to be "at risk" in any given single process area. It is apparent that the peril of a momentary, accidental concentration of hydrided plutonium is present. The resulting nuclear "excursion" would require evacuation of the process building and environs, and cause an indefinite halt to its operation.

5.1.49

The 746 grams of plutonium stated previously was for an untamped critical mass. This is jargon expressing that a neutron passing through its surface (a sphere in this case) would never return. If there is a possibility for the neutron to be scattered back from whence it came, then the required amount of plutonium is reduced accordingly.

An examination of the design of the process line shows that hydrogen, the most efficient scatterer of neutrons, is present in the form of hydrogenous shielding, condensate from glove-box process steam, water loops for cooling, and automatic sprinkler systems. Mentioned in passing was a "criticality drain" in the glove boxes for "abnormal situations".

Since the fuel grade plutonium to be upgraded spontaneously supports neutron emission, one may expect that neutron fluxes will wax and wane according to the concentration of the product while passing through the process lines. It is quite possible that the accumulation in pockets of product and neutron induced radioactivity will shorten the accessible lifetime of the building to only a few years.

5.31.17

501A

I conclude that this attempt to go in one fell swoop, from laboratory research conducted by experienced and knowlegeable scientists and engineers, to an industrial SIS production facility, is unwarranted, unwise, and potentially unsafe. A sparsely populated desert area for emplacement and a hungry work force clamoring for jobs are a dubious impetus for going ahead with this installation. The unproven need for additional weapons grade plutonium should close the books on this project.

5.24.19

Perhaps it would be better, if developmental technology for heavy element isotopic separation must be continued, that experience be be gained on a small scale prototype basis by using uranium metal instead. At least a case can be made for stockpiling enriched uranium for possible use in next century's generation of nuclear power reactors. While it is true that still another set of environmental concerns would be introduced, they could be controlled to be minor compared with the proposed Special Isotope Separation Project using plutonium.

6.2

4.15.1

5.28.6

George W. Anthony

George W. Anthony
Route 2
Filer, Idaho 83328

501B

W502

April 21, '88

Bruce Tomseth
Box 2570
Hailey, ID 83333

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

To Whom It May Concern

I would like to submit my comments on the proposed Special Isotope Seperator facility to be constructed at the INEL. I oppose the construction of this facility.

4.15.5 My opposition is based on my belief that there is not a strategic need by this country for more plutonium and plutonium production. It is well known that the United States already has substantial reserves of plutonium. In addition to this supply of plutonium, the plutonium from obsolete warheads can certainly be recycled. This is not to mention the supply of plutonium that will be made available under the startegic missle agreement and future missle reductions that the United States and the USSR will be negotiating.

2.1.1 Also in my consideration there is ample evidence that he risks to the environment have not been adequately addressed. The technology to be used at this plant is obviously not as safe and tested as the technology of a nuclear power plant. The

5.24.18 containment of the plutonium leaves open the possibility of extremely dangerous releases of plutonium should there be an accident. And then there is the problem

5.30.3.8 of the wastes produced by the plant, where they will be stored, and the risks inherent in the long term storage of the wastes.

5.29.97 Then there is the risks posed by the greatly increased transportation of plutonium throughout the United States should this plant be put into operation.

And finally the risks of possible earthquakes has not been properly evualuated.

RECEIVED
APR 22 1988
SIS Project Office

Postmarked April 21, 1988

Bruce Tomseth

W503

4-20-88

Dear Sirs; 503

I am writing in PROTEST of the proposed SIS development. The reasons are many: ① It escalating the nuclear arms race ② It could potentially contaminate people, land and water with carcinogenic matter ③ It increases our toxic wastes and transportation of toxic materials. ④ It is detrimental to humankind and our planet. ⑤ It is unnecessary !! 1.1 4.14 5.30.5.12 5.30.5.7

Now, I am not educated to discuss the "nuclear nitty-gritty" of it all I spend my days having children to love, respect and tenderly care for all living things and our planet. It is my contribution to world peace which I offer proudly. I don't understand however, why you feel we need more weapons grade plutonium. Do we really need more nuclear weapons? Will that buy us National Security? Don't we have enough warheads to kill us all several times over? Isn't that enough? Couldn't we put our educated minds and government 4.15.4 4.15.5 4.13

6.3

money into projects that would benefit us all worldwide? What is so terrible about nurturing and responsibly caring for all that God put on this earth?

6.5.5

My biggest fear is the day nuclear warheads are exchanged and my children LOOK at me with big trusting eyes and ask "Why?" I won't have an answer, will you?

Patricia Barfield
1257 SW 3rd Ave
Ontario, Oregon 97914
(503) 881-1317

This is the way of peace: overcome evil with good, falsehood with truth, and hatred with love.

Peace Pilgrim

51

568

W504

April 21, 1988

TO: Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

FROM: Deanne Thompson
Box 1330
Hailey, ID 83333

RE: SIS plutonium refinery at the INEL in Idaho or anywhere

I oppose the SIS.

I support the No Action option for the DOE decisionmakers.

In a series of public hearings in Idaho on the SIS Environmental Impact Statement, the overwhelming testimony was OPPOSED to the SIS. This cannot be ignored, despite Rep. Richard Stallings newsletter to the contrary and Gov. Cecil Andrus stance in favor of the SIS. 1.1

I am not going to waste your time nor mine in producing facts and figures and quoting other people, including scientists, ex-military men and politicians. The DOE has the facts for heaven's sake, even if it finds difficulty in correctly disseminating them.

Our decisionmakers can continue on the road to destruction, or they can become enlightened and produce a long-term program for the continuation of humankind's participation on planet Earth. Utter folly or a sustainable future. Humankind has the choice. And in the end Gaia will out with or without humankind. 6.5.5

The SIS testimony in opposition cannot be dismissed as knee jerk liberal chattering. The testimony has been well researched, informed and thoughtfully presented. It has not addressed the next meal on the table. Rather, it concerns itself with a viable future for this generation and those to come.

The people who have taken the time and energy to inform themselves have spoken. It is time for the DOE, other myopic governmental agencies and decisionmakers and so-called leaders to listen up.

It is time to stop the folly and get on with the future. Some billions of peoples would like that. And no one can jump ship--not yet anyway.

Sincerely,

Deanne Thompson

Deanne Thompson

cc: Gov. Andrus
Rep. Stallings
Sen. Symms
Sen. McClure

504

W505

1607 N. 20th
Boise, Idaho 83702
April 17, 1988

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls 83402

1.1 Dear Mr. Nichols,

We are writing to express our opposition to the SIS project in general, and specifically to its being located at INEL.

In general, we are opposed to the SIS project for two reasons. First, by design, nuclear weapons differ from tactical weapons in that they destroy not only the specific military or
2.7.2 strategic objectives for which they are targeted, but rather they indiscriminately kill combatants and non-combatants alike within a considerable radius of a target. In addition, they render contaminated and useless for decades large tracts of earth around and downwind of their targets. We feel that such indiscriminant killing and destruction is immoral.

4.14 Secondly, in light of current efforts at reducing nuclear stockpiles, and considering the numbers of nuclear warheads and weapons-grade plutonium currently in existance, it appears that national security is not an overriding factor in justifying this immoral and costly project.

As for such a project specifically being located at INEL, (our general feelings toward nuclear weapons notwithstanding) our opposition is based on what we perceive as very real risks to the health of our family and to the citizens of Idaho. Though we are
5.13.14 not in a position to dispute the "odds" of a catastrophic accident as they are presented in the environmental impact statement, two factors make those odds unacceptable in our view.

The first factor has to do with the EIS itself. If this document is representative of the thoroughness, attention to
2.1.1 detail, and concern for the public good that will characterize the SIS project, then it would appear that the possibilities of an accident have not been realistically portrayed, or for that matter, even considered.

Secondly, and more importantly, however, is what we feel to be unacceptable odds for the citizens of Idaho. As disputable as the odds of a nuclear accident might be, consider the odds of the plutonium produced by this project ever being used to defend
3.4 Idahoans and other Americans. Since their destructive powers on humans were first witnessed at the end of World War II, no nuclear warhead has been used by man against man. What then does that make the odds of using nuclear weapons again? (There have been more nuclear accidents since 1945 than nuclear attacks, so presumably the odds of an accident are greater.) And if nuclear weapons are used against mankind again, what are the odds that all of our present nuclear warheads will be used up? And if all of our present nuclear warheads are in fact used up (our even destroyed before being used), what are the odds that we would still have the need or the capacity to use the additional warheads armed with plutonium produced at INEL? And if those additional warheads were found to be necessary in the defense of America, what are the odds that the resulting world, nation, or state of Idaho would be more habitable than if only our present nuclear stockpiles were used up in our defense? Is this scenario more likely to occur than that of a nuclear accident at INEL (or on the highways of Idaho) destroying the lives and livelihoods of Idahoans? We think not.

2.7.8

In short, we believe that the odds of a life-threatening accident occurring in Idaho as a result of locating the SIS project at INEL are considerably greater than the odds of the plutonium produced by the project ever being responsible for protecting our lives or preserving our quality of life. We find this to be an unacceptable set of odds.

5.1.36

Sincerely,

David Daley Mary J. Daley

David and Mary Daley

569

W506

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

1.1 I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

4.9.4 Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may
5.28.7 lead to a better disposition of the waste.

5.27.6.1 Please bring us S.I.S. We very much appreciate being able to have our families work in this area.

Thank you,

Lela Carlson
1200 Jackson
Idaho Falls,
Ida

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

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W507

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho. 1.1

Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may lead to a better disposition of the waste. 4.9.4 5.28.7

Please bring us S.I.S.

Thank you,

William K. Martin
3068 Greentree Ln.
Idaho Falls Idaho
83404

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

507

W508

21 April 1988

SIS
Department of Energy
785 Boe Place
Idaho Falls, ID
83402

Dear Sir:

There has been lots of talk about SIS, pro and con, and Pocatello. May I add my thoughts to your collection.

1.1

First, INEL would be the ideal place to locate SIS. It is basically already, establish and is in a remote area which is ideal for this type activity. The people in our area are generally sympathetic to nuclear energy. The work force is compatiable with management and outwardly, at least, appears to work harmoniously together. I feel that SIS needs the INEL to accomplish its mission.

5.27.11.1

Secondly, Idaho State University could provide a great service to INEL. It has a good Engineering School. The Vocational-Techincal College is in a good position to train the manual skills required at INEL, again an ideal situation.

5.27.15.1

Idaho has very little political clout on the national scheme. We have very few military or federal government activities here. We need some. We need the SIS. We want the SIS. I hope you will give serious consideration to Pocatello for your site selection for the SIS.

Thanking you for listening, I remain.

Sincerely,

Robert L. Clark

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

RLC/kch

571

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W509

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

1.1

Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may lead to a better disposition of the waste.

4.9.4

5.28.7

Please bring us S.I.S.

Thank you,

Adolfson

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APR 22 1988
SIS Project Office
Postmarked April 21, 1988

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W510

RECEIVED
APR 22 1988
SIS Project Office

April 20, 1988

Postmarked April 21, 1988

SIS Project Manager - Clay Nichols
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Sir:

510

I am a mother 39 years old with 2 boys ages 5 and 10. Myself and my children are against the SIS. My boys are informed as I myself, and they have chosen to voice their opinion against the SIS project. 1.1

We are a family who is against the production of weapons and of war. We feel that our tax dollars should be used to promote peace on this small planet that we inhabit. I do not believe that we are given 2nd chances when it comes to the destruction of our earth. This is a very dangerous and unresearched product (plutonium) that you are dealing with. 6.3

If there is a mistake or accident there is nothing to be done about it to restore the earth. And most import the U.S. Government can and will not shake or turn their heads and not even obtain credit for their money making - war seeking - 5.1.42

human life as guinea-pig experiment. People in Idaho have not been educated or informed totally about the SIS project, this needs to be done. We do not need more weapons and we especially do not need any more waste that will be stored or shipped across this beautiful country to be stored in some place that should be a national park. You do not have enough long term knowledge of storing waste - this is a dangerous experiment. Don't use the earth and it's people - We are to precious. 2.13.8 4.15.5 5.30.3.1

My vote is NO on the SIS please have it noted. 1.1

Sincerely,
Zachary
Mary Symons
forensical Systems P.O. Box 116
Bellevue, Id. 83313

a resident of Idaho for 10 years
a legal voter
a tax payer
a home owner
a Human Being against war

510A

572

W511

1.1 NOSIG

JOHN R. SWANSON
P. O. Box 6554
Minneapolis, Minn. 55406

April 9, 1988.

SDS Project
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Sirs:

Please accept my comments, as follows, concerning
Special Isotope Separation Project Draft Environmental Impact Statement. 1.1
I wish to advise, I am opposed to such Project:
the Special Isotope Separation Project.

As this Project is not only unnecessary, but foolish, as well, it will
not add to our National defense, but may well weaken our entire 4.15.4
foundation of National security.

With the environmental pollution problems caused by this Project
certainly to be profound, including release of radiation into the air and 6.1.4
water resources of Idaho.

So conclude, then, that this Project is not worthy of serious consideration.

Sincerely,
John R. Swanson.

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 19, 1988

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W512

DEAR M:. NICHOLS:

I WOULD LIKE TO INFORM
1.1 YOU THAT I AM VERY MUCH OPPOSED TO THE S.I.S PROJECT.

PLEASE DO THE RIGHT
1.1 THING BY SUPPORTING THE NO ACTION OPTION

THANK-YOU
VERY SINCERELY
LUCY PEDERSEN
P.O BOX 4783
KETCHUM, ID 83340

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

512

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W513

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

April 19, 1988

Dr. Clay Nichols
Dept of Energy
Idaho Falls, Id.

Dear Dr. Nichols,

I am against building the S.I.S. at I.N.E.L. for the following reasons: 1.1

I am against the making of more plutonium to make more bombs. 4.15.5

I don't want a facility of this sort over the Snake River Aquifer. 5.12.1

I don't want trucks carrying nuclear waste to travel a freeway that is about 6 blocks from my home - or any freeway in Idaho. 5.29.97

I feel that the quality of life in our state would be seriously at risk if the S.I.S. were to be built. For me that's much more important than any economic considerations you've brought up. 6.1.9 6.2

The U.S. doesn't need to make more plutonium - we have more than we'll ever need.

Sincerely,
Jo Ann Gleason

513

W514

Philip R. Miller
10525 Tanglewood Dr.
Boise, Id. 83709

Clayton R. Nichols
SIS Project Manager
Idaho Operations Office
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, Id. 83402

Dear Mr. Nichols,

Please include the following in the record of comments on the Special Isotope Separator Draft Environmental Impact Statement. 5.30.1.21

1.) The DEIS states that hazardous waste will be transported to an EPA-approved treatment, storage or disposal facility. This facility or facilities should be specifically identified and its EPA liscencing documents cited and included by reference.

2.) On page 4-8 the DEIS states that 18 metric tons of freon will be released into the atmosphere annually. Possible effects on the ozone layer should be cited. The DOE should state its rationale behind its PSD level of 36.2 metric tons, and alternatives if the PSD is lowered, or if chlorofluorocarbons are banned. 5.9.3 5.3.17

3.) Since water leaking into the Waste Isolation Pilot Plant violates one of the basic guidelines for nuclear waste storage, vague assurances will not be sufficient for a Final Environmental Impact Statement. This uncertain situation must be addressed honestly and exhaustively. 5.30.2.1

If the WIPP is compromised, what are the DOE's alternatives for TRU waste disposal? 5.30.2.1

Sincerely,

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

514

575

W515

April 20, 1988

Please let it be recorded that I am in strong opposition of the SIS being built in Idaho or anywhere else. 1.1

As a mother, environmentalist & peacemaker, this SIS project goes against all I believe in & stand for. 2.7.2

I just wanted my voice to be heard here

Thank you
Laurie Mowbray

Laurie Mowbray
1420 N. 11th
Boise, ID. 83702

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

515

W516

RECEIVED
APR 22 1988
DOE Idaho Operations Office
Postmarked April 20, 1988

B-1 McIntosh Manor
Pocatello, ID 83209
20 April 1988

Mr. Clayton Nichols
Hefty Project Manager
U.S. Dept. of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols,

I would like to address a few issues brought up in the draft environmental impact statement on the Special Isotope Separation project. On p. iv of this statement, the claim is made that "this draft EIS includes... the environmental consequences of constructing and operating the facilities." However, there are some ecological problems not adequately discussed in the report.

Operation of the SIS will release into the atmosphere "organic vapors, consisting primarily of Freon R-11 and R-115" (p. S-5). It has very recently been proven that these gases are causing damage to the ozone layer, which is needed to protect us from the sun's harmful ultraviolet rays. Freon may last for decades in the upper atmosphere, and, according to studies still underway in Antarctica, even small amounts may cause severe ozone depletion. It is very likely that extreme restriction of Freon use is just around the corner. 5.9.3

Secondly, a plutonium processing plant would be a prime military target — both to interfere with our ability to produce weapons and to send up large amounts of radioactive fallout. Also, a build up of weapons may increase the risk of nuclear war — and the "environmental consequences" of this are immense — and not addressed in the EIS. 2.7.10 2.7.8

Furthermore, the "need" for the SIS is still in question. My dictionary defines "redundant" as "something more than is needed" — yet the SIS is designed to "provide needed redundancy (p. S-14)", in the words of the environmental impact statement. That is a wonderful bureaucratic phrase that is completely contradictory and meaningless. 4.7.3 4.7.1

Based on these problems, it is apparent that the Special Isotope Separation Project is not only unnecessary but should be completely avoided. 4.15.4 1.1

Thank you

Eric Rude

576

516

April 21, 1988
Jay Nichols
DOE Op. Office 185
DOE Place
Idaho Falls, Id. 83402

To whom it may Concern:
My letter addresses the debate over the proposed S.D.I. project:

Idaho seems to be moving in completely the opposite direction from the rest of the nation. Nationally we are informed of talks with the Russians on disarmament and a scaling down of all nuclear weaponry. We are told of the environmental damage still raging from Chernobyl and Three Mile Island. The dismantling of the nuclear facility at Hanford, Wash. because of willfull disregard for safety and the surrounding agricultural interests. The pollsters declare our desire to cut back on national defense costs, our love-hate relationship with the National Debt.

Realizing Idaho has one of the lowest levels of education in the country, it also seems to have one of the lowest levels of morality.

This proje. (SDI) feeds the greedy immoral needs of a few opportunistic job seekers

I consider the S.D.I. project hypocrites and threatens not only the State and world environment, but the people who feel the jobs offered by this industry is good and necessary for our society. How can anyone justify the need for more nuclear weapons with or without super refined plutonium? If these new weapons were to be deployed will people die faster painfully slower? Declaring to the world we are willing to sacrifice the planet

Living in Idaho is worse than living in some Third World Countries. The Government does not fund education adequately, ignores the needs of our farming industries and dumps most of the nation's toxic wastes is this State. Our State slogan which identifies us as an agriculture State "Famous Potatoes" - fails to give any national attention or publicity to the ever growing menace of the nuclear industry. Let me quote you an old Hindu saying -
"An elephant does not shit where it eats.

Sincerely Dempsey

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W518

Dear Mr Nichols
I am opposed to the
1.1 SIS project - I urge you
to support the No Action-
option

Richard Reis
Sharon A Dalton
Box 1585
Hailey Id

P.O. Box 2001
Ketchum ID
83340

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

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W519

3566 Stockman Road
Pocatello, ID 83204
20 April 1988

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APR 22 1988
SIS Project Office
Postmarked April 21, 1988

Mr. Clay Nichols, SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

I have reviewed the Draft Environmental Impact Statement on the Special Isotope Separation Project and wish to voice my opposition to the preferred alternative, construction and operation of the SIS at the Idaho National Engineering Laboratory. I favor the NO ACTION alternative, but if the SIS must be built, the Hanford site has clear advantages over the INEL site. 1.1

The draft EIS does not document a compelling need for construction of the EIS. In fact, the statement on page S-11 under the no action alternative, "Blending fuel-grade plutonium with newly produced plutonium of higher-than-weapon-grade purity will continue to provide an option for the production of weapon-grade plutonium irrespective of whether the SIS Project is constructed and operated," indicates that there is not a need for this facility. The last paragraph on page S-1 indicates that the SIS would provide for rapid increases in production, but the document does not explain why such rapid increases might be needed. Furthermore, the document does not address the potential impact of the INF treaty on the need for plutonium, nor does it consider the potential for further arms reductions. Indeed, the EIS sidesteps this issue by claiming (on page S-11) that recovery and recycling of existing plutonium from retired weapons are not viable alternatives to the SIS project. They may not be alternatives to the narrowly-defined mission of redundancy, but they certainly are alternatives for supplying the needed plutonium, and they should be thoroughly explored in the EIS in relation to need for the SIS. 4.1 4.15.4 4.3

I realize that DOE has taken the position that the need question should be answered by the Congress and the Executive Branch, but the EIS process requires that "needs" be adequately assessed. The whole idea is to weigh needs (and potential benefits to society) against costs in terms of environmental degredation and risks to society. Because the EIS does not adequately address needs and because plutonium supplies appear to be more than adequate for the forseeable future, I strongly favor the NO ACTION alternative. 4.1 4.15.5

The only advantage that I could find in the EIS for choosing the INEL over Hanford is a potential small savings in the cost of construction. However, I am not convinced that construction would actually be cheaper at INEL given the labor pool available at Hanford. It is difficult to understand how the INEL could be superior to Hanford in terms of "technical expertise for plutonium handling" or "operational compatibility", as suggested on page 2-2. It seems to me that the criteria listed on page 2-1 ought to include the number of times that the materials will have to be loaded, 5.31.14

519

5.29.31 transported off site, unloaded, etc. The risks involved in transporting the materials to INEL from Hanford and then on to Rocky Flats, compared to a direct movement from Hanford to Rocky Flats, are not sufficiently analyzed. In fact, I believe the EIS downplays the added risks associated with the additional handling and transport. This analysis should explore the potential for terrorist attacks and/or theft. The Draft EIS states on page 2-82, "Because no significant offsite shipments of feed material would occur if the SIS project were located at the Hanford Site, this alternative
5.25.5 would result in the least normal radiological exposure as well as the least risk in the event of a transport accident." That is a very compelling argument in favor of the Hanford site. Furthermore, construction workers at Hanford would receive less radiation than at INEL. Therefore,
5.23.4 construction of the SIS at INEL would violate DOE's policy of minimizing exposure (ALARA).

The analyses of radiation exposure for normal operating releases and in the event of postulated accidents indicate that site boundary exposure would be higher at INEL than at Hanford and that exposure to the overall offsite population would be slightly less at INEL, because the surrounding population is smaller at INEL (pages 2-81, 2-82). This analysis is based, however, and a 50-mile radius which passes between the conterminous cities of Chubbuck and Pocatello and thereby eliminates some 45,000 people from the population under consideration. This arbitrary 50-mile radius also eliminates from consideration that population residing in Ririe, Rigby, Ammon, Iona, and Rexburg, which all lie downwind and within about 60 miles of the proposed SIS site at INEL. American Falls also lies just outside
2.11.11 the 50-mile radius. Thus, it seems that any slight advantage that the INEL site might have over the Hanford site would disappear if a more reasonable radius based on the actual location of population centers was used in the analysis. I think it imperative that the final EIS address this issue.

The Snake River aquifer is among Idaho's most valuable resources; safeguarding its purity is absolutely essential. It is clear that we have insufficient data to adequately assess the extent to which the aquifer has been contaminated by activities at INEL or the consequences of that
5.12.1 contanimation. The EIS indicates that effluents would be treated to eliminate or reduce radionuclides or metals by some yet to be selected process (page 4-59). That is not sufficient protection of the aquifer, especially in view of the statement on page 3-14 that indicates that the injection wells at ICPP continue to be used in "emergency situations". Any new facilities at INEL should meet a criterion of absolutely minimal potential for any groundwater contamination.

Thank you for the opportunity to comment on the Draft EIS.

Sincerely,

Jay E. Anderson

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W520

April 21, 1988

Dr. C. R. Nichols
Acting SIS Project Manager
U.S. DOE Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

Dear Dr. Nichols:

The SIS facility proposed for the INEL has created controversy within and outside the state of Idaho. Most of the comments during the EIS public hearings have centered around many philosophical issues that are not connected to the purpose of the EIS which is to assess the impact on the environment of the proposed action and the alternatives. Since most comments digress from the intended purpose of the EIS, I will also do the same. The lack of meaningful comments on the assessment of environmental affects indicates that the SIS in Idaho will not adversely affect the environment, At least that the public believes it will be safe and the anti's have to resort to wild emotional rhetoric with no technical basis as their arguments against SIS. 1.1

The need for weapons grade plutonium and the need for contingency in production because of the unreliability of old facilities is national security information and not in the public domain. The supply/demand evaluations are classified and

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available onl, to DOE, DOD, the Administration, and Congress. In the assessment of the need for plutonium and contingency production, we have no choice but to defer to the judgement of elected officials and career government employees including the military, who have access to the full extent of classified information and not just bits and pieces of information available to the public.

4.9.4

The anti-nuclear weapons advocates are sadly misguided at best and at worst I question their loyalty to the United States. Any literate person only needs to look at history to verify that the nuclear deterrent is real and has been successful for 43 years. The nuclear deterrent alone has prevented World War III because nuclear war is so terrible to contemplate that the super powers will avoid this devastation. Any intellectually honest person has only to look at Korea, Viet Nam, Afghanistan, Falklands, Nicaragua, Panama, Ireland, Africa, Iran, Iraq, Palestine, Lybya, Los Angeles gang wars, jewish persecution, race riots, domestic violence, etc, etc, etc to realize that humans are vicious, always have been and always will be. Those unrealistic individuals sitting in their ivory towers dreaming of utopia will not change human nature. People who advocate that we do not defend ourselves to the extent of our abilities are either stupid beyond imagination or their loyalty can be questioned. The entire history(recorded) of the world demonstrates without exception what happens to those who do not have the

3.4

resolve to defend themselves, Eliminating the nuclear deterrent will push us into World War III because with conventional weapons war isn't considered so terrible as evidenced by all the wars referred to above that have all occured within the last 40 years. It is doubtful that we could win a conventional World War again but we can and must prevent World War III with the nuclear deterrent.

Sincerely,

Arthur P. Koch

W521

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

1.1 I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

4.9.4 Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may lead to a better disposition of the waste.

5.28.7 Please bring us S.I.S.

Thank you,

Suzanne P. Robrsa
1056 Hillview
IF ID 83402

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SIS Project Office

Postmarked April 21, 1988

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W522

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SIS Project Office

Postmarked April 21, 1988

4.21.88

To DOE representative
Clay Nichols

I, Suzanne de Turk,
Ketchum, Idaho, am 1.1
opposed to the "SIS"
at the INEL —
as I am opposed to
nuclear weapons. 4.13
Thank you,
Suzanne de Turk
(208-726-8941)

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W523

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SIS Project Office
Postmarked April 21, 1988

April 20, 1988

Mr. Clay Nichols
Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

1.1 My associates and I would like to express our desire that the SIS/INEL plant NOT be built in Idaho. There are many reasons for this. Foremost is the unacceptability of creating nuclear waste with a half life of literally hundreds of thousands of years. To generate toxic waste of this magnitude with no adequate means of
5.30.3.1 safely storing, neutralizing, or otherwise dealing with it is the height of irresponsibility at best and possibly mass genocide/suicide at worst.

4.14 Added to the above is the contention that the plutonium produced at this plant is both unnecessary and unneeded. It makes no sense to talk of nuclear disarmament when, while admitting we have more than sufficient plutonium supplies for the next decade, we are producing the plutonium for nuclear weaponry's expected
4.15.5 requirements in an undesirable future. While hardly advocating allowing our nation's defenses to become weak, we find the double talk involved in this scenario intolerable.

Some claim the industry will be a boon to eastern Idaho's economy. It will provide jobs. My question is - how many jobs for how many years? These so-called monetary benefits are
6.2 laughable when viewed in the context of 250,000 years worth of poison. We sell our descendants much too cheaply, Mr. Nichols.

Please, in the interests of a sane and livable future, do not build this plant of destruction.

Thank you for your time and consideration.

Jim Turner
8842 Gwendolyn St
Boise ID 83703

Tamara
3207 So. Rosemont
Boise, Idaho 83705

cc: Gov. Cecil Andrus
Congr. Richard Stallings

Sincerely,
Paula J. Freeman
1218 S. Roosevelt St.
Boise, Idaho 83705

Mr. Shallbetter
2706 W. Jefferson
Boise ID 83702

David Sherf
1218 S Roosevelt St
Boise, Idaho 83705

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W524

Katrina V. Berman
1304 S. Main
Moscow, Idaho 83843
208-882-4785

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APR 22 1988
SIS Project Office
Postmarked April 20, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
Idaho Falls, ID 83402

Comment on

Draft Environmental Impact Statement

Special Isotope Separation Project

The Department of Energy's assumption in refusing to hold hearings in north Idaho that people outside the immediate area have no interest in the Special Isotope Separation project ignores the statewide economic importance of the Idaho National Engineering Laboratory and of the Snake River aquifer which underlies it. Even if it is assumed that north Idaho residents do not care about possible increased human cancer near the plant or plant accident risks, pollution of the aquifer would be a statewide economic disaster affecting all Idaho citizens. This is in addition to the more direct potential hazards to residents of other areas of transportation accidents from the three shipment streams of radioactive materials through parts of the state. The opinions of citizens in northern Idaho deserve attention. 2.8.6 5.12.1 5.13.14 5.29.97

The Draft Environmental Impact Statement on the SIS project is not convincing in its arguments for the project or in its minimization of the dangers. 4.1

In its treatment of impacts of operations and potential accidents, this EIS does not seem to be designed to tell citizens what they want to know and need to know to form an opinion of whether the expected benefits of the plant outweigh hazards. Citizens want to know whether more people may get sick because of the plant, how many and what kinds of illness, how many deaths; what other effects there could be - on livestock, wildlife, crops, water, soil - and what would or could be done about it; resulting costs - monetary costs and other such as possible restrictions on activity or loss of access: all the possible effects the plant could have. They will not find this information presented in the EIS. Some of it could perhaps be found with detailed digging and manipulation of scientific data - but that is what an EIS is supposed to do for the public. 2.1.1 6.2 2.13.10

The report gives - sometimes - estimates of cancer deaths,

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under rigid assumptions. It does not mention any other effects on humans, and though it is supposed to assess environmental impact it completely ignores effects on other living things, water or land, and what the costs to humans of such effects might be. The report repeatedly compares increased radioactivity, deaths etc. to background radiation, deaths from other causes, wastes already generated at INEL etc. This is not a legitimate reassurance technique, since it is well known that radiation exposure and carcinogenetic factors are additive and cumulative so that every increase no matter how small increases risk of cancer. Background levels already high mandate extra care in not increasing them. Risks unavoidable or accepted for other reasons do not argue for acceptance of this risk, which must stand on its own merits. The report makes no mention at all of the evidence from numerous studies of added incidence of leukemia and other cancers in areas around nuclear power plants, to consider how the SIS plant might be similar or different in its effects.

Arguments for the Project. The SIS plant is supposed to provide "redundant" capacity for weapons-grade plutonium not dependent on reactor capacity. But the shutdown of the Hanford N reactor was based on reduced Pentagon estimates of plant need, according to the responsible officials, and Energy Secretary Herrington has said we are awash in plutonium and have more than we need. A major alternative source of plutonium from recycling old weapons would appear to have been made more promising by the INF treaty calling for weapons dismantling. The EIS dismisses this alternative and that of increased scrap recovery because they would not modify fuel-grade to weapons-grade plutonium as would the SIS plant - in other words, alternative A is not satisfactory because it is not alternative B, hardly convincing logic. "Redundant" by definition means unneeded. The EIS argues that we need excess weapons-grade plutonium capacity to provide flexibility for a sudden increase in production if that should be needed. This is not an argument for the SIS plant, since the Hanford N reactor could be used for the purpose; it is not being closed but maintained in standby condition in case of such need.

For Idaho citizens, the arguments for the SIS plant are the usual ones of jobs and economic benefit. About 440 jobs are estimated for construction for 4-5 years, and a like number for operation for 6-8 years. At over $900 million estimated cost, that is more than $1 million per job created, or an annual taxpayer subsidy of about $167,000 per job - a poor benefit/cost ratio and not a taxpayer expenditure fiscally prudent Idahoans should endorse. Because of the specialized nature of the facility, a major part of both construction and operating jobs would probably be filled by special crews brought into the state; half the operating jobs will be filled by persons already at INEL, according to officials. Opportunities for Idaho residents for new jobs will therefore be few. Specialized equipment and materials for plant construction are also likely to come from out of state.

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Feed material for the plant's operation (fuel-grade plutonium owned by the Department of Energy) is admittedly estimated to last for only 6-8 years or perhaps less. All concerned are giving assurances that there are no plans to try to get the law changed that bars converting plutonium from civilian reactors into weapons. Therefore, the future of the plant after the 6 or 8 years is entirely in doubt. Because of its extremely specialized design, conversion to another use would seem to be impossible or prohibitively costly. Idaho will then be left with substantial unemployment and a useless facility, at least parts of it contaminated with radioactivity.

The argument has also been made that having the SIS plant at INEL would put Idaho in the forefront of laser technology development. But the planned SIS project is a production plant pure and simple, containing no facilities for research. DOE laser research is done at the Livermore Laboratory.

On the negative side, not mentioned in the EIS, addition of the SIS plant will tilt INEL heavily toward military emphasis. It will bring greatly tightened security measures, and greatly increased risk of terrorism, espionage and sabotage with potential unpleasant consequences, not only at INEL but in the movement of materials to and from the plant.

Alleged benefits for the country are not convincing compared to the nearly $1 billion cost, and alleged benefits for Idaho appear to be less than claimed and temporary, leaving residual economic problems.

Transportation Risks. Three streams of radioactive materials would be traveling through Idaho covering much of the state: plutonium feed from Hanford to INEL, plutonium metal from INEL to Rocky Flats near Denver, and transuranic waste from INEL to New Mexico if the New Mexico site is operational. The EIS finds minimal risk to health from these movements. This finding is not reassuring for several reasons. (1) Measures are given as the product of health effect times the risk of accident, with chance of accident found small. But what citizens want to know is, if there is an accident what will the effects be - and this is not given.

(2) Much of the smallness of the chance of accident relies on the use of "safe-secure transport" - but this is guesswork since admittedly accidents have not occurred involving these vehicles sufficient to determine their fate in an accident. It is also not clear what assurance there is that this will be the only transport used; there is suggestion for example that waste shipments would go by rail. (3) Risk of accident estimates use national average figures, and do not consider type of road. It seems highly likely that Idaho roads with Idaho weather are more hazardous and prone to accidents than the national average.

(4) The assessment considers only the effect from small airborne particles which are estimated to be only a small part of a load (though 50% for the feed most concerning north Idaho). But

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in an accident, other portions of the load could cause contamination - of the road, surrounding soil, water etc. - and pose a health hazard. A likely accident would appear to be a truck overturning off a road into a stream, with material getting into the water, a possibility not considered in the EIS.

(5) Perhaps most important, the analysis appears to assume response to an accident such as cleanup, and/or evacuation, use restriction or interdiction. This is assumed in an offhand manner, with no discussion of how soon response would occur (which would surely make a substantial difference in the amount of exposure), who would be responsible, what knowledge or training they would have, how response would be accomplished, what further radioactive exposure might take place in the process, and what the costs and difficulties resulting from the response would be. These are surely major questions that need to be addressed to be able to assess the impact that a transportation accident could have.

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Plant Operation. The EIS finds negligible risk from the radioactive air emissions. It does not discuss other studies' findings of higher cancer incidence around nuclear facilities.

A major worry for Idaho is possible contamination of the Snake River aquifer. Plant design provides for recycling radioactive liquids from plutonium processing, with evaporated solids made into grout and condensed distillate liquids discharged to the existing INEL waste system percolation ponds only after determined to meet non-radioactive and non-hazardous standards. This is good - if systems work as projected. However, other liquid waste streams such as runoff from roof drains which would go to the percolation ponds (in essence, passive injection wells) would be likely to contain some radioactivity from picking up radioactive particles deposited by the radioactive air emissions. The grout and other solid wastes would be processed at INEL for shipment, stored temporarily or perhaps for a long time if the intended permanent repository continues to be unavailable. The grout may not be indefinitely impervious to leaching; there is no discussion on this point. Additionally, by-product plutonium products would be stored, perhaps indefinitely. Low-level radioactive waste would also stay at INEL in subsurface disposal. Since experience has shown that human error and equipment failure cannot be ruled out, all these radioactive materials, and other hazardous chemicals used in the processes, would pose potential threat to the aquifer.

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5.12.1

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Plant Accidents. The EIS discussion of plant operating accidents appears incomplete, misleading and questionable in some respects. (1) For accidents in a single process area, 3 kilogram of plutonium (of the 25kg total at the plant) is postulated to be affected on average, but the analysis assumes without explanation that only 1% or even a much smaller fraction (depending on the type of accident) would be released. Even in a severe plant-wide accident with 25 kg of plutonium at risk, the analysis is based on release of only 6 grams - 1/4000 of the total. (2) The EIS makes a point of an assertion that experience at Rocky Flats shows a fire released no plutonium from the building - but it is known that after at least one explosion and fire at Rocky Flats high levels of weapons-grade plutonium dust were found in schools miles away. (3) It is assumed in the EIS that the buildings would withstand a 'design basis" earthquake or tornado. Saying the building would resist an earthquake it is designed to resist is a meaningless tautological statement. With INEL in a fault area, unaddressed questions are the likelihood of a more severe earthquake or tornado, and what the effects might be.

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(4) The analysis ignores questions of duration of the accident, how it is stopped, what additional release and/or exposure is involved in stopping it or in cleaning up afterwards. How long the fire, chemical reaction etc. continued would certainly affect exposure materially, and hazards are likely to be involved in bringing the accident to an end and in resoration attempts.

5.1.9

(5) Health effects (cancer deaths) are presented even for a "severe accident" only with the assumption that the filters are working 100%. This is certainly optimistic at best, if not intentionally misleading. It is questionable to assume that the filter system would not be affected if the rest of the plant was malfunctioning, and in fact the EIS gives some exposure figures (but not translated into cancers) for 1% and 10% filter efficiency loss. The figures given indicate that a 10% loss of filter efficiency would multiply the radiation dose by 100,000, and even a 1% efficiency loss multiply it by 1,000. The EIS estimates latent cancer fatality risk with 100% filter efficiency at 6 per billion population to 1 per 100,000 population (depending on the type of accident). The exposure figures with filter efficiency loss suggest that with only 10% filter loss the fatalities could become 6 per 10,000 population or for the most serious case 100% cancer fatalities. Surely these possibilities should be spelled out for the public to know.

5.1.8

The maximum tolerable does of plutonium (ingested) for a large adult is .6 micrograms - less than one millionth of a gram (a statistic not evident in the EIS). This amount is a barely visible speck. Another important statistic is the estimated half-life of 40,000 years - the age of anatomically modern humans - for the material to lose half its toxicity. The proposed SIS facility would have 25 kilograms of plutonium on hand, or 40 billion lethal doses.

Experts say that we do not have enough knowledge in the nuclear field to be sure what we are doing or what could happen. Possible pathways to accidents, precautions to prevent them, and especially consequences of accidents, are all based on guesses, with extremely wide ranges of probability. The false precision of the figures in the SIS environmental statement do not convey the vast uncertainty of the risks Idahoans would be accepting with this plant.

Increasingly, experience shows that equipment failures and human error cannot be ruled out despite the best design and intentions. Increasingly, studies show heightened cancer incidence and other health problems in areas around nuclear facilities, even civilian power reactors. Around the Rocky Flats weapons plant handling plutonium, plutonium concentrations 3000 times area background levels have been found, and a 16% excess of cancers such as brain tumors.

5.13.9

Any rational look at the possible benefits and possible costs of the proposed SIS plant must conclude that the risks far outweigh any gains from this unneeded, short-lived plant.

6.2

4/19/88 #

Katherine V. Berman

524D

W525

April 20, 1988

U.S. Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Attention: Mr. Clay Nichols

Dear Mr. Nichols,

1.1 As citizens of the State of Idaho we hereby give notice of our opposition to the placing of the Special Isotope Seperator Project at the Idaho National Engineering Laboratories. As citizens of the United States we furthermore oppose the SIS at any location due to the fact that a need has not been demonstrated.

6.1.2 It is our belief that, due to the possibility of ecological disaster (however remote), a project of this type should be constructed only if absolutely essential to this nation's defense. As a 10 year veteran of the United States Navy, I have a keen interest in our national defense. I do not however, believe that any and all defense projects are

4.15.4 benificial to the citizens of the United States.

6.3 Furthermore, in these times of budget deficits, we do not believe that the SIS is a prudent nor moral form of government spending.

Sincerely,

Kent D. McCarthy

Barbara McCarthy

Barbara McCarthy
P.O. Box 1225
Hailey, Idaho 83333

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

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W526

Rt. 3, Box 240
Buhl, Idaho 83316
April 21, 1988

Gentlemen:

1.1 I am opposed to the Draft Environmental Impact Statement (DOE/EIS-0136) concerning location of the Special Isotope Separation Project on Idaho National Engineering Laboratory grounds.

4.15.5 First, I object to providing a redundancy in production capacity of nuclear materials.

5.12.1 Secondly, I object to any further development over the extremely important aquifer which has even the slightest chance of polluting that water resource.

1.1 Thirdly if the United States Government finds that it is absolutely necessary to have increased SIS capacity, I urge that the facility be constructed in the Hanford, Washington, area already seriously polluted so that the Government at some future time can expend funds to clean up that pollution alone and not another site in Idaho.

6.3 Lastly, if Idaho is so desperate for jobs that it will stoop to producing death dealing plutonium for employment, I suggest the money instead be spent for massive public work projects to enhance Idaho's image such as fixing our roads, providing public access to hunting and fishing areas, improving stream side habitat, setting aside areas of public lands for wilderness, parks and reserves, etc. Many of these jobs will last indefinitely whereas plutonium related jobs are short lived.

5.27.7.2 Will Idaho be better off having the Government spend nearly a billion dollars on plutonium processing and possibly degrading our environment or spending a like amount enhancing our environment? That question has an easy answer - NO to SIS!

Sincerely yours,

Robert S. Luntey

Robert S. Luntey

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

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W527

HC 60 Box 1155
Bliss, Idaho 83314
April 20, 1988

Mr. Clay Nichols, SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 Doe Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

I am writing to express my concern with the possible location of the Special Isotope Separation Project at INEL. I have not attended any of the hearings, but I have followed the discussion in the newspapers and have looked at the Draft Environment Impact Statement.

1.1 I would like to go on record as being strongly opposed to the manufacture of any more nuclear warheads, so I would be opposed to the SIS Project whether or not it is located at INEL or one of the other sites being considered. I realize that DOE doesn't make decisions regarding the number of nuclear weapons we have, but it does have a voice in the production of weapon-grade plutonium. Why is more plutonium needed if we are on the threshold of reducing the number of nuclear weapons? What happens to the plutonium in the warheads to be dismantled? I notice a statement in the EIS that disturbs me: "The SIS project is needed by the 4.3 DOE to provide a redundancy in production capacity ....with respect to ..... plutonium production..."

I live in Hagerman Valley, and I have a concern for the possible contamination of the Snake River Plain Aquifer, notwithstanding 5.12.1 information given in the Draft EIS. We are all aware of the unresolved questions about the disposal of hazardous wastes and the long term effects of such contaminants. Questions about the accuracy or validity of data presented in the Draft EIS are certainly raised by the disclaimer printed inside the cover. Does 5.30.3.1 the disclaimer really mean what it says? Does it really mean that the United States Government does not assume any responsibility for the accuracy, completeness or usefulness of any of the information contained in the statement? If we can't believe the government then who can we believe? 2.3 I appreciate this opportunity for making my views known. Thank God for the First Amendment.

Sincerely,

Ned W. Bowler

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APR 22 1988
SIS Project Office
Postmarked April 21, 1988

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W528

FOR THE PUBLIC HEARING RECORD

P.O. Box 2152
Coeur d'Alene, Idaho 83814
April 19, 1988

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 20, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Citizens Against Nuclear Weapons and Extermination is a group of citizens of varying ages concerned about nuclear armaments and the contamination associated with their production. We would like to have this testimony entered into the Public Hearing Record on the Special Isotope Separation Project.

It is with great concern that we, as citizens of Idaho, view the possibility of having a facility like the Special Isotope Separation Project built. It signals the creation of a new generation of nuclear weapons production facilities. Regardless of what the draft Environmental Impact Statement says about safety, any nuclear weapons plant has the overriding purpose of producing weapons of mass destruction. 2.2.10

Even if that were not the case, we in northern Idaho are well acquainted with the history of the Hanford Nuclear Reservation, another weapons facility that operates secretly. The secrecy of many of its activities appears to have cost the good health and lives of many of our own citizens living downwind or downstream from it. This track record does not give us much faith in the Environmental Impact Statement issued for the proposed SIS, another DOE facility. Just as Hanford has claimed its operations have had "no health impact, so now the SIS claims this will be the case. We have recently learned of the massive accidental and experimental releases of radioactivity from Hanford and their harmful effects. We do not want even a small repetition of this. 5.24.31 3.2.1

The Hanford office of the DOE has now backed out of funding health studies done by independent agencies to assess the health damage done to thousands of people in Idaho, Washington, and Oregon. The Department of Energy's claims that it operates safe facilities have very little credibility with us in northern Idaho.

What will it mean for Idahoans if twenty or thirty years from now they are found to have been contaminated by radioactive material being transported or handled or disposed at the SIS?

528

Who will pay the bills for the suffering that cannot be alleviated by any amount of money? Who will pay for the cleanup? Since this type of project is largely untested as an operating facility, what will be now unknown problems occurring that we will pay the costs of?

5.30.4.5 As Idahoans, we know very well that the INEL has not been without its environmental problems. We also know that unchecked environmental problems create human health problems which, like those being caused by Hanford, may be lying just under the surface.

5.27.7.3 Jobs are the carrot held before the people of Idaho. Legislators and public officials have been allowed to believe, without correction, that the SIS would "add hundreds of jobs to eastern Idaho's economy" and "virtually guarantee stable employment levels at the INEL for the next decade."

5.22.4 A recent newspaper article reveals that the DOE's estimate of the actual employment that will be created comes nowhere near the numbers being publicized to the public. Besides, this project will have a limited lifespan. What will happen to those few workers when their jobs are no longer necessary?

4.15.5 A question arises concerning why we are considering building this plant at all when recent reports picture the U.S "awash in plutonium." We know that plutonium can be extracted from nuclear weapons at existing plants such as the Savannah River facility, and that reprocessing it supplies a virtually unlimited supply of this ghastly substance. We question the validity of the assertion that the SIS is needed for plutonium processing. Is there a hidden agenda that the American public is not being shown?

5.29.97 The transportation of plutonium through the state of Idaho is another concern. I-90 would be one of the routes chosen to carry waste from Hanford to INEL. We include photocopies of trucking accident accounts. Accidents frequently happen on our treacherous roads. These accounts by no means describe all the accidents but offer a sampling of what commonly occurs. The accidental release of plutonium in some forms can be quite deadly. The existing EIS for new sections of I-90 being completed in our area does not even address the effects of transporting plutonium or any other kind of high- or low-level nuclear waste.

5.7.12 In the event of an accident, Idaho is particulary ill-equipped to handle a nuclear spill. We have few, if any, nuclear or hazardous materials experts. Moreover, they would have to travel great distances to handle a serious accident. Given these two conditions, it seems ludicrous to transport this life-threatening substance through our state.

In a recent letter, Governor Andrus stated that Idaho did not have the funds to carry out health studies related to nuclear radiation exposure received by its citizens, nor did it have the money to hire an epidemiologist to assess such studies.

Idaho does not have sufficient funds to hire enough radiation experts to monitor nuclear activities already going on in our state. Neither does Idaho have funds enough to make sure that hazardous waste teams have proper training, protective devices, sufficient manpower, and current information on how to cope with hazardous waste spills. This doesn't even touch the issue of dealing with nuclear spills and accidents.

CAN WE has done an extensive investigation of the DOE and DOT's plans for transporting high-level nuclear waste, and we must say that we are not convinced that it can be done safely. Neither are we convinced that the State of Idaho can effectively deal with the problems that are sure to arise because of the SIS.

2.8.7 Further, the Department of Energy denied all Idahoans the right to conveniently attend a public hearing on the SIS Draft Environment Impact Statement by only holding hearings in southern Idaho. The impact of this project will affect citizens in northern Idaho as well as those in the south. Because this federally funded and managed project will affect the entire state in a number of ways, the hearing process should have been conducted statewide. When jobs are lost because of this project or the environment needs to be cleaned up, all the citizens will pay.

We do not see the wisdom of tying Idaho's economy to the ups and downs of weapons production. We hope that the next administration and our other elected officials will choose to find more peaceful ways to settle national and world problems. Choosing not to become part of the nuclear weapons production chain would be more life-sustaining for all Idahoans and the world.

Sincerely,

Gertrude Hanson

Gertrude Hanson
Chairperson, CAN WE

Cd'A Press 2-29-86

Black ice turns I-90 into demolition track

By JEANETTE HARP
Shoshone County News-Press
For North Idaho News Network

The I-90 corridor between Osburn and Lookout Pass became an elongated demolition derby course during the weekend when hazardous road conditions were masked by black ice that sent vehicles spinning and flipping.

Noel B. Hawke of Oak Harbor, Wash., a motorist filing a walk-in report Sunday afternoon after his 1984 Volvo sedan smashed into a guardrail between Wallace and Mullan, summed up comments by many people who will remember the last weekend of 1986 as the time they crunched their cars.

Hawke said, "The road appeared to be well sanded, but was in fact extremely icy."

Accidents ranged from spectacular to fender benders — and many have yet to be reported. And as in the case of a tractor-trailer rig that remained "hung up" on a guardrail about three miles above Wallace throughout the night, some are still under investigation.

Injuries follow the same pattern, as in the case of Robert Dale Holmes, 66, of Rathdrum, who walked away from an accident near Mullan shortly before noon.

Holmes was complaining of a "stiff, sore neck" when he was in the Shoshone County Sheriff's Office a short time later. It was after

See WRECKS, Page 4

Testimony
CAN WE
P.O. Box 2152
COEUR D'ALENE, IDAHO 83814

CAN WE
P.O. Box 2152
COEUR D'ALENE, IDAHO 83814

 11-21-86

Torpedo truck crashes

SPOKANE (AP) -- A truck carrying two torpedoes along Interstate 90 went off the highway west of Spokane this morning and crashed into a tree, but the driver was uninjured, the Washington State Patrol said.

A hazardous-materials team from Spokane and military officials said there was no danger of the torpedoes exploding and that they found no danger of any hazardous-material spill, said Brian Ching at the state patrol office in Spokane.

The torpedoes were en route to an unspecified naval base, the patrol said.

The cause of the accident, which occurred about 4:30 a.m. about 4 miles west of Spokane, remained under investigation. The name of the truck driver had not been released.

A slight curiosity slow-down along the freeway was reported because of the many agencies at the scene.

6-7-86 N. ID Sunday

County not equipped

Kootenai County is ill-equipped to deal with any potential spills of radioactive waste that would be shipped through the area if Hanford is chosen as a nuclear repository, local officials say.

In fact the county is incapable of responding to any spill that could occur involving chemicals of the type transported daily on Interstate 90, said former Mayor Jim Fromm.

Local emergency personnel are capable of identifying a spill and sealing the area, including evacuation procedures, but lack the training to deal with the actual cleanup, he said.

WRECKS

CONTINUED FROM PAGE 1

he was admitted to East Shoshone Hospital in Silverton that X-rays revealed he had a severe injury that could have led to paralysis or death.

Accidents included the following, listed in chronological order according to reports at the Shoshone County Sheriff's office:

- At about 10 minutes past midnight Saturday, an eastbound 1985 Chevrolet Citation driven by James E. Byrd of Coeur d'Alene, skidded on the frontage road at the railroad crossing near Silverton and hit a westbound 1978 Chevrolet Nova driven by Lane Grant Whiteside of Osburn head-on. The Citation, owned by FIG Leasing, was considered totaled and damage to the Nova owned by Lynn Harris was extensive. No injuries were reported.

Cd'A Press 12-29-86

- At 8 a.m. Saturday, a westbound Chevrolet Sprint driven by Scott Green Talcott of Tacoma, Wash., skidded on I-90 about a half mile east of Exit 64 near Wallace. That car rolled to its side after traveling up on the railroad grade. No estimate of damage was reported and Talcott escaped serious injury.
- Back in the Osburn area at 11:38 a.m. Saturday, an eastbound 1982 Jeep CJ5 driven by Todd Francis Lundin of Salt Lake City, skidded on I-90, hit the center divider, rolled to the left, came back and slid across both westbound lanes and hit the guardrail. Damage to the Jeep was estimated at $2,000. Lundin, and a passenger, Julie Boggs of Salt Lake City, escaped serious injury.
- Among several accidents that happened in the Mullan-Lookout Pass area between 11:30 and noon Saturday, was the one in which Holmes was injured. In that instance, a 1981 ISU pickup driven by Howard Dwyane Lawson, 46, of Spokane was traveling west while towing another vehicle when the two units skidded and jackknifed about 500 feet west of Mile Post 68. The vehicles left the roadway and slid 72 feet before overturning, then skidded another 46 feet before coming to rest against a guardrail. The reporting officer said the rig being towed was on its top, and the ISU was on its side. Total damages were in the $3,500 range. Both Lawson and Holmes were taken to East Shoshone Hospital by a deputy sheriff.
- Starting at 4:25 a.m. Sunday, a 1981 Honda sedan driven by Georgina Ann Weed of Seattle spun around twice and hit a guardrail about 1¼ miles east of Wallace.
- Two people were injured in another accident that happened at 11:26 a.m. Sunday in the Golconda area east of Wallace. The investigating deputy said a 1985 Dodge Ramcharger driven by William Henry Richards Jr., 49, of Butte, slid 37 feet before hitting a guardrail. The officer said the impact caused the vehicle to "swap ends" before sliding another 110 feet along the railing. The Ramcharger then crossed the roadway and hit a raised divider, causing it to flip to its top. Richards suffered non-incapacitating injuries. His wife, Kay, 47, complained of injury, but their son, Andy, 18, remained in good condition. The Ramcharger was heavily damaged.
- The accident involving Noel Hawke of Oak Harbor, Wash., mentioned above, happened at Mile Post 66 at 11:45 a.m. Sunday.

Walk-in reports filed by Linda Carol Walks of Osburn and Jeffrey Lynn Jusilla of Coeur d'Alene, indicate Jusilla was driving a 1979 Jeep CJ7 and pulling a trailer when those ri s jack-knifed near Mile Post 71 at 11:55 a.m. Walks complained of possible neck injuries when the 1974 Plymouth Duster she was driving collided with Jusila's vehicles.

- Details of yet another accident that resulted in the trailer of an 18-wheeler ending up on a guardrail with the tractor hanging over the side of the freeway at 8:15 Sunday evening were not available at press time today. Officers said the driver escaped serious injury.

Shoshone County News-Press photo by DON BAUER

The driver of this semitrailer truck was uninjured when his rig jumped the center barrier on I-90.

Truck accident delays traffic

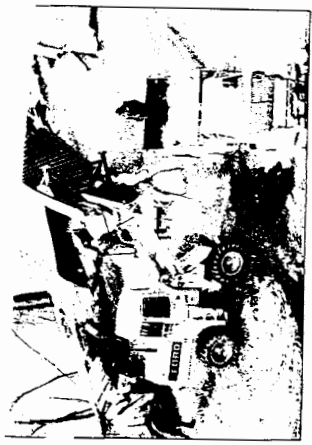
Traffic was backed up several miles for two hours Monday afternoon on Interstate 90 east of Fourth of July Pass after a semitrailer truck skidded on an icy curve and vaulted the concrete center divider.

Idaho State Police Cpl. Philip Broesch said the driver of the empty cement tanker truck, Dale E. McCawley, 53, Spokane, suffered only a slight bump on his head.

McCawley's truck, owned by Common Carrier Inc. of Seattle, however, sustained extensive damage to its undercarriage as it slid into and over the concrete median at about 2 p.m.

Broesch said McCawley was driving west when he lost control of the truck, which came to rest blocking both eastbound lanes about two miles east of the pass.

Cd'A Press - 2-23-88



The demolished tractor-trailer straddled the guardrail and blocked one lane of traffic.

Crews mop up

Continued from Page 1

Lovsey told police that he often drives that route. He was traveling at 50 miles per hour or anything, and was "jigger about what happened."

ISP officers cited him for operating a vehicle in an inattentive manner.

Lovsey was driving the shipment of magnesium residue for Rouse Trucking Co., Kennewick, Wash., to a company in Monroe.

Gay said when firefighters first arrived at the scene, confusion over the spilled product caused a lot of unnecessary concern. Initial reports of the incident included information in the bill of lading.

"That goes on day after day," Gay said. "It's a shipping paper. It's very sketchy. It did not have a description of what was being carried. There's a lot of bad stuff on our highways."

After several phone calls, officials at Dow Chemical were finally able to determine for firefighters what could be done with the residue.

At 5 a.m., salvage crews started shoveling the magnesium into dump trucks and hauling it about a quarter-mile away to a flat area where the magnesium was allowed to combust itself, or burn itself up.

Officials had to deal with it at the site, said Gay, because the state of Washington and Montana had refused to allow the magnesium residue to be dumped in their landfills.

More than 40 people have been working on the cleanup, said Gay. They included the Rouse employees, the Kootenai County Sheriff's Auxiliary, which ran a kitchen for workers.

KMC can cope with hazardous waste disaster

By BRIEN LAUTMAN
Press Staff Writer

Hazardous shipments

Continued from Page 1

ar waste plan, which federal officials admit would expose local residents to cancer-causing radiation.

The Coeur d'Alene attorney said he cropped his mind this morning that he wanted to make sure Empire been told of radioactive material."

Mayor Jim Fromm said last week ch North Idaho hazardous materi- to take action with the Idaho Legis- rmit County Fire Chief Warren Gay lature to block the proposal. said, but the group currently oper-

McCrea was opposed by Fromm to testify for the city at a March 13 ates, bearing on the issue in Boise. site in an advisory role only.

McCrea will also represent the cities, Panhandle authorities rail city on a regional task force that's city on a Spokane hazardous materials trying to investigating the acci- team.

Firefighter chops away part of the wrecked truck.

Crews mop up magnesium spill

By LES TIDBALL
Press Staff Writer

Cleanup efforts are continuing today on Interstate 90, approximately 8 miles east of Coeur d'Alene, where a truck wreck caused potentially flammable magnesium residue to spill on the shoulder and roadway.

Both eastbound lanes remained closed at noon today, and traffic was being routed into a westbound lane to avoid the crash site.

Kootenai County Fire Protective District Chief Warren Gay said the No. 1 priority of the work crews was to keep the heavy metal out of Lake Coeur d'Alene.

The magnesium residue is an irritant, not a toxin, and workers were walking through the material as they shoveled it out of the overturned trailer it was being transported in.

Idaho Fish and Game officials were concerned that the magnesium be kept out of the water, where it could cause great harm to fish, Gay said.

Because the magnesium is water soluble, it could have simply dissapated when it hit the water, about a foot away, he said.

"Or we could have had one big emission of hydrogen gas and a big explosion or a rapid fire," Gay said. "At all costs, we were going to keep it out of the lake."

When the magnesium residue touches water it rapidly oxidizes and bursts into flame, said Dr. Tim Evens, head of emergency services at Kootenai Medical Center. He confirmed that it burns in a quick burst, but with the snow in the area would effectively shield the surrounding area from a major fire.

But, said Evens, people could be severely injured by the fire.

Another concern is that as the residue oxidizes it turns into magnesium salt, which is extremely harmful to fish.

The magnesium was spilled, said the Idaho State Police, when a truck and tractor rig driven by Dana Lovsey, 33, Akron, Ohio, failed to negotiate a curve, about 8:45 Monday night, causing the rig to roll over.

Continued on Page 4

Press Photo By GORDON KING

Rouse Trucking employees and firefighters cleaned up the magnesium mess this morning.

Hazardous shipments worry councilmen

By BRIEN LAUTMAN
Press Staff Writer

Two Coeur d'Alene City Council members said today they are concerned about public safety regarding the transportation of hazardous materials along Interstate 90.

"It's the kind of thing we need to educate ourselves on," Councilman Bob Brown said. "We need to learn a whole lot about what's being shipped. I think that every City Council member and (county) commissioner better put this high on their agendas."

Brown's comments came hours after magnesium residue — a highly flammable material — spilled from a semi-truck that crashed Monday night along Interstate 90 near the Blue Creek turnoff.

Brown said Mayor Jim Fromm is scheduled to attend a meeting of city officials in Washington, D.C., concerning the transportation of hazardous materials.

Fromm was unavailable for comment this morning.

Councilman Steve McCrea said, "It (hazardous materials) is something I guess that the council hasn't addressed specifically. I suppose it's something that people don't want to think about, but it's a problem. I guess it's all hitting home now. It's not like it (a spill) hasn't

W529

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS

TELEPHONE 343-4861
225 N. 16TH STREET BOISE, IDAHO 83702
LOCAL UNION NO. 291

March 26, 1988

Testimony of Randall A. Ambuehl on the proposed S.I.S. Project at I.N.E.L.

1.1 My name is Randy Ambuehl, I am a resident of Boise County in the State of Idaho, a citizen of the United States of America, and a member of the International Brotherhood of Electrical Workers, and I am here to speak in support of locating the Special Isotope Separator Project at the I.N.E.L.

4.9.4 The elected leadership of this nation has decided that this project is necessary in order to maintain our National Security and the Department of Energy has decided that it would prefer to locate this facility at the I.N.E.L. here in Idaho. I believe that we should support the informed decision made by our leaders, realizing that they have the long term best interests of our nation at heart.

5.24.23 The I.N.E.L. has a longstanding record of safety in both the construction and operation of projects already located there and there is no reason to assume that the S.I.S. project will be any different. The Department of Energy at the I.N.E.L. has always placed great emphasis on the environment, the communities, and the personal saftey of the citizens of Idaho.

3.2.7 The S.I.S. Project represents hundreds of construction, operation, and support jobs with millions of dollars of payroll and would substantially increase Idaho's tax base at a time when these jobs and taxes are badly needed by this State and its citizens. The established I.N.E.L. policy of "Buy Idaho" will
5.27.6.1 give many large and small businesses in the State an opportunity to supply materials and manufactured products to the S.I.S. Project, enhancing Idaho's business environment.

The decision has been made to build the S.I.S. Project. Let's build it in Idaho.

Randall A. Ambuehl
H.C. 33 Box 1610
Boise, Idaho 83702

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Postmarked April 21, 1988

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April 19, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
785 DOE Place
Idaho Falls, ID, 83402

Dear Mr. Nichols:

Will you be so kind as to include my comments in the official record regarding the proposed SIS project?

Comments:

I am strongly opposed to construction of the SIS project at the INEL, or anywhere else in Idaho, because: 1.1

The EIS underestimates the likelihood of a nuclear accident happening. 5.1.21

Transportation hazards (such as Transportation over I-84, and through Boise; containers and special vehicles to be used; the possibility of critical accidents occurring) have not been considered adequately. 5.29.2

The possibility of this project contaminating the Snake River Plain Aquiver should be considered more carefully. 5.12.1

The risk of earthquakes in the INEL area may be much higher than the Uniform Building Code for the area states. 5.10.5

Philosophically, I am totally against building more nuclear weapons, when we already have the capability to blow this planet out of existence, many times over! 4.13

Sincerely,

Robert Boester

Robert Boester
1038 McKinley Str.
Boise, ID, 83712.

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SIS Project Office

W531

MARY LOU REED
DISTRICT 2 A
KOOTENAI COUNTY

HOME ADDRESS
10 GIESA ROAD
COEUR D'ALENE, IDAHO 83814
PHONE: (208) 664-3564

Idaho State Senate

COMMITTEES
EDUCATION
JUDICIARY & RULES
STATE AFFAIRS

CAPITOL BUILDING
BOISE

April 18, 1988

Clay Nichols, Manager
DOE SIS Project
785 DOE Place
INEL
Idaho Falls, ID 83402

Dear Mr. Nichols:

2.8.7 Although the SIS project has received a great deal of review in south Idaho, it remains unfortunate that hearing time has not been been granted to members of the north Idaho public.

5.29.95 Many of my constituents have contacted me who are opposed to bringing the project to Idaho. One of their major concerns is the increase in the volume of radioactive materials that will be transported over Idaho's highways. Although the safety record for the transportation of nuclear materials has been sound, one single error could trigger an Idaho disaster.

5.1.38 Throughout recent Idaho history, our rivers and streams have been the lifeblood of the economy in a very literal agricultural sense. With our growing reliance on the tourist dollar, we are recognizing the very real economic value of the quality of that water as well. The potential for damaging spills caused by the increase in the traffic of nuclear materials is a not-to be-dismissed threat.

5.27.7.9 Short term jobs and prosperity for Idaho Falls are scarce justification for a project around which swirl so many unanswered questions and so much controversy.

1.1 I am sorry my constituents who disapprove of the project have been muffled but their fears for the health of the state remain.

As do mine. Please count me in opposition.

Sincerely,

Mary Lou Reed

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W532

EASTERN IDAHO CHAPTER HEALTH PHYSICS SOCIETY

P.O. BOX 2373 IDAHO FALLS, IDAHO 83401-0673

STATEMENT OF THE EASTERN IDAHO CHAPTER

OF THE

HEALTH PHYSICS SOCIETY

April 19, 1988

Submitted by: Rochelle J. Honkus, President.

Submitted for: The Draft Environmental Impact Statement for the SPECIAL ISOTOPE SEPARATION(SIS) PROJECT.

The Eastern Idaho Chapter of the Health Physics Society (EICHPS) is one of the 42 chapters of the National Health Physics Society which has as its primary objective ".....the development of scientific knowledge and practical means for the protection of man and his environment from the harmful effects of radiation, thus providing for its utilization for the benefit of mankind". National membership is over 6000 members.

The EICHPS has a membership of more than 100 professionals including individuals working in State and Federal Government agencies, private industries and government contractors, the medical field and the universities in Idaho. Their areas of speciality include: applied radiation protection, dosimetry,

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SIS Project Office

training of workers, instrumentation, personnel and environmental monitoring, nuclear medicine, safe transport, radiation biology, radiochemistry, radiological risk assessment, reactor health physics, preparing regulations and standards, waste management, research and administration.

We believe that this organization is one of the most qualified organizations to perform radiation safety evaluations on the Draft Environmental Impact Statement.

The EICHPS supports the conclusions of the Draft Environmental Impact Statement that the SIS project can be operated safely at the Idaho National Engineering Laboratory (INEL) for the following reasons:

5.8.8

5.3.8

5.18.4

5.1.42

1. The design is at the leading edge of the state of the art for nuclear facilities and employs the best radiation dose reduction techniques for both the workers and the offsite population.
2. Radioactive release to the environment under normal operating conditions will be well below any applicable standards. In fact, any liquid discharge will be below drinking water standards.
3. In the event of an accidental release of radioactive material, the environmental impact will be minimal.

1.1

In addition, we believe, based on our profeasional knowledge and experience, that the INEL is the optimum location for this project. We recognize that the DOE has already made an evaluation of the three possible sites and has selected INEL as the preferred site. However, the Environmental Impact Statement could be considered flawed because it does not paint a complete picture of the unique experience and expertise that exists at the INEL. In fact, it's unfortunate that even the people in Idaho Falls, Sun Valley, and Boise have only a superficial awareness of this valuable resource.

2.2.1

The key ideas developed are outlined as follows:

1. The INEL has been the home of much of the most advanced energy research performed in the world.
2. Argonne National Laboratory (West), located at the INEL, demonstrated the first use of nuclear energy to produce electricity and the principle of the breeder reactor in Idaho. Incidentally, breeder reactors convert natural Uranium, which is non-fissionable, into the fissionable element Plutonium-239. Breeder reactors have been producing small quantities of enriched Plutonium at the INEL since 1951.
3. The INEL is the only National Engineering Laboratory in the United States of America.
4. Over the past 49 years, 52 reactors or critical facilities have been successfully designed, built and operated at the INEL. Most of these facilities were unique in the world.
5. The most serious nuclear accident which occurred at the INEL was in 1961 at the SL-1 Prototype Reactor Facility. Three military personnel were killed in the steam explosion. The radiological impact, as predicted in the safety analysis report was minimal at any of the other site

5.1.46

facilities or for the offsite population. The radiological impact of the most severe accident considered as even possible for the SIS would have less environmental impact both on and offsite.

6. The Radiological and Environmental Sciences Laboratory (RESL) is unique in its role as a government operated laboratory on the INEL site. The INEL test site has been named a DOE National Environmental Research Park since 1975. RESL monitors the water, air, soil, and farm products such as wheat, lettuce, and milk as well as wildlife over an area of 5000 square miles both on and offsite. RESL has also developed an international reputation for the quality of their research and operational activities in personnel and environmental dosimetry and the development of ultra-sensitive methods of radiochemical analysis for internal dosimetry. RESL is also a reference laboratory for the US Nuclear Regulatory Commission.

5.19.4

7. The Naval Reactor Facility has four major plants which are the birth place of, and major training center for the U.S. Nuclear Navy, including nuclear powered submarines and aircraft carriers.

2.2.1

8. Both the EBR-1 (1953) and the MTR (1958) have demonstrated nuclear power operations with Plutonium-239 fuel. In addition, the Zero Power Plutonium Reactor (ZPPR) is in operation since 1955 at the ANL-West.

9. The INEL developed the original concept and is now the home for the Systems Safety Development Center which is internationally recognized for its organized, logical approach to improve the safety performance of any industrial organization. This is done through a fully integrated risk management program. While this program was developed for DOE activities in the 1980's and 1990's, these advanced state of the art concepts and methods are now being used by NRC, NASA, and the U.S. Navy. In addition spinoff from this government program to U.S. industries has been rapid; including aerospace, automobile, utilities, oil, chemicals, forest product and nuclear power. More recently the concepts have crossed the ocean to England, France, and Germany.

Many members of the EICHPS (both past and present) have participated in these programs. We have been proud to be involved in the design, testing, operation, waste disposal and environmental monitoring for these activities. With confidence we look forward to similar successful experiences with the "SPECIAL ISOTOPE SEPARATION PROJECT".

Rochelle J. Honkus

Rochelle J. Honkus, President
Eastern Idaho Chapter of the
Health Physics Society.

W533

Hearing On The Draft Environmental Impact Statement
For The Special Isotope Separator Project

Tuesday, March 29, 1988 (Evening Session)

Testimony Of Michael C. Orr

(1)

My name is Michael Orr, and I live at 1316 N.8th Street in Boise. I oppose the Special Isotope Separator Project, because of the lack of need for plutonium and also because of the public health and safety risks involved.

Concerning Need :

4.1 The "need" for the SIS is not adequately defined in the Draft Environmental Impact Statement. In the DEIS, the need for more plutonium is based primarily on the Nuclear Weapons Stockpile Memorandum, which is a classified document. This means that the people are not allowed to determine if there is a need for this highly toxic substance. Instead, we are put in the position of having to place blind trust in the Department of Energy that this need for plutonium actually exists. I do not care to put blind trust in very many people I know,
4.10.5 much less in the DOE, which has a well established record of enviromental contamination.

4.13 Also, the United States has more nuclear weapons than we will ever need to destroy any enemy. I submit that the "need" for more plutonium simply does not exist.

594

2.1.1 Concerning Safety and Public Health:

Safety and public health are concerns that are ill-addressed in the DEIS. Plutonium, with it's extreme toxicity, requires the absolute safest of handling,
5.24.27 transportation, processing and waste disposal techniques.

Transportation and handling safety are hardly addressed at all in the DEIS, and
5.29.1 it is proposed that wastes be disposed of at an uncompleted site in New Mexico that already has developed leaks.

Accidents are bound to occur, but the DEIS considers only very optimistic scen-
5.1.21 arios. Possible accidents are given cavalier treatment, and then summarily brushed aside. The DOE has a record of environmental contamination at many of it's sites. The DEIS states that the operation of the proposed SIS would be "consistent with DOE's practice for other production facilities." One may
3.2.16 therefore assume that the level of additional environmental contamination at INEL would rise considerably.

The DOE has no public accountability for the safe operation of it's facilities.
3.2.18 All regulation is internal. This is an unacceptable conflict of interest with potentially dangerous implications for public health.

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SIS Project Office

(2)

In closing :

The relentlessly upbeat tone of the DEIS gives me the impression that the conclusions needed to support DOE's Preferred Alternative were formulated first, 2.11.2
and that the data and analysis needed to support these conclusions were collected and performed sometime later.

Finally, the DEIS contains a disclaimer which absolves DOE of any responsibility for anything reported or stated in the DEIS. That means that the entire docu- 2.3
ment is essentially meaningless, and again puts DOE above public accountability. I submit that any agency that will not take responsibility for it's own DEIS is scarcely capable of responsibly constructing and operating a project with as 1.1
many potential hazards as the SIS.

I support the "No Action" alternative.

W534

RECEIVED
APR 8 1988
SIS Project Office

April 1, 1988

L. Fuentes-Williams
P.O. Box 422
Coeur d'Alene, Idaho
83814-0422

Clay Nichols
785 DOE Place
Idaho Falls, ID 83402

I wish the following testimony to be included in the Special Isotope Separation (SIS) Project Hearing record.

First and foremost I wish to place an official complaint on the handling of the hearings.

2.8.3 1) First, the postponement of the SIS hearing was totally a political move on the part of Senator McClure of Idaho to get his "Wilderness" Hearings in at the expense of the SIS Hearings. This caused severe inconvenience to numerous individuals, including myself, many who subsequently were unable to testify.

2) I called Clay Nichol's office within the first few days of the announcement of the hearings to reserve two places at the Boise hearing. At that time I requested that Ted Fuentes-Williams and I be scheduled to testify consecutively as early in the afternoon session as possible. While I was assured that this information would be passed on, this did not turn out to be the case. After traveling 8 hours to attend the hearing in Boise, we were informed that we would be testifying at 11:00 pm and 10:15 pm, respectively. Based on the fact that these times were based on individuals testifying for a total of 2.5 minutes each rather than the 5 minutes publicized it appeared rather unlikely that we would get an opportunity to testify that evening. Unable to wait until midnight before knowing whether we would actually be able to testify we placed a complaint with Roy Eugerin (the hearing officer) that we would be unable to attend due to the hardship the schedule placed on us.

2.8.10

3) I have also placed a complaint with Governor Cecil Andrus (Idaho), for if these hearings were suppose to be for the state of Idaho it is obvious that the entire northern portion of the state has been neglected. Further, if these hearings were intended to explore the other alternatives mentioned in the EIS the deficiency is blatant. One cannot help but wonder if the exclusion was not intentional to exclude individuals that do not have any vested interested in the project and thus would speak the truth.

2.8.6

4) Last, but certainly not least, is the assumption that I wish to be addressed Mrs. It is an insult to be labeled Mrs. without being asked if that is the proper title that I wish to be addressed by. I noticed upon looking through your list of speakers that not one man had the term "married" before or after his name. Therefore, I ask that you be a little more sensitive in your labeling of women before you jump to conclusions. This is belittling, disrespectful, and outright insulting. I urge you to show some equity by using titles such as Mr. and Ms. unless another title is specifically requested.

In addition to the previous complaints I wish the following to be addressed. 3.2.1

1) The Department of Energy (DOE) has been a bad neighbor at virtually every facility they have operated from Hanford (WA) to Rocky Flats (CO) to Savannah River (SC). Law suits sponsored by the state officials, by citizen action groups, and by afflicted citizens have been initiated in against DOE at virtually every one of these facilities. Even when DOE has admitted fault it has been exempt from paying damages because of the Atomic Energy Act or other loopholes. What assurances can DOE give Idahoans that they will be responsible neighbors not hiding behind a cloak of secrecy and avoiding responsibility through loopholes in the law? What assurances can DOE offer that they will not expose current and future generations with deadly radiation through air releases, dumping of radioactive materials on the ground, and with the disposal of radioactive material which will remain active hundreds of thousands of years after we've all died? Through these forty years you've been killing us with your lies. When will it stop - when we are all dead? 5.23.1

2) The disclaimer placed in the inside cover of the Draft Environmental Impact Statement (EIS) is very disconcerting. The EIS process is already plagued with biases since those who stand to gain the most are the ones that hire the staff to perform the EIS. To then say that "Neither the US government nor any agency thereof, nor any of their employees, make any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness ..." is making an absolute mockery of the NEPA process. The EIS process is one of the only ways in which American citizens can participate in decision making in a direct way and then to add such a disclaimer is simply inappropriate and if allowed to legally stand then it is a waste of taxpayers' money. How can DOE present such a document without being accountable for its contents? The is one more case of the irresponsibility of DOE, a clear lack of accountability. DOE is making a farce of the process and insulting the taxpayers. 2.3

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4.6 3) With the closure of the N Reactor at Hanford Nuclear Reservation in Washington because of the lack of need for additional plutonium, why would we even consider building another major plant which would meet the same fate? Senator Hatfield along with other prominent congresspeople (both Democrats and Republicans) have stated publicly that the US

4.9.5 has sufficient plutonium to meet our "needs." DOE must justify to the taxpayers of this country and to the children of the world why we would frivolously spend gross quantities of monies on an obsolete project, the SIS, while schools go

5.26.2 underfunded, lunch programs are ill funded, public assistance is cut.... Address the real issue as to why the SIS would be built. Address if the use of commercial fuel rods for military purposes is the reason for the building of this project. If that is the case, I will remind you about the Anti-Proliferation Act which the US is a cosigner. If this is not the case how can the US government justify this quantity of money on a project that

5.27.6.11 has only sufficient fuel to operate 7-8 years? With the enormous national deficit it is simply irresponsible and ludicrous to <u>even</u> spend the money required to do a Draft EIS on such a wasteful project.

3.2.1 4) The DOE has caused environmental degradation, human suffering, and disregard for future generations. DOE has

4.10.5 proven that it cannot and should not be trusted. It is so busy building bombs to "protect" us that it is killing us with poisons and contamination. I demand that the <u>NO ACTION ALTERNATIVE</u> be pursued!

1.1

Sincerely,

C. Fuentes-Williams

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APR 21 1988
DOE Project Office

April 18, 1988

Clay Nichols
Idaho Operations
785 DOE Place
Idaho Falls, 83402

Dear People,

I feel very strongly that allowing &/or encouraging the SIS project to be in Idaho is a major mistake. 1.1

A past record of safety at the INEL is interesting to know but does not relieve my fears. 5.30.5.7

The SIS project will increase the probability of accidents by the fact that hazardous materials will be transported through our State more frequently, and the fact that the SIS project is experimental. Because it has not been done before. We may not even be aware of all the dangers it will present. 5.29.97 5.1.3

I could go on and on. I don't want the SIS here and that is the bottom line. I don't think we need it as a nation either.

Thank you for your attention. 1.1

Karen Dotseth 1600 N. 8th Boise, Id. 83702

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W536

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SIS Project Office

April 20, 1988

Mr. Clay Nichols-
I am writing to add my support for the S.I.S. Project at the I.N.E.L. I believe this is a much needed project for our area. 1.1

Janis Thurman
1654 W. Center
Blackfoot, Id.

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W537

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SIS Project Office

Mr. Clay Nichols

I am writting to show my Support For the S.I.S. Project at the I.N.E.L. For the following Reasons. 1.1

1. Idaho is a smart location for this Project. the I.N.E.L. has a workable Safety, Engineering, & Production Record. 5.24.23
2. The Isotope seperation by laser instead of Chemicals would be more efficint & Less likely to harm the Environment. 5.28.2
3. Nearby Ida. state Univ. has an exellent laser Program & each would Compliment the other in research & training People. 5.27.15.1
4. We have a very well trained Work force Willing & able to Construct with highest Quality this Project. 5.27.11.3
5. The S.I.S. would be a Polution Free industry for Idaho helping to Create other spin-off businesses. 5.27.9.1

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Kirk Thurman
1654 W. Center
Blackfoot Ida
83221

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W538

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APR 21 1988
SIS Project Office

Dear Sirs: April 18, 198

1.1 The S.I.S. project should not be located in Idaho because it is obvious that you already have a problem with
5.12.1 contamination there, that is going to have to be dealt with and there is no sense in adding more to the problem. The aquifer that it sets on is to important to Idaho, the United States and the world
5.10.5 for that matter and based on past experiences where these kind of operations are happening the aquifers are being contaminated. You also have to consider the possibility of an earthquake in this area.

2.1.1 It is obvious that this original environmental statement has been very misleading to the people and they have been sold a bill of goods equivalent to a con-job to make them believe that this would be a cure to
5.27.6.9 all these financial problems. The jobs
5.27.7.3 have been over estimated and most of the jobs it appears that come as a result from this project other than at
5.27.7.1 the site will be low paying, and the people would be much better off if
5.27.5.2 these jobs were created by other industry such as tourism.

Idaho's number one and number two industry as I understand them

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②

are agriculture and tourism and 5.27.2
these industries could be hurt seriously with even a small accident at the I.N.E.L. and especially with the S.I.S.

The people in favor of the project have objected to it being called a bomb factory. Another place where you have misled the public. It doesn't much matter if you build the bomb materials here, the mines in Utah and send it to Colorado to assemble it, 5.27.6.2
it's still a bomb factory.

Idaho does not need it I believe does not want this project. Only a few special interest groups want it for the fast easy money and maybe that has alot to do with the United States problems now. I also believe that the United States would be alot 6:3
better off not to do this project, drop the star wars and other wasteful type projects and balance the budget so we would have something worth defending.

I'm going to shorten this up because it would write more than you people will take time to read but it amazes me that this was reduced to a simple cheer, so here

538A

W539

(3.)

April 19, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office, U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols,

I'm a life long resident of Idaho Falls and supporter of the U.S. Nuclear industry. I am strongly opposed to the SIS project for the following reasons: 1.1

1. Economically, this project can not be justified by taxpayers. 6.3
2. An accident would have a disastrous effect on our critically important agricultural industry and also negatively impact Idaho's growing tourism industry.
3. The E.I. statement is worthless and a further waste of taxpayers money. 5.27.2

I'm also an ardent supporter of a strong national defense, but basically find it unacceptable to support a plutonium facility at the I.N.E.L.

Thank you for your consideration of the above comments and please don't get swept up by the small, vocal chamber of commerce crowd and INEL contractors, but listen to all Idaho citizens. 2.1.1

Sincerely,

Louis H. Griffin

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539 APR 21 1988
SIS Project Office

is a cheer for you.

1.1 NO NO S.I.S.
ONLY A MORON WOULD
SHIT IN HIS NEST.

Thankyou

David E. Nesta
Donna L. Nesta

599

DS.

5.24.24 All this safety that they keep bragging about, although we have seen several accidents, given the right situation that could be very serious, is the same song and dance they gave us in the space program until they blew up seven people. Only this time it could be 70,000 or 700,000 lives endangered.

538B

W540

April 20, 1988

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Mr. Nichols,

1.1 I would like to state the following things in support of the S.I.S. Propject for Idaho Falls, Idaho.

4.9.4 Our Congress and President have stated that we need the Plutonium for defense purposes. The technology developed may

5.28.7 lead to a better disposition of the waste.

Please bring us S.I.S.

Thank you,

[signature]
1056 HILLVIEW
IDAHO FALLS, IDAHO
83402-

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SIS Project Office

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W541

4/18/88

Mr. Clay Nichols
DOE
PO Box 1625
Id. Fls., Id 83415

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APR 21 1988
SIS Project Office

Re: SIS,

Dear Mr. Nichols:

I am a nineteen year resident of Idaho currently living and owning property downwind of the proposed SIS facility. 1.1

I am opposed to the construction of SIS here or anywhere because:

1. There is no need for additional plutonium. 4.15.5
2. A leak would lower my property values. 5.27.17
3. The presence of the SIS would lower my property values and quality of life. 6.1.9
4. SIS is pork barreling at a time when we need constraint to cut the deficit.

Please enter this statement in the hearing records. 6.3

Sincerely,
[signature]
Ted Chu
15083 Bear Lo. Dr.
Idaho Falls, Id. 83402

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W542

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APR 21 1988
SIS Project Office

Mr. Clay Nichols
Dept. of Energy
PO Box 1625
Idaho Falls, Id 83415

4.18.88

Dear Mr. Nichols,

1.1 I am a ten year resident of Idaho and presently living in Idaho Falls.

I would like it entered on the hearing record that I am opposed to the construction of the SIS facility in Idaho or anywhere else for the following reasons:

4.15.5 1. The plutonium is not needed, especially when the United States is working towards unilateral disarmament.

6.3 2. This project is an incredible expenditure for something that is not needed & would add considerably to the national debt.

5.27.10 3. The limited project life would create a boom or bust economy in an area that needs to concentrate on a more stable economic growth.

6.1.9 4. The presence of SIS would lower my quality of life.

Sincerely
Jody Brostrom
262 E 81st N
Idaho Falls Id 83401

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W543

CHUTE 2 PROMOTIONS
Zeb Bell

Advertising Consultants
Marketing Ideas at Work for You
(208) 733-2047
P.O. Box474 Kimberly, Idaho 83341

CHUTE 2 PROMOTIONS
Lewis Eilers

4-18-88

Dear Sir,

NO! I do not want, nor does 1.1
any Member of my family want the
SIS in Idaho.

Why, I implore you, need we take a
"Chance" on the future of our environmen
And Mankind?

NO - SIS !!

Zeb Bell
Hansen Idaho

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APR 21 1988
SIS Project Office

543

W544

Route 1, Box 90A
McCall, Idaho 83638
April 20, 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols:

1.1 I wish to express my opposition to the construction of the proposed SIS project at the INEL.

6.1.2 Although proponents of the project site more jobs for Idahoans, I don't think this project is good for the health, economy, or environment of Idaho. Anytime potentially hazardous materials are dealt with, the risk to health is always present. Economically, Idaho draws many visitors here by the beauty of the state, making tourism one of our major industries. I fail to see how an isotope separator will enhance tourism. And environmentally, any

5.12.1 possible contamination of the Snake River Aquifer seems more than enough reason to oppose this project.

My main concern with the SIS, however, is larger than whether or not it should be built at the INEL. I don't believe we should produce any plutonium anywhere. In the hopes that we are moving toward a more peaceful world, any U.S. plutonium production is a step backward. Please decide against the SIS; for Idaho, for our country, and for world peace.

Sincerely,

Mary L. Campbell

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SIS Project Office

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APR 21 1988
SIS Project Office

Dr. Clay Nichols
SIS Project Manager

If the SIS is built 1.1
I think it should be built in
Idaho. With proper design & safeguards
it should not pose a hazard.
I view the SIS as much less
dangerous than the chemicals etc.
that are dumped over the aquifer
that could be traced like radioactive 5.24.31
material can. Proper safeguards will
have to be taken however.
I attended the first evenings
testimony in Twin Falls. Most of
the testimony was emotion and
much untrue. Few facts were brought
out. My observation is that most of
the people against SIS were the
but few of the supporters. Of
Engineers I work with and most
others I know have no objection
to the SIS. The representation

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603

at the hearings yesterday was not a representative cross section of the population. I don't think most that had any understanding of the project object to having it built in Idaho. Lets build it here !!

Charles C. Bergman
Rt 2 Box 52zz
Twin Falls ID 83301
Ph 208-733-8217 Home
208 733 4164 Work

W546

Ms. Linda S. Brown
832 Meridian St.
Meridian, Idaho 8364

April 20, 1988

Mr. Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

Re: Special Isotope Separation (SIS) Project

Dear Mr. Nichols:

I am very opposed to the construction of the SIS project in Idaho, and in fact am opposed to the building of an SIS project anywhere. 1.1

There are other options in existence to building an SIS plant here in Idaho. You could restart the nuclear reactor already in existence, use the SIS prototype facility already under construction at the Lawrence Livermore Laboratory, and you could use SIS feed plutonium in its current form for weapons. 5.2.14 5.2.13

It is my understanding that Senator Hatfield stated in a 1987 report that over the last six years the number of weapons estimated needed has always been overestimated, sometimes by a factor of two, by the NWSM. In a recent news release the DOE stated that plutonium need "could be met from three reactors at Savannah River Plant.,.and through plutonium recovery from nuclear weapons retired as a result of the recent US-Soviet treaty." 4.15.5

The signing of the INF treaty will free up to two tons of weapon-grade plutonium. If current negotiations on a 50% strategic force cutback are successful, plutonium equaling 8 times the amount to be produced by the SIS will be made available for new weapons production. 4.3

There is certainly almost a surety that the INEL will become a permanent repository for nuclear wastes. You have not addressed the fact that nuclear waste will seep into the aquifer under the INEL and into the lives of Idahoans. Idahoans may need jobs, but we are not willing to gamble with the lives of our children and children's children. 5.30.2.5 5.12.1

You have not adequately addressed the dangers from earthquakes and other natural disasters, or the dangers of transportation of hazardous material. You would sell us all out, sir, because you think we are a poor state who would do anything for jobs. 5.10.5 6.2

Sincerely,

Linda S. Brown

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W547

18 APRIL 1988

1.1 MY NAME IS CATHERINE TAYLOR. I AM A RESIDENT OF IDAHO, AS WELL AS AN INHABITANT OF THIS EARTH. THIS IS MY WRITTEN TESTIMONY IN OPPOSITION TO THE SPECIAL ISOTOPE SEPARATION PROJECT (SIS). THE SIS

4.1 PROJECT IS AN UNNEEDED AND UNDOUBTEDLY DANGEROUS THREAT TO THE PEOPLE OF IDAHO AND ALL LIVING THINGS.

THE SINGULAR PURPOSE OF THE PRODUCT WHICH

4.13 THE SIS PLANT WOULD PRODUCE, PLUTONIUM 239, IS SOLELY FOR THE PRODUCTION OF AN EXPLOSIVE IN NUCLEAR WARHEADS. NOT ONLY IS THE END RESULT

5.13.14 OF USING ONE OF THESE WARHEADS TERRIFYINGLY UNTHINKABLE, THE POSSIBLE EFFECTS ON OUR HEALTH AND OUR LIVES (WHETHER WE CEASE TO EXIST ALL TOGETHER OR NOT) ARE IN SEVERE DANGER BY THE MERE EXISTENCE OF THIS PROJECT.

"PLUTONIUM IS ONE OF THE MOST TOXIC SUBSTANCES KNOWN. PLUTONIUM BURNS WHEN EXPOSED TO AIR,

5.24.27 AND A PIECE THE SIZE OF A PINHEAD CAN CAUSE CANCER. FIRES AND EXPLOSIONS AT THE SIS PLANT WOULD CONTAMINATE THE SURROUNDING LAND (NOT TO MENTION THE AIR AND WATER WE ALL DEPEND

5.1.42 UPON FOR SURVIVAL) FOR GENERATIONS." (NATURAL RESOURCES DEFENSE COUNCIL).

6.3 WITH THESE KINDS OF THREATS, WHAT KIND OF FUTURE DO WE HAVE TO LOOK FORWARD TO? AS OF YET, I HAVE NO CHILDREN, BUT IF PROJECTS SUCH AS THIS INCREDIBLY DANGEROUS, ANTI-LIFE, PRO-DESTRUCTION, TAX CONSUMING PROJECT ARE ALLOWED TO THRIVE I SEE NO REASON TO BRING CHILDREN INTO SUCH AN ENVIRONMENT. PLEASE CONSIDER THE CONSEQUENCES CLOSELY IN VIEW OF THE FATE OR THE FUTURE OF THIS LIFE ON EARTH AS WE KNOW IT.

SINCERELY,

Catherine Taylor

547 RECEIVED
APR 21 1988
SIS Project Office

604

W548

John W. Herbert
P. O. Box 479, Ketchum, ID 83340
P.O.Box 9250, Treasure I. FL, 33740

Mr. Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

This is to let you know that both Mrs. Herbert and I are very opposed to the proposed construction of the Special Isotope Separator at the INEL. 1.1

We realize that the construction would provide much needed employment for Idaho, but we are opposed to it for several reasons: 5.27.6.1

(1) We believe the potential for critical mass accidents is much greater than reported, and that the history of nuclear plant accidents has shown how easy it is for such accidents to occur. 5.1.21

(2) The volcanic nature of the area presents problems stemming from earthquake activity. I was in Ketchum when we had our quake several years ago and I do not see how anyone could consider additional construction of nuclear production facilities in an area of potential earthquakes. 5.10.4

(3) The disposal of radioactive waste is a continuing problem, and would be increased. 5.30.3.1

(4) The potential for contamination of the Snake River Aquifer is high. We have lived in Glenns Ferry and we know how porous the soil is. 5.12.1

(5) We believe that there are sufficient present plutonium reserves and that forseeable future production is adequate, and this construction in not necessary. 4.15.5

(6) We are basically opposed to use of any nuclear weapons and to the increased production of nuclear military weapons. 4.13

(7) We find this proposal to be exceedingly costly, and our national budget can ill afford unnecessary expenditures. 6.3

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SIS Project Office

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we have not presented our concerns in a technical manner. There has been excellent coverage in the press, but in essence we feel that it is the height of folly to spend money on a possibly questionable process that will produce more of a deadly substance that provides threats to humanity, and produces toxic waste that will require additional costly disposal.

We would appreciate your recording our oposition to this project.

Sincerely yours,

John W. Herbert

Geraldine A. Herbert

Geraldine A. Herbert

April 19, 1988

cc: The Honorable Senator James A. McClure
The Honorable Senator Steve Symms
The Honorable Congressman Larry E. Craig

I think we must go forward with the S.I.S. Outside of the plutonium we don't get from this project there will be many more things to come out of this project. I feel by not going forward we are not in Idaho. We need the project for the economy of the state. We worked the past several years and this project is still land safety

1.1
5.27.9.1
5.27.6.1
5.24.23

Glen Holbrook
Box 452
Idaho Falls, Idaho
83402
Local 549 7822 W

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APR 21 1988
SIS Project Office

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W550

April 18, 1988

Clay Nichols
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

The Super Isotope Separator (SIS) proposal is yet another example of our effort to destroy ourselves before anyone else can. Even if the SIS could be guaranteed to be perfectly safe, which would be incredible arrogance; even if the SIS would provide more jobs for Idahoans than worthwhile projects, such as road repair; even if we had the money to spare; we would still have to address the basic question: why was it ever proposed in the first place? We do not need more plutonium with which to threaten the destruction of the world.

Georges Clemenceau once charged that "America is the only nation in history which miraculously has gone directly from barbarism to degeneration without the usual interval of civilization." We degenerate internally by allowing our people to suffer and our culture to stagnate while "fiscal conservatives" pour billions of (borrowed) dollars into external defense. We could escape the charge of Clemenceau if we used our resources to develop our country's awesome potential in the arts, medicine, scientific research, education, and care for those in need.

Please, enter my testimony into the hearing record and help stop the madness of increasing our already mind-boggling debt with such destructive projects.

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APR 21 1988
SIS Project Office

Sincerely,
Laure Pengelly
Laure Pengelly

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4.15.5
4.13
6.3
1.1

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W551

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APR 21 1988
SIS Project Office

Dr. Nichols, Congressman Stallings, Senator [redacted], Senator Symms, Governor Andrus,

This is my public comment concerning the proposed SIS plant at the INEL. I am vehemently opposed to the SIS located any place on earth, especially in Idaho. It would be an economic liability, it is not compatible with our growing tourist industry. The environmental impact statement is a sham. The seismic activity of the proposed site is not addressed as a serious consideration. How soon you forget the mt. Borah shake, 7.1 on the Richter scale. You are damn right "it was felt" at the site. The economic benefits are minuscule, a few hundred laborer jobs, the main heavy work to be sub-contracted ex Wyoming, and a handful of operators when on line - The whole idea smells of pork - Give us 900 million dollars for marketing, road improvements, and such, not for more plutonium - How much plutonium do the idiots that want to wage war need. We have more than enough to turn this planet into nuclear wasteland void of any life except insects - What kind of fools are your engineers? NO SIS -

Sincerely
Chris and Rebecca Koster

P.O. 2542 Ketchum ID 83340

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1.1
5.27.3.3
2.1.1
4.10.4
5.27.6.1
5.27.7.4
6.3
4.13

W552

Burley Area Development Commission

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APR 21 1988
SIS Project Office

P.O. Box 1145
1401 Overland
Burley, Idaho 83318

(208) 678-2333
1-800-344-0909

April 20, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Dear Dr. Nichols:

Please accept the following as written comment from the Burley Area Development Commission in regards to the proposed SIS project to be located at the Idaho Engineering Laboratory west of Idaho Falls. The Burley Area Development Commission is the authorized economic development group for Cassia County, and includes membership from the private and public sectors representing local government, the Burley Area Chamber of Commerce, and private sector interests ranging from agriculture, banking, title insurance, manufacturing, and so forth.

6.2

The Burley Area Development Commission has studied the issues surrounding the Special Isotope Separation project proposed for the INEL and recognizes the controversy that has arisen. It is our opinion that the technical and economic benefits of the SIS project outweigh the potential threat to the environment or the importance of the debate regarding the need for weapons grade plutonium. It is our opinion that the potential hazards can be dealt with appropriately, and that the safety record compiled by existing INEL operations is evidence that threats to public safety can be effectively managed.

5.24.30

5.24.23

5.27.9.1

We look forward to participating with INEL technology transfer programs to aid the private sector in taking advantage of research done at the INEL site. Additionally, we feel the Mini-Cassia area can also benefit from the procurement that is ongoing and from the increased procurement this project will bring.

5.27.6.1

We appreciate this opportunity to comment on this vital project.

Sincerely,

PAUL W. MATTHEWS
Chairman

552

Specializing in: Industry site selection and the establishment of new businesses in South Central Idaho

607

W553

City of Hailey

12 West Carbonate Street
(208) 788-4221

Box 945, Hailey, Idaho 83333

April 19, 1988

RECEIVED
APR 21 1988
SIS Project Office

Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, Idaho 83402

Attention: Dr. Clay Nichols

Subject: Special Isotope Separation Project (SIS)

Dear Dr. Nichols:

When those opposed to the SIS range from extreme conservatives who are upset about the questionable benefits from spending $900 million to the extreme special interest groups who have moral and environmental concerns, it should signal a re-evaluation of the wisdom of such a project.

6.3

4.13

When the issue of providing 400 jobs for six years is redefined to providing those same jobs for only one year, the supporters of the project in eastern Idaho should re-evaluate their position of support and the wisdom of even constructing such a project.

5.27.7.3

When the former designer of atomic bombs at Los Alamos, Theodore Taylor, states, "... no credible conditions under which the plutonium from the SIS would be needed for national security are presented," the people not only in Idaho, but in every other state in this country, should rally their elected officials to defeat even the possibility of such a project with no merit.

4.15.5

This is not an issue just for Idahoans, it is a degrading idea and project to this entire country. STOP THE SIS!

1.1

Respectfully,

Mary Ann Mix
City of Hailey
Council Member

:mf
cc: Senators James McClure and Steve Symms
Representatives Richard Stallings and Larry Craig

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W554

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To:
Clay Nichols
DOE

SIS project

Enclosed petitions submitted for hearing record.
72 signatures

Debra Potts
Box 230
Victor, ID 83455

RECEIVED
APR
SIS Project Office

36 554

SIS PETITION

The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life. 6.2

WE, AS RESIDENTS OR VISITORS OF TETON COUNTY, IDAHO AND TETON COUNTY, WYOMING, CALL UPON OUR ELECTED OFFICIALS AND THE DEPARTMENT OF ENERGY TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT. 1.1

	NAME	ADDRESS	CITY/STATE/PHONE
1.	Alice J. Stevenson	Box 176	Victor, ID 83455
2.	Jennifer Cooke	Rt 1 Box 69A	Victor, Id 83455
3.	Lisa Marcum	Rt 1 Box 1510	Tetonia, Idaho 83452
4.	Brenda Lewis	P.O. Box 257	Driggs, Idaho 83422
5.	Lauren McCurdy	P.O. Box 3309	Jackson, WY 83001
6.	Peggy Dwyer	P.O. Box 963	Jackson, Wy 83014
7.	Sally Ketchum	5002 Greenwood Ave	Wa.
8.	[illegible]	2344 Federal Ave E, Seattle	WA 98112
9.	Gail Kelly	PO Box 25025	Jackson, Wyoming 83001
10.	Sue Ingle	Box 192	Tetonia, Idaho 83452
11.	Sara Spandonberg	Box 7525	Jackson Wy 83001
12.	Cindy Lucey	Rt 1 Box 3743	alta Wyo 83001

This petition will be presented at the SIS hearings and will also be given to elected officials of Teton County, Idaho and Wyoming.

Cindy Sebesta P.O. Box 276 Driggs, Idaho 83422

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SIS PETITION

6.2 The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life.

1.1 **WE, AS RESIDENTS OR VISITORS OF TETON COUNTY, IDAHO AND TETON COUNTY, WYOMING, CALL UPON OUR ELECTED OFFICIALS AND THE DEPARTMENT OF ENERGY TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.**

	NAME	ADDRESS	CITY, STATE	PHONE
1.	LANIE J BENSON	P.O. Box 736	DRIGGS Id	354-8201
2.	Julie Robinson	Box 180	TETONIA ID	456-2203 787-2909
3.	Dave Hensel	Box 81	VICTOR ID	83455 208 787 2901
4.		P.O Box 81	Victor Id	83455
5.	Merlin Hare	Box 230	victor, ID (Alta, Wy)	83455 787 2962 (307)
6.	Susan Patton	Box 738	DRIGGS, ID.	83455 354-2783
7.	Thery Frey	Box 241	Victor, ID	83455 208-787-2278
8.	David Hare	1061 Old Teton Road	Victor Id.	83455
9.				
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This petition will be presented at the SIS hearings and will also be given to elected officials of Teton County, Idaho and Wyoming.

Please return petitions to: Box 230, Victor, ID 83455, by Mar. 23, 1988.

554B

SIS PETITION

The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life.

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1.1

	NAME	ADDRESS	CITY/STATE/PHONE
1.	Connie Lowe	Box 544	Victor, ID. 787-2906
2.	Marilyn E. Meyer		Victor, ID 787-2440
3.	JANNE STUCKY		JACKSON WYO 733-7864
4.	Mary H. Robertson-Goodrich	Box 21	Driggs 787-2494
5.	Bill Hierstuckl	Grouse Route	Darlington Idaho 554 3802
6.		P.O. Box 86	Ketchum, Id. 83340
7.	Josh Deup	P.O. Box 86	Ketchum, Id. 83340
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This petition will be presented at the SIS hearings and will also be given to elected officials of Teton County, Idaho and Wyoming.

554C

SIS PETITION

6.2 The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life.

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	NAME	ADDRESS	CITY, STATE	PHONE
1.	J.P. O'Connor	RR#1 Box 565	Victor ID	354 2564
2.	Suzanne Litton	PO Box 21	Tetonia, ID	456-2203
3.	Barbara Agnew	Rt 1, Box 1235	Tetonia, Id. 83452	456-2607
4.	Richard Young	Box 34	Tetonia, Id	456 2602 83452
5.	Peter Crenshaw	Rt 1 Box 524-B	Victor, Id 83455	
6.	Jerry Jones	Rt 1 Box 3743	Driggs Id. 83422	
7.	Jackie O'Connor	R.R.#1 Box 565,	Victor Id. 83455	
8.	Lloyd C Haas		Alta, Wyoming 8342	
9.	Jerry N. Madsen		Tetonia ID. 83422	
10.	Tom Warren	Box 265	Driggs Id 83422	
11.	Dorothy Warren	Box 265	Driggs, Idaho 83422	
12.	Julia D Danford	Rt 1 Box 3870	Driggs Id 83422	

This petition will be presented at the SIS hearings and will also be given to elected officials of Teton County, Idaho and Wyoming.

Please return petitions to: Box 230, Victor, ID 83455, by Mar. 23, 1988.

13. Kate Shaw Victor Id 787-2739

4D

610

SIS PETITION

The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life.

6.2

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1.1

	NAME	ADDRESS	CITY, STATE	PHONE
1.	Jack Hodder	Box 185	Driggs ID	354 8362
2.	Mary May	Box [illegible]	Driggs ID	456 2330
3.	Steve Smart	Box 94	Driggs, Idaho	3543721
4.	Rosa Hamner	Box 395	Driggs, Idaho	354-272
5.	[illegible]	Box 65	Tetonia, Idaho	456-2555 83452
6.	[illegible]	Box 677	Driggs ID	83455
7.	[illegible]	[illegible]	[illegible]	[illegible]
8.	[illegible]	Box 179	Driggs, ID	354-263
9.				
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This petition will be presented at the SIS hearings and will also be given to elected officials of Teton County, Idaho and Wyoming.

Please return petitions to: Box 230, Victor, ID 83455, by Mar. 23, 1988.

554E

SIS PETITION

6.2

The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life.

1.1

WE, AS RESIDENTS OR VISITORS OF TETON COUNTY, IDAHO AND TETON COUNTY, WYOMING, CALL UPON OUR ELECTED OFFICIALS AND THE DEPARTMENT OF ENERGY TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

	NAME	ADDRESS	CITY, STATE	PHONE
1.	Sandy Zimmerman	General Delivery	Jackson Wyoming 83001	7336944
2.	Tari Esposito	Box 1751	Jackson Wyo	83001
3.	Chris Kraft	Box 3937	Jackson wy.	83001
4.	Lisa Taylor	General Delivery	Jackson Wyo.	83001
5.	Cheryl Ann Larkin	P.O. 1284	Jackson	83001
6.				
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This petition will be presented at the SIS hearings and will also be given to elected officials of Teton County, Idaho and Wyoming.

Please return petitions to: Box 230, Victor, ID 83455, by Mar. 23, 1988.

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SIS PETITION

The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life.

6.2

1.1

WE, AS RESIDENTS OR VISITORS OF TETON COUNTY, IDAHO AND TETON COUNTY, WYOMING, CALL UPON OUR ELECTED OFFICIALS AND THE DEPARTMENT OF ENERGY TO PUT AN END TO ANY FURTHER DEVELOPMENT OF THE S.I.S. PROJECT.

	NAME	ADDRESS	CITY, STATE	PHONE
1.	Frederick O Mugler	62 N. Main	Driggs, Id.	83422 354-2222
2.	Greg Fabiano	Box 1602	Jackson	Wyo 734385
3.	Ed Kenny	Box 603	Driggs	Id 83422
4.		Box 14	Driggs	Id 83422
5.	Karen Kenny	Box 603	Driggs	Id. 83422
6.	Carlene Catanbee	794 State Hwy 33	Tetonia	Id. 83452
7.	John D Scott	Box 374	Driggs, Idaho	83422 354 2951
8.	Lynna Scott	Box 8	Tetonia, ID	83452 456-2519
9.		Box 192	Tetonia, Ida.	83452 456-2566
10.		Box 64	Driggs, ID.	83422
11.		Box 443	Driggs Id.	83422 456-2336
12.		Box 211	Victor	83455 787-2902

Please return petitions to: Box 230, Victor, ID 83455, by Apr. 19, 1988

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SIS PETITION

6.2 The Special Isotope Separation (SIS) facility, designed for the processing of plutonium for nuclear weapons and proposed for construction at Idaho National Engineering Laboratory, poses unacceptable risks to this area's people, agriculture, environment, and quality of life.

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	NAME	ADDRESS	CITY, STATE	PHONE
1.	Michael Commins	Rt 1 Box 1576	Tetonia, ID	208 456-2335
2.	Doreen Key	Box 1726	Ketchum, Id.	208 726 5258
3.	Brian Denny	PO Box 64	Dejis, ID.	—
4.	Annabel Lombard	Box 23	Tetonia Id.	208-456-2661
5.	Glenn Vitucci	Box 22	Victor ID	208-787-2906
6.	Jeffrey Hodes	Box 156	Driggs, Id.	83422
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Please return petitions to: Box 230, Victor, ID 83455, by Apr. 19, 1988

554 #

W555

A.N. TSCHAECHE
1693 Claremont Lane
Idaho Falls, Idaho 83404

April 21, 1988

Clayton R. Nichols
Acting Project Manager
SIS Project Office
U.S. Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, Idaho 83402

Dear Mr. Nichols,

I have reviewed DOE/EIS-0136D, "Draft Environmental Impact Statement-Special Isotope Separation Project" and offer the following comments for your consideration.

1. In several places in the document, there are either risk numbers or statements about the number of cancer fatalities that occur when individuals are exposed to ionizing radiation. It is not known by the scientific community whether low doses of ionizing radiation actually will produce the effects stated or not. All of the risks of exposure to low levels of ionizing radiation, at this point in time, are hypothetical and are based on an assumption with respect to the shape of the dose-effect curve. Accordingly the suggestions that follow are intended to make this lack of specific knowledge about the effects of low levels radiation clear to the reader of this document. The suggested specific changes in wording (underlined words are added) are as follows:

5.13.21

a. Page 2-78 in Table 2-10, under the column labeled "Proposed Action", the third sentence should be revised to read as follows: "The maximum number of hypothetical off site latent cancer fatalities for these accidents ranges from 6.4×10^{-10} to 9.5×10^{-6}."

b. A new sentence should be added after the one just quoted that reads as follows: "It is possible that the number of these cancer fatalities is zero."

c. In Table 2-10, under the column labeled "Construct and Operate SIS Project at the Hanford Site", the second sentence should be revised to read as follows: "For the accidents in which filtration system .. societal consequences would be higher than PA (e.g., mean maximum number of off site hypothetical latent cancer fatalities ...".

d. In Table 2-10, under the column headed "Construct and operate SIS Project at the SRP", the second sentence should be revised to read as follow: For the accidents in which

555

the filtration system would ... societal consequences would be higher than PA (e.g., mean maximum number of off site hypothetical latent cancer fatalities...".

e. On page 2-79, Table 2-10 in the column labeled "Proposed Action and Preferred Alternative", on the category line labeled: "Transport of SIS feed, ...", the first sentence should be revised to read: "Maximum annual hypothetical radiological risk would be 7.9 X 10^{-6} health effect, or less than 1.6 X 10^{-5} percent of the hypothetical risk of a health ...". 5.29.79

f. In Table 2-10 in the column labeled "Construct and operate SIS Project at the Hanford Site", on the category line labeled: "Transport of SIS feed...", the first sentence should read: "Maximum annual hypothetical radiological risk would be less than PA (i.e., 2.5 X 10^{-8} health effect, or less than 5.4 X 10^{-6} percent of the hypothetical risk of ...".

g. In Table 2-10 in the column headed "Construct and operate SIS Project at the SRP", on the category line labeled: "Transport of SIS feed ...", the first sentence should be revised to read: "Maximum annual hypothetical radiological risk ... percent of the hypothetical risk of a health effect ...".

h. On page 4-13, the first sentence of the first complete paragraph should be revised to read as follows: "Estimated hypothetical risks of health effects associated with the routine atmospheric emissions ...". The last sentence of that paragraph should be revised to read as follows: "The individual hypothetical health effect risk estimators used for cancer fatalities total 280 hypothetical cancer fatalities per million person-rem for high LET radiation." A new sentence should be added to read: "The real risk may be zero." 5.13.21 5.23.9

i. Page A-1, the first paragraph under paragraph labeled "A.1 NORMAL OPERATION", the third sentence should be revised to read as follows: "This section describes the methods and assumptions used to calculate doses and resulting hypothetical health effects to the maximally exposed individual ...". 5.13.21

j. Page A-24, the first paragraph labeled "A.1.2 Radiation-Induced Health Effects" the third and fourth sentences should be revised to read as follows: "This report (BEIR III) uses a variety of methods and data to quantify the hypothetical health impacts of low levels of radiation.

Its estimates of health risk associated with radiation exposure have been used to quantify the hypothetical changes in radiation-induced health effects that might be caused by operation of the SIS facility; these hypothetical health effects are discussed in Chapter 4."

k. The next paragraph of this section should be revised to read as follows: "The ICRP also provides hypothetical risk estimates for radiation exposure in Publication 26. BEIR III hypothetical risk estimates were used in this EIS because (1) BEIR III is a more recent and comprehensive evaluation of radiation-induced health effects and (2) BEIR III results in higher hypothetical estimates of total risk." 5.13.21

l. Page A-37, the paragraph that is completed at the top of the page should be revised to add a new sentence at the end that reads as follows: "The risk could, however, also be zero."

m. Page A-37, the third complete paragraph should be revised to read as follows: "Hypothetical health effects estimators for low-LET and high-LET radiation were derived for use in estimating hypothetical health effects based on an evaluation of the data presented in the BEIR III report. The resulting hypothetical health effects estimators used in this EIS are summarized in Table A-16. They total 120 hypothetical cancer fatalities per million person-rem for low LET radiation and 280 hypothetical cancer fatalities per million person-rem for high-LET radiation. The hypothetical health effects estimate for genetic effects used in this EIS is 257 hypothetical genetic effects per million person-rem of radiation, received by the gonads, for either type of radiation."

n. The next paragraph on page A-37 should be revised to read as follows: "The hypothetical health effects estimators given in Table A-16 are the best estimates the risk based on present data. The estimators could vary widely, depending on the models used. For cancer fatalities, they could range from 0 to as high as 400 per million person-rem. ...". (Delete the word "near" in front of "0".)

o. On Page A-38, Table A-16, should be re-titled to read as follows: "Hypothetical Health Effects Estimators Used in the Evaluation of Radiation Health Effects". The column header for that Table should be revised to read as follows: "Hypothetical fatalities per million person-rem ...". The note d. to the Table A-16, should be revised to read as follows: "This hypothetical health effects estimator ... ." The note e to Table A-16 should be revised to read as follows: "This hypothetical health effects estimator is

multiplied ...". The note f. to the Table is not referenced in the table and should either be deleted or the proper reference letter f. applied to the proper place in the table. If this note is indeed used, it should be revised to read as follows: "This hypothetical health effects estimator is multiplied by the EDE."

5.13.21

p. Page A-44, the first complete paragraph on the page, the penultimate and last sentences should be revised to read as follows: "The risk of cancer to each individual organ was then calculated using hypothetical risk factors based on the 8EIR III report. The total number of hypothetical latent cancer fatalities was calculated ...".

q. On page A-44 at the bottom of the page, the title of the paragraph should be revised to read: "Incident-Free hypothetical Radiological Risk."

r. On page A-45, the first complete paragraph on the top of the page, the first sentence should be revised to read as follows: "The magnitude of this hypothetical risk depends mainly on the Transport Index ...".

s. On page A-53, the title of Table A-24 should be revised to read as follows: "Total Annual Hypothetical Radiological Risks". The title of the two right hand columns should be revised to read as follows: "Hypothetical health effects".

5.23.14

2. In several places in the document reference is made to the natural background radiation in the United States. The numbers used in the draft as EIS, do not appear to be the most current numbers as published in NCRP Report 93, "Ionizing Radiation Exposure of the Population of the United States". Wherever natural background values are given in the draft EIS, they should be revised to reflect the most current NCRP thinking as expressed in NCRP Report 93. Several examples of values in the EIS that do not agree with NCRP 93 are as follows:

5.23.29

a. On Page 3-21, Table 3-2, the column headed "Dose to average individual (mrem/year)", the total background radiation is given as 144 mrem per year. The value from Table 2.4 on page 15 of NCRP Report 93 gives the number as approximately 300 mrem per year for the dose to the average individual from background radiation. The latter value should be used in this EIS. Also, the effective dose equivalent should be used throughout the EIS in keeping with the current EPA, ICRP and NCRP requirements and recommendations.

614

5.23.14

b. On Page 3-31, paragraph 3.2.8, the first sentence gives the background radiation dose to an average individual in the vicinity of the Hanford site as approximately 100 mrem. This value should be revised to be consistent with estimates given in NCRP Report 93.

c. On Page 3-40, the second paragraph in section 3.3.8, the first sentence states: " Natural radiation contributes about 48 percent of the annual dose of 195 mrem received by an average member of the population within 80 kilometers (50 miles) of the SRP (DOE, 1987e)." Again, the referenced document may be using old data and the value of 195 should be revised to be consistence with the values of NCRP Report 93. Other values in this paragraph should be revised accordingly.

d. There may be other values for natural background in the draft EIS that do not agree with the data given in the NCRP Report 93. Values should be revised to reflect the most current NCRP data.

I trust the above comments are appropriate and will be happy to discuss them further if necessary.

Very Truly Yours,

A.N. Tschaeche

/mar

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STATE OF IDAHO

Cecil D. Andrus
Governor

DEPARTMENT OF HEALTH AND WELFARE

Richard P. Donovan
Director

Office of the Director
334-5500/Statehouse/Boise, Idaho 83720

RECEIVED
APR 21 1988
SIS Project Office

April 20, 1988

Dr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

Re: Draft Environmental Impact Statement - Special Isotope Separation Project (DOE/EIS-0136D; Feb. 1988)

The Special Isotope Separation Project proposed by the U.S. Department of Energy cuts across authorities and responsibilities of numerous state agencies. In order to assure a coordinated review of the Draft Environmental Impact Statement (DEIS), Governor Cecil Andrus designated the Idaho Department of Health and Welfare as the lead review agency.

The purpose of this letter is to transmit comments of the State of Idaho on the subject DEIS and the "Special Isotope Separation Production Plant Technical Information Report" (WIN-SIS-196, Feb. 1988). The enclosed comments represent input from the following state agencies:

- Department of Agriculture
  - Division of Animal Industries
- Department of Commerce
- Department of Fish and Game
- Department of Law Enforcement
- Department of Health and Welfare
  - Division of Environmental Quality
  - Division of Health
  - Emergency Response Commission
- Department of Transportation
- Department of Water Resources
- Office of the Governor
  - Bureau of Disaster Services

In order to facilitate your reply, each state reviewer followed the same format. Each comment identifies the DEIS citation, provides a discussion and recommendation, and identifies the reviewer. Comments are also arranged within the following topical areas:

Topic	Comment Number
Editorial	A1-A4
Design/Engineering	B1-B16
Proposed Operations	
Atmospheric Emissions	C1-C5
Hazardous Wastes	D1-D6
Mixed Wastes	E1
Radiation	F1-F7
Water Discharges	G1-G4
Accidents/Emergencies	H1-H12
Emergency Response	I1-I6
Monitoring	J1-J10

I believe it would be helpful to briefly describe each topic and emphasize comments of special concern.

Editorial - Comments pertaining to the readability and utility of the DEIS are included in this area. The final DEIS must be a working document for the public as well as professional reviewers.

Design/Engineering - This topic includes comments on concepts, plans and permitting. The applicability of federal Prevention of Significant Deterioration permitting (which has been delegated to the state) and water rights are of particular concern. Many of the comments apply to the Technical Information Report (TIR).

Proposed Operations - Impacts for proposed operations are included in this group. Comments are further arranged according to Atmospheric Emissions, Hazardous Waste management, Mixed Wastes, Radiation and Water Discharges. Concerns that cut across environmental media (such as air, water and soil) and programs include quantity and concentrations of routinely generated wastes.

Accidents/Emergencies - Comments pertaining to the potential for accidents and emergencies and their consequences are included in this area. Primary concerns focused on seismic activity, transportation accidents and a worst-case postulation.

Monitoring - Comments about monitoring locations and methodologies are provided in this group. Both on- and off-site monitoring are addressed. Reliability and adequacy of monitoring are particular concerns.

I want to acknowledge that in response to our request, staff and contractors of the Idaho National Engineering Laboratory (INEL) met with several state agencies on April 4, 1988, to discuss questions arising during review of the DEIS. That meeting was very helpful. Concerns resulting from unclear or insufficient information in the DEIS were generally reconciled. Some of the enclosed comments call for information presented at this meeting to be added to the final EIS.

615

In his oral testimony on March 25, 1988, in Idaho Falls, Governor Andrus said, "I look forward to the economic boost the project represents, but I am not interested -- and I don't think any Idahoan is -- in a project that will pose a health or environmental threat." Our enclosed comments are intended to convey a cooperative attitude by the State, but we want to ensure that, in the Governor's words, "our workers and residents will be safe, and our environment will not be fouled."

We look forward to your response to this formal submittal and continued open communications with INEL.

Sincerely,

RICHARD P. DONOVAN
Director

Enclosures

cc: Governor Cecil D. Andrus
Richard Rush, Department of Agriculture
James Hawkins, Department of Commerce
Jerry Conley, Department of Fish and Game
Mack Richardson, Department of Law Enforcement
Kermit Kiebert, Department of Transportation
Keith Higginson, Department of Water Resources
Darrell Manning, Division of Military

RPD/mab/w2

ENCLOSURE A

EDITORIAL COMMENTS

617

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-6, *Paragraph 4*

Discussion: Scientific notation is used to express dosages, and millirems are used in the same paragraph as rem. This can be confusing.

e.g., 1.4×10^{-1} rem and 1.7×10^{0} rem could just as easily be stated as 140 and 1700 millirem -- the units used in the rest of the paragraph.

RECOMMENDATION

Where feasible, use similar units, and avoid scientific notation. If it is necessary to use powers of ten, then a simple explanation should be provided.

2.11.6

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

A1

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-13

Discussion: "The reaction would take place in a furnace . . ."

RECOMMENDATION

When common terms such as "furnace" or "glove box" are used in a way that differs from common usage, the terms should be explained to avoid confusion.

2.4

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

A2

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-38, paragraph 2

Discussion: "A primary emphasis in the design of the SIS Project has been to minimize the generation of all effluents and wastes."

This commitment is commendable.

Evolving federal and state hazardous waste management policies stress waste minimization over storage and disposal.

RECOMMENDATION

5.30.5.6 Do not change the DEIS and continue to emphasize a commitment to waste minimization.

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Kenneth Brooks Phone: 334-5840

A3

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) DE-4

Discussion: The state and local government distribution list includes the "State of Idaho Department of Energy." There is no such agency.

RECOMMENDATION

Supercede "State of Idaho Department of Energy" with "State of Idaho Department of Health and Welfare." 2.11.7

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Kenneth Brooks Phone: 334-5840

A4

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ENCLOSURE B

DESIGN/ENGINEERING COMMENTS

619

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) Foreword, vi, S-3, S-6

Discussion: Reference is made to the option of constructing a new storage vault for the product materials, and in a number of other narratives in the DEIS, the construction of a new storage vault is a foregone conclusion.

RECOMMENDATION

The discussion with I.N.E.L./D.O.E. officials on April 4, 1988 indicates a new storage vault will be built. This should be clearly stated throughout the DEIS. 5.4.1

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

556I

620

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-4, S-17, 4-8

Discussion: Reference is made to non-radiological air emissions with respect to PSD de minimis levels. Significant emissions (i.e., emissions exceeding the "de minimis" levels) are determined based on "contemporary" net emissions increases for the entire facility. In Idaho, "contemporary increases" are those increases which occur within ten years prior to the date that the new source becomes operational.

5.3.7

RECOMMENDATION

Consider facility-wide net emissions increases within the ten years prior to the date the SIS becomes operational (or since the last PSD baseline) when determining PSD applicability. An emissions inventory of criteria pollutants, with start-up dates, could be included to support the conclusions.

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

B2

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-7, (4-6, TIR)

Discussion: Toxic materials are mentioned. Currently, any emissions of radionuclides trigger a PSD analyses. Since there are radionuclide emissions from the SIS Project, it will likely be permitted under PSD. PSD requirements specify that air toxics must be considered in the determination of Best Available Control Technology (BACT).

RECOMMENDATION

Potential air toxics should be specifically identified as such. BACT should be addressed where appropriate. Any differences between ALARA (As Low As Reasonably Achievable) and BACT should be explained.

5.3.1

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

B3

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-12 Water Usage

Discussion: There is no specific estimate of the volume of water which will be extracted and used or returned to the soil column.

RECOMMENDATION

Estimate volume of water to be used and returned to percolation ponds, etc.

5.18.3

REVIEWER

State Agency: Dept. of Health and Welfare

Contact Person: Richard Schultz, Admin. Phone: 334-5945

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) Sec. 2.1.5.1 pp 2-42 - 2-45

Discussion: The draft EIS does not specifically address the size of the quarantine tanks in relationship to the amount of waste water produced. Discussion with INEL officials on 4/4/88 indicated that adequate sampling of all effluents will be performed prior to discharge to the chemical processing plant.

RECOMMENDATION

The final EIS should clearly state that the proposed quarantine tanks shall be of sufficient size and numbers to ensure total isolation and sampling prior to discharging to the chemical processing plant.

5.18.3

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Paul Jehn Phone: 334-5920

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-7

Discussion: "Since the design capacity of the two coal-fired boilers is . . . the new CFSGF peak load of . . . can be accomodated."

RECOMMENDATION

If the coal-fired boilers are permitted at design-levels, then the statement could read " . . . can be accomodated within permit limits." If not, then the permit standard, not the boiler design, limits operation of the boiler.

5.3.4

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

556N

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-59

Discussion: The treatment of effluents to reduce or eliminate low-level radioactivity in process evaporator effluents is highly desirable, and consistent with waste minimization goals.

press release

RECOMMENDATION

The final document should emphasize D.O.E. commitment to continue to study methods for waste minimization and reduction of existing waste stockpiles, and implement these programs as technology develops.

5.30.5.6

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

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622

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 5-13, Paragraph 4, Line 2

Discussion: "A PSD permit is not expected to be required because analyses indicate that regulated atmospheric emissions would be below EPA de minimis level."

5.3.18 This statement is incorrect. A PSD permit is required due to the increases in radionuclide emissions.

RECOMMENDATION

5.31.6 Section 5.6.3 needs to address PSD regulations due to the increases in radionuclide emissions.

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeDelorey Phone: 334-5996

556P

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT Water rights discussion is inaccurate.

Citation(s): Page(s) p. 5-14

Discussion: Additional ground-water withdrawals to meet the needs of the SIS project are not covered by the existing water rights held by the Department of Energy. The right would have to be modified or expanded. Because of the relatively small volume of water to be consumed by the project (218 acre-feet per year), the water right question should not be a barrier to project construction or operation.

RECOMMENDATION

The language in the final EIS should reflect the need to acquire additional water rights or modify existing rights. 5.16.3

REVIEWER

State Agency: Water Resources

Contact Person: Frank Sherman Phone: 334-7985

556G

623

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0138, February, 1983)

COMMENT

Citation(s): Page(s) 2-16:, 3-12 (TIR)

Discussion: "All vessel off-gas from aqueous chemical processing systems will exhaust through off-gas KOH scrubbers to neutralize acids."

RECOMMENDATION

A description and design specifications of the KOH scrubbers. The estimated control efficiency of the scrubber is not given. List the type of acid exhaust gases which are collected. What is the expected acid gas loading to the scrubbers?

5.3.20

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean D. DeLorey Phone: 334-5898

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0138, February, 1983)

COMMENT

Citation(s): Page(s) 2-16, 3-15 (TIR)

Discussion: "During normal operation, there would be no radioactive airborne emission from the Stand-Alone vault."

Implicit in the above statement is that there would be emissions during abnormal/upset conditions.

RECOMMENDATION

Discuss why it was not necessary to include emissions from the Stand-Alone Vault in the postulated accident scenario.

5.4.1

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

624

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0138, February, 1988)

COMMENT

Section(s): Page(s) 2-17 Figure 2-6 (TIR)

Discussion: Figure 2-6 does not show the number of HEPA filters for each exhaust stream. Also, the stack parameters for the PPB stack (i.e. exit height, exit diameter, exit temperature, exit velocity, and exit flow) are not designed.

RECOMMENDATION

In Figure 2-6, include how many HEPA filters will be used for each exhaust stream and the PPB stack parameters.

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

B12

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0138, February, 1988)

COMMENT

Section(s): Page(s) 3-12, Paragraph #1 (TIR)

Discussion: The last sentence of the paragraph mentions combustible gases and gas composition monitoring in the gloveboxes. There is no mention of the source of the combustible gases and the type of combustible gas monitors.

RECOMMENDATION

Discuss the sources of combustible gases and the type(s) of combustible gas monitors used within the gloveboxes. Also discuss why the combustible gas monitors are needed.

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean D. DeLorey Phone: 334-5898

B13

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5.3.15

5.8.11

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626

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Section(s): Page(s) 3-16 (TIR)

Discussion: "A negative pressure differential will be maintained between Zone III and II confinements and between Zones II and I."

RECOMMENDATION

5.8.19 Describe how a negative pressure is produced in Zone III.

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Section(s): Page(s) 3-16, 3-17 (TIR)

Discussion: Exhaust systems of Zones I, II and III are described.

RECOMMENDATION

A flow diagram of the exhaust systems associated with Zones I, II, and III is needed. 5.8.19

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

5561

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0138, February, 1988)

COMMENT

Section(s): Page(s) 6-12, 6-13 (TIR)

Discussion: "Studies have found the laser dye to be nonmutagenic. In addition, recent studies . . ."

RECOMMENDATION:

Specifically reference the appropriate studies

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5900

B16

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5.13.20

ENCLOSURE C

PROPOSED OPERATIONS COMMENTS

ATMOSPHERIC EMISSIONS

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-41, Table 2-4

Discussion: Table 2-4 gives the "Estimated Annual Quantity of Atmospheric Emissions." No references are available to estimate the atmospheric emissions. Individual emission sources have not been documented. Also, the hourly emission rates for each pollutant are not given.

RECOMMENDATION

Show all needed calculations and assumptions for the estimated annual atmospheric emissions in Table 2-4 in an appendix. Also, individual source emissions need to be given and expressed as both hourly and annual emissions.

5.3.2

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

C1

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-8

Discussion: The pollutant "particulates" is mentioned, which I assume to mean Total Suspended Particulates (TSP). TSP is still regulated in Idaho. However, a new fine particulate standard has been promulgated for PM-10 (particulates with an aerodynamic diameter less than or equal to 10 microns). The significant emissions rate (i.e. "de minimis" level) for PM-10 is 15 tons/yr.

RECOMMENDATION

Include PM-10 emissions estimates in the appropriate emissions sections.

5.3.5

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

C2

628

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-8, Table 4-4

Discussion: Emission factors used to calculate the annual emissions in Table 4-4 have not been referenced.

RECOMMENDATION

Reference the emission factors used to calculate the annual emissions in Table 4-4.

5.3.3

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

C3

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-12, Paragraph 2 and Table 4-5.

Discussion: "The source term of this routine atmospheric emission is 1.4×10^{-2} microcurie per year, with the isotopic mix as listed in Table 4-5."

There are no references readily available to estimate the source term as 1.4×10^{-2} microcurie per year.

RECOMMENDATION

Explain "source term" and show the calculations and assumptions used to estimate the source term as 1.4×10^{-2} microcurie per year. Explain "routine atmospheric emission."

5.3.19

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

C4

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Section(s): Page(s) 3-32 (TIR)

Discussion: Mentioned storage of waste and fresh Freons, and methods to minimize uncontrolled Freon emissions.

RECOMMENDATION:

Estimate quantity of uncontrolled Freon emissions, and effectiveness of control measures.

5.9.2

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

630

ENCLOSURE D

PROPOSED OPERATIONS COMMENTS

HAZARDOUS WASTE MANAGEMENT

631

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-4

Discussion: Operation of the SIS project...would generate...hazardous and mixed wastes. All solid wastes would be handled and managed in accordance with applicable environmental requirements including the requirements of the RCRA as amended for hazardous and mixed wastes.

RECOMMENDATION

5.31.3

Applicable regulations in this case include the Idaho Hazardous Waste Management Act of 1983, Idaho Code Section 39-4401 and the rules and regulations promulgated thereof: the "Idaho Rules, Regulations and Standards for Hazardous Waste". The Rules and Regulations are effectively equivalent to 40 CFR Parts 260-270 although the Idaho Code contains Section 39-4403(13)(a)(iv) defining restricted waste not covered under RCRA.

REVIEWER

State Agency: Idaho Department of Health and Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270. D1

556FF

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-6

Discussion: Hazardous wastes would be handled in accordance with all RCRA requirements and would be transported to a RCRA-approved treatment, storage, disposal (TSD) facility as with currently generated hazardous waste. Mixed waste would either be stored at the INEL in a RCRA-approved (Interim Status) storage facility, as with currently generated mixed wastes, or would be transported to an approved TSD facility. Manifest requirements are effective tracking mechanisms for off-site transportation of hazardous waste when used properly. Much of the hazardous and mixed wastes generated at the SIS is transferred to an INEL interim status facility for indefinite storage or possible disposal. Internal transportation is not covered under federal or state regulations in this case.

RECOMMENDATION

DOE should explain, in detail, transportation tracking, recordkeeping and reporting for all on-site and off-site shi ments of hazardous and mixed wastes.

5.29.75

REVIEWER

State Agency: Idaho Department of Health & Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270. D2

556GG

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-30

Discussion: "One underground tank and accompanying lines would be installed to collect and accumulate dye/alcohol wastes" (i.e., hazardous wastes). This paragraph inadequately explains the process of storage in tanks. Generation quantity and accumulation time must be known to properly manage the hazardous wastes in a tank or container. An explanation of how the waste is characterized is absent as well as the inspection schedule for the tank itself. Monitoring the quantity of waste stream added and its regularity is critical to determine storage time. What specific sections of the federal and state regulations pertain to a tank such as this?

RECOMMENDATION

Present detailed information (in appendix if necessary) addressing identification and characterization of hazardous wastes (40 CFR Part 261), standards applicable to generators of hazardous waste (40 CFR Part 262) and the applicable sections contained in 40 CFR Part 265, Subpart J "Tank Systems".

5.30.1.17

REVIEWER

State Agency: Idaho Department of Health & Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270.

D3

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632

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-44

Discussion: "Liquid wastes from the PPB chemical floor drains and the emergency and decontamination floor drains would be collected in catch tanks and sampled and analyzed as appropriate." No explanation is provided on the size of the catch tanks and how a monitoring or inspection schedule might detect a release.

Should the tanks contain hazardous waste generated by an emergency or through other normal use be emptied, how will decontamination be done on the tank(s) to avoid mixing, and possibly contaminating future non-hazardous waste?

In this case who determines if it is appropriate to analyze a sample?

RECOMMENDATION

DOE-SIS should include all operating plans for managing hazardous waste and mixed waste releases to their secondary collection tanks in the PPB chemical makeup floor drains and the emergency and decontamination floor drains in their final EIS. Specifically, but not limited to, 40 CFR Part 262.34 and applicable regulations in 265, Subpart J.

5.30.1.23

REVIEWER

State Agency: Idaho Department of Health & Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270.

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633

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 5-2

Discussion: 5th category - Ethanol and ethanol dye storage in underground storage tanks.

Requirement(s) - Notification of state underground tank coordinator.

Agency EPA (RCRA 40 CFR 280) and the State of Idaho.

Is this a waste or product?

RECOMMENDATION

5.30.5.5

Storage of a hazardous waste in underground tanks is excluded from regulation as an underground storage tank as defined in 40 CFR Part 280. It is regulated as a hazardous waste storage tank under 40 CFR Part 262 and Part 265, Subpart J.

REVIEWER

State Agency: Idaho Department of Health & Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270.

D5

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 5-11, 5-15

Discussion: "Rules and regulations concerning the transportation, monitoring, reporting and recordkeeping of hazardous wastes are to be promulgated under authority of [the Hazardous Waste Management Act of 1983]." Under Idaho Hazardous Waste Management Act of 1983 (Idaho Code Title 39, Chapter 44) rules and regulations have been promulgated which address identification of hazardous waste, unauthorized treatment, storage, release, use or disposal of these wastes and permit requirements for hazardous waste facilities. Idaho Hazardous Waste Management Rules, Regulations and Standards are effective on all hazardous waste facilities in Idaho and parallel EPA, RCRA rules and regulations finalized on or before November 8, 1986. These became effective in Idaho on November 1, 1987. The Department is currently adopting EPA, RCRA rules and regulations promulgated on or before July 1, 1987. These will become effective on July 8, 1988. Current Division staffing includes permitting and compliance personnel for INEL and the SIS facility.

RECOMMENDATION

The Idaho Department of Health & Welfare needs assurances from DOE that compliance with the Hazardous Waste Management Act is adequate to guarantee the safe operation of the INEL facility. This includes: Unauthorized treatment, storage, release or disposal of hazardous waste; permit requirements for hazardous waste treatment, storage, or disposal facilities; transportation of hazardous waste; submission of all records--reporting--and monitoring data; right-of-entry--inspections; enforcement and others. 5.30.1.20

REVIEWER

State Agency: Idaho Department of Health & Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270.

D6

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ENCLOSURE E

PROPOSED OPERATIONS COMMENTS

MIXED WASTES

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-20

Discussion: Category/Solid Waste (continued) - Mixed waste...would be stored in RCRA-permitted storage facilities separate from hazardous waste or transported to an approved TSD facility. There are no RCRA-permitted storage facilities on-site. This gives a false impression that INEL has undergone the process of completing a Part B permit under RCRA. This should be removed and replaced with interim status storage facility. The discussion of their storage facility is too brief to make an evaluation of its effectiveness in the short and(or) long term.

RECOMMENDATION

DOE should provide a detailed explanation of their precautionary measures proposed and in place for storing mixed waste and hazardous waste. Applicable federal guidelines include 40 CFR 262, 265 Subpart B, C, D and E. 5.30.1.24

REVIEWER

State Agency: Idaho Department of Health & Welfare, Hazardous Materials Bureau

Contact Person: Steve S. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270.

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ENCLOSURE F

PROPOSED OPERATIONS COMMENTS

RADIATION

635

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-5, S-19

Discussion: The postulated whole body dose annually to the population within the area circumscribed by a 50 mile radius is stated to be 33,100 person-rem/year resulting from background radiation, and 1.5×10^{-8} person-rem/year as a result of normal operation of the S.I.S. facility. The comparison is somewhat misleading. A calculation of the population used in deriving the background population dose is 230,000, and a similar calculation of the population affected by S.I.S. operations is 428.

While it is understood the S.I.S. dose calculation is relative to a single individual at site boundary, the comparison, as presented in the DEIS, fails to spell out clearly the comparison and does not relate to population exposure, as is done on page 4-14.

RECOMMENDATION

Clarify this section by comparing population dose from natural background to the same population dose from S.I.S. operations. Use the projected population of 230,000 within the 50 mile zone by the year 2010, for background annual radiation dose, and background + S.I.S. annual dose.

5.23.6

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

F1

55600

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

5.30.2.1 Citation(s): Page(s) Disposition of Waste at the WIPP Facility in New Mexico.

Discussion: As the Waste Isolation Pilot Plant (WIPP) is a "pilot" and has no historical experience in the disposal of wastes, a condition of operation is the ability to retrieve stored waste for up to five years. If, for some unanticipated reason, it would be necessary to retrieve the stored waste, it will be returned to the site of generation. Idaho could thus be faced with long term storage of 220 tons of TRU waste/year and five tons of low level waste per year generated by the SIS as projected in the EIS (page 2-47).

5.30.2.4 Further, actual space allocated for storage of INEL generated waste at WIPP is not dealt with in the EIS. Neither are disposal alternatives to a WIPP shutdown discussed.

5.30.2.5 It does not appear that the geological characteristics at the INEL/SIS site would make it acceptable for long term storage of such waste; thus the potential for long term storage of waste over the Snake River Plain Acquifer is of concern.

RECOMMENDATION

5.30.2.4 State commitments for space at WIPP, as well as alternative storage plan, should WIPP be forced to cease operations.

REVIEWER

State Agency: Health and Welfare Department

Contact Person: Richard H. Schultz, Admin. Phone: 334-5945

F2

636

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-76

Discussion: The calculated annual increase in radiation dose to the populations surrounding each of the potential sites for the S.I.S. project, as presented on this page of the DEIS, reflect potentially affected populations which calculate based on the information presented to be: S.I.S. = 428 persons; Hanford = 12,222 persons; SRP = 16,667 persons. These numbers were calculated by dividing the values for person-rem for each respective site by the maximum individual dose. Again, while this may not accurately result in the affected population which was taken into consideration, the date as presented, may lead to others making the same kind of analysis.

Population dose estimates for all 3 sites were made with population projections for the year 2010. The comparisons are somewhat misleading. Without stating the population projections were all made to 2010.

RECOMMENDATION

Clearly state, as a footnote to this table, projected doses are based upon projections to the year 2010. 5.23.6

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

F3

637

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 3-20

Discussion: The comparison of population doses within the 50 mile EPZ surrounding I.N.E.L., and the data relating I.N.E.L. doses to background, medical x-ray, etc. is good data. This kind of information is what the public will be seeking. However, the nontechnical reviewer may not adequately understand the data as presented.

RECOMMENDATION

5.23.20 Include a bar graph which would convey this information to the casual, or nontechnical reader more effectively.

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

F4

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-12, 4-13, 4-14

Discussion: The technical information relating to potential health effects resulting from normal S.I.S. operation is a very important inclusion in this document, and speaks to one of the central issues which the public will want to be addressed. The information is highly technical by its very nature, and may therefore be of limited use to the nontechnical reviewer. Visual depictions of statistics relating, in particular, to increased health effects would be very helpful.

RECOMMENDATION

Include, in this section of the DEIS, simple bar graphs relating the increased radiological health effects which would be attributable to normal S.I.S. operation. The visual aids should incorporate, as a minimum, a comparison of increased cancer incidence, genetic disorders, and estimates of increased societal costs resulting from these ill health effects. 5.23.20

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

F5

55655

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-12 through 4-14

Discussion: The mathematical modelling and the methodologies used to derive estimates of population risk are consistent with currently accepted models, and include appropriate references sufficient to allow a health physics evaluation of the public health impact of S.I.S. operations. No further expansion on the material, as presented, appears necessary.

RECOMMENDATION

The technical health physics data presented on these pages is the kind of information essential to evaluate the radiological health impact of S.I.S., and therefore should definitely be included in the final document.

5.13.7

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

F6

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-16, 4-17

Discussion: The risk analysis associated with shipment and handling of TRU waste appears to reflect an extremely small public health impact. However, the modeling and methodology used in arriving at the risk estimates is not well documented.

RECOMMENDATION

Include an overview of risk modelling and methodology used to generate these statistics so as to lend credibility to the estimates of population risk with respect to WIPP shipments.

5.23.12

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

F7

638

ENCLOSURE G

PROPOSED OPERATIONS COMMENTS

WATER DISCHARGES

639

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) General

Discussion: Though the document states non-specific amounts of effluents, emissions, etc., to be generated by SIS, it does not state what the acceptable limit of operational releases are or what actions will be taken if these limits are exceeded.

RECOMMENDATION

Establish normal operating release limits and action plans for implementation if limits are exceeded.

5.30.5.16

REVIEWER

State Agency: Dept. of Health and Welfare

Contact Person: Richard H. Schultz, Admin. Phone: 334-5045

556WW

640

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT
SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) Sec. 2.1.5.1 p 2-42, 4.5.1.3 p 4-59

Discussion: The draft EIS states that the use of percolation ponds is considered an interim measure until other available alternatives have been assessed and approved for implementation. Pg. 4-59 further states that at INEL, a major change is planned prior to operation of the SIS that would involve the treatment of effluents, (from various INEL activities), in an enclosed facility to eliminate or reduce trace quantities of radionuclides and metals in the chemical processing plant process evaporator effluents. The cleaned waste stream would be sent to an evaporator for volume reduction. In addition, implementation of the planned treatment system, together with the SIS service waste discharge treatment system, would ensure that cummulative discharges to percolation ponds would meet all applicable groundwater standards and requirements.

5.30.1.27

RECOMMENDATION

The final EIS should clearly state that the above referenced waste reduction facility will be operational prior to operation of the SIS.

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Paul Jehn Phone: 334-5920

G2

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT
SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2.1.5.1 p 2-42 - 2-44, 4.5.1.3 p 4-59.

Discussion: The draft EIS does not specify which percolation ponds will receive the waste stream discharged from the proposed SIS. Similarily, the capacity of these discharge ponds, is not specifically addressed. On 4/4/88 officials from INEL presented information that the percolation ponds intended for use have never received hazardous wastes, started operation in February of 1984, and have the capacity to handle the additional waste stream produced by the SIS.

RECOMMENDATION

The final EIS should clearly state that the waste stream from the SIS will be discharged into a percolation pond that has never received hazardous waste, and that these percolation ponds have sufficient capacity to dispose of the waste stream without using the injection well. Recommend that the bottom sludge of the percolation ponds be sampled on a quarterly basis to monitor contaminant build up.

5.21.4

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Paul Jehn Phone: 334-5920

G3

641

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT Liquid waste discharges may exceed proposed state standards.

Citation(s): Page(s) p. 4-10, 4-59

Discussion: The Draft EIS indicates that liquid discharges from the SIS will be of drinking water quality. It is probable that the state will promulgate regulations imposing discharge requirements more stringent than "drinking water."

The CPP waste stream to the ponds exceeded the primary drinking water standard for nitrate during six months in 1985. Four of these months were in sequence.

RECOMMENDATION

5.18.1 The EIS should state that discharges will meet all appropriate state and federal standards. A discussion of the probable composition of the waste stream going to the CPP service waste stream would be very helpful.

REVIEWER

State Agency: Water Resources

Contact Person: Frank Sherman Phone: 334-7985

ENCLOSURE H

ACCIDENTS/EMERGENCIES

COMMENTS

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-6

Discussion: The postulated worst-case accident scenario, assuming zero filter efficiency, is stated to result in 140 millirem whole body dose and 1700 millirem bone surface dose at site boundary. How much additional risk does this impose to the projected population within the 50 mile emergency planning zone (230,000 by 2010), compared to NON-S.I.S. related risk?

RECOMMENDATION

The DEIS needs to provide lay persons with a means of understanding the magnitude of additional risk associated with a worst-case S.I.S. accident scenario resulting in unfiltered offsite radiological releases.

5.1.47

REVIEWER

State Agency: Idaho Department of Health and Welfare - ~~Hazardous Materials~~ Bureau

Contact Person: Michael Mays Phone: 334-5879

H1

642

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-7, 4-13, 4-14, etc.

Discussion: "The calculated risk of health effects in the event of a severe transport accident is less than 1.6 X 10^{-5} percent of the risk of health effects to the same population from background radiation."

Such comparative statements do not provide the actual incremental risk from the SIS project; i.e., risks from the SIS project are in addition to other risks.

RECOMMENDATION

When addressing risks from the SIS project, include the actual additional risk from the SIS project. In addition, it should be explained that such risks are additive, and not dependent on existing concentrations (i.e., the risk curve is linear, not exponential). The actual methods used to determine the risks should be clearly identified; and any computer outputs made available to interested parties (include an address/name of contact.)

5.1.48

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

H2

556 CCC

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-32, S-39

Discussion: The phraseology "During normal operation, there would be no radioactive atmospheric emissions from the stand-alone storage vaults" is used repetitively. Has there been postulated a worst-case scenario (such as a fire) which could result in radiological releases from the stand-alone storage vault?

5.4.1

RECOMMENDATION

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: [illegible]

H3

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

RECEIVED
APR 12 1988
HEALTH & WELFARE
OFFICE OF THE DIRECTOR

COMMENT Seismic risk at INEL is inadequately treated.

Citation(s): Page(s) p. 2-34, 3-8

Discussion: The Uniform Building Code seismic classification for southeastern Idaho was downgraded from Zone 3 to Zone 2 in 1980 at the request of the Department of Energy. One of the key factors in the downgrade was the absence of any earthquake epicenters with magnitudes greater than 4.2 in the mountains northwest of the site. The Borah Peak earthquake of 1983 occurred approximately 40 miles northwest of Arco and had an intensity of 7.3. Maximum zonal accelerations are typically assumed to be 0.16g for Zone 2 and range from 0.33g to 0.5g for Zone 3 depending on proximity to a major fault. Designing for 0.24g for a Category I structure does not seem conservative.

RECOMMENDATION

The seismic discussion needs to be amplified. I understand from a conversation with Clay Nichols that a new study will be made of the probable ground acceleration at the site. A better explanation of how the design basis earthquake was selected is appropriate.

5.8.5

REVIEWER

State Agency: Water Resources

Contact Person: Frank Sherman Phone: 334-7985

H4

643

556EEE

644

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-41, Table 2-4

Discussion: In Table 2-4, these annual emissions are based on normal operating conditions. As I see it the SIS project as a whole, is a relatively new technology. With any new technology, malfunctions in processing equipment may occur. What are the predicted equipment malfunctions at the SIS facilities? For each equipment malfunction, what are the estimated worse case emissions?

RECOMMENDATION

5.1.23

Add a section in the Draft EIS which addresses equipment malfunctions and the associated worst case atmospheric emissions.

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

H5

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-49, 4-16

Discussion: The footnote to Table 2-6 indicated TRU waste would be transported to the WIPP in type B shipping containers via truck or rail. Is the reference to rail shipment valid? The TRU-Pac type B containers are not designed for worst-case rail accidents, or are they?

RECOMMENDATION

If the reference to rail transport is not valid it should be omitted; if it is valid, the information available to the Department of Health and Welfare indicates the type B shipping containers are not designed to withstand rail accidents.

5.29.51

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

H6

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-49; 4-18, 4-19; 4-31, 4-32; A-45, A-46

Discussion: The transportation of radioactive waste and product from the site will increase the risk of discharge due to accident or other occurrence. The risk, whether real or perceived, will place a burden on those officials along the routes who will most likely be first responders in the event of an incident. They will need to be able to answer the questions of their constituents regarding their capabilities and training in the event of an accidental discharge.

RECOMMENDATION

Hazardous materials spill response training should be made available to local officials who will be first responders to an accident scene. The Department of Law Enforcement would like to receive information on routes and schedules. This will allow the department to prepare its response if needed.

REVIEWER

State Agency: Idaho Department of Law Enforcement

Contact Person: R.B. Monte MacConnell Phone: 208/334-3656

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 3-16

Discussion: The text indicates core samples have detected the presence of Plutonium at depths 110 feet and 230 feet below the surface at I.N.E.L. Presumably, this could relate to the former practice of discharging low-level radioactive waste to an injection well. The test indicates percolation ponds have replaced the practice, and the injection well is only used in emergency situations. What emergency situations would require discharge into the injection well, and would the S.I.S. facility increase the likelihood of discharges into the injection well? What assaurance does the public have that the present subsurface plutonium contamination will not eventually leach into the Snake River Aquifer? Will the Department of Health and Welfare be "kept up to speed" on the results of the expanded "monitoring study" to determine the extent of contamination?

RECOMMENDATION

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

5.29.67

5.17.1

5.30.4.10

5.19.5

646

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) Sec. 4.1.3 pp 4-18 - 4-28 of the draft EIS and Chapter 6 pp 6-1 - 6-13 of the SIS Technical Report.

Discussion: Postulated accidents at the proposed SIS facility include earthquake, fire, flood, tornado and nuclear criticality. All these postulated accident scenarios describe the fire sprinkler system extinguishing fires and washing plutonium oxide out of the air. There is no mention in the draft EIS regarding how the facility will contain this waste stream. There is no mention in the draft EIS as to how these postulated accident scenarios would effect the liquid waste concentrators, evaporators, and quarantine tanks. At the meeting on 4/4/88, the INEL officials presented information which indicated that the SIS buildings would contain any such spill or leakage and prevent discharge into the environment.

RECOMMENDATION

5.8.14 The final EIS should clearly state that the proposed SIS facility will be constructed to contain liquid waste from all postulated accidents (e.g., rupturing of quarantine tanks, breakage of plumbing mains and water added by the sprinkler system).

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Paul Jehn Phone: 334-5920

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-23

Discussion: The offsite dose projections on table 4-6 are presented for three separate postulated worst-case accident scenarios. The three scenarios relate to a fire in the PPB, with resultant offsite doses for varying HEPA filter efficiencies. There is a dose projection difference of .5 orders of magnitude, with filter efficiency of 90% (bounding case) versus full filter efficiency. Would it also be appropriate to include zero filter efficiency doses should the HEPA filter system undergo total failure? This table points up the HEPA filtering system as the heart of the safety design integral to the PPB, and the vital necessity of maintaining HEPA integrity.

RECOMMENDATION

The final document needs to document more fully the back up safety features which assure the integrity of the HEPA filtering system will not be comprised beyond the 90% efficiency level. It is suggested visual and graphic depiction of all radiological safety systems, and backups to the primary safety systems, be included. 5.3.14

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

647

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-28, paragraph 1

Discussion: In this accident scenario, it is stated that, "The ventilation system would route the contaminated exhaust air through the final HEPA filtration system and discharge to the environment. The system blowers would not have to be operating for this to occur."

5.3.16

RECOMMENDATION

An assumption that the 35.6 meter PPB stack will discharge contaminated exhaust air without operating blower needs to be explained.

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Kenneth Brooks Phone: 334-5840

H11

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-30, paragraph 3

Discussion: This paragraph provides several assumptions regarding plutonium in a "severe facility accident."

5.1.10

RECOMMENDATION

The EIS should explain assumptions about: (1) how much plutonium will become airborne in the building, (2) why 50% of the airborne material falls and/or plates out, (3) plutonium release estimate, and (4) dispersion and fallout estimates.

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Kenneth Brooks Phone: 334-5840

H12

ENCLOSURE I

EMERGENCY RESPONSE COMMENTS

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4.6 Emergency Preparedness pp. 4-63 and 64

Discussion: The EIS refers to the emergency plans prepared by DOE, by the State of Idaho, and by the five counties surrounding the INEL. The implication is that because these plans are in place no further action is necessary. We believe a process of joint planning for any radiologic or hazardous material emergency is necessary. Positive steps have been taken toward this end through participation by DOE and its contractors in the District 5 Local Emergency Planning Committee established under the requirements of Title III of the Superfund Amendments and Reauthorization Act of 1986.

RECOMMENDATION

A review team should be established, composed of DOE staff, contractors, the state Radiation Control Officer, Bureau of Disaster Services, and county and city officials from the area. Existing plans should be reviewed for completeness and compatibility. Plan deficiencies must be corrected in this cooperative forum.

5.7.3

REVIEWER

State Agency: Idaho Emergency Response Commission

Contact Person: Jennie Records Phone: 334-5849

649

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4.6 Emergency Preparedness p. 4-63

Discussion: Paragraph three addresses annual emergency exercises or drills conducted by DOE. We believe it is vital that off-site emergency response personnel be included in these drills. Emergency preparedness does not exist until it has been tested, and the time for testing is BEFORE a real emergency situation exists.

RECOMMENDATION

An annual emergency exercise should be conducted jointly by DOE and local response personnel. Coordination with local responders may be through county emergency coordinators of the Local Emergency Planning Committee. The drills should deal with on-site and transportation emergencies.

5.7.5

REVIEWER

State Agency: Idaho Emergency Response Commission

Contact Person: Jennie Records Phone: 334-5849

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4.6 Emergency Preparedness p. 4-63

Discussion: Paragraph three discusses "ongoing training programs" for emergency preparedness personnel. We assume this refers to DOE and contractor staff. The nature of the risk from the SIS Project specifically and the INEL generally are so specialized it is unlikely that off-site responders have access to appropriate training to help manage that risk. This includes responders along transportation routes used to carry materials and wastes to and from the site.

RECOMMENDATION

DOE should conduct training annually for state, local, and federal personnel who may be required to respond to on-site or transportation emergencies. This training should reach responders along transportation routes as well as those in the vicinity of the INEL. Training should address radioactive, hazardous, and mixed contingencies.

5.7.2

REVIEWER

State Agency: Idaho Emergency Response Commission

Contact Person: Jennie Records Phone: 334-5849

650

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-18 through 4-32 (Section 4.13) 4-62 through 4-64 (Section 4.6)

Discussion: There appears to be inadequate assurance of joint planning and exercising for emergencies which affect off-site areas. Experience with INEL in these functions indicates a need for formalized agreements as to joint planning and exercising of off-site impact incidents. INEL does a very good job of planning for and exercising of on-site impact only incidents.

RECOMMENDATION

5.7.1 That the State of Idaho execute an agreement with INEL to assure adequate joint planning with off-site jurisdictions and joint exercising of these plans.

REVIEWER

State Agency: Bureau of Disaster Services

Contact Person: Ross F. Mayfield, Jr. Phone: 334-3460

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) *4-62, paragraph 4*

Discussion: *"The DOE is responsible for informing the affected states of all incidents that have potential offsite consequences in excess of those stipulated in 10 CFR 20 (the limits in 10 CFR are not requirements but are used by DOE for comparability)."*

This state is also concerned about onsite impacts.

Cooperative negotiations in 1977 produced a Working Agreement between Idaho and ERDA. This Agreement sets forth additional notification requirements.

RECOMMENDATION

DOE should acknowledge existing notification commitments to Idaho and be willing to negotiate revisions as necessary. 5.7.4

REVIEWER

State Agency: *IDHW - Division of Environmental Quality*

Contact Person: *Kenneth Brooks* Phone: *334-5860*

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 4-64, paragraph 2

Discussion: Statements in this paragraph indicate a higher, more formal level of emergency planning and preparedness than appears to currently exist. There are no written DOE/state agreements on offsite responses. Though DOE has repeatedly demonstrated its commitment to assist the state, a written agreement is needed to clearly establish respective roles and responsibilities.

5.7.1

RECOMMENDATION

Correct inaccuracies.

REVIEWER

State Agency: IDHW - Division of Environmental Quality

Contact Person: Kenneth Brooks Phone: 334-5540

ENCLOSURE J

MONITORING COMMENTS

652

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-3, 2-21

Discussion: "testable" HEPA filters are mentioned, but no discussion of test methods or criteria is made.

5.8.12

RECOMMENDATION

Describe the instrumentation/method used to test HEPA filters, and specify the conditions (e.g., pressure drop greater than . . .) that could require filter replacement. Also, specify the frequency at which the filters are tested.

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Orville Green Phone: 334-5898

J1

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) S-17

Discussion: 1st column under liquid effluents - ... all discharges, at the time of SIS operation, to existing percolation ponds would meet RCRA and drinking water standards for radioactivity.

Liquid effluent, even with small concentrations of contamination can have a cumulative effect on the concentration of contaminants in the bottom sediment of the percolation ponds. If the chemistry of the effluent were to change randomly throughout the life of the pond, it could remobilize accumulated contamination trapped in the bottom sediment and transport it nearer the groundwater.

5.21.7

RECOMMENDATION

Establish a regular monitoring system which characterizes the effluent entering the percolation pond. Regularly sample and analyze representative samples of the bottom sediment sludge and propose assessment and remediation procedures if quantitative analyses should locate contamination.

REVIEWER

State Agency: Idaho Department of Health & Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270.

J2

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 2-42, 2-44

Discussion: Admittedly, sampling the overheads from the waste plant concentrator are required although many factors lead to a representative analysis. As the variability of the waste stream increases, so should the frequency of sampling. Thorough familiarity of the waste stream will enable a more representative sample to be collected from what may be a very heterogeneous matrix.

5.18.1

5.8.15

The PPB cooling tower blowdown and process steam condensate will be routed to the same quarantine tanks yet decontamination of the tanks is not addressed when analyses indicate a hazardous waste has been stored in the tank.

RECOMMENDATION

Formulate and implement standard operating procedures for a monitoring system and sample and analysis plan with built-in quality assurance/quality control. Present these plans in appendix form if necessary, including but not limited to, sample techniques, sample intervals, equipment and analytical methods. Please refer to 40 CFR Part 262.11 and U.S. EPA Doc. SW-846.

5.30.1.22

REVIEWER

State Agency: Idaho Department of Health and Welfare, Hazardous Materials Bureau

Contact Person: Steve R. Hill Phone: 334-5879

*Federal citations are used here for convenience in reference although the Idaho Hazardous Waste Rules, Regulations and Standards are equivalent to 40 CFR Parts 260-270.

J3

653

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) Vagueness of Environmental Monitoring.

Discussion: The EIS does not indicate where the existing twelve environmental monitoring sites are located other than six are on-site and six are off-site.

5.19.1

No trend, range or median data is available from monitoring sites. Radiological release impact data is focused on an 80 kilometer (50 mile) population which has an "averaging" affect. SIS impact on background information is stated to "result in an insignificant increase in the cumulative dose received." The information provided in the EIS is lacking in specificity as to direct environmental measurements taken. Rather, these measures are converted to population exposure which, though valuable, should be augmented with specific monitoring data. Also, the level of statistical "significance" is not mentioned.

RECOMMENDATION

Provide trend information from each environmental monitoring site indicating annual ranges, median, and mean measures, as well as the projected increase in measurements at each site due to SIS.

5.19.2

REVIEWER

State Agency: Dept. of Health and Welfare

Contact Person: Richard H. Schultz, Admin. Phone: 334-5945

J4

654

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 3-19

Discussion: Ferruginous and Swainon's hawks are both listed as candidate species for threatened listing by the U.S. Fish & Wildlife Service. Both species occur on land near the INEL site, but were not included in the T & E sections of the DEIS.

RECOMMENDATION

5.6.6

The status of the Ferruginous and Swainson's hawk on the INEL should be discussed in the EIS.

REVIEWER

State Agency: Idaho Department of Fish and Game

Contact Person: Virgil K. Moore Phone: 334-3791

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS -0136, February, 1988)

COMMENT

Citation(s) : Page(s) 3.1.6.2. ; pages 3-20 through 3-23

Discussion: This section indicates that monitoring programs include collection and analysis of samples from all of the potential sources of human exposure. This discussion will only address the monitoring of fish, birds and animals. The EIS does not explain the monitoring procedure on or off the INEL site. The data in Table 3-3 summarizes the off site monitoring program. It does not include sampling of fish, birds, animals or animal products other than milk. A sampling of sheep was conducted on the site in 1985. However there is no indication that any routine sampling is being conducted on wild or domestic species of fish, birds or animals on or off the site. Neither does the EIS address the cumulative effect of radionuclides on these species or the cumulative effect on humans who routinely consume tissues or products from these species.

RECOMMENDATION

Develop a monitoring program both on and off site that would include all species of game birds, game fish, game animals, beef and dairy cattle sheep, goats and swine that are found in the INEL impact area. 5.19.4

The program should address the radionuclides that could be released from the site. It should address not only the single dose exposure but also the long term or cumulative exposure of the fish, birds and animals and the effect on humans who consume tissues or products from the fish, birds or animals. 5.23.25

Routine monitoring should be accomplished at least quarterly but should be increased to monthly in the event of "above normal" releases of contaminants. 5.19.3

A mechanism should be devised whereby INEL officials make available, to the appropriate state officials, the results of the monitoring program. 5.19.6

REVIEWER

State Agency: Department of Agriculture, Bureau of Animal Health

Contact: Bob Hillman Phone: 334-3556

5566AAAA

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 3-21, 3-22

Discussion: The text on page 3-21, carried over to 3-22 discusses offsite monitoring of airborne particulate radioactivity. The language contained in that discussion infers the air samplers are placed at locations such that radioactive airborne particulates from the S.I.S. either cannot or are not detectable. This obviously is not a valid concept.

RECOMMENDATION

Rework the language in this discussion of offsite monitoring to convey the intended meaning.

5.19.1

REVIEWER

State Agency: Idaho Department of Health and Welfare - Hazardous Materials Bureau

Contact Person: Michael Mays Phone: 334-5879

J7

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 3-22, Table 3-3

Discussion: *In addition to the summary of offsite environmental monitoring, location of all monitoring sites is needed.*

Maps showing monitoring sites were provided by DOE during an April 4, 1988 briefing.

RECOMMENDATION

Add maps showing locations of environmental monitoring sites to the EIS.

5.19.1

REVIEWER

State Agency: *IDHW - Division of Environmental Quality*

Contact Person: *Kenneth Brooks* Phone: *334-5540*

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REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

5.6.7 Citation(s): Page(s) 4-6, 4-18, 4-58

Discussion: Long-term impacts to fish and wildlife from atmospheric emmissions, liquid effluents, solid wastes, and accidents cannot be evaluated at this time because they are unknown. Furthermore, we are unsure if the proposed monitoring will be adequate to detect and report gradual impacts that may result from these releases or an accident.

RECOMMENDATION

5.19.6 That adequate funding be allocated to fund an independant or state monitoring agency with the technical background to work with DOE in monitoring long-term subtle impact and to independantly develop reports on the results. This monitoring should also include the Snake River Aquifer.

REVIEWER

State Agency: Idaho Department of Fish and Game

Contact Person: Virgil K. Moore Phone: 334-3791

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPECIAL ISOTOPE SEPARATION PROJECT (DOE/EIS-0136, February, 1988)

COMMENT

Citation(s): Page(s) 3-25 (TIR)

Discussion: PPB stack monitors for radioactive and nonradioactive emissions are mentioned.

RECOMMENDATION

Describe the PPB stack monitors for the radioactive and nonradioactive emissions. List which gases will be monitored, the types of monitors, and where the monitor probes will be located in the stacks. 5.8.18

REVIEWER

State Agency: Idaho Air Quality Bureau

Contact Person: Dean C. DeLorey Phone: 334-5898

W557

Rt. 4, Box 4093
Rigby, ID 83442
April 20, 1988

Department of Energy
Idaho Operations Office
785 DOE Place
Idaho Falls, ID 83402

Attn: Mr. Clay Nichols

Gentlemen:

My comments regarding the SIS decision are transmitted here.

4.15.1 As a systems engineer and a dedicated total systems thinker, I recognize that the final analysis at any given moment has to take into account the then current status of all factors but also the predictable effects of trends into the future. It seems to me that, based on the information currently available to the private citizen, the SIS should be put on temporary hold. The need for more weapons-grade plutonium seems presently questionnable in view of the INF and upcoming START talks. It is true that our national security must come first and that such security information must be decided and limited to the relatively few who are entrusted with our national security. However, congress and the administration are supposed to act in the best total interests of the nation, including economic health--(our present budget deficit shows how horribly out of balance that aspect is). The most cost-effective solution to our nation's total strength should be followed.

5.24.23 My twenty year association at INEL showed me the great increase in safety and health awareness and actions that took place, and I have no question that INEL would be the safest place to operate the SIS.

3.3.1 However, I would personally prefer the INEL to be reknowned for its nuclear and non-nuclear research, rather than weapon materials production. SIS produced jobs, whether here or elsewhere, should not be the main deciding factor on whether SIS is built. The real need for it should be the deciding factor, and I haven't seen or heard why it is needed after 1990. The biggest security problem that I see is probably more centered in the unpredictable middle-east now, and that could be a factor in the post-1990 period.

Respectfully submitted,

Lowell A. Jobe

RECEIVED
APR 21 1988
SIS Project Office

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RECF
APR 21 19
SIS Project Office

FOR THE PUBLIC HEARING

Mary Beth Maj
P.O.Box 498
Driggs, Idaho 83422

March 25th, 1988

As a resident of Teton Valley, Idaho I am here before you to state my opposition to the Special Isotope Separation Project being proposed by the Department of Energy. 1.1

I cannot support such a socially immoral project. 4.13

A project that would produce fuel for nuclear weapons.

A project that will produce 440 tons, annually, of plutonium contaminated waste. 5.30.4.9

A project that does not adequately address the safe transportation of this plutonium nor the safe and permanant storage of the waste. 5.29.95

A project that supports nuclear proliferation while the rest of the world is recommending our world leaders for the Nobel Peace Prize for their initial efforts of nuclear weapon disarmament. 5.30.3.8

A project that would spend $900 million dollars with the objective of `redundancy' when our burgeoning National Debt is probably the most significant threat to our National security. 4.14 6.3

A project that will burden our future generations with the problems of nuclear waste, a gross national debt and a contaminated environment because we so easily have become a generation that is too intellectually lazy and socially irresponsible to think beyond our immediate gain.

I thank you for this opportunity to state my opinion on this matter.

Mary Beth Maj

P.S. I've included the names of people from Teton and Clark County Idaho and other residents of the United States who in signing these petitions are stating their opposition to the Special Isotope Separator Project.

This was read by myself at the 3/25/88 Hearing

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ENVIRONMENTAL DEFENSE FUND

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

1-CRN
1-~~RF~~ DOE
1-T Hall
1-File
~~EF~~

April 20, 1988

Dr. Clay Nichols
Idaho Operations Office
U.S. DOE
785 DOE Place
Idaho Falls, ID 83402

Dear Dr. Nichols:

Enclosed please find Comments Regarding the Transportation Analysis in the Draft Environmental Impact Statement for the Special Isotope Separation Project.

Sincerely,

Melinda Kassen
Staff Attorney

Enclosure
cc: Governor Cecil Andrus
Senator McClure
Senator Simms

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National Headquarters
444 Park Avenue South
New York, NY 10016
(212) 686-4191

1525 18th Street, NW
Washington, DC 20036
(202) 387-3500

2606 Dwight Way
Berkeley, CA 94704
(415) 548-8906

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Richmond, VA 23219
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COMMENTS REGARDING THE TRANSPORTATION ANALYSIS
IN THE DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE SPECIAL ISOTOPE SEPARATION PROJECT

BY MELINDA KASSEN
STAFF ATTORNEY
ENVIRONMENTAL DEFENSE FUND
ROCKY MOUNTAIN REGIONAL OFFICE

APRIL 1988

The Environmental Defense Fund (EDF) is a non-profit, public membership organization devoted to solving the environmental problems facing this country and the world. EDF's 60,000 members include scientists, attorneys, economists, teachers and others who desire to improve the present environment, minimize risks to public health and safety, and preserve the world's delicate ecologic balance into the future. EDF works to achieve its goals through advocacy, participation in administrative and legislative proceedings, education and, where necessary, litigation. One of EDF's traditional areas of concerns has been the introduction of toxic substances, including radioactive isotopes, into the environment at an unjustifiable economic, social and ecologic cost.

Through research, advocacy, participation in administrative and judicial processes, and testimony, EDF has established its reputation in the field of radioactive waste transportation. Thus, as a part of a national effort on behalf of environmentalists, conservationists and other concerned citizens to examine the Draft Environmental Impact Statement (DEIS) for the Special Isotope Separation Project (SIS) which the Department of Energy (DOE) would like to build at the Idaho National Energy Laboratory, EDF reviewed the transportation analysis presented in the DEIS. Based on that review, EDF has identified certain problems which we urge DOE to rectify in the final EIS.

5.29.33

Based on the limited data presented in the DEIS, it appears that the SIS would result in a 50% increase in the present, national rate of plutonium transport. This translates into a plutonium shipment through Idaho approximately every 10 days. Nevertheless, EDF recognizes that the transportation of plutonium feed materials for and waste byproducts of the SIS is not the largest risk or cost factor associated with the project, if it were ever to be built. At the same time, however, the fact that an activity like nuclear materials transport which is dangerous per se is not the most hazardous aspect of a major federal action does not relieve the federal agency/project proponent from its duty under the National Environmental Policy Act (NEPA) to present a thorough analysis under NEPA of the potential environ-

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5.29.3 mental risks, costs and impacts of that activity. The ten page transportation analysis found in Appendix A to the DEIS is woefully inadequate, both under NEPA and as compared to other analyses of nuclear materials transportation that DOE has issued over the past decade.

Our summary of the basic flaws in DOE's transportation analysis for the SIS follows:

5.29.21 - No recognition of the great uncertainties associated with using RADTRAN.

5.29.16 - No justification for refusing to input into RADTRAN route-specific data regarding, e.g., accident rates or weather-related highway closures.

5.29.7 - No justification for the assumptions underlying the release fractions chosen as RADTRAN input for the SIS.

5.29.29 - Underestimation of transportation risks by virtue of the unsubstantiated assumption that SIS byproduct material will never be shipped off-site.

5.29.70 - Failure to include the costs and risks associated with transportation accidents in the analysis of emergency response costs and risks.

5.29.19 - Failure to include a worst case analysis of human exposure resulting from transportation of radioactive materials to and from the SIS.

5.29.36 - No discussion of transportation related infrastructure costs.

5.29.81 - No discussion of non-human impacts or costs.

5.29.21 1. Once again, DOE has failed to disclose the uncertainties associated with use of the RADTRAN model to assess the potential risks and costs of transporting radioactive materials. Nowhere in the ten page analysis does DOE discuss uncertainties and nowhere does DOE set forth the confidence level of the model or the results of any sensitivity tests associated with model use. For a computer simulation which involves a significant number of input parameters, many of which are based not on real-world data, but on the professional judgment of the modeller or on average, preset default parameters which may not apply precisely to the situation under consideration, (1) the DEIS' lack of any acknowledgement of the model's limitations is unprofessional, at best.

5.29.22 Certainly DOE recognizes the importance of conducting sensitivity analyses, despite its refusal to publish any for RADTRAN. As a result of other entities' frustration with the absence of this piece of information, the State of Utah commissioned a scientific team to conduct a sensitivity analysis on RADTRAN in 1985. (2) That study focused on the overall RADTRAN result's sensitivity to variations in the stop time input parameter. The authors postulated an incident-free shipment of spent fuel from a southeastern reactor to a northwest repository using the ordinarily accepted average truck transit stop time of 0.011 hours per kilometer (hr/km). The results were striking: a 10% increase in stop time resulted in a 7% increase in overall risk, while a 10% decrease in stop time resulted in an 4% decrease in overall risk.

5.29.15 For the DEIS, based on a personal communication with Neuhauser, DOE decreased the stop time input by almost 80% to 0.0021 hr/km. DEIS, pp. A-48 & A-56. This one parameter change could, according to Utah's 1985 sensitivity analysis correspond to a 30% decrease in the overall risk or incident-free transport. Such a dramatic change should obviously be supported by well-documented evidence, not by a single unsubstantiated comment. The assumption that drivers of dangerous cargos are less likely to stop is nowhere supported in independant analyses of hazardous materials transportation. (3)

5.29.16 2. DOE's continuing refusal to use accessible route-specific data for certain RADTRAN inputs is inexcusable. Given the number of input parameters for which DOE does not have actual data and must rely on professional judgment, there is no reason why the Department should not use all available input data. Unlike the situation which obtained when DOE used RADTRAN for predicting the costs and risks of shipments to a high level waste repository, DOE knows, and thus can plot precisely, the routes which SIS feed materials and waste products would travel. Local and national highway accident statistics are compiled and published regularly, as are data on interstate highway road closures. Both of these input parameters are important to the RADTRAN calculation and DOE should use the actual numbers instead of relying on averaged data.

5.29.18 Although EDF does not have a sensitivity analysis for RADTRAN as to either of these input parameters, we do have data to indicate that there is substantial variation in accident rates on the nation's highways. While the average truck accident rate for interstate highways is 2.5 X 10E-6 accidents/kilometer, this average is based on a study done in the state of California where the interstate segments are better maintained than the national average segment. (2, 4) By comparison, the Interstate 70 corridor through Colorado contains the Vail Pass segment, where the rate of 8.6 X 10E-5 is 34 times the national average, and a

segment of elevated highway through Denver where the rate is 10 times the national average, or 2.3 X 10E-5. (5) Moreover, while the California study postulates a three fold decrease in heavy truck accidents in the accident rate since 1977, the Bureau of Motor Vehicles' statistics indicate a 9% increase in heavy truck accident rates in the 1982 through 1984 period. (6)

5.29.7 3. The DEIS makes certain assumptions about release fractions in the event of an accident which are unsubstantiated in the text and appear unwarranted. Although DOE claims to have used the release fraction estimates from NUREG-0170 (7) in this DEIS, the Department does not indicate which of the two models 5.29.11 from that study it used. Model I was far more conservative than model II. EDF has previously suggested that DOE use Model I and DOE may have begun with Model I release fractions in the DEIS. However, noone reading the DEIS can discern the reasonableness of the release fractions ultimately used in the DEIS because of DOE's unexplained "modification" of the NUREG fractions. The rationale offered in the DEIS is that SIS feed will be shipped in SST's which will reduce the release fractions (although the DEIS does not set forth the calculations showing how this will occur or demonstrating the quantum difference). Obviously, release fractions for transuranic wastes moved to WIPP would not be altered, nor would the release fractions for other byproduct material which DOE might eventually transport off site.

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5.29.7 It is irresponsible in light of the goals of NEPA not to explain in the DEIS the rationale behind and the ultimate quantum of difference that resulted from the unidentified "modification" which DOE made to the NUREG fractions. EDF is entirely precluded from offering meaningful comment on the propriety of those calculations in light of DOE's refusal to make them public. At the very least, DOE should make its numeric manipulations 5.29.26 available in a classified supplement to the final EIS where at least an independant entity with security clearance and expertise in the field could examine DOE's methodology.

Because the package Curie content is classified, there is no 5.29.50 way to determine whether the release fraction which DOE apparently used is consistent with previous analyses done for other Type B packaging or for plutonium containers such as the LLD-1 in particular. If the feed is transported as plutonium 5.29.8 oxide in powdered form, as it appears DOE contemplates in the DEIS, p. A-50, that is a particularly combustible form of plutonium and the release fractions from NUREG-0170 may underestimate the potential release from a serious accident involving SIS feed.

In taking and "modifying" the original NUREG-0170 release fractions for spent fuel shipments, DOE reduced the maximum probable release by a factor of 21 between the issuance of the

RADTRAN II Users Guide (1983) and the publication of the Draft Environmental Assessments for the High Level Waste Repository (1984) which used RADTRAN. (8, 9) Although there are obvious differences between the cargos for a high level waste repository and the SIS, which set of assumptions did DOE use regarding volativity and gaseous releases in the DEIS? Were these assumptions verified through destructive testing of the packages most likely to be used for SIS transport to determine whether the size of a container breach would affect assumptions about release fractions? 5.29.30 5.29.7

Although the DEIS makes it appear that it did a "modification" of the release fractions for all SIS-related shipments, in fact the SST's would only be used to ship feed to the SIS, and not ship waste or byproduct materials from the SIS. DEIS, p. A-48. The DEIS should break out the categories of materials to be shipped and use appropriate release numbers for each. 5.29.9

Finally, as secure as the SST's may be, EDF questions whether DOE presently has enough available for all SIS shipments. In addition, the SST's will not necessarily compensate fully for an inadequate package. Will DOE commit to having NRC certify the packages used for shipments to and from the SIS? As the Department is aware, its record for self-certification is dismal, at best. In the spent fuel area, DOE has submitted 13 spent fuel containers which it self-certified to NRC for parallel certification and has been unable in each case to obtain the Commission's approval; moreover the history of spent fuel casks is littered with examples of incorrectly installed valves, bowed baskets and improper welds. (10) With regard to plutonium packages, there is the alarming history of the LLD-1 which EDF would not want to see repeated here. (11) 5.29.38 5.29.49 5.29.42 5.29.44

It would appear that while DOE is anxious to modify RADTRAN to correct for factors which will decrease the expected release fractions, the Department has still not come to terms with the need to modify RADTRAN to account for imperfect packaging designs, manufacture and maintenance. Unfortunately, these sorts of flaws are rarely discovered in a timely manner because packages are certified on the basis of computer modelling and not physical testing. EDF again urges DOE to modify RADTRAN to include these types of malfunctions which have been widely found in the real world. If DOE remains unwilling to do so, at least the Department should expressly and clearly acknowledge RADTRAN's limitations as a model in the final EIS. 5.29.58

4. EDF recognizes that the volume of byproduct material which will not be WIPP-bound transuranic waste is relatively small. However, its curie content is higher than that of either feed or waste material. DEIS, p. A-47. As a result, DOE has 5.29.29

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5.29.29 engaged in an underestimation of total project transportation risks by making the unsubstantiated assumption that such SIS byproduct material will never be shipped off-site. Either the final EIS should explain in detail the reasons underlying this assumption, or DOE should include shipment of these wastes to a high level waste repository or other appropriate terminus.

5.29.70 5. The DEIS analysis of emergency response needs fails even to mention those associated with responding to transportation accidents. Clearly, somewhere in the final EIS, either as part of the Transportation Appendix or in the emergency response section, DOE must address the manner in which the Department will respond to the needs for and costs of training and equipping emergency responders along the SIS transportation corridors. These costs must include not only those generated by responding to human health emergencies, but also those elicited in response to non-human emergency impacts. See No. 8, below.

5.29.69

6. The transportation analysis in the DEIS contains no "worst case scenario" analysis of either normal transportation-related exposure or exposure at a transportation accident. As to the former, DOE has once again failed to consider the risks to an individual who is exposed to the maximum extent predicted and who falls within a sensitive population category, such as smokers, pregnant women, the aged or children. As to the latter, DOE fails to extrapolate the non-human impacts and costs, thus presenting an underestimation of the impacts from such a worst case accident.

5.29.19

5.29.81

5.29.24 By failing to factor in the probability of human error in response to an initial serious accident, DOE compounds its underestimation of the impacts of such a catastrophe. The art of risk assessment is easily manipulated. The mathematical probability of a Chernobyl-like accident was once in 10 million reactor operation years. The Chernobyl accident actually occured within the first 300 reactor operation years. Similarly, the Three Mile Island accident would be mathematically expected to occur once every 3 million reactor years, whereas it actually occured within the first 500. (10) If DOE is unwilling to modify its existing model to reflect such greatly increased probabilities of worst case accidents, the Department should disclose expressly and prominently the limitations on this type of mathematical construct for a worst-case scenario.

5.24.14

7. Just as there is no discussion of the emergency response costs of an accident in transporting feed material to the SIS, so to the DEIS transportation analysis contains no discussion of the costs of normal transportation associated with the SIS. As a result, there is no discussion of the incremental increase in infrastructure costs which will be necessary for smooth operation of the SIS. The final EIS should correct this.

5.29.36

8. The discussion which does exist of the risks resulting from plutonium shipments to the SIS contains no reference to non-human impacts or costs. In NUREG-0170, the NRC estimated that there would be no immediate deaths as a result of the worst possible accident which might occur in a major metropolitan area, but that the clean-up costs associated with such an accident would range up to $2 billion (in 1977 dollars). (7) The crop losses, if an accident occurred which resulted in a release of volatilized plutonium particles in a rural area, and the business losses to a suburban or urban area would be enormous. DOE should include an analysis of these impacts and costs in the final EIS.

5.29.81

REFERENCES

(1) Madsen, M.M., et al., 1986. RADTRAN III, SAND-84-0036, Sandia National Laboratories, Albuquerque, New Mexico.

(2) Livermore, Diana, 1985. "Risk Assessment and Radiactive Waste Transportation: A Review of the RADTRAN Model," Final Report for Utah State Office of Planning and Budget, Contract No. 85-0326.

(3) Office of Technology Assessment, 1986. "Transportation of Hazardous Materials," Washington, D.C.

(4) Wilmot, E., et al., 1980. "Transportation Accident Scenarios for Commercial Spent Fuel," SAND 80-2124, Sandia National Laboratories, Albuquerque, New Mexico.

(5) Colorado Department of Highways, 1983. Large Truck Accicent on State Highways 1978-1982, Denver, Colorado.

(6) Bureau of Motor Vehicle Safety, 1985.

(7) Nuclear Regulatory Commission, 1977. "Transportation of Radioactive Materials by Air and Other Modes," Washington, D.C.

(8) Madsen, M.M., et al., 1983. RADTRAN II User Guide, SAND82-2681, Albuquerque, New Mexico.

(9) USDOE-OCRWM, 1984. "Draft Environmental Assessment for Yucca Mountain, Nevada," DOE/RW0012, Washington, D.C.

(10) Audin, Lindsay, 1987. "A Review of the Effects of Human Error on the Risks Involved in Spent Fuel Transportation," Nebraska Energy Office, Lincoln NE.

(11) Audin, Lindsay, 1988. "Testimony to USDOE concerning Issues related to Transportation of Plutonium to and from the Special Isotope Separation Project Plant," New York, New York.

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W560

ID Manager's Office

APR 14 1988

H. Lawroski & Associates, P.A.
2375 Belmont Ave.
Idaho Falls, Idaho 83401

Phone (208) 524-3237

Dr. Harry Lawroski
President

April 13, 1988

Mr. Don Ofte, Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Ofte:

There have been some aspects of the SIS project which have had little comment. One is the safety enhancement due to completion of the SIS and the second is the enhancement of our environment by conservation of resources.

(1) The initial program of the SIS Project is to produce purified plutonium-239 which indeed is a weapons effort. At the present, all of the plutonium-239 contains significant amounts of plutonium-240 and -241. The plutonium-241 decays with a half-life of 14.7 years resulting primarily in americium-241. Americium-241 emits gamma radiation which results in doses to personnel. In order to maintain the necessary characteristics, the present plutonium must be processed periodically. To revitalize these characteristics, repeated shipments and chemical processing are necessary which result in radiation doses to people during these operations. After the plutonium was once processed and purified to 100% plutonium-239 by the SIS program, the shipments and chemical processing would not be necessary. Therefore there would be improved safety because of fewer shipments and less handling. 5.28.7

(2) The laser process applied in the SIS Project could quite readily be modified to produce enriched uranium for use in producing electricity. Presently the reject stream from uranium enrichment still contains 0.2% uranium-235. The uranium-235 removed is only 0.5% of a total of 0.7% in natural uranium. This simply translates into the fact that forty percent as much uranium-235 could still be recovered by laser separation without additional mining. This would result in protecting our environment, extending our resources, and producing electricity by one of the best environmental systems. 5.28.6 2.7.2

With respect to the morality issue of weapons for defense, there is certainly a positive morality to remain free. I believe that defense of freedom transcends the negative aspect of nuclear weapons. 3.4

In summary the SIS Project would be a definite asset and improvement to the United States and Idaho. 1.1

Thank you for allowing me to comment on the SIS Project.

Very truly yours,

Harry Lawroski

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W561

MEMORANDUM

DATE: April 12, 1988

TO: Department of Energy

FROM: Larry Wearin

SUBJECT: Super Isotope Separator

• • • • • • • • • • •

5.27.6.1 I strongly believe that it would be very advantageous to locate the SIS in Idaho. It will provide expanded business opportunities and enhance our tax base. We desperately need to boost Idaho's economy and the SIS would create 750 permanent jobs and an additional 1050 supportive jobs in the community--this
5.27.7.3 would result in a total of 1800 permanent jobs. The construction workers needed to build the SIS are readily available in Southern Idaho.

5.27.6.1 The established INEL policy of "buy Idaho" will help small businesses in the state. It will give them an opportunity to supply materials and manufactured products to the SIS project.

5.28.6 On a larger scale the laser technology will put Idaho on the "map" and has the potential to generate far-reaching national interest. This will provide many
5.27.4.5 opportunities for us and for the futures of our children. I feel we have to be very concerned about the future of our state and its residents.

5.24.30 Statistics confirm the high level of safety enforced at the INEL and strong work ethics insure the project would be completed and operated in a very productive manner for everyone involved.

1.1 I strongly encourage you to consider location of the SIS here in Southern Idaho. It can only be great for the State of Idaho and the people living here.

Larry Wearin
4401 Denton
Boise, ID 83706
(208) 345-8576

Postmarked April 21, 1988

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W562

March 29, 1988

Statement of Kimberly Coiner on proposed S.I.S. project at the I.N.E.L. Site.

Being a citizen of the State of Idaho, I feel that the S.I.S. project is a very necessary part of our future.

With the established I.N.E.L. Policy of "Buy in Idaho", the S.I.S. project will have a very positive effect in our State. Giving many businesses, large and small, an opportunity to supply material and manufactured products to the S.I.S. project. 5.27.6.1

The S.I.S. project will bring long and short term employment to our State. There are construction workers readily available here in Idaho to do the work required. Our State needs the employment and a stable and sizable tax base.

Kimberly Coiner

Kimberly Coiner
1124 Howard St
Boise, ID 83706

Postmarked April 21, 1988

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W563

3/25/87

Department of Energy:

1.1 The SIS will provide Idaho with Long and Short Term Employment, A Larger and More Stable Tax Base, and Most Importantly, Provide

5.27.6.1 our Children and Workers The Opportunity To pay Taxes and Stay and Work in Idaho. I'm Tired

5.27.4.5 of Seing our Citizens forced To Leave Our State just to provide food and a home for their families.

Thank You
Raymond D Boozel

Raymond D Boozel
1441 Kingswood
Meridian Idaho 83642

ALSO
Raymond D Boozel
663 61st Street
Brooklyn New York
11220

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RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

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RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

The Department of Energy

To Whom it may concern: Re: S.I.S. Location in Idaho April 17, 1988

I am a native Idahoan with aspirations for the economic future and concerns for the natural invironment of our state. My decision to support locating the Special Isotope Seperator (S.I.S.) here was made carefully. With watchfullness twards environmental protection, expanding Idaho's nuclear facility would be an asset to our economy and technological contribution.

5.24.23 The safety record at our existing nuclear facility, the Idaho National Engineering Laboratory (I.N.E.L.), is an excellent one. In late March of this year I attended a presentation given by Department of Energy represenatives concerning the S.I.S. Two of the primary assurances given if we were to expand Idaho's nuclear industry by accepting the S.I.S. were the continued high environmental protection that the I.N.E.L. has maintained and that Idaho would not become a storage or dump cite for high-level nuclear material; the S.I.S.'s plutonium 5.30.2.5 product, concentrated uranium, or nuclear wastes. With these safeguards for Idaho's natural habitat, we who live here and enjoy a unique lifestyle within, would gain by accepting the expansion of this clean industry.

5.27.6.1 Having the S.I.S. in Idaho would be an asset to our economy. It would employ people for its construction, maintenance, and operation. Additional jobbs are possible through related new technologies and industries, use of our manufacturers for local production of parts and supply of materials, and university support for research, development, and the training of operational personnel.

5.28.3 Also, through S.I.S. processing we will be able to convert waste into a usable product. This resource conservation will be profitable not only for the state it takes place in, but for our nation.

6.2 Groth of our existing nuclear laboratory with the addition of the S.I.S. would be advantageous to the nation's nuclear concern logistically because of our geographic position between the present cites of waste storage and eventual location of the remaining waste and plutonium. In 1981 I toured the I.N.E.L. — the operating reactor and surrounding facility. I was impressed with its operation and scientific and medical contributions. I support the conscientious development and use of nuclear technologies. Idaho indeed would benefit if the

1.1 S.I.S. project were to be constructed here and would intern be able to make an even greater nuclear technological contribution.

Sincerely,
Carl W. Yellen

Carl W. Yellen
320 16th Sve. So.
Nampa, ID 83651

564

W565

Dear Mr. Ruckl:

I am opposed to the
1.1 S.I.S. project Please
support the NO ACTION
option.

Thank You!
Craig Rocha
P.O BOX 2471
Hailey, Id
83333

RECEIVED
APR 22 1988
SIS Project Office
Postmarked April 21, 1988

565

665

W566

A & J CONSTRUCTION CO., INC.
2399 S. ORCHARD STREET, SUITE 201
GENERAL CONTRACTING BOISE, IDAHO 83705-3795 (208) 336-3000

April 21, 1988

Department of Energy
785 D.O.E Place
Idaho Falls, Idaho 83402

Re: Location of new SIS Facility at INEL

Please place my company on record as supporting the location of the SIS Project in Idaho. I am convinced that the facility is needed, safety has been addressed and handled adequately, and the benefits to our state are obvious. Idaho would be making a serious mistake if it were to pass up an opportunity which will have positive impacts for our citizens both in the short and long term. 1.1 4.15.4 6.2

Sincerely,
Jay R. Jackson
President

566

RECEIVED
APR 28 1988
SIS Project Office
postmarked
4-25-88

W567

RECEIVED
APR 27 1988
SIS Project Office

Statement for SIS Hearing
Cathy Spofford
619 Brookdale Dr.
Boise, ID 83712

Recently Governor Andrus said that the broader moral concerns about nuclear weapons have no part in the debate over siting the SIS in Idaho. He said "I am not willing on moral and philosophical grounds to turn my back on the economy." He further added, "Cecil Andrus is not going to make much difference in whether we do or do not need additional plutonium.. That's going to be decided on the federal level."

2.12.4 I find it difficult to understand how a decision that results in the production of plutonium, an escalation of the arms race, and the encouragement of weapons proliferation, can be purely an economic decision.

5.24.27 Plutonium is one of the most dangerous elements known to man. It has a half-life of 24,000 years - it will remain radioactive for longer than the recorded history of man. Its cancer producing potential is well known. The lungs are the most vulnerable to plutonium. If exposed to air, plutonium ignites spontaneously producing plutonium dioxide. As it burns it forms tiny particles, which if inhaled lodge in the deepest parts of the lungs. Scientists know that tissue exposed to intense localized radiation is almost certain to become cancerous. As noted physicist John Goffman says "plutonium was indeed aptly named: plutonium - the element of the Lord of Hell." Increasing the worldwide inventory of this element is much more than an economic decision.

2.7.2 I find it difficult to believe that moral and philosophical considerations can be divorced from a decision that will contribute to an escalation of the arms race and an increase in the production of nuclear weapons. And if we as individuals do not take on the responsibility of this decision, then who will?

The annihilation of the Jews in Germany was accomplished with very few people speaking out. Maybe they too thought of it as an economic decision. Maybe they felt that as indivduals it was not their duty to speak out; maybe they too left it up to the "federal level." Little by little the Jews were stripped of their rights - they could not hold office, then they could not marry non-Jews, their propertly was confiscated, they were forced to live in ghetto's, and finally they were taken to concentaration camps. Philosophical and moral considerations had nothing to do with these decisions. They were economic, they were issues of national security. By the time people realized what was going on it was too late.

4.13 For people who think this is not an apt analogy think about how imperceptbily we have become involved in this nuclear nightmare. For many years few people spoke about the dangers of increasing our nuclear arsenal. These were decisions best left up to the "experts". Over the last 43 years we have gradually increased the number of nuclear weapons to unthinkable proportions. Many people wonder how we ended up in this state of affairs. Havent't we learned anything from the horrors of the Holocaust - how people can be numbed into apathy, helplessness, blindness and reticence?

567

Right now the people of Idaho have the opportunity to say no to the production of more nuclear weapons through the extraction of plutonium from nuclear waste. We have the opportunity to say no to the SIS here, in Colorado, or any place else, because it is morally and ethically wrong. 1.1

This decision is much more than a decision about the economy. It is a decision about the future of our children, the future of our state, and the future direction of our country. And, it is up to each of us, as individuals, to make that decision. Say no to the SIS. 6.5.5

Cathy Spofford

999

W568

1-T. Hill
1-File

April 21, 1988

Department of Energy
785 D.O.E. Place
Idaho Falls, Idaho 83402

To Whom It May Concern:

1.1 Western Power wishes to be on record in support of the construction of the proposed SIS Facility at the Idaho Engineering Laboratory site near Idaho Falls. The potential for long term economic benefit to the state of
5.27.6.1 Idaho is significant.

Idaho has experienced severe downturns in its traditional industries. Other options for industrial or other
3.2.2 development are very limited. The INEL is a great asset to our state. Projects such as SIS are a natural. Idaho's citizens should promote the full utilization of the resources at the INEL.

5.24.30 Concerns about safety are not born of fact. Objections to nuclear war will not be addressed by stopping the SIS from coming to Idaho. It will be built somewhere else, and our state will lose.

2.7.8 Hysteria should not prevent the location of the SIS in our state.

Sincerely,

Maureen Jackson
Public Relations Officer

RECEIVED
MAY 2 1988
SIS Project Office

Postmarked April 26, 1988

568

2399 SOUTH ORCHARD ST. SUITE 201 BOISE, IDAHO 83705 208-336-3189

W569

To Whom it May Concern:

To the people who enjoy living in our great country, but those who have not been called upon to defend her should give serious thought before thinking that we should consider TOTAL Nuclear Disarmament. Consider the population of the USA, USSR and Republic of China. The National Reactor Testing Station or INEL as it is now known has played an important part in our Nation's Nuclear Field. And with a record that we all can be proud of.

It has been my pleasure to work at the Savannah River Project, Oak Ridge, Hanford and commercial power plants both coal fired and nuclear.

We here in Idaho have all that is needed to build the S.I.S. Project and with the boost in the economy, taxes, etc., perhaps the Idaho legeslators could more adequatly fund education. 5.27.6.1

I am nearing retirement, but I would hope there would continue to be employment for the younger craftsmen of Idaho so they may continue to reside in our Great State. 5.27.4.5

Also to enable myself and others to retire and live with dignity in our latter years. Yes, I strongly support building the S.I.S. in Idaho. 1.1

Sincerily,

Ike Ikard

667

W570

"Yes on SIS"

1.1 We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families.

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by ~~March 1, 1988~~ Thru April 1988

	Name (Print)	Signature	City	Date
1.	George Giannini	George Giannini Jr.	Blkft	3/17/88
2.	Dorothea Giannini	Dorothea Giannini	Blkft	3/17/88
3.	John W. Giannini	John Giannini	Victor	3/19/88
4.	Lorraine Giannini	Lorraine Giannini	Victor	3/19/88
5.	Juliana Steffensen	Juliana Steffensen	Idaho Falls	3/19/88
6.	Janet Giannini	Janet Giannini	Blackfoot	3/19/88
7.	~~Lawrence~~ Love	Lawrence Love	Blackfoot	4/23/88
8.	ESTAL LOVE	Estal Love	Blackfoot	4/23/88
9.				
10.				

RECEIVED
MAY 2 1988
SIS Project Office
postmarked April 30, 1988

We welcome your testimony for the SIS at the SIS Hearing. Watch your local newspaper and listen to the radio for schedule and place. We ask you to sign the petition only if you are 18 years of age, or older. Also to prevent duplication, please sign only one petition. Also return your signed petition as soon as possible to your petition coordinator, or mail to:

Dane Watkins, Chairman
2242 S. Boulevard
Idaho Falls, ID 83402

Wendell Miller
628 Brentwood Circle
Idaho Falls, 83402

Frank Murdock, CPA
232 Brookside Dr.
Idaho Falls, ID 83404

570

W571

"Yes on SIS"

We citizens of Idaho support the construction and operation of the SIS Production Facility at the Idaho National Engineering Laboratory (INEL). We believe the SIS program will be most beneficial to the economy of communities surrounding INEL, to the State of Idaho, to the national defense programs supported by the President and the Congress of the United States of America, and most of all for our families. 1.1

Sponsored by the
Idaho Citizens for the SIS Committee
Please return petition by [redacted], 1988 Thru April

	Name (Print)	Signature	City	Date
1.	David Pinnick	David Pinnick	IF	3/18/88
2.	KENT PARRIS	Kent Parris	Blackfoot	3/18/88
3.	John Hoyrup	John Hoyrup	Pocatello	3/18/88
4.	Shannon Hoehn	Shannon Hoehn	I.F.	3-18-88
5.	Nolan Taylor	Nolan Taylor	Shelley	3-19-88
6.	DAVID P. SLICK	David P. Slick	I.F.	3/20/88
7.	ALAN BROWN	Alan Brown	POCATELLO	3-21-88
8.	Brent Williams Davis	Brent Davis	IF	3/25/88
9.	Marsha Davis	Marsha Davis	IF	3/25/88
10.	Bruce Murdock	Bruce Murdock	BLKT	3/28/88

RECEIVED
MAY 2 1988
SIS Project Office
postmarked April 30, 1988

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Dane Watkins, Chairman
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Idaho Falls, 83402

Frank Murdock, CPA
232 Brookside Dr.
Idaho Falls, ID 83404

571

W572

LETTER DELETED
INTEROFFICE MEMORANDUM

699

W573

1305 N. Ave
La Grande OR
97850

Dr Clay Nichols
785 DOE Place
Idaho Falls, Idaho 83402

1-T. Hill
1-File

RECEIVED
MAY 3 1988
SIS Project Office

postmarked
April 30, 1988

Dr Nichols,

I am writing this out of both person and professional concern for the safety of my fellow citizens. I am a resident of La Grande, OR and a parent of three children. and I am employed as Public Health Nurse.

The proped SIS at INEL has an obvious purpose — 4.15.5 the extraction of Plutonium 239 from nuclear waste to be included in the manufacture of nuclear weapons. With 25,000 nuclear weapons in the US arsenal we have the horrendous power to destroy this planet several times. The SIS is another step in stockpiling a material which has a shelf life of 20,000 yrs and of which 110-120 tons already is in storage. 5.24.27 It takes only a pin head size grain of plutonium to be fatal to humans. The vision of tons of this material represents a world wide threat to say the least. With the severe potential ~~of rep~~ 2.7.8 destruction it offers, facts and figures become almost meaningless.

My immediate fear with this proposal rests in 5.29.32 the danger of transport. The rail and highways passes between Hanford & Idaho are hazardous even in good weather. Several rail spills and highway semi-truck accidents have occurred within 40 miles of La Grande this year alone.

As a health care worker I am well aware of 5.29.87 the massive tragedy this element could bring if a spill or leak ~~ha~~happened during transport

573

Plutonium is a high level radioactive element. There is virtually no "cure" to its type of poisoning. Even the most advanced burn centers in the nation could handle only a fraction of persons effected by a plutonium disaster. If it were to enter local rivers the food chain of an entire region would be altered. 5.1.42

Long range effects of a "small" exposure include cancer, genetic damage and birth defects.

For the future and health & safety of 5.13.14 my community I urge this project to be forfeited.

1.1

Sincerely,
Ginny Eder R.N.

573A

670

7.1

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME Bruce Hitz

REPRESENTING _____

ADDRESS 10400 Dover Rd
Idaho Falls, Idaho

PHONE NUMBER 83401

QUESTION Where will the waste be stored? Will it be stored at the location of the detonation or will it be stored at Radioactive Waste Management Complex (RWMC) or stored at Rocky Flats? Answer: The EIS addresses the Front End. I am interested in the SIS project does it exist in 20 yrs? Why was SIS process selected instead of the Retrieval Process?

574

7.2

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME Darwel Beery

REPRESENTING _____

ADDRESS 842 N. 1000 E.
Shelley ID 83274

PHONE NUMBER 357-5660

QUESTION Who makes the final decision on which alternative in the DEIS is ~~decision upon~~ chosen, and what is this decision based on?

575

7.3

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC HEARING QUESTION CARD

NAME Daniel Geary

REPRESENTING

ADDRESS 843 N. 1000 E
Shelley ID 83274

PHONE NUMBER 357-5160

QUESTION What does DOE see as the long range outcome of the continued development of nuclear weapons?

576

7.4

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC HEARING QUESTION CARD

NAME EDWARD BREITER

REPRESENTING My SELF

ADDRESS RT. 9 BOX 66 6599 S 15W
IDAHO FALLS, ID. 83402

PHONE NUMBER (208) 522-9092

QUESTION IF AS IT APPEARS THE NEW MEXICO WASTE DISPOSAL IS UNUSEABLE OR DELAYED OR RESTRICTED, WHERE DOES D.O.E. PROPOSE TO STORE S.L.S. GENERATED WASTES, TEMPORARY OR PERMANENTLY? HAVE YOU EVEN CONSIDERED THE EFFECTS OF NEW MEXICO FAILURE?

577

7.5

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME JOHN R. HORAN, CHP

REPRESENTING SELF

ADDRESS 1791 CORONADO ST
IDAHO FALLS ID 83404

PHONE NUMBER 208-523-3322

QUESTION Are only 3 of the 29 people listed as being involved in the preparation and review of the EIS professionally certified? Perhaps this qualification was omitted or people with this qualification were omitted in the listing. I am particularly concerned about Certified Health Physicist. I know that people from EG&G Idaho so qualified were involved. Dose calculations are the keystone to the EIS. I believe the document would be stronger if the final statement could demonstrate greater expertise.

578

7.6

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME JOHN R. HORAN CHP.

REPRESENTING SELF, FREE LANCE CONSULTANT

ADDRESS 1791 CORONADO ST.
IDAHO FALLS ID 83404

579

PHONE NUMBER 208-523-3322

QUESTION Should one of the accident scenarios include the release of liquid radioactive materials to the environment? The release of radioactive materials to the atmosphere is completely and effectively evaluated including the total failure of most air filtering devices. Nowhere are failures in the liquid containment system evaluated. This could be added to the postulated Plutonium Processing Building fire or the facility wide fire. Mention is made.

(over)

that following the Rocky Flats fire in 1969 there was a slight environmental release due to people entering and leaving the scene, I believe that even a major release of radioactive liquids to the ICPP's ~~ion~~ it would be of little significance ~~therefore~~ this additional reassurance should be given to those Snake River Plain people who believe the ingestion of water by their potatoes is more ~~important~~ than their own inhalation of air. A few paragraphs could place upper limits on this non-problem.

Back
5-19

7.7

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC HEARING QUESTION CARD

NAME Michael R. Olson

REPRESENTING Self

ADDRESS 2606 Gourley St. Boise Id 83705

PHONE NUMBER (208) 384-9289

580

QUESTION There are so many atomic generating plants in the U.S.A. today and it seems that everyone wants to build a new one. Ok. fine. Now what do we do with the toxic waste? I think that something or some place should be built to either contain the waste of find a way to get rid of it instead of burying it and letting it leak into our drinking water. Me personally, I would like to live longer.

7.8

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #4

NAME Melinda Kassen

REPRESENTING Env'l Def. Fund

ADDRESS 1405 Arapahoe Ave
Boulder CO 80302

PHONE NUMBER (303) 440 4901 581

QUESTION The DEIS says byproduct material will be stored at the Stand Alone Vault - certainly not forever - eventually it must be used at INEL or elsewhere, or declared waste & stripped to a permanent waste disposal facility. The FEIS should discuss the transportation risks of moving this material offsite to the various possible termini

7.9

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #5

NAME Melinda Kassen

REPRESENTING Env'l Def. Fund

ADDRESS 1405 Arapahoe Ave
Boulder CO 80302

582

PHONE NUMBER (303) 440 4901

QUESTION (1) Where are confidence limits for RADTRAN III published?
(2) Where is the sensitivity analysis for RADTRAN III published?
(3) Will DOE commit to NRC certification of ~~Type~~ Type B containers for shipping feed, product, byproduct & waste materials? If not, why not?
(4) Will DOE commit to using SSTs for all feed & product shipments to & from INEL if not why not? (for lifetime of project)
(9) What is factual basis for Neutrauser comments that SST drivers stop 4-5 times less often than other drivers?

7.10

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #6

NAME Melinda Kassen

REPRESENTING Env'l Def Fund

ADDRESS 1405 Arapahoe Ave.
Boulder CO 80302

PHONE NUMBER (303) 440 4901

583

QUESTION (5) Have you run RADTRAN III w/ site-specific long truck accident rate data? If not, why not?
(6) Are the population zones calculated solely based on '80 Census data or do they reflect population growth discussed elsewhere in DEIS
(7) How and by what factors does the SST reduce release fractions from NUREG 170 (& it appears the release fractions were from model 2, not model 1 - if so - why)?
(8) What are costs of transportation w/ SIS - including infrastructure upgrade & add'l maintenance, emerg. response training, clean up costs in event of accident.

7.11

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #8

NAME Thomas B. Cochran

REPRESENTING NRDC

ADDRESS 1350 New York Ave, NW Suite 300
Washington DC 20005

PHONE NUMBER (202) 783-7800

584

QUESTION What is the legal authority for DOE's expressed view that the issue of "Need" is beyond the scope of the EIS on SIS?

7.12

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #9

NAME Thomas B. Cochran

REPRESENTING NRDC

ADDRESS 1350 New York Ave, N.W. Suite 300
Washington D.C. 20005

PHONE NUMBER (202) 783-7800 585

QUESTION DOE states fuel-grade Pu stock will be sufficient to provide feed for SIS for 6-8 years. Does this estimate assume that FFTF spent fuel will be used as feed? Does it assume the Pu presently used in the ZPPR critical facility will be used as feed in the SIS plant? If FFTF fuel is considered feed, where can it be chemically separated to recover the Pu? Will chemical separation of FFTF fuel cost? How much will this added to the cost of Pu from SIS?

7.13

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #10

NAME Thomas B. Cochran

REPRESENTING NRDC

ADDRESS 1350 New York Ave, N.W. Suite 300
Washington DC 20005

PHONE NUMBER (202) 532-1044 586

QUESTION The EIS assumes in its safety analyses, that the Pu-240 content is 18.5%. I assume this is an upper limit. If so, does DOE contemplate using any reactor-grade Pu as feedstock in the SIS? If so, doesn't the EIS cover reactor-grade Pu? How much reactor-grade Pu is in the DOE plutonium inventory?

7.14

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #11

NAME Thomas B. Cochran

REPRESENTING NRDC

ADDRESS 1350 New York Ave, N.W.; Suite 300
Washington DC 20005

PHONE NUMBER 202 783-7800 587

QUESTION What is the ratio of the cost of weapon-grade Pu from blending to the cost of weapon-grade Pu from SIS? Please provide any unclassified economic data on SIS cost, and any " analyses comparing SIS to blending?

7.15

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #12

NAME Thomas B. Cochran

REPRESENTING NRDC

ADDRESS 1350 New York Ave, N.W.; Suite 300
Washington DC 20005

PHONE NUMBER (202) 783-7800 588

QUESTION Are there any analyses of the cost and time required to upgrade the LLNL facility to a production facility in a National emergency? If so, please describe the results (at what cost and how long), and provide any unclassified analyses and results in this regard.

7.16

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #13

NAME Thomas B Cochran

REPRESENTING NRDC

ADDRESS 1350 New York Ave, N.Y. Suite 300
Washington DC 20005

PHONE NUMBER (202) 532-1044 589

QUESTION What is the most recent estimate of the size of the DOE fuel-grade plutonium stockpile? [This has always been unclassified in the recent past.]
What is the date of this estimate.

7.17

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #14

NAME Thomas B. Cochran

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave NW, Suite 300
Washington DC 20005

PHONE NUMBER (202) 783-7800 590

QUESTION Please provide a copy of all correspondence between NUC and DOE regarding the SIS EIS including all drafts of the EIS provided DOE.

7.18

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave, NW
Washington, DC 20005

PHONE NUMBER 202-783-7800

591

QUESTION What is the precise definition of "contingency," "flexibility," and "redundancy?"

7.19

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 3

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave NW
Washington DC 20005

592

PHONE NUMBER 202-783-7800

QUESTION Will the laser currently being developed for use at the Lawrence Livermore National Laboratory's SIS prototype facility (the EDS) be of the same size and power as the laser proposed for the SIS facility in Idaho.

7.20

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 4

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

PHONE NUMBER 202-783-7800

593

QUESTION Will the SIS facility be used to "clean-up" weapon-grade plutonium contained in existing nuclear warheads? If so, why was this mission not discussed in the DEIS? If not, why was this mission, which was proposed by DOE in the SIS EIS scoping hearings, abandoned?

7.21

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 5

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 2000

PHONE NUMBER 202-783-7800

594

QUESTION What is a "Soviet break-out," as described in DOE literature about the proposed SIS facility?

7.22

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 6

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington, DC 20005

595

PHONE NUMBER 202-783-7800

QUESTION What are all the possible scenarios, in which the U.S. would need weapon-grade plutonium, that lead the DOE to assert that the SIS facility is needed for "contingency, redundancy, and flexibility."

7.23

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 7

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington, DC 20005

596

PHONE NUMBER 202-783-7800

QUESTION What does "surge capacity" mean, as it is described in DOE literature about the SIS facility? How would the SIS facility provide DOE with "surge capacity?"

7.24

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #7

NAME Jason Salzman

REPRESENTING ~~[illegible]~~ NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

597

PHONE NUMBER _____

QUESTION Has the DOE analyzed the implications of ~~[illegible]~~ START ~~[illegible]~~ on the need for the SIS facility? If so, what were the conclusions of that analysis? If a START were negotiated, would SIS still be necessary? If yes, under what circumstances would the construction of the SIS facility not be necessary?

7.25

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 8

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

598

PHONE NUMBER 202-783-7800

QUESTION Will DOE-owned fuel-grade plutonium produced in British reactors be processed at the SIS facility?

7.26

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 9

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

599

PHONE NUMBER 202-783-7800

QUESTION Are the Soviets developing an SIS facility?

7.27

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 10

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

600

PHONE NUMBER 202-783-7800

QUESTION How many hours will the SIS prototype facility operate (successfully), before construction of the SIS facility begins?

7.28

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 11

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

PHONE NUMBER 202-783-7800 601

QUESTION What are all possible missions for the SIS facility after its initial mission (to convert DOE-owned fuel-grade plutonium to weapon-grade plutonium) is completed?

7.29

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 12

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

PHONE NUMBER 202-783-7800 602

QUESTION When did the DOE first propose to Congress that a program to research and develop laser isotope separation technology for plutonium isotope separation be funded? How did the DOE justify the plutonium isotope separation program at that time?

7.30

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 13

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

PHONE NUMBER 202-783-7800 603

QUESTION If the SIS facility is not built, would the DOE lack "contingency, flexibility, and redundancy" concerning its sources of weapon-grade plutonium?

7.31

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD Question 14

NAME Jason Salzman

REPRESENTING NRDC

ADDRESS 1350 New York Ave
Washington DC 20005

PHONE NUMBER 202-783-7800 604

QUESTION Is the DOE considering the use of the ICPP (with possible modifications) to declad spent fuel from the FFTF at Hanford for subsequent processing at the SIS facility?

7.32

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave N.W. Suite 300
WASHINGTON, D.C. 20005

605

PHONE NUMBER _____

QUESTION The DOE is considering using an NRC-licensed facility to declad FFTF spent fuel (DEIS at I-3). Which NRC facility is being considered? What other methods for decladding FFTF spent fuel is DOE considering?

7.33

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave N.W. Suite 300
WASH, D.C. 20005

606

PHONE NUMBER 202-783-7800

QUESTION What percentage of SIS construction funds will be spent in Idaho?
for SIS

7.34

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave. N.W. Suite 300
Wash, D.C. 20005

PHONE NUMBER 202-783-7800

607

QUESTION Has the so-called "weapon return" mission for SIS been abandoned? If yes, why?

7.35

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave N.W. Suite 300
WASHINGTON, D.C. 20005

PHONE NUMBER 202-783-7800

608

QUESTION Will the EIS consider a worst case scenario accident under the NEPA regulations, as amended? If not, why not?

7.36

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS _____

_____

PHONE NUMBER _____ 609

QUESTION Will [redacted] operation of SIS result in the loss of jobs at other DOE facilities (in Ohio, South Carolina) as a result of the curtailment of blending? [redacted] If yes, how many jobs will be lossed?

7.37

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave. N.W. Suite 300
WASHINGTON, D.C. 20005

PHONE NUMBER 202-783-7800 610

QUESTION Will a classified appendix on need be issued? If not why not?

7.38

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave. N.W. Suite 300
Wash, D.C. 20005

PHONE NUMBER 202-783-7800

611

QUESTION (TRU Where will the DOE dispose of SIS-generated wastes if the WIPP facility in New Mexico is not available?

7.39

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME DAN W. REICHER

REPRESENTING NRDC

ADDRESS 1350 N.Y. Ave. N.W.
WASHINGTON, D.C. 20005

PHONE NUMBER 202-783-7800

612

QUESTION Where will scrap to be processed at SIS come from?

7.40

Question 13

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC HEARING QUESTION CARD

NAME Mark Taf

REPRESENTING _____

ADDRESS 1404 N. 5th
Boise, ID 83702

615

PHONE NUMBER (208) 344-4908

QUESTION Would not the SIS treatment System (concentrator, evaporator, etc.) be considered a waste treatment system? What if treated material, upon sampling, is rated back for further treatment/processing? What if the treated material is found to contain Hazardous constituents or exhibit Haz. waste characteristics?

Question 14

7.41

Question 15

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC HEARING QUESTION CARD

NAME Mark Taf

REPRESENTING _____

ADDRESS 1404 N. 5th
Boise, ID 83702

614

PHONE NUMBER (208) 344-4908

QUESTION The DEIS States Mixed Hazardous/Radioactive waste from the SIS will comprise 15% of the total generated at INEL. Where will these wastes be disposed? Are there any options?

7.42

Question #1

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME Lynne Carpenter

REPRESENTING Mtn. Home Students for Peace

ADDRESS 2325 American Legion
Mtn. Home, ID 83647

615

PHONE NUMBER 587-9511

QUESTION 1. Is INEL currently using other methods refine plutonium?

2. What would be the waste's half-life?
3. Where would it be stored & how?

7.43

Question #2

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME Brent Marchbanks

REPRESENTING SCE

ADDRESS 1207 N. 14
Boise

616

PHONE NUMBER 3365353

QUESTION Why was St. Senator Anne Rydalse allowed to speak on about Jobs + Lasers? - these are not relevant issues. Will opponents be granted such leeway?

7.44

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

#1

NAME ERIC D. HANSEN

REPRESENTING Self

ADDRESS 736 South Park Ave.
Shelley, Idaho 83274

PHONE NUMBER (208) 357-2500

617

QUESTION Why haven't transportation containers been physically tested?
If the need for the SIS facility is removed, can it be used for other purposes than Plutonium enrichment?

7.45

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

#2

NAME S LANGER

REPRESENTING self

ADDRESS PO Box 3854
Idaho Falls, ID, 83403

PHONE NUMBER 522-6014

618

QUESTION The SIS separation of Plutonium has been described as the most expensive method of obtaining weapons-grade Pu. Can you give the relative costs of reactor produced, blended produced & SIS produced weapons-grade Pu.

7.46

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #3

NAME Melinda Kassen

REPRESENTING Env'l Def Fund

ADDRESS 1405 Arapahoe Ave
Boulder CO 80302

PHONE NUMBER (303) 440-4901 619

QUESTION The Exec. Summary claims that the No Action alt will have greater risks than the preferred alternative. The transport analysis in Appx A does not elaborate - the FEIS should provide this comparison.

7.47

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD # 15

NAME MATTHEW WILLIAMS

REPRESENTING MYSELF AGAINST THE S.I.S. PROJECT

ADDRESS P.O. BOX 107
IONA IDAHO 83427

PHONE NUMBER (208) 522-4249 620

QUESTION WITH CUTS IN NUCLEAR WAR HEADS IN THE I.N.F TREATY, WHY IS MORE PLUTONIUM 239 SAID TO BE NEEDED WHEN, ACCORDING TO DOE OFFICIALS, THE U.S. HAS "PLENTY OF PLUTONIUM" TO MEET PRESENT DEMANDS. ALSO, WHAT WILL BE THE IMPACT TO THE ENVIRONMENT IN A "WORSE CASE SCENARIO?" THIS QUESTION HAS NOT BEEN ANSWERED TO MY SATISFACTION OR TO MANY OTHERS SATISFACTION.

7.48

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #16

NAME David Albright

REPRESENTING Federation of American Scientists

ADDRESS 307 Massachusetts Ave NE
Washington, DC 20002

PHONE NUMBER 202-547-2363 622

QUESTION Please send me any studies on the peaceful applications of the SIS Project (excluding uranium enhancement). In particular, please include studies ~~or~~ about the use of the SIS technology to isotopically purify elements for use in flourescent lights. Please include any ~~available~~ economic analysis about the cost of such applications.
Thank you

7.49

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT #17
PUBLIC HEARING QUESTION CARD

NAME David Albright

REPRESENTING Federation of American Scientists

ADDRESS 307 Massachusetts Ave NE
Washington, DC 20002

PHONE NUMBER 202-547-2363 622

QUESTION What is the ratio of the number of separator modules of the proposed SIS plant to that of the LLNL demonstration facility when it is completed?

7.50

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #18

NAME David Albright

REPRESENTING Federation of American Scientists

ADDRESS 307 Massachusetts Ave NE
Washington, DC 20002

625

PHONE NUMBER 202-547-2363

QUESTION What is the ratio of laser output (light energy output at the appropriate frequencies) of the laser facility at the proposed SIS plant to that of the LLNL demonstration facility when it is completed?

7.51

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD #19

NAME RANDON C. ANDERSON

REPRESENTING SELF

ADDRESS 345 Cypress
Idaho Falls ID. 83402

PHONE NUMBER (208) 523-6430

626

QUESTION Opponents to SIS state that we have plenty of plutonium to satisfy our needs. Our elected officials tell us that we need SIS and thus imply and directly state that we do not have enough plutonium to support our needs into the forseeable future; Which is it? What are our needs? How much weapons grade plutonium is currently in stock? How long will it last in its current refined state? How fast is it being used? How much plutonium would be slated to be refined by a SIS system? How much refined plutonium would result? The waste stored at

the INEL is termed as being only temporarily stored there. when will the government determine a permanent repository?

BACK
624

7.52

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

7.50

NAME Robert Butikofer

REPRESENTING Self

ADDRESS 736 W 129th N
Idaho Falls Idaho 83401

PHONE NUMBER 208 - 524-M82

6.25

QUESTION I am interested in knowing the type of shipping casks that will be used in shipping the input materials for the SIS and also the type and construction of casks to ship the reSined plutonium. and are these casks certified by the NRC and have the been tested Before they are used.
Thank you

7.53

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME Troy Garn

REPRESENTING Student of EIUTS that Support SIS

ADDRESS 988 Cimmedot. Idaho Falls, Id. 83402

PHONE NUMBER (208) 523-6971

626

QUESTION Is there any future SIS spinoff Technologies presently being researched for possible development, such as the separation of the various elements by the D.O.E.

7.54

1988 SIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
PUBLIC HEARING QUESTION CARD

NAME Ralph A. Hartline

REPRESENTING Self

ADDRESS 3615 E. Sunnyside
Idaho Falls, ID 83406

627

PHONE NUMBER Home 208-529-5298 Work 208-524-3000 Ext 63.

QUESTION Would you provide me with actual figures for numbers of radiation accidents or releases of contamination to the environment for the INEL site? And for both Hanford and SRP? Also, I would appreciate information on hazardous waste storage at these three sites and with respect to EPA superfund problems.

W628

05/10/88 15:32 US DOE/DASMA NO.204 002 05/10/88 15:33 US DOE/DASMA NO.004 003

NEIL GOLDSCHMIDT
GOVERNOR

OFFICE OF THE GOVERNOR
STATE CAPITOL
SALEM, OREGON 97310-1347

MAY 1 2 1988 /- T Hill

/- File

April 18, 1988

The Honorable John Herrington
Secretary, U.S. Department of Energy
1000 Independence Ave. SW
Washington, D.C. 20585

Dear Mr. Secretary:

Your Department proposes to build a plutonium purification plant in Idaho. The Special Isotope Separation plant (SIS) would purify reactor grade plutonium to weapons grade.

You seek public comment on the draft Environmental Impact Statement for the project. Oregon's detailed technical comments and questions are enclosed.

1.1
5.30.4.14
5.29.102
5.29.1

I firmly believe that the SIS should not be built -- or at least deferred. The SIS would create more nuclear weapons waste. Some of that waste would be generated and stored at Hanford. The federal government already is 45 years late in cleaning up similar wastes at Hanford. The wastes and plutonium generated to support SIS will increase the transport of these materials through Oregon. Yet, USDOE has not resolved many of our concerns about transport of these materials.

3.2.8

I believe that USDOE must make significant headway on Hanford cleanup, disposal, and transport before serious consideration is given to creating more nuclear weapons wastes. US DOE must commit to a firm Hanford cleanup schedule and ask Congress for the budget to do that.

4.15.1
4.6

Further, I question the need for the weapons grade plutonium from the SIS. You recently decided to place N Reactor in cold standby because no more weapons grade plutonium was needed from it. Why is weapons grade plutonium now needed from the SIS?

Last, I have doubts that this technology should be brought on line. The separation of plutonium isotopes has never before been achieved on a large scale. The capability to turn spent fuel from any reactor into weapons grade material is troubling. If ever released, this technology would give other nations access to weapons grade plutonium. This is a technology that may be best left undeveloped.

5.23.18
3.5.1

I request that you reconsider moving ahead with the SIS. I will also forward my concerns to Oregon's Congressional delegation.

Sincerely,

Neil Goldschmidt
Governor

NG:nn/8465o

669

628

Oregon Comments on

DOE/EIS-0136

Draft Environmental Impact Statement

Special Isotopic Separation Project

700

General Comments

4.1 6.2 1. Justification for the project is based on flexibility and facility backup. But the EIS draft reveals no need for plant capacity beyond these subjective statements. Risk to the environment should be balanced by some measure of benefit. If such balance exists, it can't be evaluated from information in the draft EIS.

5.22.3 2. Can and will the SIS facility be used for the isotopic separation of other elements? US DOE has done this with gas centrifuge facilities. If this is planned or possible, an evaluation of plant effluents and impacts should be made.

5.30.5.17 3. How much more waste will be generated at Hanford to support SIS operations? What are the impacts of those wastes? What commitments will USDOE make to the safe, permanent disposal of those wastes? Is USDOE prepared to set aside the necessary funds as those wastes are generated to provide for safe permanent disposal?

5.29.113 4. How much more transport of plutonium and waste will occur through Oregon because of SIS operations? What commitment will USDOE make to resolve Oregon's concerns about safe transport of those materials?

Specific Comments

1. Section 1.11 Need for SIS Project.

   This section describes DOE's current plutonium production capability. It also talks subjectively about the need for flexibility and redundancy. Later in this section, the draft EIS states:

   > "The SIS Project would produce weapons-grade plutonium directly from existing DOE fuel-grade plutonium"...

5.26.2 About 1998, DOE will take title to commercial spent reactor fuel. It then will be "existing DOE fuel-grade plutonium." Is this a secondary intent of the SIS project?

2. Section 1.1.2 Relationship to Other Actions

   The fuel-decladding facility at Hanford, known as the Process Facility Modification, has been cancelled. What is the percentage of feed stock for the SIS that the PFM was expected to provide? What is the impact of this decision? 5.26.7

3. Section 2.1.5.1 Emissions, Effluents and Solid Wastes

   a) Will emissions of freon be within emerging international limits? 5.9.5

   b) The use of percolation ponds for liquid effluent disposal should be avoided. Even if the effluent meets state and federal limits, buildup over time in the soil re-concantrates the waste constituents. Planned use of such ponds is contrary to USDOE's intent at Hanford to stop soil disposal of liquid wastes. 5.21.5

4. Section 5.1.2.3 Radiological Impacts

   Will the bulk of waste plutonium be disposed on-site as low level waste? There is a financial incentive to make sure drums contain just under 100 nCi/g to allow on-site disposal and save the expense of TRU disposal at WIPP. 5.30.2.6

5. Section 5.6.5 Hazardous and Mixed Wastes

   Oregon allows no currently generated radioactive wastes to be disposed in the state. How will US DOE ensure compliance with Oregon's definition of radioactive waste for wastes shipped to the Arlington Hazardous Waste Disposal site? 5.31.5

)S-S:tjp
!876L(d1,f1)
)4/18/88

W629

BASIN & RANGE RESEARCH

7300 HIDDEN VALLEY DRIVE
BOISE, IDAHO 83709
(208) 362-4867

May 9, 1988

Mr. Clay Nichols
SIS Project Manager
Idaho Operations Office
U. S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

Dear Mr. Nichols:

I am writing to comment on the Draft Environmental Impact Statement, Special Isotope Separation Project. I am a professional archeologist with 10 years' research experience in southern Idaho, much of it in areas close to the INEL. From this perspective, I reviewed Section 3.1.3, on cultural resources.

701

2.1.1 Section 3.1.3 is inadequate. First, although there has been a great deal of archeological survey directed toward the production of the draft EIS, no mention is made of the prehistoric sites recorded at INEL. How many prehistoric sites were found, were any of these sites actually in areas to be impacted by the SIS?

5.15 Second, it would be helpful for the reader to know the level of intensity of in the archeological survey. The reader should be given a picture of how carefully the area was surveyed.

I hope that these comments are helpful to you. If you have any questions, please feel free to contact me. Also, I would greatly appreciate receiving copies the archeological survey reports of work done by ISU and others on the INEL. This body of literature is an important contribution to our knowledge of the history and prehistory and the DOE is to be commended for sponsoring the work.

Sincerely,

Mark Druss, Ph.D.

629 Duplicat

613

W630

State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 1301 North Orchard Street Boise, Idaho 83706-2237 • (208) 334-4440

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

February 29, 1988

Clay Nichols
SIS Project Manager
Idaho Operations Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402

RE: Draft EIS - Special Isotope Separation Project

Dear Mr. Nichols:

The Idaho Department of Water Resources (IDWR) has recently reviewed the above referenced draft EIS and submits the following comments which may be of assistance as the project is further considered for development.

5.16.3 A discussion of water use in connection with the proposed project appears to be appropriate, since section 5.6.4 on page 5-14 of the report states that "Groundwater withdrawals for constructing and operating the SIS Project at the INEL would be within the present permitted withdrawal allocation as authorized by the Idaho Department of Water Resources".

While the statement above in connection with water use may be factual, several principles of water rights should not be overlooked. More specifically, under state law water rights which exist but which have not been exercised in the last five years may no longer be valid water rights. The nature of use of valid existing water rights may also be changed to a different use through the filing of a transfer provided the original right is not enlarged, other rights are not injured and the change is determined to be in the local public interest.

IDWR is not aware of any new permits issued or applied for in connection with the SIS project. If a new water right is determined to be needed to comply with state water law, the Swan Falls Agreement allows appropriation of water for industrial purposes under the separate domestic, commercial, municipal and industrial (DCMI) allocation provided in the agreement.

W631

June 3, 1988

The Honorable Robert J. Lagomarsino
House of Representatives
Washington, D.C. 20515

Dear Mr. Lagomarsino:

1.1 I am writing to express my opposition to government funding for a plutonium refinery in Idaho. I subscribe to the magazine Environmental Action, and I learned of this environmental hazard through that group. I urge you to pay attention to their lobbyist, who is more informed on the subject than I am and expresses my viewpoint.

6.2
5.24.31 I feel strongly that safeguarding the environment should be a first priority, nuclear technology is not safe at the present, and the physical health of our country is at stake.

Very truly yours,

Susan F. Manata

Susan F. Manata
1600 Garden Street, #10
Santa Barbara, CA 93101

702

UNITED STATES
DEPARTMENT OF ENERGY
WASHINGTON, D.C. 20545

DP-2.3

FIRST CLASS MAIL