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**FINAL SUPPLEMENT
ENVIRONMENTAL IMPACT STATEMENT**

Waste Isolation Pilot Plant

Volume 11 of 13



January 1990

**U.S. DEPARTMENT OF ENERGY
Office of Environmental Restoration
and Waste Management**

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Office of Environmental Restoration
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Washington, D.C. 20585**



COVER SHEET

RESPONSIBLE AGENCIES:

Lead Agency: U.S. Department of Energy (DOE)
Cooperating Agency: U.S. Department of the Interior, Bureau of Land Management (BLM)

TITLE:

Final Supplement, Environmental Impact Statement, (SEIS), Waste Isolation Pilot Plant (WIPP)

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ABSTRACT:

In 1980, the DOE published the Final Environmental Impact Statement (FEIS) for the WIPP. This FEIS analyzed and compared the environmental impacts of various alternatives for demonstrating the safe disposal of transuranic (TRU) radioactive waste resulting from DOE national defense related activities. Based on the environmental analyses in the FEIS, the DOE published a Record of Decision in 1981 to proceed with the phased development of the WIPP in southeastern New Mexico as authorized by the Congress in Public Law 96-164.

Since publication of the FEIS, new geological and hydrological information has led to changes in the understanding of the hydrogeological characteristics of the WIPP site as they relate to the long-term performance of the underground waste repository. In addition, there have been changes in the information and assumptions used to analyze the environmental impacts in the FEIS. These changes include: 1) changes in the composition of the TRU waste inventory, 2) consideration of the hazardous chemical constituents in TRU waste, 3) modification and refinement of the system for the transportation of TRU waste to the WIPP, and 4) modification of the Test Phase.

The purpose of this SEIS is to update the environmental record established in 1980 by evaluating the environmental impacts associated with new information, new circumstances, and proposal modifications. This SEIS evaluates and compares the Proposed Action and two alternatives.

The Proposed Action is to proceed with a phased approach to the development of the WIPP. Full operation of the WIPP would be preceded by a Test Phase of approximately 5 years during which time certain tests and operational demonstrations would be carried out. The elements of the Test Phase, tests and operations demonstration, continue to evolve. These elements are currently under evaluation by the DOE based on comments from independent groups such as the Blue Ribbon Panel, the National Academy of Sciences, the Environmental Evaluation Group, and the Advisory Committee on Nuclear Facility Safety. At this time, the Performance Assessment tests would be comprised of laboratory-scale, bin-scale, and alcove-scale tests. The DOE, in December 1989, issued a revised draft final Test Phase plan that focuses on the Performance Assessment tests to remove uncertainties regarding compliance with long-term disposal standards (40 CFR 191 Subpart B) and to provide confirming data that there would be no migration of hazardous constituents (details are available in Subsection 3.1.1.4 and Appendix O). The tests would be conducted to reduce uncertainties associated with the prediction of natural processes that might affect long-term performance of the underground waste repository. Results of these tests would be used to assess the ability of the WIPP to meet applicable Federal standards for the long-term protection of the public and the environment. The operational demonstrations would be conducted to show the ability of the TRU waste management system to certify, package, transport, and emplace TRU waste in the WIPP safely and efficiently. Waste requirements for the Integration Operations Demonstration remain uncertain. A separate document would be developed to describe in detail the Integration Operations Demonstration following the DOE's decision as to the scope and timing of the demonstration.

During the Test Phase, National Environmental Policy Act (NEPA) requirements would be reviewed in light of the new information developed and appropriate documentation would be prepared. In addition, the DOE will issue another SEIS at the conclusion of the Test Phase and prior to a decision to proceed to the Disposal Phase. This SEIS will analyze in more detail the system-wide impacts of processing and handling at each of the generator/storage facilities and will consider the system-wide impacts of potential waste treatments.

Upon completion of the Test Phase, the DOE would determine whether the WIPP would comply with U.S. Environmental Protection Agency (EPA) standards for the long-term disposal of TRU waste (i.e., 40 CFR Part 191, Subpart B; 40 CFR Part 268). The WIPP would enter the Disposal Phase if there was a favorable Record of Decision based on the new SEIS to be prepared prior to the Disposal Phase and if there was a determination of compliance with the EPA standards and other regulatory requirements. During this phase, defense TRU waste generated since 1970 would be shipped to and disposed of at the WIPP. After completion of waste emplacement, the surface facilities would be decommissioned, and the WIPP underground facilities would serve as a permanent TRU waste repository.

The first alternative, No Action, is similar to the No Action Alternative discussed in the 1980 FEIS. Under this alternative, there would be no research and development facility to demonstrate the safe disposal of TRU waste, and TRU waste would continue to be stored. Storage of newly generated TRU mixed waste would be in conflict with the Resource Conservation and Recovery Act (RCRA) Land Disposal Restrictions; treatment would be required to avoid such conflict. The WIPP would be decommissioned as a waste disposal facility and potentially put to other uses.

The second alternative to the Proposed Action is to conduct the bin-scale tests at a facility other than the WIPP and to delay emplacement of TRU waste in the WIPP underground until a determination has been made of compliance with the EPA standards for TRU waste disposal (i.e., 40 CFR Part 191, Subpart B). The bin-scale tests could be conducted outside the WIPP underground facilities in a specially designed, aboveground facility. The implications of this alternative include delays in both the operational demonstrations and alcove-scale tests, the lack of alcove-scale test data for the compliance demonstration, and placing the WIPP facilities in a "standby" mode. The specialized facility for aboveground bin-scale tests could be constructed at any one of the DOE facilities. In order to analyze the environmental impacts of this alternative in the final SEIS, the DOE has evaluated the Idaho National Engineering Laboratory in Idaho as a representative facility for the aboveground bin-scale tests.

ADDITIONAL INFORMATION:

The 1980 FEIS was reprinted and provided to the public with the draft SEIS which was published April 21, 1989. Public comments on the draft SEIS were accepted for a period of 90 days after publication. During that time, public hearings were conducted in Atlanta, Georgia; Pocatello, Idaho; Denver, Colorado; Pendleton, Oregon; Albuquerque, Santa Fe and Artesia, New Mexico; Odessa, Texas; and Ogden, Utah.

This final SEIS for the WIPP project is a revision of the draft SEIS published in April 1989. It includes responses to the public comments received in writing and at the public hearings and revisions of the draft SEIS in response to the public comments. Revisions of importance have been identified in this final SEIS by vertical lines in the margins to highlight changes made in response to comments.

Volumes 1 through 3 of the final SEIS contain the text, appendices, and the summary comments and responses, respectively. Volumes 6 through 13 of the final SEIS contain reproductions of all of the comments received on the draft SEIS, and Volumes 4 and 5 contain the indices to Volumes 6 through 13. An Executive Summary and/or Volumes 1 through 5 of the final SEIS have been distributed to those who received the draft SEIS or requested a copy of the final SEIS. Although not distributed to all who commented on the draft SEIS, Volumes 1 through 13 of the final SEIS have been placed in the reading rooms and libraries listed in Appendix K; these volumes will be mailed to the general public upon request.

A notice of availability of the final SEIS has been published by the EPA in the Federal Register. The DOE will make a decision on implementation of the Proposed Action or the alternatives no earlier than 30 days after publication of the EPA notice of availability. The DOE's decision will be documented in a publicly available Record of Decision to be published in the Federal Register and distributed to all who receive this final SEIS.

FOREWORD

The comment and response volume and comment (reproduced public comments) volumes of the Final Supplement to the Environmental Impact Statement (SEIS) for the Waste Isolation Pilot Plant (WIPP) have been prepared in compliance with the Council on Environmental Quality (CEQ) regulations 40 CFR 1503.4 and 1506.6, which provide for the consideration of comments received during the public comment period on the draft SEIS. Volume 3 contains responses by the Department of Energy (DOE) to summaries of the approximately 9,000 pages of comments the DOE received from about 2,200 individuals during the public comment period and during nine public hearings conducted in May, June, and July, 1989. All comments received are reproduced in Volumes 6 through 13. Volumes 4 and 5 contain indices to Volumes 6 through 13.

On February 17, 1989, the DOE announced the preparation of a supplement to the 1980 Final Environmental Impact Statement (FEIS) for the WIPP in a Federal Register notice (54 FR 7251). On April 21, 1989, the DOE published another notice in the Federal Register (54 FR 16350) announcing the availability of the draft SEIS, a 60-day public comment period, and the schedule, locations, and procedures for six public hearings. On June 12, 1989, a notice was published (54 FR 24940), announcing two additional hearings on the draft SEIS, in Texas and New Mexico, and a 7-day extension of the comment period. On June 26, 1989, a notice was published (54 FR 26828) announcing a third additional public hearing on the draft SEIS, in Ogden, Utah, and an extension of the public comment period to July 11, 1989. In response to requests, the public comment period was extended to July 20, 1989 (90 days total), to ensure that all interested citizens had time to comment (54 FR 20909). Nine public hearings were held as follows:

Atlanta, Georgia	May 25, 1989
Pocatello, Idaho	June 1, 1989
Denver, Colorado	June 6, 1989
Pendleton, Oregon	June 8, 1989
Albuquerque, New Mexico	June 13-14, 1989
Santa Fe, New Mexico	June 15-17, 1989
Artesia, New Mexico	June 22, 1989
Odessa, Texas	June 26, 1989
Ogden, Utah	July 10, 1989

On April 13, 1989, copies of the 1980 FEIS and the draft SEIS were distributed to U.S. legislators, Federal agencies, and Governors of the 23 affected States. On April 14, copies of the documents were sent to State agencies, State public libraries, legislators of the 23 States, DOE reading rooms, and to local, State, and national public interest groups. Current generator facilities' mailing lists were obtained and also used. Copies of the 1980 FEIS and the draft SEIS were provided to the public and media upon request.

HANDLING OF COMMENT AND RESPONSES

At the beginning of the public comment period, a procedure was established to receive, document, identify, and summarize public comments. Each comment (written, oral, exhibit, or question/answer session) has been assigned an identification number and is reproduced in Volumes 6 through 13 of the final SEIS.

The identification numbers assigned were as follows:

- TGXXXXX = Oral testimony given at the Atlanta, Georgia, hearing on May 25, 1989.
- TPXXXXX = Oral testimony given at the Pocatello, Idaho, hearing on June 1, 1989.
- TDXXXXX = Oral testimony given at the Denver, Colorado, hearing on June 6, 1989.
- TOXXXXX = Oral testimony given at the Pendleton, Oregon, hearing on June 8, 1989.
- TQXXXXX = Oral testimony given at the Albuquerque, New Mexico, hearing on June 13-14, 1989.
- TSXXXXX = Oral testimony given at the Santa Fe, New Mexico, hearing on June 15-17, 1989.
- TAXXXXX = Oral testimony given at the Artesia, New Mexico, hearing on June 22, 1989.
- TTXXXXX = Oral testimony given at the Odessa, Texas, hearing on June 26, 1989.
- TUXXXXX = Oral testimony given at the Ogden, Utah, hearing on July 10, 1989.
- WDXXXXX = Written document sent to the DOE during the comment period.
- EXXXXXX = Exhibits (e.g., written testimonies, letters, pictures, poems) submitted at the hearings.
- QXXXXX = Questions asked during the hearing by recognized sources.
- XXXXX = Numbers designating the order in which the comments were received.

The approximately 9,000 pages of comments received from about 2,200 individuals were reviewed, and specific issues, questions, and statements within each were identified. Each issue, question, and statement was identified by topic, and assigned a number (e.g., 2.2-1). Similar comments were frequently raised by a number of different reviewers. These were summarized into a single comment and response. Editorial comments were simply incorporated into the text of the final SEIS.

All letters, transcriptions of oral testimony (including question/answer sessions), and accompanying exhibits were electronically reproduced and are included in Volumes 6 through 13 of the final SEIS.

Figure 1 shows how the comments were handled from receipt to inclusion in the final SEIS.

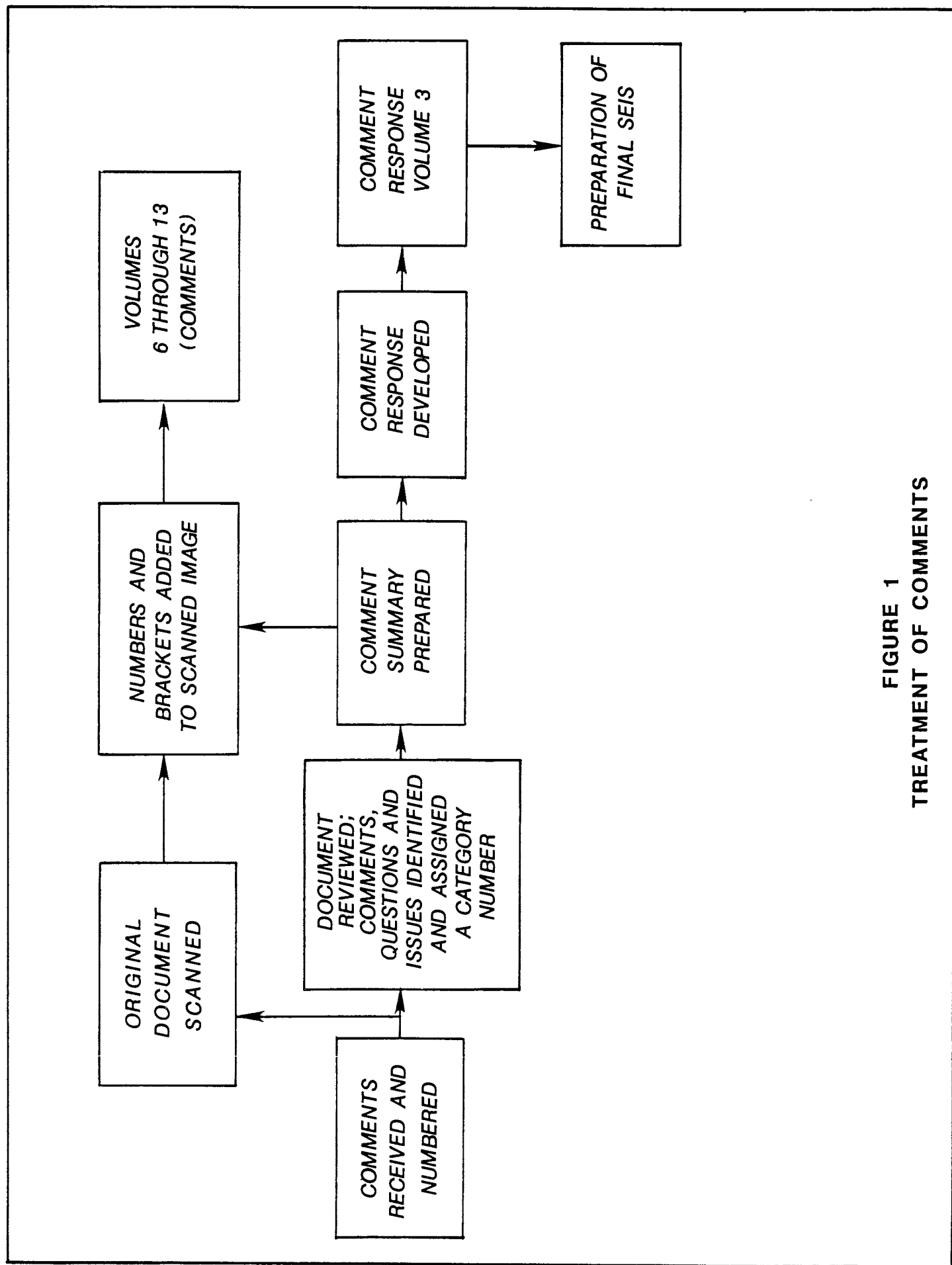


FIGURE 1
TREATMENT OF COMMENTS

FINDING RESPONSES TO COMMENTS

This volume is 1 of 13 volumes that make up the final SEIS for the WIPP Project. Volumes 6 through 13 reproduce the public comments received on the draft SEIS. The numbers and corresponding titles of each volume are as follows:

Volume No.	Title
-	Executive Summary
1	Final Supplement Environmental Impact Statement
2	Final Supplement Environmental Impact Statement - Appendices
3	Final Supplement Environmental Impact Statement - Public Comments and Responses
4	Final Supplement Environmental Impact Statement - Index A
5	Final Supplement Environmental Impact Statement - Indices B,C,D,E
6	Final Supplement Environmental Impact Statement - Oral Testimony (Testimony for hearings held in Atlanta, GA; Pocatello, ID; Denver, CO; and Albuquerque, NM)
7	Final Supplement Environmental Impact Statement - Oral Testimony (Testimony for hearings held in Santa Fe, NM)
8	Final Supplement Environmental Impact Statement - Oral Testimony (Testimony for hearings held in Santa Fe, NM)
9	Final Supplement Environmental Impact Statement - Oral Testimony (Testimony for hearings held in Santa Fe, NM; Artesia, NM; Odessa, TX; and Ogden, UT)
10	Final Supplement Environmental Impact Statement - Exhibits
11	Final Supplement Environmental Impact Statement - Exhibits
12	Final Supplement Environmental Impact Statement - Written Documents
13	Final Supplement Environmental Impact Statement - Written Documents

The indices located in Volumes 4 and 5 will help locate specific questions or statements in a letter, exhibit, or transcript of oral testimony, and the DOE's response. Numbers appear in the margins of Volumes 6 through 13 and refer to summary comments. Both the summary comment and the DOE's response are located under the comment number in Volume 3. In this way, each specific comment can be traced from the original to a summary comment and the DOE's response.

Index A (Volume 4) is an alphabetical listing of all individuals and organizations who submitted comments, either in oral or written form. To the right of each name is a list of all the comment numbers assigned to statements or questions made by the commenter and the DOE's response. The volume and page number where the testimony is located are also found in Index A. Indices B through D (Volume 5) are similar to Index A, with the exception that the names of the individuals and organizations are listed in the order that their comments were received. Index B is a listing of oral testimonies. Index C lists exhibits. Index D lists written documents. As in Index A, opposite each commenter's name is a listing of the summary comment numbers which identify specific comments extracted from that individual's or organization's submittal, and the volume and page number where an individual's reproduced comment is located.

Index E (Volume 5) provides a numerical listing of the summary comment and response numbers contained in Volume 3. Listed opposite each summary comment number are the submittal numbers of each individual or organization that made the specific comment that is addressed by the summary comment and response.

As an aid to the reader in locating information in Volumes 6 through 13, the following instructions are provided:

1. To find your specific comment and the DOE response

- Look in Index A in Volume 4.
- Find your name (names are in alphabetical order).
- Summary comments and responses are identified by numbers located to the right of your name.
- Find the summary comment number in Volume 3. (Comment numbers are listed in numerical order.)
- Beneath the summary comment number in Volume 3 will be a comment summary which represents your comment.
- The DOE's response to your comment is directly below the comment summary.

2. To find the reproduction of your comments in Volumes 6 through 13

- Look in Index A in Volume 4.
- Find your name (names are in alphabetical order).
- Find the volume and page number located to the right of your name.
- The reproduction of your comment will appear within the volume identified.

3. To find the comments of others who made the same comment

- Look in Index A in Volume 4.
- Find your name (names are in alphabetical order).
- Look under the Summary Comment/Response number heading.
- Find the Summary Comment/Response numbers that were extracted from your submittal.
- Look in Index E in Volume 5.
- Find the Summary Comment/Response number in Index E that was by your name in Index A. (Index E lists the comment numbers in numerical order.)
- Look at the document numbers opposite that comment number. (Each number identifies an individual who made a comment similar to yours.)
- Go to Index B in Volume 5 if the number begins with a TG, TP, TD, TO, TQ, TU, TS, TA, TT, or QT (e.g., TG00034, TU00645, QT00034).
- Go to Index C in Volume 5 if the number begins with EX (e.g., EX00110, EX00214).
- Go to Index D in Volume 5 if the number begins with WD (e.g., WD00468, WD00030).

- Indices B, C, and D (Volume 5) list the document numbers in numerical order.
- Find the name of the person or organization and the location of their reproduced comment.
- Look up the reproduced comment in Volumes 6 through 13 as appropriate.

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2. Send letters and articles to the governor or newspaper
3. Make several public services for governor and secretary
4. Oppose to the governor
5. Alert people of the WPP
6. Allow people of WPP
7. Alert people to the danger of the WPP
8. Try to get all the state to have their own time
9. All this will be done try to get the government to make other
10. reveal the story of the WPP
These students don't just
they have determined
to expose the students
to expose the students
to expose the students

Aune Kethorino
700 Camino del Monte Sol
Santa Fe, New Mexico 87504

[illegible]

for further info

Call

2/2/2019

CCNE - 476-1973
(covered attorney for mother's injury)

[illegible]

call

986-1973 for more info.

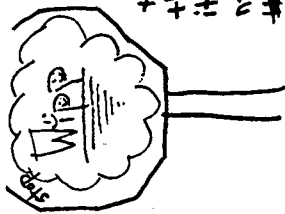
Religion can really
 hurt us so dont mess
 around with it. a tiny
 doggie could kill or ^{cause} ~~destroy~~
 a town or ~~unburn~~ ^{allowing} ~~to burn~~
 why are we making
 such a big deal about
 wastes are we fully prepared
 for an accidental ^{order} ~~waste~~ spill?
 other consequences

9:12:09
 7:12:07
 7:12:06

W H I L D F I

I am a citizen in Santa Fe. I
 do not understand why waste has to be shipped
 all the way across the country. It will not
 only be dangerous to those in Santa Fe but
 all the other people in states from which
 it is being shipped plus all the people
 in the states that it is being shipped
 through. I also feel that the plant where
 toxic waste will be stored should be tested greatly
 before any ~~waste~~ ^{waste} ~~is~~ ^{is} put into it. Even if an
 extremely small leak occurred ~~waste~~ ^{waste}
 could ~~be~~ enter into the water system &
 could cause deadly problem all over the south
 west will be shipped by many schools
 & through many towns. I feel that it is a
 serious problem & should be delt with people
 who know what they are doing. They should
 consider all the lives that ~~are~~ ^{will} in danger.

Hannah Riseley-White



WIPP is a simple fact
that can kill you, people
think it won't hurt you or
it won't happen people say "It's
nothin'" tell that to the
thousands of people the
will die of radiation exp
in the next (upcoming)
years. A 30 to 60 min. expos
re can be fatal. Vog
by
level
expos
5-6 min
can give
you rad-
iation sickness

Isaiah
Secret



WIPP

WIP

Radiation could really hurt
us we don't mess around
with it

[illegible]

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7.3.3-1
7.3.5.2-4
7.14-9
7.14-10

Why don't they keep their own
waste or better yet stop making
it altogether

16-JUN-69: EX-00358, PAGE 4 OF 103

Phone
Area

Name _____

Aug. 15, 1892

1000

its

1

45

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•

1

9-1

4.1-1

3.1-2

DOE/SEIS TESTIMONY June 1989 Pamela S. Ladas, BS, M&T

My name is Pamela Ladas. I am a registered voter, a resident of NM and am very concerned about the WIPP project. I have been learning a lot about WIPP and feel very strongly that it should not be opened until it can meet newly promulgated EPA standards, if at all.

• We are acting as our own worst enemies by contaminating the environment with wastes from nuclear weapons production. I believe the threat we present to our own people is far greater than any posed by the Soviets. We need to start protecting ourselves, and the way to do this is not to build more bombs or to build another UNSAFE nuclear repository, but to start putting our time, money and brainpower into research about how to CLEAN UP the waste that already exists.

WIIPP is not an effective or safe clean-up alternative. As I understand it, WIIPP will be receiving 19% of the total transuranic waste, a part of it that is already contained and NOT posing a current threat to the environment or to our health. The more immediate threat to the public safety is the other 81% of wastes buried at various DOE sites. The WIIPP wastes should remain where they are where they can be safely monitored. If as you say, the temporary storage facilities are running out of room, build more above ground sites where the wastes are produced. Don't take chances shipping them across the country and putting them out of view in an underground burial site you don't understand enough about and cannot control.

Of 7770 million has already been spent on WIPP, plus the time and energy of many people. In light of this I see why it is so hard for the DOE and others involved to give up, or at least postpone the idea. It's called cognitive dissonance. Once you've put so much time and money into something, it's hard to see it for what it really is. It's hard to be wrong after so much has been expended. But does this mean you should go to any extreme to prove your point? That's called pride. And when the stakes are so high, we have to put aside our pride in favor of the truth. Here's a good example: At first you claimed the site was bone dry. You were wrong. Now you say "Well, there is very little brine seepage." How do you know? You were wrong before and there's a very dangerous chance you're wrong again.

We've heard convincing testimony from many people stating the multitude of problems that exist with your proposed action alternative and with the ¹⁶ EPA ¹⁷ CWA ¹⁸ CERCLA ¹⁹ RCRA ²⁰ DDT ²¹ PCB ²² TSCA ²³ Pesticide ²⁴ FIFRA ²⁵ EPCRA ²⁶ SDWA ²⁷ CAA ²⁸ CAA2 ²⁹ CAS ³⁰ CFC ³¹ HAP ³² PCB ³³ TSCA ³⁴ Pesticide ³⁵ FIFRA ³⁶ EPCRA ³⁷ SDWA ³⁸ CAA ³⁹ CAA2 ⁴⁰ CAS ⁴¹ CFC ⁴² HAP ⁴³ PCB ⁴⁴ TSCA ⁴⁵ Pesticide ⁴⁶ FIFRA ⁴⁷ EPCRA ⁴⁸ SDWA ⁴⁹ CAA ⁵⁰ CAA2 ⁵¹ CAS ⁵² CFC ⁵³ HAP ⁵⁴ PCB ⁵⁵ TSCA ⁵⁶ Pesticide ⁵⁷ FIFRA ⁵⁸ EPCRA ⁵⁹ SDWA ⁶⁰ CAA ⁶¹ CAA2 ⁶² CAS ⁶³ CFC ⁶⁴ HAP ⁶⁵ PCB ⁶⁶ TSCA ⁶⁷ Pesticide ⁶⁸ FIFRA ⁶⁹ EPCRA ⁷⁰ SDWA ⁷¹ CAA ⁷² CAA2 ⁷³ CAS ⁷⁴ CFC ⁷⁵ HAP ⁷⁶ PCB ⁷⁷ TSCA ⁷⁸ Pesticide ⁷⁹ FIFRA ⁸⁰ EPCRA ⁸¹ SDWA ⁸² CAA ⁸³ CAA2 ⁸⁴ CAS ⁸⁵ CFC ⁸⁶ HAP ⁸⁷ PCB ⁸⁸ TSCA ⁸⁹ Pesticide ⁹⁰ FIFRA ⁹¹ EPCRA ⁹² SDWA ⁹³ CAA ⁹⁴ CAA2 ⁹⁵ CAS ⁹⁶ CFC ⁹⁷ HAP ⁹⁸ PCB ⁹⁹ TSCA ¹⁰⁰ Pesticide ¹⁰¹ FIFRA ¹⁰² EPCRA ¹⁰³ SDWA ¹⁰⁴ CAA ¹⁰⁵ CAA2 ¹⁰⁶ CAS ¹⁰⁷ CFC ¹⁰⁸ HAP ¹⁰⁹ PCB ¹¹⁰ TSCA ¹¹¹ Pesticide ¹¹² FIFRA ¹¹³ EPCRA ¹¹⁴ SDWA ¹¹⁵ CAA ¹¹⁶ CAA2 ¹¹⁷ CAS ¹¹⁸ CFC ¹¹⁹ HAP ¹²⁰ PCB ¹²¹ TSCA ¹²² Pesticide ¹²³ FIFRA ¹²⁴ EPCRA ¹²⁵ SDWA ¹²⁶ CAA ¹²⁷ CAA2 ¹²⁸ CAS ¹²⁹ CFC ¹³⁰ HAP ¹³¹ PCB ¹³² TSCA ¹³³ Pesticide ¹³⁴ FIFRA ¹³⁵ EPCRA ¹³⁶ SDWA ¹³⁷ CAA ¹³⁸ CAA2 ¹³⁹ CAS ¹⁴⁰ CFC ¹⁴¹ HAP ¹⁴² PCB ¹⁴³ TSCA ¹⁴⁴ Pesticide ¹⁴⁵ FIFRA ¹⁴⁶ EPCRA ¹⁴⁷ SDWA ¹⁴⁸ CAA ¹⁴⁹ CAA2 ¹⁵⁰ CAS ¹⁵¹ CFC ¹⁵² HAP ¹⁵³ PCB ¹⁵⁴ TSCA ¹⁵⁵ Pesticide ¹⁵⁶ FIFRA ¹⁵⁷ EPCRA ¹⁵⁸ SDWA ¹⁵⁹ CAA ¹⁶⁰ CAA2 ¹⁶¹ CAS ¹⁶² CFC ¹⁶³ HAP ¹⁶⁴ PCB ¹⁶⁵ TSCA ¹⁶⁶ Pesticide ¹⁶⁷ FIFRA ¹⁶⁸ EPCRA ¹⁶⁹ SDWA ¹⁷⁰ CAA ¹⁷¹ CAA2 ¹⁷² CAS ¹⁷³ CFC ¹⁷⁴ HAP ¹⁷⁵ PCB ¹⁷⁶ TSCA ¹⁷⁷ Pesticide ¹⁷⁸ FIFRA ¹⁷⁹ EPCRA ¹⁸⁰ SDWA ¹⁸¹ CAA ¹⁸² CAA2 ¹⁸³ CAS ¹⁸⁴ CFC ¹⁸⁵ HAP ¹⁸⁶ PCB ¹⁸⁷ TSCA ¹⁸⁸ Pesticide ¹⁸⁹ FIFRA ¹⁹⁰ EPCRA ¹⁹¹ SDWA ¹⁹² CAA ¹⁹³ CAA2 ¹⁹⁴ CAS ¹⁹⁵ CFC ¹⁹⁶ HAP ¹⁹⁷ PCB ¹⁹⁸ TSCA ¹⁹⁹ Pesticide ²⁰⁰ FIFRA ²⁰¹ EPCRA ²⁰² SDWA ²⁰³ CAA ²⁰⁴ CAA2 ²⁰⁵ CAS ²⁰⁶ CFC ²⁰⁷ HAP ²⁰⁸ PCB ²⁰⁹ TSCA ²¹⁰ Pesticide ²¹¹ FIFRA ²¹² EPCRA ²¹³ SDWA ²¹⁴ CAA ²¹⁵ CAA2 ²¹⁶ CAS ²¹⁷ CFC ²¹⁸ HAP ²¹⁹ PCB ²²⁰ TSCA ²²¹ Pesticide ²²² FIFRA ²²³ EPCRA ²²⁴ SDWA ²²⁵ CAA ²²⁶ CAA2 ²²⁷ CAS ²²⁸ CFC ²²⁹ HAP ²³⁰ PCB ²³¹ TSCA ²³² Pesticide ²³³ FIFRA ²³⁴ EPCRA ²³⁵ SDWA ²³⁶ CAA ²³⁷ CAA2 ²³⁸ CAS ²³⁹ CFC ²⁴⁰ HAP ²⁴¹ PCB ²⁴² TSCA ²⁴³ Pesticide ²⁴⁴ FIFRA ²⁴⁵ EPCRA ²⁴⁶ SDWA ²⁴⁷ CAA ²⁴⁸ CAA2 ²⁴⁹ CAS ²⁵⁰ CFC ²⁵¹ HAP ²⁵² PCB ²⁵³ TSCA ²⁵⁴ Pesticide ²⁵⁵ FIFRA ²⁵⁶ EPCRA ²⁵⁷ SDWA ²⁵⁸ CAA ²⁵⁹ CAA2 ²⁶⁰ CAS ²⁶¹ CFC ²⁶² HAP ²⁶³ PCB ²⁶⁴ TSCA ²⁶⁵ Pesticide ²⁶⁶ FIFRA ²⁶⁷ EPCRA ²⁶⁸ SDWA ²⁶⁹ CAA ²⁷⁰ CAA2 ²⁷¹ CAS ²⁷² CFC ²⁷³ HAP ²⁷⁴ PCB ²⁷⁵ TSCA ²⁷⁶ Pesticide ²⁷⁷ FIFRA ²⁷⁸ EPCRA ²⁷⁹ SDWA ²⁸⁰ CAA ²⁸¹ CAA2 ²⁸² CAS ²⁸³ CFC ²⁸⁴ HAP ²⁸⁵ PCB ²⁸⁶ TSCA ²⁸⁷ Pesticide ²⁸⁸ FIFRA ²⁸⁹ EPCRA ²⁹⁰ SDWA ²⁹¹ CAA ²⁹² CAA2 ²⁹³ CAS ²⁹⁴ CFC ²⁹⁵ HAP ²⁹⁶ PCB ²⁹⁷ TSCA ²⁹⁸ Pesticide ²⁹⁹ FIFRA ³⁰⁰ EPCRA ³⁰¹ SDWA ³⁰² CAA ³⁰³ CAA2 ³⁰⁴ CAS ³⁰⁵ CFC ³⁰⁶ HAP ³⁰⁷ PCB ³⁰⁸ TSCA ³⁰⁹ Pesticide ³¹⁰ FIFRA ³¹¹ EPCRA ³¹² SDWA ³¹³ CAA ³¹⁴ CAA2 ³¹⁵ CAS ³¹⁶ CFC ³¹⁷ HAP ³¹⁸ PCB ³¹⁹ TSCA ³²⁰ Pesticide ³²¹ FIFRA ³²² EPCRA ³²³ SDWA ³²⁴ CAA ³²⁵ CAA2 ³²⁶ CAS ³²⁷ CFC ³²⁸ HAP ³²⁹ PCB ³³⁰ TSCA ³³¹ Pesticide ³³² FIFRA ³³³ EPCRA ³³⁴ SDWA ³³⁵ CAA ³³⁶ CAA2 ³³⁷ CAS ³³⁸ CFC ³³⁹ HAP ³⁴⁰ PCB ³⁴¹ TSCA ³⁴² Pesticide ³⁴³ FIFRA ³⁴⁴ EPCRA ³⁴⁵ SDWA ³⁴⁶ CAA ³⁴⁷ CAA2 ³⁴⁸ CAS ³⁴⁹ CFC ³⁵⁰ HAP ³⁵¹ PCB ³⁵² TSCA ³⁵³ Pesticide ³⁵⁴ FIFRA ³⁵⁵ EPCRA ³⁵⁶ SDWA ³⁵⁷ CAA ³⁵⁸ CAA2 ³⁵⁹ CAS ³⁶⁰ CFC ³⁶¹ HAP ³⁶² PCB ³⁶³ TSCA ³⁶⁴ Pesticide ³⁶⁵ FIFRA ³⁶⁶ EPCRA ³⁶⁷ SDWA ³⁶⁸ CAA ³⁶⁹ CAA2 ³⁷⁰ CAS ³⁷¹ CFC ³⁷² HAP ³⁷³ PCB ³⁷⁴ TSCA ³⁷⁵ Pesticide ³⁷⁶ FIFRA ³⁷⁷ EPCRA ³⁷⁸ SDWA ³⁷⁹ CAA ³⁸⁰ CAA2 ³⁸¹ CAS ³⁸² CFC ³⁸³ HAP ³⁸⁴ PCB

transportation, failure to consider the factor of human error, failure to consider remote handled waste in the calculations of a worst case accident scenario, lack of NRC certification of TRU PACT containers, lack of emergency training and equipment, lack of by-passes along the WIPP truck route, failure to consider the effects of low level radiation- I could go on and on. What I ask is this: In light of all these convincing arguments against WIPP, why don't you think it poses a threat? I propose an answer in agreement with Dr. Chalice Glendin: We blind ourselves in the face of dissonance. To quote Professor Ladas of Hunter College "Having made a decision among alternatives, we are likely to forget the disadvantages and remember only the advantages of our choice, to unburden ourself from the dissonance between them. Indeed we are likely to be open to data in favor of our choice and block out unfavorable material." Professor Ladas is my father. He died 4 months ago of cancer after fighting to the end to get the American Medical Association and the American Cancer Society to start taking valuable and feasible alternative cancer therapies seriously. Again and again these organizations suppressed scientific evidence that alternative therapies were viable. In fact they falsified data in order to serve their own means. Unfortunately, the SIES report does a similar injustice to the exploration of alternative means of handling wastes.

We may never convince you, the members of the DOE. I wish we could. But what we can do is encourage legislators concerned not to introduce a land withdrawal bill until the many issues presented by independent examiners and by the citizens of the nation are addressed and resolved.

This is supposed to be the beautiful, democratic United States of America. You are building bombs to defend its beauty and our democracy. But let me ask you, gentlemen, what are you defending if you are planning to open yet another nuclear waste disposal site without the approval of the people and without resolving the multitude of questions and problems it presents? This is not democratic. It is not even intelligent. What are you defending when you are planning to open a site which will further contaminate our earth and endanger the health and safety of many generations to come. This does not preserve beauty. You deny the dangers of the WIPP project. But considering the inadequacy of the SEIS report and the poor track record of the DOE, should we trust you? The DOE is responsible for far too much contamination of the environment as it is. It is time for this to stop. And it is time to start opening our eyes to the truth, to act from a place of concern and respect for each other and for this planet which sustains our lives.

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7.3.1-2
7.3.5-1
7.13.3-1

5.3-1
7.3-2
7.3.2-4
7.3.2-14
7.3.2.2-1
7.12.9-1
7.12.9-5
7.15.4-3

6.1-1

2.3.1-2
3.1-2
3.1-8
3.2-1

Thank you.
Pamela S. Ladas
950 Agua Fria, Santa Fe N.M. 87501

June 16, 1989

My name is Michael Frehery. I am speaking on my own behalf, and on behalf of Joannus East Company, my place of employment, located at 116 1/2 East Palace Avenue, Santa Fe, New Mexico, 87501.

I would like to begin by protesting the format of these meetings. It was my understanding that I would be addressing all the representatives of the D.O.E. This divide, ignore, and conquer strategy of these meetings is indicative of the way this whole project has ignored the concerns of those who must live with it in the future.

I have dedicated my time to working with antique American Indian art, out of respect for the beauty of the art itself, and for the traditions it represents. Art in the Native American cultures was an expression, as that of life was of the love of Mother Earth and the spirit held in and around her. A Navajo woman, when weaving a blanket on her vertical loom, would look through that loom and see the silhouettes of the mesas and mountains which often acted as inspiration for the blanket's design.

We now have the responsibility to care for this land and to treat it as sacred. I pose the following questions to those who may have forgotten that as public officials, they bear a great deal of that responsibility.

Have the governmental custodians of that land forgotten that they can no longer simply use public land at will? They now face a group of well-organized, vocal people who have a constitutional framework which supposedly backs them.

Are these custodians so arrogant as to believe that we are naive enough to let the WIPP project proceed unchallenged? I, for one, plan to challenge this abhorrent project at every possible turn. I would sooner risk injury or imprisonment in civil disobedience than let a waste spill take my life and those of posterity.

Can the D.O.E. and Governor Carruthers truly believe that there could ever be sufficient disaster training and preparedness when 30,000 gallons of direct exposure to the first wastes scheduled for shipment causes irreversible chromosomal damage or deformity, or death.

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31-8

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31-2
7:32:1-6
7:35:1-12
7:12:9-1
7:12:9-3
7:12:9-7

Has the D.O.E. already forgotten that one drunk captain caused the blackening of 500 square miles of pristine ocean and land? One drunk, tired, or distracted driver on Saint Francis Boulevard could spell the end of life in Santa Fe and its surroundings forever. Exxon claimed it would begin cleanup 6 hours after the Valdez spill. It has taken them several months to begin cleanup. Is corporate or governmental now to be trusted with radioactive wastes?

Does the Department of Energy, Westinghouse, or General Electric have any plan that truly guarantees the safety of the waste site? It claims to have a plan for the next 100 years. What about the lives to be lived in the ensuing 239,900 radioactive years?

More important than these questions about WIPP are the questions of where the next site might be, and the site after that. We all must change the ways we live and think to facilitate the end of the production of all radioactive wastes. If the Department of Energy and the Federal government continue to insist that such trash is safe, I submit the proposal that the next dump site be divided into three locations-- underneath the White House, Capitol Hill, and the offices of the Department of Energy.

I speak to you out of concern for my well-being and that of those around me. I pray that the Navajo weaver never has to look through her loom and cry at what she sees. Thank you.

3:2-1
7:35:1-12
7:32:9-3
7:12:9-7

7:13-4
7:14-5

3:6-1

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MY NAME IS MARGO COVINGTON CRUTCHER, OF GREENSBORO, NORTH CAROLINA.

UNFORTUNATELY NONE OF US HAVE HAD THE OPPORTUNITY TO VOTE ON WIPP, BUT AT LEAST I - AND THESE OTHER CONCERNED CITIZENS - CAN TELL YOU TODAY HOW VERY MANY CONCERNS WE HAVE ABOUT THE WASTE ISOLATION PILOT PROJECT.

THERE IS NO WAY THAT IN THE TIME ALLOTTED TO ME I COULD COVER EVERY CONCERN I HAVE ABOUT WIPP, SO I WILL FOCUS MY REMARKS TO A FEW HIGHLIGHTS.

IN THE WIPP S.E.I.S., WE ARE TOLD THAT THE RADIOACTIVE WASTE WILL BE SHIPPED TO WIPP IN TRUCKS. TRAINS WERE TO BE THE TRANSPORT BECAUSE, AS WAS STATED IN THE EARLIER CTS, TRAINS ARE SAFER. WHY THE CHANGED AND NOW THE TRUCKS WILL BE DRIVING AROUND A ROAD I TRAVEL EVERY DAY, AND DRIVING WITHIN A FEW FEET OF MY HOME - ALONG ST. FRANCIS DRIVE. ALTHOUGH A BYPASS IS BEING SUGGESTED, THAT WOULDN'T BE FINISHED FOR MANY YEARS.

I HAVE BEEN A SANTA REAN FOR NINE YEARS AND HAVE MADE IT MY HOME. BEFORE I MOVED HERE, I WAS A TRANSPORTATION PLANNER IN NEW YORK CITY. I KNOW THE TRUCKING BUSINESS AND I KNOW THAT IT'S NOT A MATTER OF IF IT WILL OCCUR, IT'S A MATTER OF WHEN. IN YOUR SEIS, YOU DON'T FACTOR IN HUMAN ERROR, IN YOUR EQUATIONS AND MODELS. IF YOU WERE TO FACTOR IN HUMAN ERROR, AND THE FACT THAT NEW MEXICO LEADS THE NATION IN DRIVING ACCIDENTS, I'M VERY SURE "TUCKING THROUGH THE STATE CAPITAL WOULD BE VERY ILL-ADVISED.

AND TO THE PEOPLE OF CARLSBAD WHO COMPLAIN THAT WE HERE IN SANTA REAN ARE TRYING TO HURT THEIR ECONOMY BY VOICING OUR CONCERNS ABOUT WIPP. TO THEM I SAY, "STUDY THE LONG-TERM EFFECTS OF RADIATION ON HEALTH. THERE ARE MANY SAD EXAMPLES IN THE U.S. IF THE LAST EXTENSION PLUMED DON'T WAIT UNTIL YOUR CHILDREN ARE BORN WITH LUNG CANCER, OR YOUR GRANDS AND WIVES BEGIN DYING OF CANCER. OR DIABETES OF A NUCLEAR THYROID SYSTEM. WHAT WILL THOSE GOOD MOTHERS YOU'VE BEEN MAKING ALL THESE YEARS BE WORTH TO YOU WHEN YOUR FAMILIES ARE SICKENING AND DYING OF RADIATION-RELATED DISEASES? WE DON'T WANT TO HAVE TO SAY, 'I TOLD YOU SO.'"

AND TO YOU GENTLEMEN OF THE DEPARTMENT OF ENERGY, I WOULD SUGGEST THAT IN THE INTEREST OF NOT BEING ACCUSED OF ILLUSORY SEGREGATION, THAT YOU CONSIDER FAR MORE CLOSELY THE HEALTH AND SAFETY HAZARDS OF SHIPPING, AS STATED BY YOUR AGENCY, "DIRECT COMPARISONS OF DOSES AND RISKS REPORTED IN THE SEIS TO THOSE REPORTED IN THE SEIS CANNOT BE MADE BECAUSE OF THE DIFFERENCES IN THE ASSESSMENT METHODOLOGIES AND THE METHODS OF EXPRESSING DOSE. THIS BLATANT 'WRITE-OFF' OF 'HEALTH CONCERNS IS UNACCEPTABLE TO THIS VOYING CITIZEN."

AND WHAT IF THE PILOT PROJECT DOESN'T MEET EPA STANDARDS? WHAT WILL HAPPEN TO THE WASTE THEN? THIS ISSUE IS HANDLED INADEQUATELY IN THE SEIS.

7.3.2-4
7.15.4-6

7.3.5.1-19

7.3.5.4-3
7.13.2-1
7.13.1-8
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7.13.1-7
7.14.1-4

7.12.6-7

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FINALLY, I WOULD LIKE TO SPEAK TODAY TO THE ISSUE OF SEGREGATION. THERE ARE ISSUES OF ILLEGAL SEGREGATION IN THE SEIS THAT MANY OF US WOULD LIKE TO BRING YOUR ATTENTION TO A BROADER SEGREGATION THAT HAS NOT YET BEEN LABELED ILLEGAL.

THE REASON ALL THIS DANGEROUS WASTE WAS PRODUCED IN THE FIRST PLACE WAS TO BUILD NUCLEAR WEAPONS TO ENHANCE OUR NATIONAL SECURITY. WE HAVE NOW PRODUCED ENOUGH NUCLEAR WEAPONS TO OBLITERATE EVERY MAN, WOMAN AND CHILD IN THE USER, HUNDREDS OF TIMES OVER, AND THEY HAVE DONE THE SAME. ALSO IN THE NAME OF SO-CALLED NATIONAL SECURITY, THE GOVERNMENT HAS PUSHED THROUGH SITES SUCH AS FERNALD AND ROCKY FLATS, THAT WE ARE ONLY NOW DISCOVERING THROUGH FBI ACTION, WERE ILLEGALLY OPERATED, WITH LITTLE OR NO THOUGHT TO THE HEALTH AND ENVIRONMENT OF THE VOYING CITIZENS IN THE VICINITIES.

WE HAVE ALSO SEGMENTED OUR THINKING AND FAILED TO SEE HOW THE STRENGTH OF OUR NATIONAL SECURITY IS BASED UPON OUR NATIONAL ECONOMY. WITH DEFENSE SPENDING SKYROCKETING (NOT RISING) IN THE LAST YEAR, WE HAVE BEEN PRODUCING A LAME ECONOMY. IN AN EVER MORE PRECARIOUS ECONOMIC POSITION, GLACIALLY, IF WE DO NOT BUILD MORE BOMBS FOR OVERKILL, THAT NOT ONLY PLUNGE OUR ENVIRONMENT, AND DEplete THE HEALTH OF OUR CITIZENS, BUT ALSO MAKE OUR NATIONAL ECONOMY WEAKER IN THE PROCESS BY PUTTING A STAIN ON THE NATIONAL DEBT.

LET'S TALK NATIONAL SECURITY! STOP BUILDING THE BOMBS THAT KILL THE WEAKEST. THE BOMBS ARE KILLING US! IT'S A LONG SLOW RISE IN THE RISK OF DEATH. IT'S A LONG TIME, 10,000 YEARS IS A LONG TIME, AND HOWEVER LONGER IT IS TODAY, WE NEED LONGER THOSE WHO WILL BE HERE IN 200,000 YEARS AS WELL.

DEPARTMENT OF ENERGY, YOU CAN DO THIS MUCH RIGHT NOW. STOP WITH FEDERAL LAW. YOU HAVE THE OPPORTUNITY TO PASS THE WORK RIGHT TO ADDRESS VOYING CITIZENS' CONCERNS IN A TANGIBLE MANNER. TO COMPLY WITH FEDERAL HEALTH AND SAFETY REGULATIONS BEFORE EMPLOYMENT, TO NOT TRANSPORT THE WASTE ON THE NATION'S HIGHWAYS UNTIL THE TRUCK CACK HAS BEEN APPROVED BY THE N.R.C. AND TO SHOW THE NATION HOW A PROJECT LIKE THIS CAN BE COMPLETED IN A MANNER THAT DOES NOT HURRY THE PROJECT AT ANY COST LIKE HAS HAPPENED IN THE PAST. BEFORE, BUT RATHER HONORS THE CITIZENS, AND THE DEMOCRATIC SYSTEM THAT WE ALL VALUE.

LIKE A CHAMP, AS YOU WILL BE IN IT.
I WANT TO BE REMEMBERED BY YOUR CHILDREN
AND YOUR GRANDCHILDREN.

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June 16, 1989

TO: United States Department of Energy
 FROM: Morning Hegrans
 P.O. Box 4734
 Santa Fe, New Mexico 87502

My name is Morning Hegrans and I am a teacher and a businesswoman here in Santa Fe. I am here today because I love the earth upon which we live and my testimony is my humble contribution to help preserve its beauty, its abundance, and its very life.

I have read and heard much about the WIPP issues and I am aware of the discrepancies, inconsistencies, and glaring omissions of the Supplement to the Environmental Impact Statement. Although I could address any one of the WIPP - related issues, it is the overall lack of integrity and regard for human life and well-being that I witness throughout DOE activities that disturb me the most.

This brings me to my request. I ask that you take a moment or preferably longer to shed your professional title, your job description, your function within the Department of Energy and allow yourself to become the natural human being that you were and are first -- before you took on the definition of DOE employee and SEIS hearing panel member. Strip away the burden and encumbrance of the DOE position and consider all of the WIPP political, social, ecological, economic, and ethical questions from a personal perspective. Spend less time finding interpretations of the facts that support the DOE position and more time reflecting on what is responsible, what is supportive of the common good, what is natural, that is, what serves nature, and perhaps most importantly, what is sane. Ask yourself, "What feels right for humanity and its future?"

As long as you continue to hide behind the mask of DOE officialdom, you will likely continue on your path of senseless, heartless, and mechanical plodding toward an idea and a goal that threatens the well-being of humanity. Consider the possible consequences of your decision

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 Santa Fe, New Mexico
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 Page two

to continue with the transportation and emplacement of radioactive waste. Are you willing to live with the affect your decision will have upon the people of this state or any other if an accident were to occur? Are the diseases, birth defects, deaths and destruction of human lives that are inevitable in the event of a nuclear waste accident worth the increased financial and political power? Do you want this project and the role you play in promoting it to be noted as your personal contribution to our future?

So my request is to be the person you are first and to give up being the DOE puppet you are pretending to be. Give up the false sense of superiority and supremacy that produces the attitude of "we know what is best for you and only we can understand the complexities involved." This country cannot afford that kind of attitude and the resulting destruction it produces. This country cannot afford an energy policy that continues to produce, produce, produce nuclear waste without stopping long enough to clean up the existing contamination that has already been irresponsibly and shamefully disposed of in over 3,000 waste sites across this nation. This country cannot afford the transportation and emplacement of nuclear wastes without compliance with new EPA standards as is mandated by federal law.

Once again, consider these and other critical issues from a new perspective -- from a perspective of a human being who understands the vital thread of life that connects each of us to each other as well as to the earth. Continuing to slash away at this life line will certainly destroy everything that is united by it. Accept the help and input that is available to you. Consider the options, particularly the "no action" option, carefully and sincerely, not just as a matter of obligation. And, allow the time that is necessary to create a responsible and enlightening policy and plan of action, as well as possible new technology that may help us out of this mess. Give your institutional selves a break and begin to listen to your human and intuitive side. And, perhaps most importantly, pray. Pray for insight, wisdom, compassion, and understanding. May God bless and help us all.

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5.2-1
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FROM: DENISE KELLEY
2305 Camino Carlos Rey
SANTA FE, NM 87501

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TO: US Department of Energy
Office of Public Affair
WIPP Project Office
PO Box 3090
Columbia, New Mexico 88201

16 June 89

I have recently moved to New Mexico and I am proud to participate as a concerned citizen in the hearings concerning the SRS for the Waste Isolation Pilot Project.

My statement is simple. It is very clear to me from reading and listening to information about WIPP that WIPP is not safe. The numerous transportation problems to include the unsoundness of the Transport II shipping container, the inadequacy of the emergency response program, and the validity of citing outdated and inappropriate data to justify current assumptions are enough evidence to indicate WIPP is a public health and safety hazard and should not open at least until it meets the new EPA safety standards.

The rush to open WIPP in September 1989 concerns me because it feels like an act out of desperation. When one acts out of desperation there is a denial of reality with its existing problems and a denial of

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7.3.1.1-7
7.12.9-7

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of the consequences of the action. In simple language, the rush to open WIPP feels like this: "Let's get this nuclear waste into the ground as soon as possible denying all the existing safety hazards before any more unexpected problems arise (i.e. the pressure of brine water seeping from the salt beds) because then the DOE will have to deal with more real problems. One WIPP is opened & the nuclear waste is in the ground I believe it will give some people the false sense of security - the illusion of security."

As painful as it may be I would wish the DOE to ask itself is WIPP a solution or is it part of the problem?

My hope is that the DOE will choose the no action alternative at least until the DOE decides to take responsibility and meet the new EPA safety standards.

My closing comment is a definition of insanity that I learned a few years ago and I would like to pass it on to the members of the DOE: "Insanity is repeating the same ^{defining} mistakes and expecting different results."

Sincerely,
Denise Kelley

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June 15, 1989

DOE/SEIS Project
P.O. Box 5400
Albuquerque, NM 87115

Re: Concerned Citizens for Nuclear Safety

The Waste Isolation Pilot Plant (WIPP) presents a multitude of serious potential health and safety problems, risks to the general public, which have not been addressed fully.

One problem is: this projected project will extend over 20 to 25 years and involve thousands of truckloads of radioactive waste (including plutonium) transported over thousands of miles of interstate and two-lane highways through 20 or more states. It is imperative that trained emergency personnel be in constant readiness along all of these truck routes to respond immediately to the ever present risk of accidental spills. The Federal Government must assume responsibility for logistic and technical training on a constant basis.

The past history of the Department of Defense and of DOE performance and responsibility in the 40 years of nuclear weapons manufacture has left a trail of nuclear waste contamination of the environment of incredible magnitude. All five of these production facilities are presently shut down: Hanford, Washington; Idaho Engineering, Rocky Flats; Ohio Feed Process, Savannah River. Senator John Glenn has stated that "in the name of national defense we have been poisoning our citizens" and the cost will be billions of dollars to clean it up.

In addition, the FBI has (as of June 6, 1989) filed an affidavit, following search, charging criminal violations at Rocky Flats involving illegal burning of radioactive waste and illegal discharge of hazardous wastes into streams and lakes supplying domestic water to Broomfield, a city of 27,600 people and other Colorado towns. They further charge cover-up by DOE and Rockwell International Corp., the plant operator.

Now, (June 11, 1989) Gov. Carruthers and New Mexico Tourism and Economic Development Head, John Densahl, place themselves squarely as supporters of this ongoing debacle when they mount an attack upon New Mexico businesses which have raised honest questions about WIPP, in effect laughing and penalizing citizens' free speech.

Can the people NOW or ever trust DOE to carry out this new promise and responsibility to make WIPP Safe?

Sincerely,

Valois M. Pearce
Valois M. Pearce
2335 Calle Luminoso
Santa Fe, NM 87505
505-438 0318

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Carole-Anne L. Zeiber
Route 2, Box 610
Santa Fe, New Mexico 87505
(505) 438-0410

Testimony at DOE/SEIS Hearings June 16, 1989:

I'm glad to have the opportunity to speak today -- to share some of my concerns about WIPP. I am a massage therapist, a mother and a very concerned citizen.

I believe WIPP is being opened prematurely, that the opening of WIPP will endanger the health and safety of people living along the route as well as those living and working near the site.

As we have heard over and over again during these hearings, the SEIS refers to old EPA safety standards; new safety standards have not as yet been written or approved. Before the DOE can begin shipping nuclear waste to the WIPP site, WIPP MUST MEET NEW EPA STANDARDS.

Some of my more immediate concerns are with regard to transportation. How safe are the shipping containers? How qualified is the trucking company that would be responsible for transporting the transuranic waste? What about training of emergency response personnel along the transportation routes-- I understand that evacuation plans are non-existent, that hospitals along the WIPP route have not been notified, or trained to respond to urgent care needs of potential victims of radiation exposure resulting from a spill; that local emergency responders must depend on DOE for notification of an accident or spill. This knowledge leaves me with a feeling of great apprehension. The government and the DOE are experts at cover-up -- and have a

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had track record when it comes to disclosure of nuclear "accidents." How many unsuspecting people could potentially be exposed to radiation from a spill and, perhaps, never receive "official" notification from the DOE.

The government's Satellite Tracking System can be accessed only with the purchase of an expensive computer system -- The cost of which to be borne by local emergency response facilities and hospitals.

These are but a few of the issues which concern me. I would like to share, as well, the feelings that are closest to my heart. I speak today to you with a great love of humanity, the earth, and the universe. What we do here today influences all future generations. Those generations should be the recipients of a world that is clean and safe to live in, not one that is dying from nuclear waste.

I would like to see my grandchildren live on this earth with healthy minds, bodies and spirits. I want them to have the opportunity to drink clean water from a clear mountain stream, to breath air that is safe and pure, to go camping and look up at the sky at night and see the stars.

It seems to me that the Department of Energy is not looking at the real issue. It's time for the DOE to take their heads out of the sand, ~~_____~~.

I ask you to look not only at the physical and environmental implications, but also to the emotional and spiritual impact of continuing to build nuclear weapons. The time to stop making nuclear weapons is now.

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16-Jun-89: EX-00365, PAGE 3 OF 4

It's time inated to return to the Earth, not with the waste of nuclear weapons, but to return to the earth with the love and care with which She has nurtured us.

361

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U.S. Nuclear Regulatory Commission
Docketing and Service
Washington, D.C. 20555

Dear Sirs,

I strongly oppose your recent proposal for cutting the public out of the decision-making process in the case of radioactive-waste storage permits.

As it is now, federal officials who regulate the nuclear-power industry routinely ignore public opposition to the industry. Instead of just covering your ears, you now want to simply silence the opposition.

We have seen that those who merely regulate themselves without any independent oversight do not place health and safety issues on the top of their priority lists. As a result, thousands of people have had their health and safety placed in jeopardy.

We need to do more, rather than less, to insure that the nuclear power industry is forced to take every possible precaution to avoid poisoning our land, air and water. By eliminating the public from the licensing process you would be making the statement that you don't give a damn about the health and safety of the nuclear workers and the citizens of this country. The Nuclear Regulatory Commission must not become the Nuclear Rubber-stamp Commission and give nuclear-reactor operators blanket permission to store waste without seeking a permit from the NRC.

This foolish idea of yours must never become law.

Thank You,

Sincerely,

P.S. I hope that you will extend the time beyond June 19 to receive public comment. I have many friends who need to know of this attempt of yours to short circuit and kill the basis of democracy, an informed, active and empowered citizenry.

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14-Jun-89; EX-00366, PAGE 1 OF 4

My name is John Domont, for the last 10 years I have been the Chief Photographer for The Center For Environmental Education, now known as the Center for Marine Conservation, in Washington D.C. I have for 10 years photographed the effects of industry and government on the environment. I have dealt with innumerable endangered species and threatened habitats alike. I speak at this hearing on the Wipo site, based on personal and professional experience.

The sin of Hubris, commonly known as pride, is valued to be among the most rank in our parochial society. Our human history is a history of accomplishment as well as one of mis-placed pride and dominance which spans a mere 5000 years of records. To be boastful enough and arrogant enough to even suggest that we can know what this earth will evolve to, or what effect our actions will have in the next 20,000 years is not only arrogant and sinful by definition of our own religious standards, but blatantly ignorant, and stupidly irresponsible, as well.

The Department of Energy, in cahoots with the Department of Defense, is manifesting the disease of our history. At every turn of time our efforts are guided towards our own supremacy at the expense of persons, peoples, creatures, and natural resources. We are now experiencing that destructive energy as being directly turned against ourselves in this country. How long will we insist that God is on our side, that might makes right, and that God

shines only upon America. God and country are not one in the same, and it is a sacrilege to think that the two are inseparable. Creation is holy, those acts which defile that holiness and the sanctity of all life forms, be they human or nature, are acts against God and all of life.

A handful of government scientists cannot possibly know the results of their decisions upon generations 200 years from now, let alone those multiplying effects 20,000 years into the human future.

In 1962 I did a story on the downwind victims of Utah. I interviewed many individuals, families and professionals who live in Utah, near the Nevada bomb test site. Including Dr. Robert Pendleton of the University of Utah. For 7 years the U.S. Government funded him to the tune of one million dollars a year. His project was to research the effects of radiation in a downwind situation, specifically he was studying the effects of the Las Vegas nuclear test site on the residents of Utah. When in fact his studies revealed that radiation effects were worse further from the test site than they were closer to the site, he was immediately fired, and put in disgrace by the university and the government. The facts are that the residents of NE. Utah have suffered more disease and death than have the residents closer to the test site, because the nuclear particles from the explosions were trapped by the Western side of the Rocky Mountains and rained down upon NE. Utah.

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I am making two points here; the first which is obvious, speaks to the manipulation of data by the government. This has long been our government's practice and we have all seen and heard many of those facts surrounding these hearings. It is old news that our government can be manipulative and deceitful. More importantly what I am saying about nuclear radiation is that it is cumulative and becomes more dangerous the further it is dispersed. We all know that all summer long in the monsoon season our weather, our rain in Northern New Mexico, comes to us out of the South. If and when there will be a problem at the Wipp site, as there surely will be, because human error is the part and parcel of America's Nuclear history, the damage will fly on the wind and rain down on the residents of Albuquerque, Santa Fe, and Northern New Mexico. What will it do to the state economy when the tourists learn of the threat of Nuclear rain, which can and will be trapped here by our various mountain ranges? What will it do to the future of our water, and our lives, let alone our economy? As soon as there is one accident of this highly toxic material and we experience Nuclear rain, the tourism in this state will die. Then what good has this Wipp tragedy done for the growth of New Mexico, it's people and it's economy?

I charge that you of this panel, the Department of Energy, and the Department of Defense are in violation of the First Amendment to the

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7.2-31

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Constitution. We as American citizens are endowed with the inalienable right to life, liberty, and the pursuit of happiness. With the evil desire to determine our lives and force your poison refuse upon us, you have the effect of suffocating our souls. You strip us of a clean and healthy world whereby we might pursue the goals of a richer, more compassionate, healthy, free, and peaceful life for all. But, I must tell you as you poison us, by trying to force the WIPP site (and all nuclear waste in the name of national defense) upon us, so you poison yourselves and your children and your grandchildren, your names will be known and remembered, you are responsible and culpable before the law and the sanctity of all life. You represent our government and we the people, this does not, however, give you the license to manipulate data and our lives in order to have corporate and fiscal domination. We will not tolerate profit and power by a few at the expense of the many, and you must reckon with the fact that you are being servants to a destructive and sacrilegious machine. I know it, this room full of citizens knows it and thanks to the press the rest of the country and the world knows it. We need leaders in our government, we need people of honor. I am calling on you and the Department of Energy to do the honorable thing and admit what we know that this is a faulty plan and find a way in a very difficult situation to return hope and health to our lives and country and help to give a vision of life to this world, rather than one of decay and decay. Thank you!

Mark Chesney
1415 Pease
Webster, MN 56240

June 9, 1989

Concerned Citizens for Nuclear Safety
712 Calle Orillo
Santa Fe, NM 87501

Dear Sirs:

I am only in the 9th grade and I can't come to Santa Fe to speak in person at the SRS hearings. Could somebody in Santa Fe please read my letter to the editor to the DOE because I would like to have somebody tell me what the answer is to my question.

Thank you.

Yours truly,

Mark Chesney
Mark Chesney

Hobbs Daily News-Sun

Page 4 - Thursday, June 2, 1994

Who cleans up water?

To the Editor:
My dad showed me a letter he got from Sen. Jeff Magnuson which said that Senate Bill 1273 directs DOE to reimburse all radioactive waste from WIPP by October 1988 if the WIPP experiment fails.

I asked my dad who was going to remove the radioactivity from our water supply if WIPP fails. He couldn't answer my question. Does anybody have an answer to my question?

Mark Cherry
Houston

16-Jun-89: EX-00348, PAGE 1 OF 5

Santa Rosa News

DEDICATED TO THE PROGRESS OF THIS CITY, COUNTY AND STATE

Post Office Drawer F
Telephone 505 472-5454

Santa Rosa, New Mexico
86435

June 12, 1969
DOZ-SEIS Project
P.O. Box 5600
Albuquerque, NM 87115

NOE+SEI, Project:

I submit the enclosed editorial comments and letters to the editor from both locally owned and operated newspapers in Santa Rosa, New Mexico to be made a part of the public proceedings of the Supplemental Environmental Impact Statement hearings, to take place this week June 15 and 16 in Santa Fe.

Santa Rosans and residents of Guadalupe County are concerned, not only for their immediate safety as trucks carrying trans-uranic waste "go through the county en route to the HUPP site, but also for the long term devastation of land and water resources that could result from the use of the salt beds at Carlsbad as a nuclear waste burial grounds.

Sincerely,

Bolton Smith
Bolton Smith
Santa Rosa News

cc: CNS

1. WIPP. Salt is not the solution 6/8/89
Santa Rosa News
2. Letter to Editor by Maj. J.C. Prings (Ret.) 6/1/89
Santa Rosa News
3. Letter to Editor by Rita D. Romero 6/1/89
Eureka Communicator

Communicator you mentioned the opening of Brantley Dam, and what it's done to our lake. The information was that it can damage our local economy. What's more important than our local economy is the effect it will have on the WIPP project site.

The commission of the Federal government is that dry salt will contain safety, the packages which contain the radioactive material being dumped in Carlsbad. The salt must be dry to hold the water. Otherwise, if wet, the containers will deteriorate quickly and the radioactivity will be carried into the ground water with the moisture.

From the information at the WIPP awareness meeting a few weeks ago, the effect of Brantley Dam was never considered. Those giving the talk at the meeting were not even aware of Brantley Dam!

Carlsbad should be given the simple choice of WIPP or the dam. If they have both they put at least two nations and three states at risk of radioactive contamination. And all improvements in their local economy and all their greed, won't put Murphy Dumpty together again.

Editor,
In last week's edition of the
- /s/ Rita D. Romero

Who's afraid of the big bad DOE -- Dept. of "Energy"?

Certainly not New Mexico Congressman Bill Richardson, who has been aiding toward the DOE's attempt to push nuclear waste into New Mexico without proven safety measures in place.

He has apparently become aware of the danger of the DOE's nuclear growth in New Mexico. He has been studying the empirical data of independent nuclear scientists such as Dr. John Coleman, Dr. William H. Miller, Dr. John Coleman, Dr. William H. Miller, Dr. John Coleman, etc. Perhaps he is becoming aware of the danger that the DOE's nuclear waste program poses to the American public health.

Richardson has been active in the nuclear safety movement, and he has been working to get the DOE's nuclear waste program stopped. He has been working to get the DOE's nuclear waste program stopped. He has been working to get the DOE's nuclear waste program stopped.

Mr. Richardson made a "trip" in his history by being what no other New Mexican politician dared to do, the counter-nuclear movement. He at least has a champion in New Mexico. That is more in New Mexico than in any other state.

From the point of freedom of speech, his stand for putting safety in a major headline is a major achievement. By putting the DOE on the defensive, he has been a major achievement for New Mexicans to criticize the DOE's wrong with WIPP, without having to blame around to see if they are doing it. They are doing it. They are doing it. They are doing it.

It is incredible as it seems in New Mexico, Richardson is not alone. There are many who are not alone. There are many who are not alone. There are many who are not alone.

Representative Richardson is gaining more good will - especially from the silent majority - than other New Mexican politicians. His stature is growing with the environmental organizations and the state of Texas having notified DOE that they plan to sue DOE for not having a safe waste repository. Richardson's courage in the face of DOE has shown that nuclear promoters like Senator John Chafee, who has been pushing the DOE's nuclear waste program, are losing their political sparkle.

Their highest promotion, WIPP, is becoming a "white horse" for the DOE's nuclear waste program. Richardson is helping to remove the blindfold of the DOE's nuclear waste program. He is helping to remove the blindfold of the DOE's nuclear waste program. He is helping to remove the blindfold of the DOE's nuclear waste program.

Richardson is helping to remove the blindfold of the DOE's nuclear waste program. He is helping to remove the blindfold of the DOE's nuclear waste program. He is helping to remove the blindfold of the DOE's nuclear waste program. He is helping to remove the blindfold of the DOE's nuclear waste program.

Sincerely,
/s/ Bill Richardson
Bill Richardson
Columbia, NM
80079

WIPP — Salt is not the solution

by Bobbi Smith
Santa Rosa News

Nearly a year ago, someone loaned me a slick sheet prepared by the Sierra Club outlining the reasons why they consider salt the wrong geologic medium for the safe burial of radioactive nuclear waste. I'm ashamed to say, I just read it tonight.

With the transport of transuranic and "other" multi-level radioactive waste to the Waste Isolation Pilot Project (WIPP) burial grounds at Carlsbad imminent, I want to pass on some of the Sierra Club's findings before the site at Carlsbad was finalized.

At the time the Sierra Club report was written, investigations were further advanced for salt as a medium for burial of radioactive waste, with basalt, granite and volcanic tuff also under consideration. Salt was the geologic medium eventually chosen, with New Mexico chosen as the site, chiefly because other states refused the invitation to make their states into radioactive waste dumps.

According to the Sierra Club, salt should not be considered the preferred medium. Salt is extremely water soluble, is highly corrosive, and does not hold radionuclides effectively. When salt is heated, water is attracted to the heat source, such as canisters of radioactive waste. Water moving through the salt becomes brine. When the brine reaches the waste materials, the plastic or ceramic waste forms will break down and the radioactive materials will leach out. It has only recently been recognized that this leaching can occur in months, rather than over a period of thousands of years as has been previously assumed.

Salt frequently occurs near valuable mineral deposits (e.g., potash in Southern New Mexico). Extensive drilling has taken place in many of these formations in the past. A good illustration is the waste for a high level nuclear waste dump in 1971 by the Atomic Energy Commission had so many recorded drill

holes it resembled a piece of Swiss cheese. All drill holes are avenues for both surface and underground water to enter the salt formation. Even if all drill holes could be plugged, the technology for plugging these holes is so poor that future intrusion over the time period required, millions of years, is not available.

Location of a repository in such a geological medium would be contrary to the proposed Environmental Protection Agency (EPA) criteria on radioactive waste, which state that "institutional controls should not be relied on for greater than 100 years." The EPA also states that in the Gulf Coast region, potentially unusable for high level waste disposal, 95 have already been mined or drilled in the 100 years of recorded mineral exploration in that region.

If water were to enter a salt repository, through shafts, bore holes or other means, the integrity of the salt formation would be undermined. Salt has a high solubility compared to other materials such as granite. Further, scientists have limited ability to predict future changes in groundwater flow regimes, climate, or possible accidental flooding. (Editor's note: Such as Bentley Dam?). At the proposed repository in Lyons, Kansas, "considerable volumes of water migrated in an unpredictable manner as a consequence of dissolution of salt by groundwater seepage into the repository. In addition to migration of water, salt crystals themselves contain significant amounts of themselves as brine pockets and along intergranular boundaries. According to the EPA, the contained water may be in excess of 1% of the salt.

The temperature within the repository may reach 300 degrees Fahrenheit. Water, in the form of liquid and vapor, is drawn toward the heat source in a salt repository, as opposed to a geological medium, where water moves away from the heat source. This hot brine solution is acidic and very corrosive. According to the EPA, the buried canisters would be breached in a decade or less. Under these

conditions, only the geologic medium itself can be relied on to effect any significant retardation for times longer than a decade.

Once the containment is breached, and the radioactive materials leach into the salt formation, the salt itself will form cavities and the radionuclides. This is a major disadvantage of salt. According to the United States Geological Survey (USGS), "the capacity of salt to 'fix' or absorb the radionuclides from waste in insoluble form is apparently low." This is to be contrasted with shale and other formations where the waste material becomes itself to the geologic medium.

The presence of brine and increased temperatures would undermine the structural integrity of the salt repository. According to the USGS, "increased temperatures in salt would further decrease mechanical strength of the salt-brine mixture, and would increase the creep rate of dry salt."

The movement of salt under increased temperatures means that keeping the repository open for extended periods of time, according to the EPA, it is unlikely that spent fuel rods (or any other radioactive waste) could be safely recovered from a salt repository "more than a few tens of years after emplacement and backfilling, for by then the salt would have completely sealed the openings." Thus salt is not a medium if retrievability is desired.

As the salt is heated and becomes more plastic, it is expected that the canisters would begin to deform. Simultaneously they will corrode and leach. As they move downward, the canisters would also move laterally toward the center of the repository, where the temperatures are greater compared to the outer extent of the repository. As the canisters moved toward each other, the salt would become still hotter and the canisters would become more plastic. As the structural integrity of the repository would be further reduced, host salt formations (Editor's note:

including the Carlsbad site) overlie permeable limestone formations. The canisters could thereby move downward to the limestone formation and possibly enter the groundwater. The heat will cause the salt to expand and rise, placing upward pressure on the above-lying earth cover, forcing the salt into available cavities and further rearranging the hot wastes. Long term predictions for waste movement are probably impossible.

The underground area of the proposed waste facility would be 2,000 feet deep, and would hold 66,000 to 106,000 tons of radioactive material. One measure of the toxicity of this amount of material is the amount of water needed to dilute radioactive wastes safe. The Federal agencies consider safe. The amount of dilution water required for each high level waste dump is almost double that of the total fresh water in global storage in lakes, rivers, ground waters and glaciers, or about 4% of the oceanic volume. It follows that the ~~difficult~~ must not happen. The geologic medium must be perfect.

Is salt the perfect medium? I wish it were up to the reader to decide, but the decision is on the verge of being made for us, as the Carlsbad WIPP site lurches toward a related opening.

Opponents will have a last chance to speak at Department of Energy Supplemental public hearings in Santa Fe next weekend. The public hearings will be held at Geology Center. Anyone interested in commenting on the schedule by calling the DOE toll-free hotline, 1-800-274-0485. Letters will be made a part of the public proceedings. They may be addressed to: DOE-9815 Project, P.O. Box 3400, Albuquerque, NM 87115.

It's time for Santa Rosa and Guadalupe to let the state government, federal government, Department of Energy, Environmental Protection Agency know that we are concerned with environmental, health and safety risks of a nuclear waste burial grounds in our state.

Bob E. Watt
1447 43rd St.
LBB Albuquerque, N.M. 87514
(505) 862-3728
MIPP SPEECH
June 15, 1989

MEASUREMENT OF GAS PRODUCTION BY NUCLEAR WASTES STORED IN ROOM SCALE VOLUMES IS PROPOSED FOR TEST ALCOVES A1 THROUGH A4, UNDERGROUND IN THE MIPP. THE TESTS ARE SCHEDULED TO LAST FROM 3 TO 5 YEARS, AND AN "INFLATABLE PLUG" OR OTHER SEALING SYSTEM IS PROPOSED. CALCULATIONS OF THE RATES OF GAS LEAKAGE INTO AND OUT OF THE TEST ROOMS THROUGH THE DILATION ZONE AROUND ROOMS AND DRIFTS, AND THROUGH FRACTURES FORMED IN A FEW YEARS DUE TO SALT FLOW, SUGGEST THAT THE QUALITY OF DATA FROM MEASUREMENTS IN THE MIPP ALCOVES WOULD BE FAR BELOW THAT FROM THE PROPOSED BIN SCALE TESTS.

NO SEALING SYSTEM HAS BEEN DEMONSTRATED, AND A SYSTEM BLOCKING THESE LEAKAGE PATHS HAS NOT BEEN DISCUSSED. I BELIEVE A BATTERY-FACTORY SEALING SYSTEM CAN'T BE DEMONSTRATED EARLY ENOUGH TO BE SAFELY USED IN MORTHWHILE ROOM SCALE TESTS USING 1 RECOMPRESS. ADOPTION OF THE PROPOSED SECOND ALTERNATIVE ON PAGE 14 OF THE DOE/EIS-0024-06, AND PARTICULARLY DELAY OF REPLACEMENT OF TRU WASTES IN THE MIPP UNDERGROUND UNTIL A DETERMINATION HAS BEEN MADE OF COMPLIANCE WITH EPA STANDARDS FOR THE TRU WASTE DISPOSAL.

SCENARIO

THE SECOND DOCUMENT SUBMITTED CONTAINS A SCENARIO WHICH COMBINES ELEMENTS OF SCENARIOS PREVIOUSLY DISCUSSED IN DOE ENVIRONMENTAL IMPACT STATEMENTS. SEVERAL MODIFICATIONS ARE INCLUDED IN THE SCENARIO. BLOWOUT PREVENTERS ARE BYPASSED, SO INTERCEPTION OF A PRESSURIZED BRINE RESERVOIR IN THE CASTLE FORMATION LEADS TO AN EFFICIENT FLUSHING OF THE MIPP WASTE, WITH SURFACE OVERFLOW AND/OR SERIOUS CONTAMINATION OF AQUIFERS IN THE RUSTLER FORMATION, AIDED BY HIGH PRESSURE INJECTION TO THE CULEBRA AQUIFER. CONTAMINATION OF THE PECOS RIVER COULD BE A CONSEQUENCE.

ABSENCE OF, OR LEAKAGE PAST A SEAL BETWEEN THE SALADO AND BELL CANYON FORMATIONS, OR A WATER WELL FROM THE BELL CANYON AQUIFERS BROKEN BY SALT MOVEMENTS AT THE MIPP DISPOSAL ZONE, COULD FLUSH THE MIPP REPOSITORY. CONTAMINATED BRINE COULD ENTER THE BELL CANYON AQUIFER, BUT NOT LEAVE BECAUSE OF THE RUSTLER WATER BEARING LINES, INCLUDING THE CULEBRA AQUIFER. IF THE GROUND WATER RESERVES IN THE RUSTLER WERE DEPLETED BY AGRICULTURAL AND/OR STOCK FARMING ACTIVITIES, CONTAMINATED BRINE COULD ENTER THE RUSTLER FORMATION AND THE AQUIFERS. SINCE THE POTENTIOMETRIC HEAD OF THE INJECTION WOULD BE MUCH LESS THAN THAT PRODUCED BY INTERCEPTION OF A PRESSURIZED BRINE RESERVOIR, CONTAMINATION OF THE PECOS RIVER IS LESS LIKELY.

PROCESSES DESCRIBED IN DOE AND SANDIA REPORTS ALLOW CONSTRUCTION OF A MODEL FOR CONDITIONS IN THE MIPP AFTER CLOSURE. SALT FLOW DURING CLOSURE OF ROOMS AND DRIFTS WILL PRODUCE A NETWORK OF INTERCONNECTED FRACTURE FLOW CHANNELS ALONG WITH THE DRIFTS AND ROOMS. MARKER BED 139 BELOW, AND SEAMS AND MARKER BEDS ABOVE THE EXCAVATED ROOMS AND DRIFTS WILL CONNECT THROUGH FRACTURES IN THE FLOORS AND ROOFS, DEPENDING ON DRIFT SEAL DESIGNS, THEY MAY BE BYPASSED BY FRACTURES IN MARKER BED 139 OR IN OVERHEAD SEAMS. SIMULTANEOUSLY, BEFORE COMPLETE ROOM CLOSURE OCCURS FLOW CHANNELS TO AND THROUGH MUCH OF THE WASTE WILL EXIST. DURATION OF THE SALT FLOW DURING ROOM CLOSURE IS ESTIMATED TO BE IN THE RANGE 60 TO 200 YEARS. IF THE MIPP IS CLOSED IN THE YEAR 2080, CLOSURE WOULD NEAR COMPLETION IN THE TIME RANGE 2080 TO 2220.

GAS AND OIL RESERVES UNDER THE MIPP DISPOSAL ZONE WILL BE NOTICED BY FALLING HEADS BY THE YEAR 2080. LARGE PROJECTIONS PUBLISHED IN THE LITERATURE INDICATE A DROP IN THE AMOUNT OF FOOD AVAILABLE PER CAPITA BEFORE THE YEAR 2100, AND MAJOR FLUCTUATIONS NEAR THE MIDDLE OF THE CENTURY. THE SCENARIO ASSUMES THAT ONE OR MORE WELLS ARE DRILLED THROUGH THE MIPP DISPOSAL ZONE AND THE CASTLE FORMATION. THE MOST SERIOUS BRANCH OF THE SCENARIO ASSUMES THAT A PRESSURIZED BRINE RESERVOIR IS TAPPED, FOLLOWED IMMEDIATELY BY FLUSHING THE WASTE STORAGE ROOMS AND INJECTION OF CONTAMINATED BRINE INTO THE RUSTLER FORMATION AQUIFERS. THE SECOND AND THIRD BRANCHES ASSUME THAT BELL CANYON BRINE FLUSHES THE MIPP STORAGE ROOMS, AND RISES TO LEVELS ABOVE THE CULEBRA AQUIFER. RATES OF FLOW FROM THE BELL CANYON MAY BE LOW, LIMITING THE RATE OF FLOW THROUGH THE MIPP FRACTURE NETWORK AND THE RATE OF FLOW UP THE MIPP ACCESS SHAFTS. WHETHER THE CONTAMINATED BRINE FLOWS INTO RUSTLER AQUIFERS DEPENDS ON THEIR POTENTIOMETRIC HEADS.

THESE AND OTHER SCENARIOS SHOULD BE EVALUATED BEFORE PLACING TRU WASTE IN THE MIPP.

16-Jun-89: EX-00369, PAGE 3 OF 13

Bob E. Watt
1447 45th St.
LSE #1005, Rm D, 97544
(503) 642-3728

June 15, 1989

COMMENTS ON DOE/MIPP 89-011
DRAFT PLAN FOR THE WASTE ISOLATION PILOT PLANT TEST PHASE:
PERFORMANCE ASSESSMENT AND OPERATIONS DEMONSTRATION

GAS LEAKAGE INTO AND OUT OF THE GAS TEST ALCOVES, A1 TO A4.

In the Executive Summary, the third paragraph on p ES-7 describes tests related to gas generation by various components of the nuclear waste, including the storage drums. Laboratory and bin-scale tests described can yield the required data. Using data presented in reports:

DOE/EIS-0026 DOE/EIS-0026-DS
SAND85-7166 DOE/MIPP 89-011
SAND87-0176 SAND89-0462

and supplemental information from other sources, the calculations presented below show that the alcoves can't be sealed well enough to yield data as reliable as that from the bin scale tests.

RECOMMENDATIONS

The DOE should choose the second alternative, given on page IV of the DOE/EIS-0026-DS, namely
(a) delay replacement of TRU wastes in the MIPP underground until a determination has been made of compliance with EPA standards for TRU waste disposal, and
(b) conduct bin-scale tests in an aboveground facility.

In order to avoid shipping hazards and expenses, it is suggested here that gas generation tests using new waste should be conducted at the installation generating the waste, and that gas generation tests using wastes stored at the INEL should be conducted there.

CALCULATIONS LEADING TO THE RECOMMENDATION

INTRODUCTION

On page A-18 of the DOE/MIPP 89-011, the Test Rooms and Spalling section discusses equipment and performance requirements for the gas tests. The limited tests planned are expected to require 3 to 5 years for completion, a time considerably shorter than the anticipated duration of operations prior to closure, and far less than the time required for salt creep to effect room closure (60 - 200 years).

Page 1

16-Jun-89: EX-00369, PAGE 4 OF 13

An "inflatable plug" (and perhaps alternative sealing plugs) in the access drift is proposed to retain and allow sampling of the gases in the room. It is stated that "The inflatable plug must be adequate to control leakage rates to less than approximately 1 percent of the test room air volume per week, - and have the capability to withstand a maximum of approximately 1 psi of differential pressure." Each sealed test alcove will be operated under a slight negative pressure (about 0.25 to 0.5 psi), similar to a glove box. - - -

Performance requirements implied in the above outline are reasonable, though minimal. After 260 weeks only 7 % of the original gas would remain in the room, implying a significantly reduced sensitivity and/or accuracy in the evolution measurements. Calculations using data in the documents listed suggest that the requirements can't be met, due to gas leakage through the "Disturbed Rock Zone" (DRZ) discussed by many contributors to the documents listed on page 1. Since leakage through the DRZ increases with time (for periods of several years) a sealing system's initial success does not imply that adequately low leakage rates can be maintained for many years.

PRESSURE DIFFERENCES RESULTING IN GAS LEAKAGE

Temperature changes in the salt surrounding a test room are expected to be negligible for the purposes of these calculations. A pressure difference between the gas in a test alcove and a nearby drift, resulting in permanent loss of a portion of the gas in the test room, can be created in many ways. When the leakage rate is proportional to pressure the effects of multiple frequencies are additive, but some conditions can produce turbulent flow in the leak. Under such conditions the flow rate is not "linear" with pressure and leakages resulting from different pressure fluctuations "sources" are not additive. Deviations from the mean (1 atmosphere) pressure are used to calculate leakage rates, and the total amount of room gas lost depends on the duration of the fluctuation. Since the pressure-time function is expected to be complex, the calculations consider the response to sinusoidal components of a Fourier spectrum representation of the pressure-time function. Estimates are given below.

Deviation range	Source
2 %	Weather patterns 1 cycle/week
0.2 %	Diurnal fluctuations
3 - 0.3 %	Ventilation fans rate 7 Fluctuations due to maintenance, filter changes etc. expected.
7	Elevator operations (acting as pistons)
3.4 - 1.7 %	Overpressure (planned)

LEAKAGE PATHS CONSIDERED

Diffuse flow through many small fractures and porosity in the dilation portion of the DRZ. See Figure 1, p A-64 of SAND89-0462 and other descriptions.

Page 2

For long fractures and pressure gradients expected in the Miocene, the flow rate may become proportional to the square of the fracture length. The transition from laminar to turbulent flow in the fractures. The transition to turbulent flow is expected when the narrowest dimension of the fracture exceeds a few millimeters. Since the detailed structure of the fracture network could not be known, experimental measurement of the leakage rate vs pressure difference would be required.

the wire, the flow rate may become proportional to the square root of the pressure gradient, due to a transition from laminar to turbulent flow in the fractures. The transition is expected when the narrowest dimension of the fracture exceeds a few millimeters. Since the detailed structure of the flow network would not be known, experimental measurement of the leakage rate vs pressure difference would be required.

Time constants of interest range from zero (no leakage barrier) to infinite (a perfectly "airtight" room). For the isothermal conditions expected, the fraction of gas lost by leakage is equal to the ratio of room pressure drop during a cycle to the mean pressure. If the fractional amplitude of a sinusoidal pressure cycle is m , the range of the pressure fluctuation is $2m$ and a fraction $2m$ of the gas in the room at the start of the cycle is lost by leakage. After N cycles, the fraction of the original gas remaining (Q) is

(1) $Q = (1 - 2\alpha)^N$

fraction of gas cycles. For his

lost per cycle decreases with increasing frequency, but the increase in the number of cycles makes Q remain nearly independent of frequency.

(3) $1/I(1) + 1/I(2) + 1/I(3) + \dots$ where the $I(i)$'s are the time constants associated with particular leakage paths (dilation zone, MB 139 etc.)

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TIME CONSTANTS ASSOCIATED WITH PARTICULAR LEAKAGE PATHS.

In the DOE/MIPP 89-011, on p 2-10 it is stated that the permeability of the dilation zone increases from a few nanodarcies in the far field to the darcy range in the very near field. Elsewhere an exponential fit is used to represent the permeability vs depth. For this calculation, the fit used is:

$$(4) \quad k = k(0) \exp(-C h) + k(F)$$

where: k = permeability (darcies) at a depth h (meters)
 $k(0)$ is the permeability very near the surface,
 $k(F)$ is the "far field permeability". It is taken to be effectively zero.

$C = 2.07$, reduces the permeability to one billionth of the surface value at 10 meter depth.

Using the dimensions of the access drift, integration of the product of permeability and area yields 8.9 square meters as the effective area having a permeability of $k(0)$. Using the room volume of 927 cubic meters, the time constant due to flow in the dilation zone, $T(d)$, in weeks, is found to be

$$(5) \quad T(d) = 4.77 / k(0) \quad \text{where } k(0) \text{ is in darcies.}$$

TIME CONSTANTS DUE TO FRACTURE FLOW LEAKAGE.

For flow in smooth walled channels, the flow becomes turbulent when the Reynolds number exceeds 2300. In rough walled channels, and those having variable cross-sectional area the critical Reynolds number is less. In the absence of detailed information on the channel shapes, we use the above value and note that transfer to turbulent flow depends on the product

$$[P(2) - P(1)] W^3 / L$$

where $[P(2) - P(1)]$ is the pressure drop along a channel of length L , and W is the channel width (narrow dimension). For a pressure gradient of 100 Pascals/meter the critical width is estimated to be somewhat less than 3.4 mm. Since the most important fractures are likely to be larger than 3.4 mm, the time constants deduced below should be considered as "ballpark" estimates. Unfortunately I have not yet found experimental data providing better estimates.

TIME CONSTANT: FRACTURE FLOW IN MB-139, or the CEILING.

In the report SAND89-0462, Fig. 4-7 on p 4-44 gives "standardized flow rates" at various locations. A high value is shown in the ceiling, but the largest values are in MB-139.

From the standardized flow rates, the channel area and the room volume, the "time constant" is estimated to be of order 0.175 weeks, or 1.2 days.

Page 5

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Flow rate vs pressure estimates for leakage along a fracture above the test alcove were not available. However, the report of dust driven out of adjacent test holes suggest that the leakage rate would be higher than that in MB-139, resulting in a time constant less than one day.

TIME REQUIRED TO REDUCE ROOM GAS CONCENTRATION BY 1 "E-FOLD"

If an overpressure of 0.5 psi is maintained in the gas test room, the leakage rate through MB-139 would be 0.018 cubic meters per minute. The time required to leak a volume equal to that of the room (927 cubic meters) would be 5.15 weeks. If the overpressure was maintained for 260 weeks, the fraction of the original gas remaining would be 1.2×10^{-22} .

FRACTION OF THE ORIGINAL GAS REMAINING AFTER 260 WEEKS OF PRESSURE FLUCTUATIONS.

If leakage through MB-139 has the values used above, and if weather cycles have an average pressure amplitude of 1/2 of the mean pressure and a frequency of 1 cycle per week, they alone would reduce the fraction of the original gas in the alcove to about 3%. Additional pressure fluctuations and additional leakage paths will certainly reduce the fraction still more. Bin scale tests are not subject to this source of error, and offer opportunities for different test conditions.

CONCLUSIONS

(1) An adequate sealing system for the gas test alcoves has not yet been demonstrated in the MIPP, and it is unlikely that one can be devised due to the formation of new fractures and leakage paths by salt creep during the planned experiments' durations.

(2) Bin-scale tests proposed can provide more accurate data for a wide range of conditions not available in the MIPP, without the hazards and expense of installing TRU waste in the test alcoves.

Page 6

772-1
773-1
711-1
714-44772
711-1
714-44

$L = 262 \text{ weeks}$; $A_2 = 0.01$ 041: 25
 $T = \text{Exponential decay time constant, weeks}$

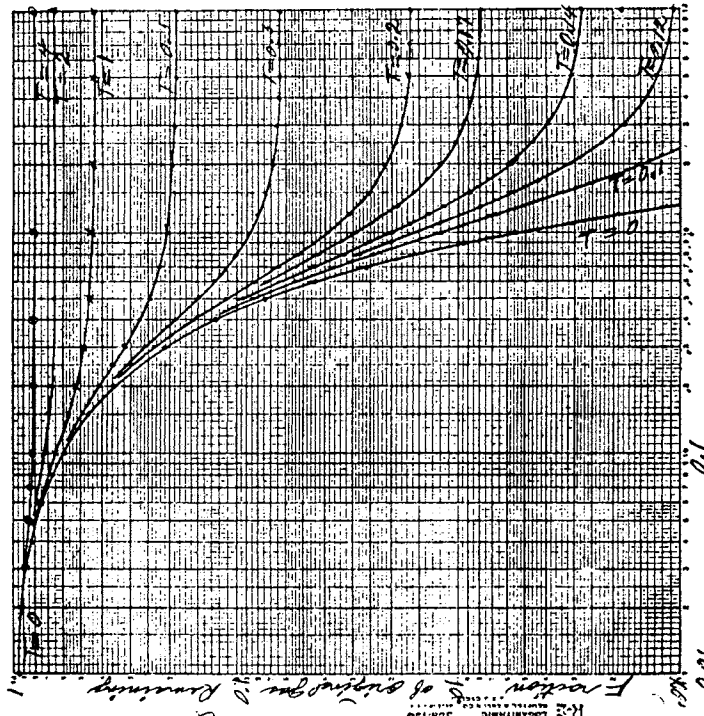


Figure 1

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June 15, 1989

A SCENARIO
 for a
 HUMAN INTRUSION BREACH OF THE WIPP NUCLEAR WASTE REPOSITORY
 SOCIAL CONDITIONS EXPECTED BEFORE THE YEAR 2100 AD

Donella H. Meadows, Dennis L. Meadows, Jorgen Randers and William W. Behrens III prepared a report for the Club of Rome's Project on the Predicament of Mankind, dated 1972 and titled THE LIMITS TO GROWTH. Major factors in their computer world models were resources, pollution, agricultural productivity and population. The authors calculated many factors, such as population, industrial output per capita, food per capita and other appropriate variables during the period 1900 to 2100. Recognizing that many factors will change in the next century, they tested the effects of such changes. The results they publish show major changes in many factors, including a significant drop in food per capita before the year 2100. Various programs to increase food production are in progress, and genetic engineering offers major improvements. The authors did not consider competition between nations.

- 1) During the next century it seems certain that farmers will be called on to produce much more food. Depletion of ground water reserves, such as the Ogallala aquifer, and shifts to crops other than animal feeds will increase the importance of stock farming in the WIPP area.
- 2) desalination equipment, which now provides potable water for many persons and purposes, will allow use of saline wells for ranch purposes, including stock watering. Sources for such water in the WIPP area include all the water bearing zones in the Rustler and Delaware Mountain Group (DMG) formations. The Hays zone in the Bell Canyon yields brine containing approximately half of the salt saturation limit. Genetic engineering will probably improve stock forage available in arid areas such as that surrounding the WIPP.
- 3) petroleum deposits worldwide, and especially those in the United States, will be seriously depleted. Pushed upward by international competition and depletion, the value of petroleum reserves under the WIPP (currently of order two billion dollars) will increase greatly.

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CONDITIONS EXPECTED IN THE WIPP

Precise dates are not important for the scenario presented below, but will be used to maintain order and some concreteness. We assume WIPP closure about the year 2020. Using data presented in DOE and Sandia documents, the following sequence is developed.

Salt creep will slowly close the rooms and drifts over a period estimated to require 50 to 200 years. During that process a continuous anhydrite Marcellus Bed 139, underlying all the rooms and drifts will be strongly deformed and fractured. Overhead clay seams and anhydrite beds will also be deformed. In both cases fluid flow channels will be opened, some of which may bypass the sealing systems. The result is expected to be a network of flow channels in Marcellus Bed 139, the WIPP waste storage rooms, drifts and overlying channels, most of which would be connected in varying degrees. Waste containers in many rooms will not be completely crushed, leaving channels to the waste.

Closure of the waste storage rooms requires settlement of the overlying formations. Since most of the void space is in the waste storage rooms, which form a rough arc around the central shafts, the settlement pattern is expected to be a smaller arc with comparatively little settlement over the shaft pillar and beyond the waste disposal boundary.

Calculations based on this model show that Rustler formations will be stratified by approximately one centimeter, depending on the void fraction, in the waste storage rooms and drifts. Especially the comparatively brittle five anhydrite confining beds and the two dolomite aquifers are expected to fracture, providing significantly increased permeability over the waste disposal area and increased opportunity for high speed flow through fracture and karst channels to the Pecos River.

These general conditions could be expected to exist from about the year 2040 to a year in the range 2080 to 2200. Inspection of the plots presented in THE LIMITS TO GROWTH show major excursions in many factors, including food per capita, so strong social pressures for change should be expected. Two sequences producing similar results are combined in the following scenario.

SCENARIO

It is assumed that Governmental authorities allow stock farming above the WIPP disposal zone about the year 2050. The other wells draining water from the Rustler formation will provide favorable support larger herds. If the economics are favorable, some water could be used for growing stock feed or for other agricultural purposes. Since recharge to the Rustler is low, ground water could be significantly depleted. If water fields from the Rustler formation became inadequate, the ranchers could seek permission to drill for water from the Delaware Mountain Group aquifers. Especially if ranch installations used wells

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from the Rustler over the WIPP disposal area, he could seek permission to drill through it.

Over the decades following WIPP closure we expect fear of the hazards from the WIPP might be exaggerated. Oil companies from sources within the United States to grow. Oil companies should be expected to seek permission to drill through the waste disposal area. Figure 7-22 (p. 7-73) of the DOE/EIS-0026 report shows two "probable" and two "possible" locations in the disposal area, and many more nearby.

If regulatory authorities agree, or if regulation of the WIPP area had been abandoned, one or more wells would be drilled through the WIPP disposal area and the Castile formation.

BRINE POCKET CONNECTION

Pressurized brine pockets are known to exist in the area and various properties are discussed in SAND89-0462 (Appendix E), DOE/EIS-0026-05, and DOE/MIPP 89-011 (p. 2-53). Note that under the conditions described below, a blowout preventer at the wellhead would be useless.

We assume that:

- 1) a borehole striking a pressurized brine pocket is also open to the WIPP disposal area and that gas and/or brine in the WIPP disposal area is not yet highly pressurized.
- 2) the brine pocket pressure is like that in the pocket penetrated by test well MIPP-12. At the surface the brine pressure was 200 psig, which implies that the "lithostatic" pressure would be about 90 bars (atmospheres, or 1300 psig) at the WIPP level. On p. 2-53 (see above) the comment is made that "The high pressures associated with these brine occurrences have the potential to hydrofracture competent, unfractured rocks when in communication with the above geologic units, or to expand and extend preexisting fractures." The formations mentioned are mostly in the Rustler group. Lithostatic pressure at the WIPP level is expected to be about 140 bars, but before complete closure residual gas and brine pressures may be quite low.
- 3) the fracture system in MB-139, rooms, drifts and overlying seams and anhydrite beds exists as discussed above.
- 4) the pressurized brine pocket is large enough to fill and pressurize the void space remaining in the portion of the waste disposal area connected to the borehole. It is noteworthy that the brine pressure is approximately 40% of lithostatic pressure. Expansion of some of the brine may allow more reservoir closure, maintaining high brine pressure.

Seals and some potential leakage paths are discussed in various reports. Under the conditions created in this scenario, Figure 4-9 in the report SAND87-0176, pp. 20-21, is of particular interest. Since air/brine pressure on one side

of a seal would be low, fracture of the surrounding halite and flow through other existing fractures could destroy or bypass the seal. Similarly, seals along paths to and in the vertical shafts may be destroyed or bypassed.

If the pressurized brine pocket is large enough, flow of contaminated brine out of the shafts at the surface would occur. Seals of contaminated brine into the Rustler from the vertical shafts might also occur, with the potential for contamination of the Pecos River via the channels discussed in the section on conditions at the MIPP.

BELL CANYON BRINE CONNECTIONS

Consider first a borehole for hydrocarbon production which does not strike a brine pocket in the Castile formation. We assume that the driller minimizes the number of casing strings required by not taking a seal between the Delaware Mountain Group (DMG) aquifers and the Salado formation, or that the seal fails. Brines from that group would become saturated while rising to the MIPP zone. Brine pressure at the MIPP level would be adequate to fill the fracture networks, and to bypass or break seals. Using the 3412 feet (1040 meters) potentiometric (fresh water) head given, and correcting for brine density, the brine free surface (open hole) level would be near 834 m (meters above mean sea level), or 14 meters above the Culebra.

Next consider a water well properly sealed between the DMG and the Salado and completed in the Hays zone. Brine density from that zone is about 1.1, significantly less than that for saturated brine (1.2). We assume that salt creep and associated motion in the MIPP zone breaks the casing at that level. Using the 1040 m (meters) potentiometric head given above, correcting for brine density of 1.1, between the Hays and MIPP levels and saturated brine above the MIPP, we find that the open hole level would be near 882 m (meters above mean sea level). Approximate elevations of the bottoms of several water bearing zones are:

875 m	Dovey Lake Red Beds
857 m	Magenta dolomite; Rustler
812 m	Culebra dolomite; Rustler
790 m	water producing unit in Rustler

If elevations and potentiometric heads are correct, contaminated brine could reach all of the Rustler formation. However, if a hydraulic connection between them and the MIPP brine is made, the potentiometric heads in these units is high enough to drive flow downward to the DMG, in agreement with the analysis given in DOE/EIS-0026-DS. Comparison to the history of other ground water reserve regions suggests that it is easily possible to reduce the potentiometric heads of the Rustler water bearing zones by more than forty meters, which would allow contamination of local wells and perhaps the Pecos River.

NUCLEAR GUARDIANSHIP PROJECT

For the Safe Management of Nuclear Wastes

The Nuclear Guardianship Project is a citizens' effort to develop and assist long-term management of nuclear wastes for the protection of the biosphere for all those living and those yet to come. The present generation shares responsibility for the vast amounts of radioactive waste generated by nuclear power and weapons production — waste that will remain lethal for up to a quarter of a million years. Accordingly, we seek policies and methods of waste management that respect the health of future generations and allow them to protect themselves. Along with growing numbers of scientists and engineers, we favor long-term, monitored, retrievable storage at the points of generation of these wastes, where safe storage is feasible, in order to minimize costly and dangerous transport. We are committed to the effective guardianship of these wastes.

Thus our purpose is to promote a shift in public attitudes, public policies and current waste practices, from the short-term calculus of keeping nuclear wastes "out-of-sight and out-of-mind", to the development and implementation of a Guardianship ethic.

To these ends the Project is undertaking a fourfold strategy of:

- 1) education — to develop the conceptual framework, the technical understanding, and the cultural context for a Guardianship ethic; and to build public commitment to its implementation;
- 2) public policy — to promote public policies and practices that ensure responsible long-term Guardianship of nuclear wastes;
- 3) technical research — to promote and assist research into state-of-the-art methods for monitored, retrievable nuclear waste storage;

NUCLEAR GUARDIANSHIP PROJECT OPERATING PRINCIPLES

The Guardianship Ethic

1. Our entire generation shares in the responsibility for nuclear wastes. In the caretaking of these wastes, we are concerned with the well-being of the past, present, and future generations. By well-being we have in mind the inherent value and interconnectedness of all life and the importance of preserving and restoring life-sustaining systems.
2. In assuming this responsibility, we receive a profound education on our relationship to the earth and our relationship to time. We realize that nuclear materials are a teacher for us now and in ways yet to be discovered.
3. We recognize the importance of engaging with existing efforts to deal with nuclear wastes. And we recognize the importance of researching and moving towards alternative ways of handling and living with such wastes.
4. With respect to all parties, citizens, public interest groups, corporations, utilities, and governments we choose strategies that are based on cooperation for the public good.
5. Current plans for deep geologic disposal which preclude close monitoring, retrievability and repair, entail long-term risks of uncontrollable contamination of life support systems, handling these wastes.
6. Monitored, retrievable storage of nuclear wastes is currently the most responsible way of handling these wastes.
7. We favor monitored, on-site storage wherever this can be safely accomplished. Transportation of nuclear wastes with the attendant risks of accidents and spills should be minimized.
8. Given the unreliability of our present technology and regulatory capability, we consider the development of additional nuclear reactors for either weapons or energy production to be intolerable to the biosphere. We favor the development of safe, retrievable energy sources and non-violent means of conflict resolution.
9. Citizen education and participation in environmental monitoring for care taking of nuclear materials is essential. Monitored, retrievable nuclear waste storage can foster such involvement.
10. The knowledge and vigilance necessary for interim storage of nuclear wastes can be maintained and enhanced by the training of people inspired by moral commitment and/or spiritual vocation.
11. The guardianship of a nuclear site can be an economically viable enterprise, providing the basis of a self-supporting community.
12. A single demonstration site can have a catalytic effect, helping to create a conceptual shift from hiding wastes to guarding them.

END

BACKGROUND

- Production of nuclear energy and nuclear weapons has left us with hundreds of thousands of metric tons of radioactive waste. The toxicity of these wastes requires that they be kept out of the biosphere for hundreds of thousands of years — many times longer than recorded history. It is ultimately a matter of genetic survival, and perhaps our most enduring legacy to future generations.
- “We are poisoning our people in the name of national security.”
Osho Institute, John Osho
- All radioactive waste generated since 1945 remains in “temporary storage” in leaking tanks, trenches, drums, pools and boxes. Plutonium and radioactive isotopes are contaminating air, ground soil, aquifers, rivers and seas in 34 out of 50 states.
- “At Hanford alone, some 200 billion gallons of low-level wastes have been dumped into ponds, pits and basins — enough to create a lake 40 feet deep and large enough to cover Manhattan.”
TIME Magazine, Oct. 26, 1988
- “Now (at Idaho National Engineering Lab) we have a hot 2.4 million cubic feet stored above ground. That’s 120,000 barrels in 11,000 crates. That’s a whole lot of radioactive wastes.”
Nuclear Consumer Credit Action
- Two sources of nuclear waste predominate:
 - A) Military weapons manufactured under the Department of Energy DOR.
 - B) Commercial nuclear power plants operated by utility companies. The 110 power generators in the U.S. have a mandated life span of 30 to 40 years, and must all be closed down in the coming decades.
- “The [Energy] Department’s aging weapons production network scattered at 17 sites in 12 states has been disabled by safety and environmental hazards and by managerial failures.”
N.Y. Times, Dec. 6, 1988

END

"It turns out that within 40 to 50 years these plants must be 'decommissioned', meaning 'scrapped'. That has never been done and no one knows how to do it nor how much it will cost."

*Cal. Acad. Geological Sciences
Committee on Nuclear Regulatory Process*

- No facilities for permanent storage or disposal are operative for high level wastes. These wastes include used or irradiated fuel rods and transuranic wastes (plutonium and other man-made elements heavier than uranium 235).

Colorado Governor Roy Romer "has suggested loading the Rocky Plate waste into armored rail cars and parking them in rural areas around the West until the salt caverns in New Mexico can be used. Nobody else is coming up with any alternatives," he complained."

L.A. Times, Nov. 26, 1986

- The hazardous life of "low level" nuclear waste can be just as long as that of high level and ranges from hours to hundreds of thousands of years.
- In 1980 and 1985, Congress mandated the creation by the 50 states of many new low level nuclear waste dumps; established by states individually, or through regional "compact" sites, these must be up and running no later than 1996.
- Public treasures now must also bear the transportation costs of moving large volumes of low level wastes from their point of commercial generation to these new dump sites.

"... does it make sense to site 10 to 12 new waste facilities if 99% of the total radioactivity and 70% of the pre-compacted volume already resides at 72 sites in most states in the U.S.? We think not. . . . Industry spokespersons are already acknowledging that only two national sites are needed for "low level" waste (White, 1987). In fact, no new sites are needed."

NY Times, 1/21/88, L10, The Radiation Waste Campaign

- The Environmental Protection Agency (EPA) and the Nuclear Regulatory Agency (NRC) are instituting procedures to allow the de-regulation of up to 40% of the volume of commercial low level wastes, redefining them as BELOW REGULATORY CONCERN. This allows those wastes to be placed in municipal landfills, or simply incinerated as municipal garbage, or poured down the drain.

END OF PAGE

- Current plans for moving radioactive waste to newly developed dump sites involves extremely hazardous transport by truck and by rail, crisscrossing the U.S. on a virtually continuous basis.

"Sooner or later, democracies must come to terms with the responsibility of scientific elitism with the public interest. Any steps to bring the public into the decision-making process will be cost-effective. The alternative — public expenditure of billions of dollars on poor solutions . . . [for] the disposal of nuclear wastes — is frightening to contemplate."

Science, 197, Technology Reviews, April 1981

PROBLEMS AND PROPOSED SOLUTIONS

1. PROBLEM: No Appropriate Conceptual Framework

The most fundamental problem we confront in nuclear waste management is conceptual. The lack of realism evident in government and corporate planning stems from an outmoded and inadequate epistemology or way of thinking. The conceptual framework, within which solutions are currently and even desperately sought, is faulty in the following respects:

- It exhibits the positivist fallacy that the humans can exert unilateral control over their technology and environment.
 - It suffers from the tunnel vision of linear thinking in ignoring the unwanted by-products of our actions, and in assuming that we can simply throw these by-products away.
 - It runs counter to the ecological given that there is no "away". In natural ecosystems you can move something from one place to another, you can transform it into something else, but you cannot get rid of it. In this finite, dynamic, systematically interdependent world, whatever we generate remains part of the global ecosystem.
 - It lacks systemic self-reference and second order thinking. That is the capacity to see our own actions from a distance, within a social, ecological and historical context.
- The above conceptual gaps or epistemological errors cripple our efforts to deal with nuclear waste in a realistic and responsible fashion. They are dangerous in the extreme, as we can see in the following results:
- A policy irrationally fixated on "disposal", out-of-sight and out-of-mind solutions.
 - A myopic view of time, in which decisions of far-reaching import are made on the basis of short-term convenience and profitability.
 - A near total lack of realistic risk assessment for both present and future generations.
 - An abdication of responsibility for the effects of our actions on our own and other species.

BANCIA

6

- A blindness to the moral, medical and psychological concomitants of the production of radioactive materials, resulting in a climate of denial and fatalism.

"Always, though, just beneath the workaday calm, there have been suggestions of the terrors that have sometimes haunted the more than 600,000 men and women who have worked in the plants since the Manhattan project."

NY Times, Dec. 17, 1988

"I figure we all got the same thing. I think we all got it in our system, and some day it's going to kill us."

Peter Berman, nuclear worker, Pensacola, Ohio

"I try not to think about it that much. Because if I do, I'm going to get shook up, and I don't want to get shook up."

Teddy Bink, nuclear worker, Pensacola, Ohio

1. SOLUTION: A Viable Conceptual Framework

The safe storage of radioactive wastes demands an ecological conceptual context and whole systems thinking. We require a perspective that enables us to acknowledge the dynamism and longevity of radioactive materials, and also to see the effects of our present actions within wider contexts of space and time.

The necessary cognitive framework is available to us in ecology and systems science, as well as the wisdom traditions of our planetary heritage. It can provide us with the will to do what is already within our technological capacity. That is to undertake provisions for the safe, long-term guardianship of our nuclear wastes.

"To reflect the reality of experience, waste disposal must be regarded as an ongoing process. Society must be courageous enough to accept that there is no once-and-for-all, out-of-sight solution. Retrieval (above-ground storage) then is the only reasonable course at this juncture. It must be accompanied by increased public education and greater citizen participation in the decision-making process. . . . These first decisions are critical links to the next 250,000 years."

Coalition on West Valley Nuclear Waste

BANCIA

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2. PROBLEM: Disposal

Current planning calls for permanent repositories focused on underground geologic disposal — or burying the high level waste. Although underground burial is touted as a "permanent" solution, it is not, because leaking containers can neither be monitored nor repaired. Thus the hope for permanent disposal of high level wastes is a mirage. It only gives us the illusion that we have solved the problem.

At the Waste Isolation Pilot Project (WIPP) in Carlsbad NM, designated for low-level and high level transuranic wastes, excavations in salt beds 2500 feet underground have been halted due to infiltration of salt brine and by citizen protest of its potential contamination of the Pecos and Rio Grande Rivers and the Gulf of Mexico.

"The New Mexico pilot plant's scheduled Oct. 1 opening has been postponed by bureaucratic and legislative hurdles as well as by environmental and health concerns . . . The Department of Energy readily admits that it has no long-term alternative should WIPP eventually fail."

L.A. Times, Nov. 24, 1988

At Yucca Mountain, Nevada (proposed repository for high-level wastes) geologic stability is thrown into question as it borders the Nevada Nuclear Testing Site and is in the direct path of an active Air Force bombing range. In addition, the disposal area lies in a hot rock geo-thermal area subject to earthquake and volcanic activity.

"If this site proves unsound, we will be left without a nuclear waste disposal program of any kind. As Nevada goes, so goes our nation's nuclear waste policy."

Washington Post, March 24, 1989

It is becoming evident that both the High level and low level waste are subject to disruption and leakage due to: geologic shifting, drilling by future generations, shifting of underground water levels in response to climatic change, and material failure. No container can indefinitely withstand geologic thrusting, water corrosion, and radiation.

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2. SOLUTION: Above-Ground Storage

Accessible and retrievable storage facilities are the only safe, long-term alternative. The option of Retrievable Surface Storage Facilities (RSSF) was proposed as early as 1972 by then Atomic Energy Commissioner James Schlesinger.

"While the waste is stored above-ground, we can be assured of no leakage into our groundwater. The waste can be easily monitored and protected."

L.A. Weekly, March 24, 1988

"Served by an imperfect technology and facing an uncertain future, we need the feasibility of above-ground monitored facilities to emphasize to each generation its responsibility to monitor these wastes for its own protection and that of future generations."

Confidential to West Valley 8/7/89 Nuclear Waste

Access for repair is crucial because containers will inevitably crack and decay. Radioactivity causes corrosion and embrittlement in the sturdiest materials within 20 to 30 years.

"We found that four state-of-the-art landfills in New Jersey developed leaks within one year. I think the whole idea of secure landfills is really a figment of optimistic imagination."

Dr. Peter H. Ravn, President, University

"DOE maintains 127 sites, and 126 sites leak. Coming from a gaming town, to me those don't sound like good odds."

Frank Clement, Las Vegas Nuclear Waste Task Force

Viability is equally important. Above-ground storage will serve as a constant reminder to this and future generations of the consequences of producing nuclear materials; and it will signal down through the ages the presence of radioactive waste to be guarded.

"We should place the waste above-ground, prominent and visible, so that each generation will have to remind the next to monitor for leaks. Radioactive waste in any form is an uncomfortable legacy to leave our grandchildren; but, if we leave the waste in some retrievable form, they will at least know what they are dealing with. They will not be drinking contaminated water without knowing it is

END OF PAGE

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radioactive or why. They will know they can make their own decisions about storage and disposal and we will know we have not made irreversible choices for them."

From Civil Institutions Waste Campaign

The health and safety of waste management workers at above-ground storage facilities can be assured by careful implementation of presently available technologies. The necessary vigilance can be assured, not through economic incentives which often work to the detriment of public health and safety, but through explicit and trained commitment to the Guardianship ethic.

"... Occupational exposures at above-ground vault storage facilities do not necessarily imply high occupational risks and exposures. . . . [in the case of high level wastes] with appropriate technology for remote manipulation and repair of degraded containers conducted in shielded hot cells with remote equipment and TV cameras, occupational exposures can be reduced to minimal levels."

Health and Safety Division, DOE

3. PROBLEM: Transport

Government plans call for a small number of mammoth underground repositories, designed to consolidate transuranic and high level wastes from around the country. Two have been designated: WIPP in Carlsbad, New Mexico and Yucca Mountain, Nevada. The potential dangers represented by such intensive concentration of highly radioactive materials have not been addressed, but the risks attendant on shipping have aroused public alarm. For the government plans entail, by necessity, vast transportation efforts over long distances, on public roads and through populated areas.

"At Yucca Mountain, Nevada, 'the high-level nuclear waste will total a staggering 70,000 metric tons. . . . Even with truckloads arriving every work-day at ninety-minute intervals, it will take 28 years just to gather all the waste to the Yucca Mountain site.'"

The Progressive, Dec. 1988

"Most of the wastes (for WIPP) will arrive by truck — up to 1450 shipments a year for 20 years."

Continued Objections to Nuclear Energy, Issue 26

END OF

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And this does not even begin to factor in the transportation involved in the 15 or so new low level waste sites slated for creation under the Low Level Waste Policy Act of 1980 and 1985, and the further drain on state treasuries this will entail.

"Each one of these shipments will cost many millions of dollars a piece."

Business Day, Berkeley, CA, 12/10/88

The risk of road accidents, breakdowns and spills is inevitable. Citizens know that road spills of radioactive materials have already occurred; they are alarmed at the prospect of large numbers of unmarked truckloads of the stuff barreling down public thoroughfares.

For the Carlsbad NM site, "DOE itself predicts 43 highway accidents with radioactive waste during the project's 25 years."

Washington Post, April 28, 1988

3. SOLUTIONS: On-Site Storage

Storage for low level and high level wastes can be undertaken by improving storage capabilities at most sites where the waste has been generated (at reactor safety permitting. These sites will remain contaminated, even if the wastes are removed. On-site storage where it is safe (e.g. where there are no earthquake faults, flood plains, etc.) eliminates the necessity for dangerous, long-distance transport and avoids contaminating new areas.

"The cost of disposal [storage] on-site could be one-tenth the total cost of solidifying, transporting, and disposing of these dilute wastes in a system designed for highly concentrated commercial wastes."

Business Day, Technology Section, April 28, 1988

END OF

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4. PROBLEM: Secrecy

Patterns of secrecy, established from the inception of the Manhattan Project, persist. Deliberate ventings and accidental leaks at Hanford WA, Bernad OH, Savannah SC, and other facilities have been knowingly withheld from public knowledge. Desperate to find a way to get rid of the wastes, government and industry continue to hide the dangers inflicted on the public.

"Far too belatedly, the whole has been blown on Government complicity, recklessness and secrecy. Under assault from Congressional critics, citizen lawsuits and probing reporters, the private contractors and their neo-no-evil federal supervisors have admitted to shocking practices."

Staff magazine, Oct. 31, 1988

"I would like to see, just like it was an individual, that they'd just admit they screw up, that they are willing to right their wrongs. There is a lot of damage they can't undo. But if they deny responsibility, and you have a Government that is not accountable to its citizens, then you do not have a republic."

Charles Shover, Pennell, Ohio

Under this cloud of secrecy, renegade corporations turn vast profits by dumping nuclear waste on domestic locations and 3rd World Countries.

"There is little doubt that part of the waste industry has been penetrated, dominated and controlled by organized crime. Our contention, however, is that organized crime's waste racket is larger and more dangerous to the public welfare than anyone has yet recognized."

Black and Dangerous, Publishing for Justice, Missouri

4. SOLUTION: Public Accountability and Scrutiny

Since their management affects the health and welfare of all, it is essential that nuclear waste storage sites be open to public witness and scrutiny at every level, including environmental monitoring by surrounding and affected

SECRET

communities. Their modes of operation, to be impeccable, must be open and accountable to public citizens, concerned scientists, and local governments.

New developments in high quality, inexpensive, small nuclear radiation monitoring devices with a software interface that enables them to be hooked up to dedicated computers linked by telephone lines, permit an unprecedented opportunity for an extensive, direct and decentralized, continuous citizen monitoring and reporting of acknowledged and unacknowledged commercial/civilian and military radioactive releases to the environment.

This could have a major impact on the political context in which the critical regulatory issues of the next decade play themselves out, and provide significant enhancement of and support for the operational and reporting integrity of the nuclear industry at power plants and contractors managing waste sites. (See the Appendixes for more information on citizen monitoring and the concept of "a people's EPA")

"This time, everyone must participate in the decisions, legislators and philosophers must work together to find the best decision. What we do not know we will have to learn. We will have to recognize and correct our mistakes as we go along. . . We must take responsibility for the wastes that are created on our behalf."

Quotation on "What's Going On" by Robert Kennedy

SECRET

16-Jun-89; EX-00371, PAGE 1 OF 3

My name is Judy Herzl, my address is P.O. Box 9698, Santa Fe, NM 87504.

First, I would like to state that I object to the way the DOE has handled these hearings, dividing the public, scheduling people late into the evening, notifying people only days in advance of their speaking time, and in my case, giving no notification at all. Is this just another attempt of the DOE to manipulate and diffuse the public concern?

We as citizens have a right to answers to our questions.

We have witnessed the very low value Raytheon gave to human life, as we saw their lack of accountability to those killed and injured as a result of their disastrous accident in India.

This spring we watched the slow "emergency" response, and continuing denial that have followed the accident due to Exxon's human error in Alaska.

The people of Alaska were assured of public and economic safety, and thorough emergency response just as we the people of New Mexico are being assured today.

We as citizens now know from experience that we can no longer blindly believe these assurances without proven facts.

WIPP and the question of effective radioactive waste storage has become a hot potato passed from one group to another. The conflict is not a matter of pitting the people of New Mexico against the people of Idaho, or even heating the conflict of interests between the people of Santa Fe and Carlsbad. The need for an effective and safe solution is larger than any one community, or state and must be addressed on a

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JUDY HERZL 2

National and global level. Safety must be available to all people, and poverty stricken states and countries cannot and will no longer accept being bought, manipulated and forced into exposure to toxic conditions in the name of National Defense.

WIPP is being touted as an economic hero yet it threatens the our major industries of tourism, movies, construction, art and small business. Even more importantly, what is being ignored is the cost to the state and to us it's taxpayers of providing for the safety necessities the DOE is ignoring such as highway bypasses, road improvement, emergency training and equipment.

I question the absolute lack of adequate medical and emergency training. Although trucks carrying hazardous nuclear waste will be travelling through 23 states, only 2 hospitals, one in Carlsbad and one in Hobbs, (NM) have been provided with appropriate equipment to treat victims of radioactive exposure. Is this because those exposed are assumed to be dead on arrival?

These trucks will be travelling on major, major routes- such as Interstate 40 from California to Tennessee! These are such heavily traveled routes, I cannot help but question the logic behind such a choice. The DOE has an obligation to inform the public of it's use of such routes. Will these highways be marked as nuclear waste routes?

As there is no knowledge of the exact chemical make-up of these waste barrels, how can emergency responders effectively provide care? How can these mystery barrels be transported and stored "safely", when it is not even known what is in them?

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JUDY HERZL 3

How can the WIPP site be tested and deemed safe with this incomplete data?

How can the DOE know how the contents in these barrels will react to: the containers they are stored in, the salt brine and other environmental elements of the WIPP site?

And how can we as citizens believe that the DOE will operate the WIPP facility in a safe and methodical manner, when they do not even have records of the chemical make up of the waste from previous nuclear sites?

I question accountability. We are told G.E. (Westinghouse) and the company trucking this waste are not accountable. Who exactly is the DOE? We have watched Exxon, Raytheon and other large organizations hide behind their masks, passing the buck. Who from the DOE will step forward to take full responsibility for the safety of the people of New Mexico as it relates to this project?

As a citizen of this state I say no to the WIPP, no to the disregard of the new EPA standards, and no to being lied to. I ask that the DOE own their errors and acknowledge the unfeasibility of WIPP. I ask that they cooperate with the findings of independent scientists, researchers and public interest groups to find a safe, scientific and thorough solution for the disposal of hazardous, radioactive waste.

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people of D.O.B.
MARZ SUSAN 15047
Rt 2 BOX 2237
site, NM 87001

I am writing this statement as I am more articulate pencil on paper. Please treat what people say seriously. we do live in a democracy where we are encouraged to speak our minds. Spending our minds however to a panel that has already made up its mind is a waste. Expediently is not how this work was created or run for billions of years.

Plutonium and other radioactive minerals have been dug up from this earth & utilized w/o thought of what happens in the end. That's a problem. My question is why create more problems by transporting and storing nuclear waste in unsafe conditions. Then as you are the D.O.B. you will be responsible again to clean up the mess. My question is, since there already is nuclear waste, why are you responsible for the mess? Why don't the individual reactors, labs, missile factories take care of their own waste? Perhaps some imp. lessons would be learned about the waste

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of problem. Nuclear energy. We have an unlimited resource in terms of solar energy. So many millions of people on production and disposal of misdirected when people are hungry homeless.

In a conclusion D.O.B. I wish you were elected officials so you have to listen & not be elected. Stop trying to correct a situation by placing nuclear waste in unsafe containers or salt beds. Stop transporting garbage that is the responsibility of each reactor, lab and factory.

Listen to the people and not the corporations that lobby in their interests.

I do want to say I am grateful for the beginning the prevent your listening has set. I am grateful for your time, let's make this hearing valuable for all concerned.

Mari Susan Sells

ON CALL FOR LIFE

When God called Moses, he answered, I'm here. Remember he saw a bush on fire and not consumed, and he must have thought of a thousand other places to be, but he said, I'm here.

Someday it's the best we can give. I'm here. I promise.

My finger to the wind, I promise never to keep an audience waiting, or worse, to bore them.

I promise to call on your birthday.

I promise to hug my children while they are little and will let me.

I promise to have a snow leopard in my dream tonight and to lend you a wallaby, or lemur for years.

I promise to buy an occupation mask, and give it away, saying last, and maybe only.

I promise never to die, but to go towards my beauty, at all times, the last time, and the first.

I promise to tell my husband when I think of him gladly, and realize he's the best deal the universe ever made me.

I promise.

I promise to send my father the music I have come to love, a tape of him trying to make me, and tell him, he told me so.

And I promise to be at the other end of a ringing phone at 4:00 am, but it better be good.

I promise

I promise to ask after the health of rainforests.

I promise to be here for every winter, Christmas, and the time when the leaves fall, and the green will, and the insects delicate and intricate as any miracle.

Are you with me?

I'm here and I promise to let a herd of black rhinoceros

run through the forest. And I promise to cry

when I hear the African movement from The Four Seasons,

any poem by Hopkins,

and that the Wapp made will pass near schools.

I want to think Family when I hear Nuclear.

I want to remember to tell Nana on Sundays while I still can.

I can help children find their feet. Shabbat fall in velvet folds

around my children's shining faces.

I'll build peace into every strand of challah.

I promise. I promise to buy a drum.

I'll play my long drum, and show my scintillating legs

and like Dr. King.

I too will be a drum major for peace, a Dream major for justice.

I'll march to the beat of his dream and my dream

and I'll write and read and rest

and I'll play in summer and

I'll be there every time I need.

My face to the wind,

has blown back.

paper telling a bit like Frost on Kennedy's lecture.

I'll be there. It's my job. I wanted it.

I'll be there. You can count on it.

18 London Long SE 14
JAN 1989



CITY DIFFERENT REALTY

(505) 983-1557

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3741

June 15, 1989

D.O.E. Commissioners:

My name is Jack R. Smith, artist/painter, and Arts

Commissioner of Santa Fe. I add "Commissioner" because

I know the work, time and problems of being a Commissioner.

I speak today not to facts and fiction, but to a broader

set of concerns vital to all of us. I also speak, and

feel compelled to speak, because a young man, in a foreign

land, with his conscience stood in front of a battle tank

a column of tanks, which may well have been the tanks

that ran down and over students sleeping in tents.

A young man who held up his hand and said "Stop!" That

T.V. picture, that event, reminds us, me of what one person,

even if only for a short time, can do.

So, I too would like to standup, even if at less risk, and

say "Stop!" reconsider, rethink what you do. In this

case (W.I.P.) "at all due speed" means slow down,

it's almost forever... So please let's take the time,

as much time as time allows. Please listen to me,

one person. We're all one person, one by one, now and

for all time

Thank you.

128 GRANT AVENUE SUITE 4-6 SANTA FE, NEW MEXICO 87501

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16-Jun-89; EX-00375; PAGE 1 OF 2

Mr. John Arthur
Department of Energy
Albuquerque Operations Office
P.O. Box 3486
Albuquerque, New Mexico 87115
June 12, 1989

Mr. Arthur:

I am a geological/paleontological consultant in northern New Mexico. I have not been involved in the geological investigations of WIPP, but over the past five years, have followed with great interest the succession of geological and hydrological reports which suggest that the site is not as safe as the DOE originally supposed. These include the Scientists Review Panel's 1987 report entitled "Evaluation of the Waste Isolation Pilot Plant as a water-saturated nuclear waste repository"; Chaturvedi's (of the Environmental Evaluation Group) 1988 paper entitled "Facts and Implications of a Wet repository scenario for the waste isolation pilot plant (WIPP)"; Chapman's (of the Environmental Evaluation Group) 1986 report entitled "Stable isotopes in southeastern New Mexico groundwater: Implications for potential recharge in the WIPP area"; Anderson's 1988 report entitled "Preliminary performance assessment calculations of releases resulting from selected drilling scenarios"; the Scientists Review Panel's 1988 paper entitled "Pressurized brine beneath the WIPP facility as a threat to compliance with EPA standards"; Chaturvedi, Charnell, and Chapman's 1988 report entitled "Potential problems resulting from the plans for the first five years of the WIPP project", to name a few.

As a geologist, I would like to offer my opinion of the geological soundness of WIPP based on study of these reports and my own understanding of evaporite geology. Salt deposits are inherently unstable, as any geology department undergraduate could tell you. I gather that the DOE intended to capitalize on this fact at WIPP, envisaging that the mobile salt beds within the Salado Formation would surround and entomb deposited waste within one hundred years or so. Unfortunately, the Salado Fm. has proved more unpredictable than anticipated both in terms of rate of creep of salt and location and rate of flow of enclosed brine. The salt walls of already-excavated chambers have developed unforeseen cracks that have been buttressed with roof bolts. This rate of creep is two to three times faster than expected by the DOE, and could well mean that the waste which will be deposited at WIPP in the next five years will be unretrievable. It is utterly unjustifiable for the DOE to open WIPP before it meets EPA standards under these geological circumstances. If anything goes wrong in New Mexico, not the DOE, will be stuck with a long-term contamination problem.

The location of brine pools and the rate of brine flow in the salt immediately surrounding WIPP further suggests to me that there is a real possibility of something going wrong in the form of surface, water table, and/or fluvial contamination from the site. Most troubling is the brine content of and the rate of movement of brine within the Salado Fm., both of which are much greater than originally assumed. Once waste is deposited in the excavated rooms, inordinate amounts of brine collection would inhibit

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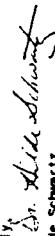
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the encroachment of solid salt. And if, rather than being safely locked away in dry salt, deposited barrels of waste are surrounded by brine, they will surely disintegrate eventually to make a pool of radioactive liquid. This liquid might well be under enough pressure (due to creep of the salt and gas produced from the decay of both radioactive and organic materials in the waste drums) to escape into the overlying water table or to the surface by means of either manmade or natural cracks and fissures. The existence of a brine pool in the Castille Formation, 800 feet below WIPP is similarly disturbing. The Earth Technology Corporation estimates that 17 million barrels of pressurized brine lie beneath the site. If ever tapped - by either human or geological agents - the brine would try to push its way to the surface, and due to its location, would have a good chance of carrying toxic and radioactive materials from WIPP along with it. As the DOE moved the original location of WIPP to avoid just such a brine pool, it is clear that this only-lately-discovered feature dramatically increases the vulnerability of the site.

Geologically, WIPP is an accident waiting to happen. If the DOE insists on opening the site, despite EPA regulations and the warnings of geologists and hydrologists, it will not be a matter of if, but of when, the disaster will occur. It may not be in the next 100 years, but leakage from such a mobile, wet, soluble body of rock seems inevitable. To be fair to our heirs, to say nothing of our planet, we should be choosing waste repositories that have a good chance of 100,000 year stability. As there is no spot on Earth that is utterly, 100% geologically stable this is a difficult task, but surely we can do better than wet salt beds in southern New Mexico.

The crust of the Earth is dynamic and ever-changing and, ultimately, not suited to the long-term storage of poisonous materials. Rather than spending so much time and effort on weapons research and development, nuclear technology, and short-term solutions to the resultant waste problems, the DOE should be developing alternative energy sources that are compatible with the geology and biology of this planet.

Sincerely,



Dr. Hilde Schwartz
P. O. Box 156
Dixon, New Mexico 87527

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Susanne M. Rebeck
Testimony before the
WIPP Hearings
Santa Fe, New Mexico
June 16, 1988

203 Hyde Park Estates
Santa Fe, N.M. 87501

I'll leave the expert testimony about the SEIS to those who have more scientific and legal knowledge.

The points I would like to address are basic thoughts of a concerned citizen from reading information about WIPP and the SEIS and listening to some of the politicians and yesterday's speakers.

I recently read a letter directed to the NRC which related to that commission's proposal to cut out the public comment section of their decision-making process.

Then Mr. Carruther's recent comments basically said to the public - if you voice your opinion and it's different than the politician's view you shouldn't be allowed to receive special grants or - you shouldn't receive the same consideration as those who agree with my political views.

The news in the past few weeks has had alot to say about the Chinese attempts to have a choice in free speech and a more equitable government.

What happens to our process in this country if what is happening here today is not heard and taken seriously by those hired to regulate what the people of this country want? Are we then only willing to allow free speech and public opinion to be heard if the views agree with the "current party line"?

As I said I'm no scientist but I personally think the salt caves are a crazy place to leave anything in a metal container.

I lived 5 years on a Caribbean island. I know what, even a small amount of salt air can do to metal even if that metal is not sitting

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S. Rebuok
6/16/89
Santa Fe, N.M.

16-JUN-89: EX-00376, PAGE 2 OF 2

directly in the water. The corrosion and rust don't take long to begin to effect things.

I'm sure you've got plenty of expert testimony on the other aspects of the site itself.

Of course the ultimate for me would be to stop building anymore weapons since we and the other powers of the world currently have enough to get rid of all of us. May not use the funds allotted to find a way to use the current waste for something that will give back to the earth instead of taking away from it?

My next thoughts are on the transportation system. The only place I've found more bizarre to drive than New Mexico, especially in the winter, is Iran. The idea of giving emergency crews paper suits and rubber gloves as I've heard in one case is at best a good joke.

To end I'd like to say please objectively consider the information you've heard here this week. Each of you stand up to your individual view and if it differs from the agency policy consider that it's easier for you to get another job than it is for us to get another New Mexico or another Earth.

Thank you for the time to exercise my right to free speech.

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ENDOCRINOLOGY, DIABETES & NUTRITION

ROBERT M. BERNSTEIN, MD

PAMELA WISSE, RN

WYN LEWIS, MPH, NUTRITION

505 962-2860 531 HARKLE RD. SUITE A SANTA FE, NM 87501

June 9, 1989

Department of Energy
SEIS Project
P.O. Box 5400
Albuquerque, New Mexico 87115

Dear Sir or Ms.:

I would very much like to attend the WIPP public hearings in Santa Fe, but will be unable. However, I would like to express my opposition to the WIPP project as it is currently planned.

I feel strongly that the safety of the project has not yet been established. With a situation where the material will remain radioactive for many thousands of years, it seems mandatory that the safety be guaranteed. It seems, at the very least, that burial of nuclear waste should not be undertaken until new safety standards are both written and approved by the EPA. Also, the potential for human error must be included in the models used to calculate accident risks.

In addition, it is my understanding that the National Academy of Sciences and the Independent Scientists Review Panel have major concerns regarding the experimental test phase. For all of these reasons, and others not mentioned, I feel that the radioactive wastes should remain on site where they can be monitored, and that other ways to neutralize these wastes, or store them safely, be found.

Thank you for your consideration.

Sincerely yours,

Robert M. Bernstein, M.D.

RMB/sfwp/dc

cc: Concerned Citizens for Nuclear Safety
712 Calle Grillo, Santa Fe, New Mexico 87501

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I am opposed to WIPP for two reasons. First, I live in El Dorado which means I will be at high risk when there is an accident involving a WIPP truck on highway 285 a couple miles from my home. There is no way to convince me I'm safe when several trucks a day containing radioactive material will go by my home in the next 25 years. At least one accident will occur and the effects of even one container breaking would be irreparable.

Second, I'm opposed to WIPP because I'm opposed to the manufacture of nuclear weapons. Perhaps if enough citizens refused to put up with the dangers of transporting and storing radioactive waste, nuclear weapons manufacture will have to be curtailed.

Bruce Anderson
7 Abasco Rd.
Santa Fe, NM
87505

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Gentlemen, I honor you for coming. You've dealt with alot of harsh words from hundreds of people these last couple of days. It would take alot of courage to keep your heads open.

Gentlemen, the New Webster's Dictionary of the English Language defines Integrity as the property of matter. Why is that it retains its state of uniform straight line motion so long as no external cause acts to change that state.

A project with WIPP's "troubles" cannot be allowed to roll through on the forces of inertia. The many jobs and political careers on the line just to mention the some 700 million dollars spent thus far are pushing the project hard for its current direction. It will undoubtedly require an unprecedented level of public concern to sign the deal. Please look around. We have that.

My single greatest concern in the matter of the Waste Isolation Pilot Project involves the EPA standards. The standards currently in use were thrown out of the First Circuit Court of appeals in June 1987 because they weren't even stringent enough to comply with the clean water drinking act. The same document says that the DOE and the State of NM have agreed to proceed as though the 1985 standards

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are still in effect. The law is therefore based on Environmental Protection Standards ruled illegal & invalid. I respectfully demand that WIPP not be opened until it can comply with the new EPA standards, being currently written. That's only right. We need standards which legally demonstrate your intention to protect us all and our environment from nuclear contamination.

It would help if the Dept. of Energy would keep the promise that they have made to NM. The DOE agreed to seek Congressional funding to improve New Mexico's infrastructure, highways on the WIPP route. We major population areas were supposed to receive bypasses. The new funds have been appropriated and the new roads have been built. Neither have we received the promised funds, equipment or technological assistance that we were to have. We later than one year prior to shipments of radiological material for NM. Well, therefore we have no adequate or even realistic plans to evacuate our people in case of emergency.

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Please show us that you folks are not trying to rush this thing through without meeting legal standards or equipping & preparing NM, without including the critical factor of human error in your research, without simply reconsidering your decision on the basis of needs & information that clearly states that WIPP is a very poor ~~site~~ site that very probably won't filter the public and the environment from toxic and nuclear waste very long - certainly not long enough.

No one at your table will probably live to be held accountable. No one in the DOE will either. It's pretty hard not to be where you're glad our decision. 24,000 years ago didn't possess the technology to be currently responsible for our existence in this way.

Thank you

7.13.3-1

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16-Jun-89: EX-00380, PAGE 1 OF 3

My name is Elizabeth Blomser. My professional name is Elizabeth E. Bear. My mailing address for the record is Post Office Box 2812, Santa Fe, NM 87504-2812.

I am grateful for the opportunity to speak before you, the DOE. I thank you for extending the public comment period until July 10, 1989.

I must protest, however, the nature of these proceedings. You have split the AECIS hearings into three (3) simultaneous sessions, effectively preventing public access to the entire testimony being presented. We are not being allowed to testify before the entire review committee. You have scheduled people late into the evenings, instead of taking advantage of the weekend or even next week to extend the hearings. Is it your intention to prevent the freest flow of information? Frankly, your piecemeal approach to the spirit of public participation over the exceedingly serious issue of nuclear and hazardous waste is reprehensible.

I question strongly the DOE's fast-track alternative for the WIPP site. *By choosing this alternative* You are saying to us, "Damn the torpedoes, full speed ahead!" STOP!!!

I stand with all of those who have eloquently stated the case for a no-action alternative at WIPP. You have failed to

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address, much less implement the training of emergency response personnel along the entire WIPP route. You have failed to address the worst-case scenario of a crushed TRU-PACT container. Surely there is potential for a breach larger than a pin-hole. You have failed to consider the long-term effects of low-level radiation upon the people passed whose houses you plan to travel. Your haste has prevented the implementation and completion of baseline studies to track radiation exposure and effects in the resident population. Why do you persist?

At the very minimum, no waste should be placed at WIPP until new EPA standards are promulgated and WIPP is shown to meet those standards. The RCRA standards for hazardous waste must also be met. Independent review by scientists and the public is essential to the process. I state this most strongly in light of recent revelations of DOE activity at Rocky Flats. How do you expect us to trust a word you say if you engage in clandestine dumping and incineration of radioactive waste?

Many have said this hearing is a charade, that you are not listening. I choose to trust your willingness to change, to open your hearts, your minds, your spirits to us. *Qualigen. We* are in this together. We share a jewel planet, rich in biological and geological diversity. We are meant to be the stewards of this diversity, not the destroyers.

The issue of WIPP is part of a greater whole. It is time for the human race to grow up! We face a collective choice: suicide or *cooperation*. I would ask each of you, where do you stand?

16-Jun-89; EX-00380, PAGE 3 OF 3

We enjoin you to stop your defensive posturing behind short-term, political solutions. Open an on-going, long-term dialogue with us to solve the problem of nuclear and hazardous waste on this planet.

There are alternatives to WIPP. I urge you to consider the viability of above-ground, retrievable nuclear waste storage at the point of origin. Begin research into the transmutation of this waste. It is a law of the universe that energy does not cease to exist. It changes form. And you have a wealth of embodied creative potential before you smother in the form of concerned and active citizens willing and capable of developing these alternat ves.

I grew up in the hills of NE Georgia down-wind from the Savana Savannah River Plant. Upán that earth have been palced Ouidestones, as a replica of Stonehenge, with laws for a new humanity. The final law is written:

BE NOT A CANCER UPON THE EARTH:
LOVE YOUR MOTHER, LOVE YOUR MOTHER.

3.1-8

3.6-2
5.2-1
5.2-2
5.3-1

3.1-8

16-Jun-89; EX-00381, PAGE 1 OF 1

Phs available in a UCA article:

*"THE WEAP TRAIL
NARRATED BY
RUEBAT RESCUE"*

*NUCLEAR WASTE CONTROVERSY
A NATION'S CRISIS
DUMPED ON NEW MEXICO*

16-Jun-89; EX-00382, PAGE 1 OF 4
 TESTIMONY IN SANTA FE by Reed Stevens (585) 989-8885 P. 4

When I was a young woman of 19 protesting bomb shelters in Hartford, Connecticut, my parents, who were good Eisenhower Republicans, told me I was a damn fool.

"The government knows best," they said. "Wait till you're older, then you'll see."

I'm thirty years older and I still don't see why I should trust the Great Father in Washington to know what's best for me.

First we got nuclear bombs to save the free world. We can't use them. Then nuclear reactors to save the environment. We got three Mile Island and Chernobyl and Savannah River, to name a few terrifying accidents. Never mind the small poisonings. Now we've got all this nuclear excrement and the government wants to build a nuclear toilet for it. Does the government still know best?

We'll see. Let me tell you a story.

Once upon a time there was a powerful father who wanted to marry his daughter to an old friend of us who was building a mansion called WIPP.

"But Daddy," the daughter said respectfully, "I hear bad things about that WIPP mansion. It scares me. And that Mr. Westinghouse. Isn't he the brother of Mr. Rockwell and Mr. Bechtel? When they

32-1

16-Jun-89; EX-00382, PAGE 2 OF 4
 TESTIMONY IN SANTA FE by Reed Stevens (585) 989-8885 P. 5

married my sisters in ██████████ Colorado and Ohio, they just ruined them. No, I don't want to marry Mr. Westinghouse and live at WIPP.

"Darling daughter," the great white father said tenderly, "You have given me much joy. Your white sands are lovely test ranges. Your oil and gas revenues create tax revenues. You, who are so isolated and pure, can do a great service to all your sister states by marrying Mr. Westinghouse. What do you say to trying it for five years?"

"Daddy, a girl's reputation can be ruined in one night. Five years at WIPP is forever. You know that."

"But, my beautiful southwestern daughter, your energy revenues are falling. You are looking a little like Texas these days. Wouldn't you like a new wardrobe? Nevada's getting one."

"I've heard about those wardrobes. They just don't last, Daddy, and the materials make me sick."

"Some sickness is inevitable in life, my child. Nothing the doctor can't cure. Trust me. Please marry Mr. Westinghouse, he is really a decent fellow. Don't believe all those stories the press makes up about him and his brothers. You know how the press is."

32-1

16-Jun-89; EX-00382, PAGE 3 OF 4

TESTIMONY IN SANTA FE by Reed Stevens (585) 989-8885 P. 6

"And keep in mind that if you don't marry him, some one else will, and you might end up an old maid with no one to support you. No jobs, no subsidies, all the crime and illiteracy from the inferior classes. Think what you have to lose."

"I'm thinking, Daddy. You know I want to be a good daughter. But your other daughters believed you and now they're sorry. Your SEIS report isn't the whole story."

"Nonsense! The SEIS report is perfect! Who have you been talking to? Who's been polluting the ears of my favorite little daughter?"

"I'm not your favorite. California's your favorite. And Massachusetts. You've said that a hundred times."

"You sound like your mother, that old hag."

"Don't you call Mother Earth an old hag. You spent all her dowry and now you want mine. What kind of a father are you?"

"You'll never get a cent out of your old man if you talk like that. You have an attitude problem, my girl. I don't appreciate your criticism. I know what's best for all my daughters. If you won't agree to marry Mr. Westinghouse, I can force you to live with him at MIPP without benefit of matrimony."

"You wouldn't dare!"

32-1

16-Jun-89; EX-00382, PAGE 4 OF 4

TESTIMONY IN SANTA FE by Reed Stevens (585) 989-8885 P. 7

"Needs must when the devil drives. Mr. Westinghouse is a rich man. And going to be richer when he has you to keep house for him. Might as well accept. The deal's as good as done."

"You're not a father. You're a..."

"Ha ha! Now you're beginning to understand Reality. Sooner or later you'll see. They always do."

"And what does that make me? A..."

What's the word for a poor helpless girl trapped in the clutches of powerful men bent on serving their own pleasure?

Stay tuned. And we'll see.

32-1

My name is Toni Linda Burch and I am speaking today on behalf of my niece Casey Jenkins of Llano Texas, who will have to live with the disasters you are in the process of creating.

Thank you for the opportunity to speak today, although I would have preferred one (1) speaker at a time, as opposed to three (3) smaller groups running simultaneously! I want to speak to all of you and will now accomplish this by speaking in all three (3) rooms at separate times, as allowed for in Rule 89 of the Rules for Conduct of Public Hearings set forth by the DOE.

I'd like to start by stating that since the entire SEIS was based on EPA Standards that were thrown out through the Circuit Court System in 1987, for not even meeting Safe Drinking Water standards, I find it almost impossible to believe that you WANT to open WIPP! This doesn't sound like an act of service to me and I am under the impression that you work for the people of the United States on behalf of our safety. Who would this serve? Certainly not the American citizens and especially not the children of this planet. I declare that WIPP will meet and be able to prove they meet, the forthcoming updated EPA standards before receiving waste. This should be the minimum expectation, and until you can comply with this declaration, the NO ACTION alternative would be a great choice!

This brings up another concern I have, concerning the SEIS. In the SEIS, there were only nine (9) pages dedicated to the sensible NO ACTION alternative. My understanding is that you were to thoroughly investigate ALL possible alternatives to WIPP. Nine (9) pages sounds like you didn't give the NO ACTION alternative much consideration. Why was that? 16-Jun-89; EX-00383, PAGE 1 OF 3

Why are we not asking the communities that reap the economical

benefits from creating this waste, to also store that waste they are creating. This would make more sense!

If you are allowed to remove all the waste from those communities, what will keep this problem and its dangers on the minds of the people working to create MORE waste? When are we going to stop creating waste we know we can't safely store for any length of time?

This is the problem we must address! Why don't you divert the funds allocated for WIPP, which add up to 2.5 billion dollars, into research to clean up YOUR existing sites, ALL of which are suffering from air, water and soil contamination. You have a very poor record of operation and would clean up your own house before messing up ~~WIPP~~, if you truly had our best interest in mind. I don't believe you do and I am afraid to trust you, and with good reason, I might add. We cannot operate for an "out of sight, out of mind" perspective. I see this as an INHUMANE CONSIDERATION!

Projected costs for the NO ACTION alternative are much less than the costs of retrieving the waste from WIPP if the proposed action plan is proven to not ~~work~~ the forthcoming updated EPA standards. If that happens, what will you do with the waste then? Will you haul it back across our country and re-deposit it where it is now? Or will you select new EMERGENCY DUMP SITES?

A prudent choice on your part would be to leave that waste right where it is until we know ~~how~~ it can be SAFELY stored.

16-Jun-89; EX-00383, PAGE 2 OF 3

The SEIS notes on page 5-173, "No environmental reasons have been found why TRU waste (the extremely long-lived waste slated for WIPP) couldn't be left at the Idaho National Engineering Lab stored as it is for several decades or even a century." Here it is plainly stated that there are no serious environmental reasons to justify rushing WIPP into operation. The No Action alternative (leave the wastes where they are) is a viable plan that poses no immediate risk to the public, offers lower costs and ensures that yet another region of the country will not be contaminated by a DOE facility.

PLEASE DON'T WIPP ME!!!!

Linda Burch
Santa Fe NM
87501

June 16, 1989

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June 16, 1989

To Whom This may concern -

I am a Santa Fe resident concerned for my safety, the safety of all Santa Fe and New Mexico residents, and the well-being of this land and the future generations. It must support.

I believe strongly in standing to be counted among the many who vehemently oppose WIPP. All the voices of concern which are questioning the wisdom of continuing with the Waste Isolation Pilot Project must be heard and seriously considered during these trials.

The information which I have gathered on WIPP since coming to Santa Fe has led me to one conclusion. As it stands, the project would most certainly have a seriously detrimental effect on the lives, health and well-being of many. The concerns and dangers appear far too great in number and gravity to

16-Jun-89: EX-00384, PAGE 2 OF 2

be eliminated completely.
I must conclude by standing in
strong opposition to this entire proposal.

Sincerely,

Tasha Andrea Hearn
Santa Fe, N.M.

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16-Jun-89: EX-00385, PAGE 1 OF 2

Sarah May
Rt 3 Box 101A
Santa Fe, NM 87505

I'm not a public speaker, but I feel that I have to speak out, to voice my opinions and those of my neighborhood and my generation. I do not know all of the facts, but I do know that I don't want WIPP shipments run through my backyard.

I live in a small community at the junction of I-25 with Highway 285, the turning point of the WIPP trucks. I believe that this rural area is one of the prettiest places of Santa Fe. In this neighborhood, everyone knows everyone, from the oldest to the youngest. It is a place of peace and contentment. It is our home. It will only take one accident of coming off of the exit ramp too fast or sliding on the usual winter ice to completely destroy the area. The guesstimated number of accidents is about 16 to 19. Which one will be ours?

I also think we should take the history of this area as an example for ourselves. The civilizations of the southwest were prosperous. The pueblos thrived. 1000 years ago they didn't think that their way of life would disappear. They couldn't plan for the arrival of the Europeans and their technology. The same goes for us. We cannot plan 1000 years into the future, let alone the thousands more that this project will last.

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31-8

16-JUN-89; EX-00385, PAGE 2 OF 2

Granted, I am only 17 and am still ignorant in the ways of the world, but my generation has as much of a right to know about NIPP as everyone else, if not more so. We're the ones who will have to deal with any errors made now. We're the ones who are going to have to pay for security on the site. Most of all, we might pay for it with our lives if an accident occurs. I would like to look forward to a long, enjoyable life, hopefully here in the southwest. But NIPP could take that all away.

I would like to add that I'm not necessarily against NIPP. I agree, something has to be done with our nuclear waste, but we need to produce the highest possible level of safety. However, we have to live with the decisions made now and the DOE owes it to us to be completely honest.

3.1-8

16-JUN-89; EX-00386, PAGE 1 OF 2

Alan Phillbrick
The ~~Public~~ administration seems to be following in the footsteps of their predecessors in giving environmental concerns little more than lip service, while at the same time focusing their attention almost exclusively on economic concerns. This is ludicrous and unacceptable. The economy is a man-made thing that can be manipulated in an infinite number of ways to suit the needs of society. There is no sense in worrying about it. The Earth and its ecosystem, however, are neither made nor controlled by man. Although our numbers and our expanding technology demand that we ~~take~~ ^{account} an ever-increasing responsibility for the maintenance of the environment.

Radioactive waste is by far the most deadly and long-lived contaminant that mankind has yet produced. Nothing ever built by man has lasted, or shows signs of lasting as long as these wastes remain dangerous.

3.1-8
3.2-1

16-Jun-89; EX-00386, PAGE 2 OF 2

The idea of doing a rush job of getting such wastes "out of sight and out of mind" without as much as proper safety testing and certification by the only BIS organization capable of doing so, the EPA, is horrifying.

I think we will discover with time that there is no truly safe way to deal with radioactive waste and it is my hope that the production of such wastes will be completely stopped as soon as humanly possible, without regard to economic concerns.

If America put the kind of effort into producing new sources of energy that it did into the space program in the sixties or the defense industry in the '70s + '80s, we'd have plenty of clean, non-destructive energy in no time.

It's time we insist that our leaders focus their policy-making on producing a healthy planet instead of a healthy economy.

By showing resistance to the implementation of such a hastily conceived and untested facility as WIPP, it is my hope that we can signal our end to all government policy-making which puts economic concerns ahead of environmental ones.

3.1-3
3.1-10
3.2-1
3.7-5
4.1-33.6-1
9-3

16-Jun-89; EX-00387, PAGE 1 OF 3

WIPP STATEMENT: 6/16/89

Charles Benninger
227 E. Coronado Road
Santa Fe, NM 87501

New Mexico is quiet and soft. Her clear light extends to the limit of the eye's practical gaze. Can you see the naked, bending hills tracing woman's graceful curves? So many sleeping female bodies lie within this mystic landscape under turquoise skies.

New Mexico goddess -- she shares her knowledge and power generously with those who ask, casting no judgment upon the petitioner. The bargain, though, is complete only if respect for land and life is returned in kind.

For century upon century, our Native American ancestors honored this sacred trust of land and life. The knowledge was freely given, and the respect returned. The cycle continued. As a result, men, women, heaven and earth remained in balance for millennia. The rains came, the children knew happiness, sex and love was healthy, and men and women knew peace with each other.

Then one day something happened. Men came forth to the holy mountain, place of power, barely 40 miles from here now called Los Alamos. They sought from the goddess her sacred fire. And she lay with them in anxious trust -- perhaps hoping they would finally learn to feel as she feels -- that life is precious -- and if they truly understood love -- in their souls -- they would quit their ways of death and destruction -- once and for all.

16-Jun-89; EX-00387, PAGE 2 OF 3

But instead, the men came and took, came and took, giving nothing back in return. We know now they sought the power and the knowledge of the Goddess of the sacred mountain not to end wars but to further enhance their dominion over all creatures -- at any cost. We know now that men's madness honors no boundaries. They cloak their warrior excesses in the words "National Security." They try to silence the screams of protest -- with the hollow phrase "TRUST US."

Gentle New Mexico has long suffered from the mindless abuse of the contemporary warrior. Her abusers continue to seek better and more efficient ways to kill. Must our sacred female land be forced once again to yield to yet another technological rape? I think not. We say NO.

And the children say -- "please, NO, stop the killing now. For we must live our lives amidst the holocaust of ruined fields and cities, dead and dying steams, poisoned air and the mountains of radioactive rubble birthed of the dark designs manifested by your technological witchcraft."

Gentlemen, I ask you for the sake of the children, the animals, the Earth, indeed, all people of this peace-loving, gentle planet, please awake from your dreamworld of technological fantasy.

Be willing to expand your vision to include the safety of future generations, what's best for rivers, animals and the Earth Mother, too. Be willing to admit that the finest science and technology is often fallible, as are humans, too. Jobs and money pale into insignificance before the sacred trust -- our future -- that you hold in your hands.

If you decide in favor of life, you must cease the production of this deadly material. It must remain above ground and be guarded by the MOST

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3.1-8
3.2-1
5.2-1
5.2-2

16-Jun-89; EX-00387, PAGE 3 OF 3

responsible ^{children's} ~~people~~ in our society, not the LEAST responsible, as is now the case. The allegiance of such individuals must be to future generations, not to merely the next paycheck. Our closed weapons factories and nuclear power plants will be treated as test monies to our difficult adolescence as a species, our careless abuse of power, gold and knowledge. These silent monuments will serve as courageous statements of self-reflection to future generations -- warning them off the path of arrogance, pride, deceit and self-destruction.

Sight unseen does not mean safe. The old method of hiding will no longer work. The mother will belch, and we will get back our nuclear garbage as gas, air and water -- and the problems will be far worse.

Gentlemen, try as you may to ignore this fact, you are not separate from the Earth.

Recall your physicists, chemists and engineers NOW from the dark sorcery of star wars research. Direct them to focus their talents and energies on ways to transform this waste into non-toxic material. It can be done. Demonstrate your willingness to work with us rather than against us. We are ready to work together to solve this most serious problem -- IF you can regain our trust. If not, we and the Earth shall remove you.

I urge you to think on these things and to think beyond your short remaining lifetimes. Consider the hopes and dreams of your children. I challenge you, though, in the end to accomplish the most difficult feat of all, to allow not your mind, nor your paycheck, but your heart to act as the final arbiter. Thank You.

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5.2-2

JSS

JONATHAN SHINER
903 DOV MIGHTY
903 DOV MIGHTY
903 DOV MIGHTY

I am here to protest the perpetration of yet another crime against the earth, its creatures, and its people. For once, my protest is fueled by the possibility of right action, and it vents itself with the accumulated frustration of many seemingly futile protests, against the momentum of a well-established nuclear power industry, against the technological Goliath of a defense-based economy, against pollution that has become the breath of our cities, against pollution that has become the breath of our cities, against accidents that have already occurred. For once, my protest may assume the character of a feasible plea. We have already transgressed the threshold of over-exploitation with the earth's environment. Our every action affecting the environment must now be calculated to reverse that dangerous encroachment. Our every action must stem only from the threshing-floor of mature deliberation. As I speak people around the world still fight for even this foundation, this threshing-floor of the Democratic process. Here we are privileged with the ability to deliberate in a broadly-scoped manner, with the political and financial power to enforce the results of such deliberation, and, with the problem of our nuclear-waste, an opportunity for once to do something right. Please do not be so foolish as to spurn a rare opportunity for correcting our mistakes; as a nation founded on the principle of human freedom, we should be the last to neglect the freedom of our intelligence. Please, reconsider the hurried way in which these very hearings have been conducted; an insult to this freedom. Please, do not withdraw the land from the deliberation of the people. Please, take the time to meet in your actions, the highest standards that the current environmental crisis demands. But these are also for us common standards; standards of freedom, integrity, and intelligence. If we fail in an hour of greatest need, when all that is required of us is to meet the very common standards of our humanity, then we are fools indeed. I would like to read a poem composed for this occasion, based on a sculpture by local artist Tony Price, that is the true expression of my protest:

I spoke to Tony Price yesterday, about the reading of this poem, and he asked me to mention an idea of his to the representatives of the Department of Energy. If the DOE is foolish enough to go ahead with the burial of radioactive waste at the WIPP site, then let them make one last modification to the TRUPACT containers; let the final shell of the containers be formed in the shape of a human skull. That way, when they come up a few thousand years from now, people will get the idea.

Thank you.

16-JUN-89: EX-00388, PAGE 1 OF 3

16-JUN-89: EX-00388, PAGE 2 OF 3

alone the metal warriors wait
listening to the clank of their ribs in the wind,
to the sound of their hearts like grates,
shuddering and closing;

at our arrival they bristle like peacocks
or fat watches, feigning indifference
behind the perfect jewelry of their bodies,
their mask of royal metronomic sway.

"Memorial to the Winners of the Next Nuclear
War" a plaque reads, antecedently
to the glowing threshold of our recollection,
rattling at its question like an old license-plate.

"This, the plan of the monument" indicating a
figure in the South: "is Alamogordo, to the East, those
shining sisters, are Hiroshima /Nagasaki, flexing
their Siamese wings in the vapour."

(Westward? who knows: something ambiguous begins
to be chronicled on the sun's setting disk.)

admire in them the perfection of mind, the rising
of biblical ships from desert bones and natural
corruption, the towering of cities over Immortals,
and be amazed at godlike craft.

ooch that hellenic brag... Incarnate in the modern
age, admire the perfect seams and surfaces. If
man has made the heroic sculpture of his mind,
then here do we admire that proportioned fuselage.

all the prophets in the world could not read
this delphic shield; it bespeaks a time of care.
let us take the time to defuse the language. we have
made gods; we will no longer be indifferent.

3.1-8

7.3.1.1-23

16-Jun-89, EX-00388, PAGE 3 OF 3

most of all let us breathe. standing in silent witness, and in reverence, yes, let us breathe, turning our monuments to pools for celestial narcissi, to harps, for the fingers of western Zephyrus.

"Yes, the West is the best, get here and we'll do the rest:" see now the polished ears listening to moonlight, hear instead the cymballed roar of wind in their bodies. they stand shocked on high land, at a fierceness not their own.

(But what moves us away again from the silver memory? a figure on the mount, rising still against the sunset.

we cannot take it, the Autumn crucifixion, the face of doubt, eternally metal above stiffening grasses, an old God thwarted, the sign used to mock him, warning, radioactive.

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8-7

16-Jun-89, EX-00389, PAGE 1 OF 4

Bonny Whittington SEES things Santa Fe, N.M. June 14, 1989

I want to go on record that I have yet to be notified by DOE of my participation speaking time at this thing.

I protest the hearing being split into three rooms, and the way I have chosen to empower myself by DOE's action, so to image's voices speaking simultaneously on a ~~stage~~ harmonic chords - harmonic chords adding principal messages to all sentient beings on the planet, and the sentient earth herself - that many, many people in New Mexico care for the health and safety of our planet, and the beings that live with and by her grace.

I would also like to echo the voice of the women who spoke this afternoon, commencing in the physical arrangement of the main room. There is an old saying: "He who wishes to be trusted, puts himself not above them he wishes to convince."

I want DOE to do several things:

— I want them to comply fully with the new EPA standards before any waste is shipped to the WIPP site.

— I want full approval by the NRC of the Tri-Pact containers before they are taken, filled with waste, on our nation's high ways.

— I want no land withdrawal, not that I am a conservative or administrative.

— I want DOE to choose the "No Action" alternative that is one of the 2 mentioned at this time in the

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16-JUN-89, EX-00389, PAGE 2 OF 4

sets document. In my opinion, it is the preferred alternative covered in the document at this time. I want DOE to acknowledge that they did not evaluate in detail all "reasonable alternatives," ~~that~~ federal regulations, promulgated under the National Environmental Policy Act, required DOE to rigorously explore and objectively evaluate all reasonable alternatives.

- I want the waste to stay where it is now, and to stop being generated at the source. We have more than enough bombs now.

- I want our government, working with other nations, to launch a full scale, Manhattan II Project. We can keep the waste in above ground Monies' Retrievable Storage facilities until we come up with the knowledge to neutralize it.

I have every faith that we who are able to "hence the atom," this is looks now as if the atom has been used no; . . . That we can, given time, winning a top priority status, harness its wastes, that we have generated.

Burying the waste, as evidenced by much testimony yesterday and today, is not going to bury the problem. In fact, it may create problems far more horrific than the potentially dire scenarios that have gone on record at these hearings.

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3-6-1
5-2-1
5-2-21-2-1
3-6-2
5-2-1
5-2-23-1-2
3-6-116-JUN-89, EX-00389, PAGE 3 OF 4
BENNEY WITHINGTON SAYS HEARINGS SOURCE, N.H. 6/16/89

The article in today's New Mexican stated that the same testimony was scientific, also, it was philosophical. My perception, however, is that the magnitude of the testimony has addressed both very eloquently, acknowledging what we as a race are coming to acknowledge in a more daily basis; that we are not separate from other living beings, that we are not separate from the planet Earth, that we are not separate in the universe.

I was told by people both in state government here and at Concerned Citizens for Nuclear Safety, that the DOE could choose to exclude from the final report on the hearings, any information not directly related to the SETS documents. I believe, gentlemen, that this would be a grave mistake. People have come here at effort and expense to themselves and their families. They have researched issues and spoken ~~thoughtfully~~ ^{eloquently} and eloquently. I have set through most of the testimony, that was possible to hear in one room, during the past two days. Most of it has been filled with anger, pain, and acknowledged fear... and with courage. When I left at the lunch break today, I felt my heart in my throat from the testimony I had

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3-6-1

2-3-1

3-6-2

14-Jun-89: EX-00389, PAGE 4 OF 4

just heard during the morning... and I relayed that that was just where I wanted it to be - so I could speak through it. Gentlemen, that's what most of the people who have spoken so far at these hearings want you to do - not to speak through your lawyers, but to speak through your hearts. The sooner we stop taking adversarial positions, and the faster we put our voices in searching for truly safe storage of ultimately neutralization of America's nuclear waste, the faster real solutions will present themselves. Thank you.

June 13, 1989

14-Jun-89: EX-00390, PAGE 1 OF 2

DOE SEIS Project:

I would like to express the following concerns about the Waste Isolation Pilot Plant and its compliance with EPA standards.

The EPA standards exist to protect the health and safety of all Americans; therefore non-compliance with these standards places us all in danger. Disposal of waste before the new standards are completed will result in non-compliance and thus will create a 240,000 year long health hazard. If WIPP is not opened until the site complies with the new EPA standards we should be safe and WIPP will not join the list of DOE disposal locations that are currently polluting the air and contaminating soil and groundwater: (Rocky Flats Plant, Colorado; Lawrence Livermore Laboratory, California; Sand Laboratory, Ohio; Savannah River Plant, South Carolina).

When the DOE places the waste into the WIPP site they must be able to guarantee that it will remain there for 240,000 years without contaminating current or future generations. This is an immense task that necessitates the consideration of all variables and future possibilities.

The site itself must be secure and not allow radiation to enter the environment. Until the hydrology and geology of the area are fully understood that cannot be guaranteed. Simplistic conceptual models, which are used in the SEIS, are appropriate for teaching in Elementary and Junior High classrooms, but not for proving the safety of a nuclear waste disposal site. I do not believe that the site should receive shipments until a report can be released that does not contain phrases such as "not considered," "remains to be verified," and "further investigation is needed." All geologic and hydrologic aspects of the area must be studied until their current status is known thoroughly and the future status can be predicted accurately.

Problems that exist at the site but have not been adequately studied or solved include: a pressurized brine reservoir beneath the disposal area (brine flowing upward and will bring waste with it, while brine seeping into the disposal area will cause a radioactive slurry); gas generation (decomposing waste and organic matter will create gases that will put pressure on the surrounding rock, possibly creating fractures and/or driving brine upward); the flow of the Rustler Aquifer (a ground water source above the site whose flow directions and recharge rates have not been adequately covered in the SEIS, although independent scientists have determined that radiation could reach the Pecos River in less than 100 years); karst (these interconnected channels greatly increase the speed at which groundwater moves); the rock disturbed while excavating (fracturing which has occurred may provide more means of migration for radioactive material); salt dissolution and creep (the dissolution may cause formation of caves and sinkholes, while the creep, which is supposed to seal the waste, may make retrieval impossible if it is necessary due to non-compliance).

We must all live with the decision that the DOE makes regarding WIPP, therefore I insist that further consideration be given to the environment in which WIPP will be placed. Long term release scenarios must be created in a more realistic and credible manner. All release paths must be considered, including the possibility of failure of the filters in the ventilation system. Human error also must be considered. Studies which consider changes in climate, population and land use are needed. Over the next 240,000 years changes are inevitable.

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Finally, how can we be sure that future generations will be aware of the existence of WIPP and of the dangers of breaching the repository? How can it be guaranteed that future generations will not send excavating equipment beneath the surface as casually as the current generation walks past a rusted "No Trespassing" sign?

In short, there are many problems to be solved and further studies to be made in order to assure that WIPP will comply with the new EPA standards when they are released. This will take time, years; but isn't a few years now worth assuring safety for 240,000 years? As a tax-paying, vote-casting American I accept my share of the responsibility for the existence of nuclear waste and the necessity of its disposal. I also demand the right to have it disposed properly and in the safest manner possible.

Respectfully,


Melania Wells

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Our leaders today in America, who have come through our educational system, have been cheated in their education. Our highly skilled clever people, knowledgeable in one field or another, are lacking compassion in their relationships with those they are leading.

What we see in our leadership is more self-importance, and self-aggrandisement. We see distortion of observations, we see projections of one's own personal conclusions, beliefs and dogmas. Failure in understanding the whole meaning and depth of compassion. Only without compassion would a business person or political leader, motivated by greed, stand up and tell its populace:

"We can assure you that the WIPP site is perfectly safe for a 1,000 to 10,000 years without further testing". Only without compassion would we take such an unrealistic approach to nuclear chemical waste.

Particularly in light of recent disasters:

Chernobyl, Three-Mile Island, Exxon, Bhopal India, Rocky Mountain Flats.

These are examples of

reality. Nobody could foresee these accidents and most certainly in the latter cases, were not prepared for the tragedies that followed.

There is an extraordinary phenomenon going on here in America and everywhere. I am talking about violence, greed, envy, hatred all which are brought about by fears. Today, when we have no compassion, we have no clarity. We are all living in great anxiety and uncertainty. We are seeking security in some form or another, because we are seeing old beliefs start to crumble.

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We are waking up to the fact that the Earth belongs to all of us, it does not belong more to one man or woman than another. Chemical nuclear waste is a global problem and one that needs to be dealt with in clarity. It only takes clarity in thinking to realize that 1,000 or 10,000 to 240,000 years is a very long long time to not be able to walk on a piece of the Earth, anywhere in the world, let alone trying to police it because of a disaster. Love is passion which is compassion, which means you have a sensitivity, an extraordinary feeling of affection for your fellow man. You could sense the beauty in all things, which means you would not be attempting to rush or force a project that will affect thousands of people, animals, and nature for thousands of generations to come. A project that threatens affliction, a project that threatens a highly dangerous situation, a project that is clearly not well thought-out.

We Americans would like to believe that our public officials are working on our behalf, and representing our new values. New values, that reflect a right to live and work in a healthy environment for ordinary people. We must awaken in us a cooperative and sharing spirit, in order to tackle and resolve the eminent problem of nuclear chemical waste. We must observe actual facts to eliminate conflict, so we can make a clear choice about a project so clearly marked with potential disaster.

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I am an American, and I have a right to choose!

I would like to thank Maxwell Cole and other elected officials who are working on behalf of the health of the environment for the ordinary man.

I am today, dedicating my soul to God, my body to this planet and my heart to humanity.

The DoE's wipp project under Public Law 96-164 must be changed by Congress so that it does not exclude the Nuclear Regulatory Commission from involvement in wipps. Wipp Needs an outside agency to oversee it.

The fact all of us who are concerned about wipp must get involved. We must go to the executive branch. President Bush appointed James P. Watt as head of the DoE.

I would like to direct my remarks to the term 'waste'. Waste, as defined by Webster, is: Sparsely settled or barren. The next word I would like to address is 'isolation'. Isolation, again defined by Webster, is a place or keep by itself. Clearly neither of these words fits New Mexico. There are many kinds of waste to be dealt with today, in our modern living conditions. One of the greatest in our world is in our education, which is defined as: giving instruction to. As I stand today before this board of learned men on one side and our populace on the other, I can hear sharply opposing views. The key word is 'hear'. Or should I use the word 'listen'? That is truly what our board is here to do, is it not? There is a great difference between hearing and listening, that is to say whether you are here waiting to hear a belief or dogma of your own thinking, a confirmation or whether you are here really listening. The difference is an alert intelligence, possessing the ability to learn and understand the information being offered. A person who is repeating a dogma or a belief is not listening. That mind is closed, no new knowledge can enter. So we are here to listen.

We were talking about waste and the many different kinds of waste, we spoke of the greatest waste, which is education. I should say failures in our education. What has this to do with waste, you ask? Right here in this room we have before us people who have come through our educational system. I am talking about leaders in our communities, politicians, highly skilled, clever people who are knowledgeable in one field or another. Some have attended our finest schools, examples: Harvard, Berkeley, Brandeis, Cal Poly, U.C.S.B., Santa Fe High. Surprised that I would put that school in?

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The whole thing here is that there are many brilliant minds here and many more on the way; but somehow with all that schooling, all that money that you (for your family) spent, our educational system has failed. Yes, you have been cheated. Our leaders today and not just in America, but all over the world, are lacking compassion in their relationships with those they are leading. But instead we see more self-importance, more self-aggrandizement and distortions in our observations. We see projections of one's own personal conclusions, beliefs, and dogmas. The failure in our education system is the lack of understanding the whole meaning and depth of compassion, and the inability to investigate the movement of one's conscientiousness. For, only without compassion and lack of understanding one's own conscience, could we be so willing to poison our own environment for the sake of a piece of green paper. For, only without compassion could we stand in front of another human who is suffering from cancer, because our water is polluted and deny case after case of human out cry. Only without compassion would we deny the many stillbirths that are reported by our medical field, because of poison and pollution in our environment. Only without compassion would a politician or business person, motivated by greed, stand up and tell its populace: "We can assure you that the WIPP site is perfectly safe for 10,000 years." Only without compassion would we take such and unrealistic approach to hazardous radiation chemical waste, particularly in light of recent disasters: Chernobyl, Three-Mile Island, Exxon, Bhopal India. These are examples of reality.

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There is an extraordinary phenomenon going on here in America and all over the world, and this denial is only another of its forms. I am talking about hatred, greed, violence, envy, brought about by fears. It's only fear here we are talking about. Let's explore this fear, pick it a par. I am an American and I have certain rights. One of them is the right to make money (greed motive). Fear of losing this right, may make me act under duress, instead of clearly examining information for the best solution. In today's times, when we have no compassion we have no clarity, without compassion there are no acts of selflessness. We are living in great anxiety and uncertainty. We are seeking security in some form or another, because we are seeing a way of beliefs start to crumble. We have, for the past fifty years taken and destroyed nature in one form or another. If you noticed rich man or poor man, woman or child, we all live on this planet. It belongs to all of us, it doesn't belong more to one man than another, it belongs to all of us. It is mine, it is yours. It's our Earth, each and every one of us, all people, on Earth. We Americans have always had plenty of natural resources. We could always open another section of forestry to cut down. When we tired of that we could excavate another mountain for mining. We continue to ignore the signs of destruction. We wiped out whole species deliberately and we still continue to do so.

We have destroyed whole mountains, thousands of acres of land

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which caused droughts for years to come. But we continue to do so. Who else would poison his own food, water, soil, air and be in complete denial, but someone who is on a self-destruct course? Some of us are beginning to wake up and see to just what extent that this is happening. Now is the time to see who we have given power to run our countries, I said given! These people we are unhappy with, we put into power and now we don't like what we did. Why are you mad? They are only representing those old beliefs and dogmas and patterns that you cherished just a few years ago. Clarity can you see? Can you see how clarity is so important here? As you see, we are lacking in compassion on a global scale. Our choices would have been different were it not so. If we had not accepted certain pattern of what was thought to be good versus what was thought to be bad. Now we have many divisions, in every form of antagonism. Hostility blinding reality and distorting beliefs, causing separatism on every scale. I am Canadian, I am American, I am Jewish, I am Arab, I am Catholic, I am Protestant, I am poor, I am rich, I am educated, I am not educated. This is blinding, because pollution which causes death, doesn't care who or what you are or what you have done or are doing. So I say to you, do we need to see clearly here what 10,000 or 240,000 years is a very long time to not be able to walk on a piece of the earth because of an uncalculated disaster, anywhere on our planet? Think, wake up, really listen, I said 10,000 or 240,000 years is a long, long time to not walk on a piece of earth, let alone trying to police it. So as you can see clearly, dumping

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chemical waste on third world countries is not going to work, because of a greed motivation. I am an American and I can choose to not have our government or society run on a greed and acquisition, standing only to gain, motive. Attitudes which breed war, conflict and suffering. Love is passion, which is compassion which means that my action is total and complete. If your education was good, you would have a sensitivity, an extraordinary feeling of affection for you fellow man. You would sense the beauty in all things, you would not be attempting to force a project that will affect thousands of people, animals, and nature, for thousands of years to come. A project that is filled with possible danger, not just "OOPS we blew it" kind of danger, but a danger that brings irrevocable consequences. I wish to call on the nobles here and elsewhere, scientists around the world, yes nobels because that is a person or persons who work for selflessness. Not caring to be rewarded, but whose work is their reward. Persons who are driven to clarity, to seek the answers. This is a person who knows what love is. Love of humanity/ selfless work, thankless work. Who view work as joy. The joy of work is never without its rewards. The person or persons who come up with a viable solution to the storing of nuclear waste problem will be swarmed with takers. If a profit motive is needed, then the problem itself offers it. We Americans like to believe that the public office holders are working on our behalf. Representing our values. So far you have been doing you job, we just didn't know that our values have changed, but the time is to realise that that they have. We all are attentive here. We all know about election and we want to elect people

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who can act on our new values. I want to tell your elected officials that the reason we elected them to office was because we didn't want to serve in public office ourselves. I don't have a calling for it, I want to live an ordinary life. So I don't want your job. But if you are in public office you must enjoy your work, you must have a natural flair for it. I think it is time to tell our elected officials that people are changing the things we hold dear, such as health, the right to live and work in a healthy environment for ordinary people. I can tell you right here and now that the politician that jumps off the fence and starts representing health and environment issues, is never going to be out of work. We will be elected year after year never unemployed, because that's the man or woman that I am voting for from now on, and as I look around I can see there are not enough to go around. We need above all today, right this moment in time, to examine existing systems in this area. We must awaken in us a cooperation and sharing without thought of reward. So we can tackle and resolve this eminent problem of nuclear chemical waste, everywhere in the world, without the disasters brought on by neglecting clarity. Observing openly and freely just what the problems are in such an undertaking as the WIPP site. To just observe the actual facts to eliminate conflict, so we can all make clear choice. Let us remember that ambition and greed can destroy comfort for ordinary human beings.

I Dedicate My Soul To God, My Body To Earth And My Heart To Humanity.

Thank You.

Judy Backe
Judy Backe

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16-Jun-89: EX-00392, PAGE 1 OF 6

TESTIMONY SUBMITTED AT WIPP SEIS HEARING
June 16, 1989, Santa Fe, New Mexico

My name is Mary Catherine Ford. My address is General Delivery, Lamy, New Mexico. I live approximately two miles from the central WIPP route through New Mexico, U.S. 285.

I take issue with two aspects of the Supplemental Environmental Impact Statement, one concerning what you, the Department of Energy, are not telling us, the citizens of New Mexico, and the other concerning what New Mexico officials refuse to hear from us. I believe that these two issues require the DOE to choose the No-Action Alternative.

First, the SEIS wholly fails to tell us how these radioactive and chemical wastes can hurt us. Ten years ago this spring I sat in an Oklahoma City courtroom and heard Dr. John Gofman, one of the three scientists who first isolated plutonium for the Manhattan project, give a 12-person jury and spectators like me what amounted to a course called Plutonium 101. It's terrifyingly simple: Plutonium gives off alpha particles, a form of radiation which travels very short distances with terrible force. When you breathe or ingest plutonium or it gets through your skin, it begins firing alpha particles into the surrounding tissue of your lungs or stomach or liver or ovaries or testes -- wherever it stops in your body. These particles rip through the DNA of the cell, destroying the mysterious and beautiful language which tells the cell how to reproduce. From that moment, the cell is cancer. It may take ten years to become a tumor or leukemia, but the cells, which continue to be bombarded by the plutonium particle, are forever damaged. I quote from Dr. Gofman's testimony in Silwood v. Kerr-McGee (Page 732 of the court record, copy attached): "Expecting that an alpha particle will go through a cell and not do horrible damage is the same thing as expecting

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if I took the back off a Swiss watch. . . and took an ice pick and ramed it through that watch, is like expecting that watch was going to function just as well as it did before. Or taking a beautiful color television set, surrounding it with machine guns, and just ripping bullet holes for an hour, and then saying 'I expect that television set will function just fine.'"

The word "cancer" appears in only one short section of the SEIS and then largely in the context of indecipherable tables which purport to tell us how many deaths by cancer you believe will be attributable to transporting waste through our communities and keeping it stored at the WIPP site. I quote again from Dr. Gofman's testimony: (page 742, attached) "No plant [and, I submit no project like WIPP] has any right to talk about a safe amount or a permissible amount. . . . There is no such thing as a safe amount. And 'permissible' is simply a license to give you a poison that can kill you. . . . Science recognizes that, and that is the prevailing consensus today in science; that you must assume there is no permissible dose."

I take particular issue with the statement on page 5-16 that the only potential radiation exposure during routine transportation is from direct radiation through the TRU-act containers. Any vehicle which drives into Rocky Flats or Hanford is going to be contaminated with plutonium, and that truck will carry that contamination all the way to WIPP.

Men responsible for ill-advised technological ventures are rarely called upon name to explain their actions. The persons at the DOE and Westinghouse who participated in this Statement should be named and held responsible for their moral obligation to give us honest information about the risks of this project --because it is a license to kill X number of New Mexicans so that the rest of the country can dump its nuclear weapons waste and Westinghouse can make a profit.

This whole project, however profitable to the nuclear weapons industry and however costly to scrap, is not worth the life of one child in the Lamy Valley -- or any other community on the route.

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Testimony-- SEIS Hearing--June 16, 1989

Second, I take issue with the routes shown in the SEIS FOR WIPP transportation. The New Mexico roads discussed in the SEIS have never been designated by the state to transport hazardous wastes, and state officials have repeatedly refused to hold public hearings to listen to us, the people who live along these roads, about whether they are indeed the shortest and safest routes.

We could tell you about these narrow, two-lane hilly roads, which ice up in winter, upon which traffic increases every day as new subdivisions are approved south of Santa Fe, roads overrun with Santa Fe-bound tourists speeding north to buy the first Navaho rug of the season.

Yesterday the New Mexico Environmental Improvement Board refused to place on its July agenda a request by citizens along the 285 corridor for hearings on designating that road the main off-interstate WIPP route for the entire country. They rely on an New Mexico Attorney General's opinion that a blurry photocopy of a state map attached to the Supplemental Stipulated Agreement of 1982 is sufficient designation by the state of the routes.

In bargaining for the WIPP project, our state officials have signed what amounts to a contract of marriage with the DOE to wed the people of this state to WIPP. Now the wedding day is approaching, and we finally know something about the bride. We do not like her relatives, Uncle Rocky Flats and Aunt Hanford Washington. We haven't received the promised dowry of new improved highways and safety training programs. Even worse, we have seen through the veil of promised jobs and economic well-being and what we see makes a Steven Spielberg special-effect look like the Mona Lisa. It is a face of cancer, genetically mutated and diseased, and it is a face that this state will be married to forever. We do not want to marry your daughter of death and disease.

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volts, you get--that electron would have two units of energy, or two volts of energy. That is a pretty potent chemical reaction, because you know you burn coal, you fire boilers to do all kinds of things, so it is not a trivial amount of energy--it is real energy. And, alpha particles coming out of plutonium, ripping out at several thousand miles per second, isn't two units of energy, it is delivering five million of those volts of energy, each one. So, it's a fantastic projectile. The alpha particles in the lungs, it is hitting right through the cells of the lung with two and a half million times the energy that you would get from a carbon burning. So, you see, expecting that your cells are not going to be damaged by that would be about the same expectation when somebody might talk to you and say: "Well, a small amount of this won't hurt you." That is such an absurd nonsense notion that one wonders how anybody could think of it.

Expecting that an alpha particle will go through a cell and not do horrible damage is the same thing as expecting, if I took the back off a Swiss watch, a fine Swiss watch, and took an ice pick and rammed it through that watch, is like expecting that watch was going to function just as well as it did before. Or taking a beautiful color television set, surrounding it

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1 machine guns, and just ripping bullets into it for an
 2 hour, and then saying "I expect that television set
 3 will function just fine." That is the same expectation
 4 that you could have of a cell functioning fine when an
 5 alpha particle gets through it. And, remember, sixteen
 6 units of a billionth of a 30th of an ounce will be
 7 bombarding your tissue with 2,000 of those five million
 8 volt energy particles every minute. I think that
 9 answers your question.

10 Q Thank you very much, doctor. I think there is one other
 11 thing I would like to have you do. We have talked
 12 about this projectile, or these many, many projectiles,
 13 attacking the cells, but what is a "cell," and how is
 14 it put together, and how does that all come together?
 15 A That is a very important question. Shall I erase this?
 16 Are you through with this?

17 When we think—we just talked about the material
 18 in the universe, the 92 substances that are ordinarily
 19 there, and the fact that man made 93, or 94. As a
 20 matter of fact, by very special technic man now has
 21 been able to go up to element number 105, but we don't
 22 have to concern ourselves with that. That is the dead
 23 universe. But, our interest is in the living. The
 24 living universe is built mostly of only a few of these
 25 elements: Carbon, hydrogen, oxygen, nitrogen, sulfur,

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1 about one microgram. My work shows that non-smokers
 2 are a little less sensitive, and, therefore, you
 3 shouldn't say it is one microgram that guarantees lung
 4 cancer—it would take more; 7.3. But, cigarette smokers
 5 are more sensitive, and it only takes about a 16th of
 6 a millionth of a gram to guarantee lung cancer if
 7 deposited in the lungs. I could show why the smoker
 8 takes less, but I don't have to do that at this moment.

9 The essence of a plant that handles plutonium is
 10 this: As far as I am concerned, from the health-point-
 11 of-view in my field of work has always been concern for
 12 the public health. It is my medical opinion that no
 13 plant should operate that can give rise to the
 14 possibility of anything like quantities like this
 15 getting to people, inside the plant or outside of it.
 16 And, no plant has any right to talk about a safe amount,
 17 or a permissible amount. These are words that are
 18 just words that have no meaning. There is no such
 19 thing as a safe amount. And, "permissible" is simply
 20 a license to give you a poison that can kill you, to
 21 say a certain amount is permissible. Science recognizes
 22 that, and that is the prevailing consensus today in
 23 science; that you must assume there is no permissible
 24 dose.

25 My opinion is that any dose confers a risk. A

16-Jun-89: EX-00394, PAGE 1 OF 2

To: The Department of Energy

Re: The Waste Isolation Pilot Plant

June 15, 1989

My husband and I moved to Santa Fe in August of last year and we have been living there ever since. I have been a minister and the people here are very kind and helpful. I have been answering for us...we thought. As soon as we arrived, I began seeing signs and hearing advertising on the radio about the waste isolation pilot plant. I decided to investigate. The more I read and became involved, the more I learned. I had no idea that I was moving to a city where we would be upgrading our quality of life and moving to quite the contrary. We traded simple traffic jams and major pollution for the risk of exposure to radioactive substances. I have been living in New Mexico so much that we feel it was worth the staving and fighting for.

And so I offer the following for your introspection.

What if we decided to open the MIPP site immediately?

What if we began the shipments of waste directly through

Santa Fe?

What if there is an accident near a school or a residential area?

What if there is a leak in the containers carrying radioactive material?

What if we are not adequately trained to clean up the

"spill?"

What if the exposure is great enough to cause serious

illness?

What if, when the waste is emplaced it is discovered that the water seepage into the caverns is carrying the waste to the

Pecos River?

What if the salt corrodes too rapidly during the so called

"testing" period and we cannot remove it?

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What if after the waste is emplaced we find that the MIPP

site does not meet EPA standards?

What if millions of people are contaminated?

What if even one person dies as a direct result of

radioactive contamination?

And then, what if we discover that we could have prevented contamination to anyone if we had complied with EPA standards

BEFORE emplacing any waste?

What If?

The real waste here is at best the diminishing of our quality of life and at the worst the loss of life. The DOE has the power to prevent the loss of life by deciding today to prevent tomorrow's potential disasters.

Please: let's take the time NOW to act responsibly to resolve the unanswered question of whether or not the MIPP site is safe. If not, be 100% positive that the MIPP site is the answer BEFORE any waste is transported and BEFORE any waste is buried.

Respectfully,
Pam Miller
798 Calle Alhambra
Santa Fe, NM 87501

LA COMUNIDAD

Your Community Voice in the Carson

P.O. BOX 89 Penasco, NM 87553

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I am speaking as a representative of La Comunidad, a community organization dedicated to the environmental health of northern NM (and particularly those towns within and bordering on the Carson Nat'l Forest). We meet every two weeks and have gained wide support among both the Spanish and Anglo communities.

Although the WIPP trucks will not be directly passing through our towns, we are still VERY concerned with what seems like a potential health threat. When it comes to radioactive leaks or accidents, even a few hundred miles is too close. There are already statistics on how many accidents per year we can realistically expect. We believe that one accident is one too many!

In speaking with hundreds of people in the rural atm. communities, we find that there is a certain consensus of opinion. Not one person whom we have spoken to thinks that putting all the nuclear waste in one place is - at this point - a sane idea. Perhaps it is just common sense. All farmers know that it is not smart to put all your eggs in one basket. People have taken it to mean money or assets, which works too, but when it's eggs and they break, it makes a huge mess. Now you would like us to do it with rotten eggs.

The politicians keep trying to convince us that if WIPP is not in NM, then it must be in some other state. Why is it a foregone conclusion that nuclear waste must be transported and put all in one pile. If the Tru-Pac containers must be stored safely for storage, then we believe that the most sensible step would be to store the waste in these containers at the source until technology has caught up with the problem of disposal.

Los Alamos has already been studying recycling plutonium. With enough government support and research & development, recycling means of recycling nuclear waste at the source could be developed. With technological advances what they are today, it might even only take months, not years. What is needed here is genuine government support for finding a real solution, not just trying to hide the problem in the ground.

WIPP- Waste Isolation Pilot Project. First instead of isolating the waste, we are bringing it together from all over the country. Secondly, waste cannot be isolated by putting it all together in the ground. We live in a closed eco-system where every element is in a direct cause and effect relationship with the next element. Anything stored in the ground will eventually find its way into some water table - in this case Texas. We in northern New Mexico may not be crazy about Texas, but we really don't want to get rid of them this way!

Furthermore, we believe that the most dangerous thing that can be done with toxic waste is to transport it along this nation's highways. Most of the nation's highways are in bad shape. My husband is a truck driver who covers about 10,000 miles a month so I have a first hand report

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LA COMUNIDAD

Your Community Voice in the Carson

P.O. BOX 89 Penasco, NM 87553

on this.) The repair of these miles of roads and bridges is a national emergency. Although many tax dollars are designated toward repair, very little progress is actually made because it is an ongoing process - as one road gets fixed, another falls into disrepair. Every winter frost-heaves and mud slides add to the toll. On top of this, more and more cars are added to the numbers jamming our roadways. The road between Santa Fe and Albuquerque has just been finished, and already there are times when it needs two more lanes.

Especially critical to this issue, we believe that drinking and uraving on New Mexico's highways has not been sufficiently cracked down on and this poses an extra threat to the safe transportation of nuclear waste in this state. It is really necessary to transport nuclear waste, then we believe a period of 5 years should be set aside to fix the nation's road system so that it adequately meets the standards necessary for safe toxic waste transportation. And during this 5 year period, a turn-around could be made in the area of drinking and driving. It seems to be a matter of priorities - safety first!

Many truckers are lured by the big bucks offered them to haul hazardous materials - and that is how the drivers are chosen - not because of exemplary safety records but because they stand to make a profit. This whole issue seems to center around this - PROFIT FOR A FEW OVER SAFETY FOR THE MANY. Not only does the contractor for the WIPP site make a bundle, but the carriers who receive the transportation contracts. Gary Carruthers is worried about the loss of income to NM if WIPP isn't approved. We would like to remind him that NM is fast becoming a tourist goldmine and that this is income which is spread out among a much wider base of the population, not just the few who have their finger in the pie. However, once we are the nuclear waste dump for the nation, we can expect that many tourists will opt to go elsewhere. (Can we really expect attendance at Carlsbad Caverns to go up?) It seems that we may be cutting our own future short.

We firmly believe that each state should decide which form of available energy it wishes to utilize and then be responsible for storing and/or disposing its own waste (under EPA standards of course.) With proper research and development and government support, we can begin to move toward the development of the WIPP. Do NOT WANT TO BE THE RECEPTACLE FOR THE NATION'S SUCH EXHAUSTIVE. We think that the WIPP is a good idea, but it is so much to be considered as a "safely" handle just from Los Alamos in the north and White Sands in the south. Due to our elevation, we already receive more natural radiation from the sun than any other part of the country.

We are aware that from the point of view of politicians in crowded Washington, the desert Southwest seems like the natural solution to the waste disposal problem. We have long been on either a real or imaginary map as the "national sacrifice area." However, there are many real people living here, who have a right to life, liberty, and the pursuit of clean water and air. There are many people who were either born here or have settled here and put up with less than modern energy resources in order

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LA COMUNIDAD

Your Community Voice in the Carson

P.O. BOX 69 Penasco, NM 87533

to live in "the land of enchantment. In our community, the electricity often goes on and off with storms and during the rainy season, our telephones sound as though we are talking through an arrow. We don't care. We are willing to put up with these inconveniences and more if we can help sustain the earth. And given a choice between nuclear power and other alternatives, we say - develop our solar power and forget about the profits lost by not being able to charge people for the use of the sun!

Too much of this WIPP issue is linked to profits and corruption. Money should never be chosen over the people's safety and what is morally right. We have the technology right here to try and come up with a real solution. Let's put Los Alamos to work on it! The nuclear industry is young; it allowed the time necessary to research, it and make it safe, it could be a strong industry. However if it is pushed through for quick profits and quick answers, then it will die under the weight of nuclear accidents and scandal.

We love NM and we will not accept it as a national sacrifice area. We understand that there is a national emergency over waste - all kinds. We are willing to do our part to help - by taking care of our own wastes - learning to recycle, etc.

We think NM could help the nation by dedicating the time and resources of Los Alamos labs to research the problem and work on real permanent solutions. However, we cannot stand by and watch the Nation stick its head in the sand by dumping nuclear waste in a hole in the ground in Carlsbad.

Thank you

Jean Nichols

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4.1-2

3.6-1

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WIPP Public Comment Process-Santa Fe, NM, June-15-16, 1989

Submitted by: Judith Polich, 2918 B Avenida Alamosa, Santa Fe, NM 87505

Ladies and gentlemen, members of the panel, members of the New Mexico legislature and members of the New Mexico Congressional delegation. I would like to direct my remarks largely to the New Mexico legislative and congressional delegation. I am an attorney here in Santa Fe and a voter and a taxpayer. I consider myself a reasonable and rational person. I think most of you would agree that our country faces a crisis in determining what to do with its increasing nuclear and toxic waste and that this is a problem that will not go away. WIPP may be a partial solution to that problem-but it's really too early to tell. I realize that tremendous pressures are being placed on those of you in decision making roles to fast track the opening of WIPP--pressures coming from the surrounding states and from Washington.

I am confident that most of you recognize the enormous risks of moving too rapidly with this project and have the integrity to stand firm. We are dealing after all with materials that will remain toxic for 240,000 years--3,400 generations--and that is a considerable amount of time. Those of you who stand in decision making positions in New Mexico and in Congress have a tremendous responsibility. Perhaps at no other time in your lives will you be asked to make a decision that has more long term potentially disastrous consequences. This must be a time for thoughtful deliberation and extremely cautious action. That is the minimum you owe the people of this state, the nation and all future generations. You must uphold that sacred trust--not just for one generation or for seven generations but for 3,400 generations.

Let us be mindful of the following:

*The current EPA standards are invalid and illegal. The new standards will still be minimal standards. We are dealing with the most toxic substances known to man. It is inconceivable that this project could move forward until it meets the new EPA standards. It is unlikely that the new standards will be available for at least one year.

* The SEIS is inadequate in many respects. There is too much unknown information. There is no discussion of alternatives. There is no analysis of the risk of human error. The report is based on tainted and prejudicial sources rather than on independent and impartial

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sources. It contains far too many dangerous and unwarranted assumptions to have credibility.

The project must comply with the RCRA standards and it presently does not.

An administrative land withdrawal is a ridiculous threat and would not and must not be allowed.

These are complex issues. We must listen to the scientific community. The National Academy of Science has had an opportunity to review this project. When they give the go ahead without reservation and only after all other standards have been met should we consider moving forward with this project.

The NEPA requirements must be met.

The DOE has a questionable track record. In spite of promises and assurances to the contrary made by DOE many communities across the country must now live with severe environmental and health hazards. We don't want New Mexico to turn into another Rocky Flats-Nuclear Sacrifice Zone.

Finally, the entire public participation aspect of this process has been seriously flawed. I had to call DOE's pre-registration number over one dozen times before I finally got through and then their answering machine cut me off three times before I had given half of my address. I don't know if that action was deliberate but I do know that it is an effective way to limit and eliminate public involvement. If it happened to me, it happened to dozens, if not hundreds of others.

In summary to proceed with emplacement without more information and without full compliance with Federal Law would be illegal -- it could also, under the circumstances -- prove to be so outrageous and irresponsible as to be criminally negligent.

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7.3.5.1-19
7.13.3-1
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3.2-1

Presentation to WIPP Hearing, Santa Fe, NM, June 15, 16, 1989

I wish to bring to the attention of those present, and particularly to the SEIS Project Manager, Mr. Arthur, a neglected and rarely articulated outcome of projects such as WIPP, related to the larger issue of nuclear proliferation and the production of nuclear weapons in this country. For several years, child and adolescent psychiatrists, who deal with the anxieties of children and adolescents in their daily practices, have been aware of the increasing level of nuclear anxiety in young people of all ages, both in the United States, and other countries caught up in the arms race and in nuclear productivity. The American Academy of Child and Adolescent Psychiatry, in response to this knowledge, has established a Committee on Developmental and Clinical Aspects of the Nuclear Threat, of which I am a member. This Committee has published a position paper, which I attach to this communication, and my comments are addressed to this aspect of the WIPP project, which, from a variety of studies and reports, poses a clear threat in much the same way that other poorly controlled components of nuclear production do.

In a spontaneous gesture, a group of Santa Fe high school students, earlier this year, issued a statement regarding the WIPP project, expressing dread and anxiety for their, and others, future health and survival, given the possibility of leakage and accidental dissemination of nuclear waste, either in transportation or in underground storage vaults as they are presently constituted.

This portion of our population, namely young people, may often voice concerns which are denied and avoided by adults; I believe that their response to the WIPP project represents such a statement, and these Santa Fe adolescents, as well as their counterparts and elsewhere in this country and abroad, deserve the awareness and careful consideration given to older members of our society. Any nuclear threat impacts upon the psychological health of children and adolescents, perhaps with greater intensity than that felt by the more avocant adults. Feelings of helplessness and impotence are generally prevalent in this age group, and are augmented, often to almost pathological degrees, by such absolute helplessness as is incurred by the dangers imposed by the WIPP plan. Many other poorly controlled nuclear projects which can potentially threaten the health and safety of a large segment of the population.

Therefore, in speaking in opposition to the conception of the WIPP project, I wish to focus on the larger problem included in responses to the project, of increasing and magnifying nuclear anxiety in children and adolescents of the nation, directly affected by WIPP, and in the overall population of children and adolescents in this country.

16-Jun-89: EX-00397, PAGE 2 OF 2

"Psychological Impact of the Nuclear Arms Race on Youth"

Position Statement
American Academy of Child and Adolescent Psychiatry
8/10/88

"The threat of nuclear war is a source of stress for many children and adolescents. While only the elimination of this threat will fully resolve the problem, the American Academy of Child and Adolescent Psychiatry realizes that such a goal is not achievable in the foreseeable future. Therefore, at a time when governments are taking only first steps towards reducing nuclear weapons, we consider it important to enable youth to deal with this threat as competently as possible.

In order to achieve this goal, the Academy urges several steps. Families, educators, physicians and mental health professionals need to take into account the impact which the nuclear threat has on many children and adolescents. With such awareness, adults will best be able to listen for the concerns of the young, to provide them with psychological support when they face a troubling issue, and to offer them age-appropriate information at home and at school. In addition, it is important that adults provide models of participating citizenship, whatever their belief system. In this way, they can teach and encourage youth, countering feelings of helplessness and cynicism.

These conditions are necessary for promoting sound psychological development of children growing up in a threatened world. They are also necessary in enabling today's youth to address nuclear risks as tomorrow's adults, so that they can help safeguard the survival of future generations.

Respectfully submitted by the Committee on the Developmental and Clinical Aspects of the Nuclear Threat.

Monika Eisenbud, M.D., Chair
Joseph Alterman, M.D.
Stuart Blair, M.D.
Herbert Bauer, M.D.
James C. Cooper, M.D.
Richard Evans, M.D.
John Fineman, M.D.
Kenneth H. Gordon, M.D.

Arnold Kerzner, M.D.
Edmund C. Levin, M.D.
Guy Lord, M.D.
Henri Parens, M.D.
Helen Rattoo, M.D.
Carlos Salguero, M.D.
Byron Stone, M.D.
Lloyd Young, M.D.

7.2.3

To DOE:

WIPP SAYS HEARINGS
6/15/89

We Are All One Planet, All One People on Earth;
We Are All One Planet,
Sharing Our Living Our Dying Our Birth.
And we won't stand by watching her die,
hearing her cry, and deny...
We live as she lives; we die as she dies

WIPP Cannot be opened in September!
WIPP Cannot ever be opened!!

The facts are obvious: The SEIS is incomplete and unsatisfactory in validating the crime of opening a destructive \$700 million mistake. The same taxpayer's money could go directly to investigating natural energy alternatives (such as solar ~~to~~ energy). The Department of Energy has consistently raped our Mother Earth in the name of a dollar bill, and cannot be trusted. WIPP is one more extreme example of this.

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Take a look around
 Open your eyes and really see
 All the miracles our mother Earth
 gives to you and me.

Take a drink of water from a flowing stream.
 Fill your lungs with the fresh, clean air
 after a rain.

These are the simple gifts that our
 mother gives each day of our lives.
 And still we threaten to destroy the
 very things that keep us alive.

Pretty soon they say...

Don't drink the water; Don't breathe the air.
 And we still keep poisoning the earth
 without stopping to care.

Is it all in the name of a piece of paper
 we call the dollar bill?

Well, we'll wake up one day and find
 that our gold.

Isn't really what we wanted after all.
 DOE says we're building bombs to
 keep us free.

Let me tell you, it's all in the name of

3.1-8
3.2-1

13-JUN-89: EX-00398, PAGE 3 OF 3

Greed!
 And the government says,
 it doesn't matter what we dump in
 the water. The farmers will never know.
 It doesn't matter about the Pecos River
 flowing to the border of Mexico.
 It doesn't matter that there's children
 crying; That the Earth is dying.
 DOE says it's best to keep on mining.
 Well, I think they're lying.
 'Cause it matters to me! And it should
 matter to you!!

STOP WIPP NOW !!

Thank You

Francine Allen
 727 Camino Santa Ana
 Santa Fe, NM 87501

Francine

a child of the Earth

3.1-8
3.2-1

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Testimony before the SEIS/WIPP hearings, Santa Fe, NM June 13, 1989

Good Evening-

My name is Bill Gould, Route 10, Box 88-T, Santa Fe, New Mexico 87501

I am a professional engineering modelmaker with a background in the weapons industry. I have been self-employed since 1973. I am a co-founder and serve on the steering committee of Concerned Citizens for Nuclear Safety. I also serve on the steering committee of the Conservation Voters Alliance.

For the record, I protest the manner in which these hearings are being conducted. You stated this morning that three parallel hearings were within NEPA compliance. I state that you are violating the spirit of NEPA and the mandate for full, non-exclusionary public participation under NEPA.

There are many flaws in the SEIS- I will address some now and others in my written testimony.

1) The TRUPACT container testing program is inadequate because it does not include a crush test, described in the SEIS as "the most dominant effect". Additionally, the tests do not include multiple contusion, that is, repeated attacks against a specific and defined test area. All materials, including 304 Stainless steel, will workharden and perhaps fracture when subjected to repeated stress; this can, of course, lead to catastrophic failure. A recent DOE statement that a crush scenario would only affect the drums inside the container and not damage the container itself is ludicrous and illogical. Unless a crush test is conducted DOE cannot prove the container is safe.

2) The truptest must be revised to reflect a real world credible accident such as might result from a roll down the Los Alamos cliffs during a winter storm that might delay emergency response. The test should be conducted with a non-radioactive load that does, however, contain hazardous and gas-producing volatiles. The test must accurately simulate an accident involving a train (crush) and, separately, a propane truck at much higher temperatures than jet fuel. Only after surviving this test program will we accept certification.

3) The SEIS does not consider human error as a factor in the TRUPACT transportation program. The SEIS assumes that all aspects of design, construction, testing, inspection and operation will

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7.3.5-1

7.3.1-2
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7.3.4-2
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SEIS/WIPP

be perfect- that is, 100% performance 100% of the time, with no possibility of human error. This ignores human nature and life in the real world. Human error will occur and must be factored into the RADTRAM model and reflected in the updated and revised draft SEIS.

4) The SEIS does not describe a mechanism by which an employee of a DOE/WIPP contractor or sub-contractor may report safety or mechanical violations and deficiencies without fear of retribution. For example, the carrier contractor is non-union, and the contract does not provide protection to the drivers or workers. This must be remedied in the contract and reflected in the SEIS.

5) The SEIS uses obsolete and antiquated truck accident data as a base for critical assessments and justifications. Outdated WRC data compiled in 1977, over 12 years ago, does not reflect increases in traffic density patterns, drunk driving, in which New Mexico leads the nation, or the increase in human error and impaired judgement caused by substance abuse. A spot check of several states to see if the reported current data fits the model is not acceptable. DOE must compile post-1987 data from insurance companies, transport associations and other sources to adjust RADTRAM as necessary, as well as the SEIS.

6) The SEIS states, and DOE has admitted, that there will in fact be radiation exposure to the public and persons near the TRUPACT, including the driver. However, the SEIS states on page 5-16 that "exposures to the driver is only estimated. Additionally, the SEIS does not address the mitigation procedures planned to protect the driver from the effects of continued radiation exposure. 7) The SEIS makes excessive use of averages, moving averages and moving weighted averages that may hide the true impact unaveraged data may have on the findings. As a businessman I know full well how moving averages can be manipulated to control data and influence my banker-

There are many additional issues that I and others will address in our written statements; many will be easily resolved, others will doubtless end up in prolonged court battles. For example, I insist that WIPP meet all Federal standards 40CFR191, sub B as promulgated and approved by Federal courts.

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7.3.5.1-3
7.3.5.1-11
7.13-18
7.14-6

7.3.5.2-4
7.3.5.4-3

7.3.6.1-3

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7.3.2.1-10

7.3.1.1-1
7.3.5-1

SEIS/WIPP

-3-

13-Jun-89; EX-00400, PAGE 3 OF 3

In conclusion, I am deeply disturbed and concerned about the impact that possible human error, fraud, deceit and coverup by the preparing agency, the DOE, may have had on the SEIS process.

After all, gentlemen, the SEIS is an environmental document created and prepared by a Federal agency that is at this time under FBI criminal investigation for charges that include filing falsified environmental reports.

Thank you

end

13-Jun-89; EX-00401, PAGE 1 OF 1

PRESIDENTIAL TO THE DEPARTMENT OF ENERGY CONCERNING WIPP

June 15, 1989

Santa Fe, New Mexico

Ladies and Gentlemen, officials with the Department of Energy, it is a pleasure to appear before this group to support the opening at the earliest possible date of the WIPP. My name is Robert S. Light, State Representative, District 95, Bddy County, New Mexico.

The WIPP Site is located in southeastern Bddy County and has been in my district as a county commissioner (1979 to 1983) and is now in my district as a state representative serving my third two-year term. I have been privileged to attend meetings concerning the planning and construction of the facility from inception and I support its completion as I feel it is necessary for this nation to lead the world in safe disposal of our nuclear-generated waste. Having WIPP is defense related and will store TMD sized waste, it still represents to our nation and the people present here today, an effort to safely store waste generated from the nuclear effort. I am an electrical engineer involved in the energy industry and view nuclear electric power generation as a substantial form of energy for this nation. We recognize today a serious threat to the environment from the burning of hydrocarbons, creating the greenhouse effect. Nuclear in its use generates no atmospheric pollution; we only have the problem of how to handle the waste product. I feel the DOE in constructing the WIPP Site has demonstrated to our community a sincere effort for safety and its credibility has not been questioned.

In closing, I would like to state that I strongly support all forms of energy including wind, solar, geothermal, oil and gas, coal and nuclear; I've never found one without merit. I would hope the people of New Mexico whose state presently houses nuclear waste at the national lab, could support the effort made by the DOE to demonstrate to the world and our nation that the bedded salt in WIPP is a logical answer.



EX-00402
 WIPP RAP - ORAL TESTIMONY
 I THINK IT'S VERY UNFAIR THAT YOU SPLIT
 UP THE HEARINGS INTO SEPARATE ROOMS
 SO TESTIMONY CAN'T BE HEARD BY EVERYONE
 I WOULD LIKE TO SEND A MESSAGE TO THE DOE
 ABOUT THE SELS AND WHAT IT FAILS TO ADDRESS
 THE ECONOMIC IMPACT OF PLUTONIUM RELEASE
 WOULD BE A DISASTER FOR THE ENTIRE STATE
 WE ALL RELY ON THE TOURIST TRADE
 THE EFFECT WOULD BE NEGATIVE IF WIPP GOES THERE
 PEOPLE COME FROM ALL OVER TO SANTA FE
 FOR ITS CLEAN AIR & WATER- IT'S A NATURAL PLACE
 NOT ONLY COULD A SPILL KILL THE PEOPLE IT HIT
 BUT THE LAND WOULD BE POISON BECAUSE OF IT
 IF SHIPMENTS WENT THERE THIS CITY AND STATE
 THE PROPERTY VALUES ALONG THE WIPP TRAIL
 WOULD DECREASE SO BADLY IT WOULD RUIN REAL ESTATE
 TRANSPORTATION'S TOO RISKY ON ONE MOUNTAIN ROADS
 AND THE TRUCK COULD NEVER SURVIVE A CRASH TEST
 THE MONEY GENERATED FROM JOBS AT WIPP
 WOULDN'T WORTH IT IF WE ALL END UP DEAD FROM IT
 D.O.E. OPERATIONS AT OTHER WEAPONS SITES
 AVERAGE CONTAMINATE THE LAND & PEOPLE THERE
 AND WE DOUBT WANT THE SAME THING TO HAPPEN HERE.
 SO
 NO MORE NEWSITES UNTIL YOU CLEAN UP YOUR MESS
 ALTERNATIVES & CLEAN-UP ARE THE WAY TO GO
 AND SHOULD BE MADE THE FIRST PRIORITY
 AND SHORT-TERM STORAGE AT EXISTING SITES
 IS BETTER THAN PUTTING WASTE IN THE GROUND
 WHERE IT CANNOT BE RETRIEVED IF SOMETHING GOES WRONG
 SO NO EXPERIMENTS & NO SHIPMENTS TO WIPP
 UNLESS ENVIRONMENTAL STANDARDS ARE COMPLIED WITH

(OVER)

15-Jun-89: EX-00402, PAGE 1 OF 2

15-Jun-89: EX-00402, PAGE 2 OF 2

WORK TO DECONTAMINATE BEFORE YOU TEAR OUR STATE
 THE WEAPONS SITES THAT ARE RADIOACTIVE
 WE'RE DEALING WITH MATTERS OF LIFE & DEATH
 AND RUSHING WIPP IS JUST NOT THE SOLUTION
 WHO'S LOST THE PUBLIC TRUST W/ YOUR AGREEMENT WAYS
 HEALTH & SAFETY HAVE GOT TO COME FIRST THERE DAYS
 AND WIPP'S NOT READY W/ ITS CORKS & ITS BEHNE
 AND MAY NOT EVER BE WITHIN OUR TIME
 SO I SAY TO DOE AND THE MILITARY
 IF YOU CAN'T PROVE ITS SAFE
 DON'T MAKE THE WASTE
 IF YOU CAN'T PROVE ITS SAFE
 DON'T MAKE THE WASTE

SUBMITTED BY:

CHRISTINA BROWN
 PO BOX 407
 TESUQUE, NM 87574

(2)

13-Jun-89; EX-00403, PAGE 1 OF 1

Hi, my name is Sheila Sheyka. I am 11 years old. I am here from Zuni, New Mexico. I really do not wish for WIPP to come to New Mexico because it might ruin our environment and our lives. The nuclear waste could contaminate our water, air, and food. I hope there are enough people out there today to help stop WIPP from coming to New Mexico. We would all be very grateful if we could stop the WIPP route from coming through New Mexico. If there was an accident the nuclear waste could leak and ruin our lives. WIPP needs to meet the Environmental Protection Agency Standards. WIPP needs to meet the E.P.A Standards because maybe the State government may not know what WIPP is doing to our environment. WIPP workers may kill themselves and us. If the waste leaks the future kids may get sick. Please think about your future and about the future of your kids.

Thank-you

Sheila Sheyka
Sheila Sheyka

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7:14-97:35:1-12
7:35:4-33:1-2
3:1-3
9-8

13-Jun-89; EX-00404, PAGE 1 OF 4

My name is Jayann Sepich and I am proud to say that I am a native of Carlsbad, New Mexico. As a child, I spent many happy summer hours swimming in the clear blue waters of the Pecos River.

My site is more beautiful to me than the big blue sky that goes on forever over Carlsbad. And no people more dear than my family and many friends that call Carlsbad home.

Yes, Carlsbad, New Mexico is truly a beautiful town. But the true beauty to be found in Carlsbad is her people. Warm, gracious, caring and truly patriotic. The people of Carlsbad understand that radioactive waste is a critical problem. The accumulation of decades of waste is literally endangering the lives of people all over our country. Carlsbad, New Mexico is offering a solution to this immediate problem.

In 1982, after having lived in other parts of the country while attending college and pursuing careers, my husband and I decided that we wanted to move home to Carlsbad. Even though we both had very successful careers, there was something missing in our lives that we knew was to be found in Carlsbad—rooted. My husband, who was also raised in Carlsbad, and I had heard about the proposed WIPP site and were extremely concerned. We acquired the 1980 Environmental Impact study and read it cover to cover. Even though we both have college degrees, all of the technical data was not

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15-Jun-89; EX-00404, PAGE 2 OF 4

clearly understandable. So we went to Carlsbad and asked a lot of questions. All of them were promptly and fully answered to our satisfaction. If we had had ANY doubts, we would not have uprooted our lives and moved to Carlsbad. In July of 1982, we moved home.

It has now been seven years and we have had the chance to see the WIPP site built. We know many of the scientists and engineers involved. They are our friends and neighbors. Many of them have fallen in love with Carlsbad. Several have retired and chosen to stay in Carlsbad. Would these high level officials with hands-on WIPP experience choose to stay in Carlsbad if they thought it unsafe?

Don't you see? They 100% agree that WIPP is safe. If you want to see an amazing number of safety precautions, if you want to see awe-inspiring technology in action, I urge you to tour the WIPP site. I know many people who were opposed to WIPP because of misinformation who have become supporters of WIPP once they took the time to learn the actual facts and see WIPP firsthand. WIPP is the safest alternative for the disposal of radioactive waste that exists today, or that can possibly exist within the immediate future. In a choice between a haphazard, unscientific, totally inadequate disposal of our current stockpile of nuclear waste and an alternative that is the safest that can be built with current technology, WIPP opponents are choosing shallow, and I mean three to five feet shallow, landfills and obviously unsafe above ground disposal over burying it 2150 feet underground. I simply don't understand how intelligent people can support this kind of thinking.

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15-Jun-89; EX-00404, PAGE 3 OF 4

Some people choose to believe that if no solution is found for the safe disposal of nuclear waste that the production of nuclear energy and nuclear weapons will have to be stopped. They are so opposed to nuclear anything that they choose to ignore the danger of the waste that already exists. Others are truly concerned with the safety of WIPP and the safe transportation of the waste through their towns.

I am actually a part of the second group. I am very concerned with the safety of WIPP. After all, I live in Carlsbad. No one has more to lose if WIPP is not safe than the people of Carlsbad. Because of this, we should have the right to demand that the five year test period of WIPP be carried out utilizing actual operating conditions. Laboratory testing cannot possibly duplicate the real world, and is not acceptable.

The most important thing to me is making the world a safer place for my children. I would love for my eight year old daughter and four year old son to choose to live in Carlsbad when they become adults. But if they choose to live elsewhere, I know that opening of WIPP will mean that radioactive and hazardous waste will be disposed in the safest way possible. Not sitting on top of the ground contaminating the air that they breathe, or buried in shallow graves poisoning the water they drink.

I am an environmentalist. I am also a realist. Radioactive waste exists and it is not going to simply go away. We must deal with it in the safest way possible--and that is the Waste Isolation Pilot

Plant, I support the opening of WIPP. I support a safer world.

15-Jun-89: EX-00404, PAGE 4 OF 4

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15-Jun-89: EX-00405, PAGE 1 OF 1

Hi! My name is Faith Erlacho and I'm from Zuni, New Mexico. I am here to testify against WIPP (waste isolation pilot plant). I am concerned about our environment and the animals around us. What if the trucks carrying the nuclear waste had an accident on the highway we wouldn't know what to do. Where we live, they don't have the equipment or anything to get rid of the waste. The wind might come and carry the nuclear waste into another state or country. I read news papers. There are articles on WIPP both good and bad. That's how much people who study on it know about this nuclear waste. I wish this nuclear waste was never made so it wouldn't destroy our mother earth. I hope the Department of Energy will not bury this waste until the WIPP site meets with the Environmental Protection Agency standards. The DOE will have to show and prove that the nuclear waste will be safe underground. I hope you listen to me because not only do I care about my people but people through out the world.
Thank You

Faith Erlacho

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13-Jun-89: EX-00406, PAGE 1 OF 2

Good evening. My name is Kathleen Farmer. I live on the Zuni Reservation 200 miles south west of here. You may wonder why I, living so far west, would be concerned about the Waste Isolation Pilot Project. I am concerned about the future of our planet and for the generations that will follow us.

Please consider these points:

1. Transportation of the transuranic waste is questionable. By-pass roads around populated areas were to be completed before waste was to be transported via truck, but are still incomplete. This means the waste will be traveling in very populated areas of the southwest. Ideally, the waste transported by rail would be significantly safer.
2. The TRUPACT containers that will be carrying the waste have not been fully tested by the NRC standards. For instance, the dynamic crush test and the pressurization test. Test these transportation containers and make sure they meet NRC certification to prevent any hazardous spills in transit.
3. Are we prepared if there were to be an accident and the TRUPACT containers leaked the waste onto land or into the air or water? According to the SEIS report the Department of Energy would prepare an emergency preparedness plan for WIPP, as to date, to my knowledge, this has not been done.

Now to the WIPP site itself:

1. The Plutonium remains radioactive for 240,000 years, but the WIPP's controls are assumed for the first 100 years. The EPA standards only stipulate a 10,000 Year containment. What

(1)

could happen in the ensuing 200,000 years to that radioactive Plutonium?

2. The site was chosen because of its salt bed. What about the inflow and outflow of brine? The brine would over a number of years, deteriorate the containers, flow to the surface, and expose the transuranic waste.
3. The decomposing waste will generate gases. These gases could crack rock formations, thus pushing the brine out of the site and into the environment. There is a groundwater source above the site that could easily be contaminated.
4. Last week it was reported that cracks were found in the ceilings and floors of two test rooms. These pose two problems—worker safety and ease of retrieval. If after six years cracks are occurring, what will happen in 100 years?

In light of the recent investigations at Rocky Flats, it is scary to think of what might happen in New Mexico. I urge you to listen to the people and not rush the opening of the Waste Isolation Pilot Project. Think about the comments and questions we have raised. Comply with EPA standards before the site is opened and monitor it closely for the sake of generations to come.

Kathleen Farmer
Kathleen Farmer

Box 357
Zuni, NM 87327

(2)

15-Jun-89: EX-00407
PAGE 1 OF 3

RUBBER LADY, 369 sentazuma st..

#174, SANTA FE 87501

HELLO, I'M RUBBER LADY. I

CANNOT TALK. THEREFORE MY

STATEMENT WILL BE ~~RECORDED~~

~~READY~~.

I'VE BEEN LISTENING FOR TEN

YEARS.

IN THE BEGINNING I WAS

ASSOCIATED POLITICALLY WITH VIET

NAM AND THE IMPORTATION OF

RUBBER.

A FEW YEARS AGO I BECAME A

SAFE SEX COUNSELLOR...FOR

OBVIOUS REASONS.

AND NOW IT SEEMS ANOTHER BURNING

QUESTION FACES US....

I'M HERE TONIGHT TO ADDRESS THE

ISSUE

FASHION.

SO SAY WE HAVE A SPILL....

IF YOU CAN EVER COME OUT ON THE

STREETS AGAIN

WHAT WOULD YOU WEAR???

I FOUND THESE BOX GLOVES

USED AT LOS ALAMOS IN NUCLEAR

EXPERIMENTS....

TO HAVE AN EFFECTIVE LOOK, ~~WEAR~~

-IT'S A LITTLE DIFFICULT TO PICK

UP A DIME, OR USE THE DIGITS, ~~↑~~

OF COURSE, WHO KNOWS AFTER THE

SPILL IF WE'LL BE LEFT WITH

DIGITS, OR THE POWER TO MOVE

THEN.

RUBBER BOOTS...WON'T PROTECT YOU

FROM CONTAMINATION, BUT MIGHT BE

A PLACIDIO OF PROTECTION.

THEY ARE EFFECTIVE FOR THOSE WHO

7.35.1-12
7.35.4-3

7.35.1-12
7.35.4-3

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PAGE 2 OF 3

ARE STILL OPERATING ON AN OXYGEN
BASED, WATER CONSUMING SYSTEM...
(damp boots).

OF COURSE, THE OUTFIT IS SUBJECT
TO DETERIORATION...INCOMPARABLY

INSIGNIFICANT IN RELATION TO THE

HALF LIFE OF ANY RADIOACTIVE

SUBSTANCE....BUT FASHION'S

ALWAYS BEEN EPHEMERAL.

AND, NO CLOTHES WILL PROTECT YOU

FROM MAJOR BIRTH DEFECTS.

NEW MEXICO IS ALREADY CREATING

WORLD RECORDS IN THE FOUR

CORNERS AREA. GRACIAS AH

URANIUM.

THE HIERARCHY APPRECIATES

CARLSBAD'S GREAT DESIRE TO WORK

AND BE OF SERVICE TO THEIR

NATION. THE PEOPLE OF THEIR

NATION ASK THEM TO GIVE UP

TEMPORARY SOLUTIONS AND WORK FOR

THE WELL BEING OF THE WORLD.

DISCARD SITUATIONS THAT HAVE

BEEN PROVEN HARMFUL. DO NOT BE

DECEIVED, OR OPERATE FROM THE

PLACE OF NAIVE FAITH. DO NOT

TRUST ONLY BECAUSE YOU ARE

TRUSTWORTHY: LET US ALL WORK TO

HELP SOLVE CARLSBAD'S ECONOMIC

DILEMMAS, BY SUPPORTING WORK

THAT IS DIGNIFIED, RIGHT PAYING,

AND NON THREATENING TO

EXISTENCE. FOR TRULY, TO PURSUE

EMPLOYMENT UNDER THE PRESENT

CONDITIONS AND PROPOSALS OF

WIPP

COULD THREATEN THEIR LONG-TERM

COMMITMENT TO LIFE.

I MEAN, THEIR HEALTH, DRINKING

WATER, BIRTH ITSELF.

LET THE PEOPLE OF THIS TOWN, OF

SANTA FE, BAND TOGETHER TO

QUESTION THESE PLANS, UNTIL A
NON LIFE-THREATENING SOLUTION
CAN BE OFFERED TO ALL PEOPLE'S,
FROM ALL STATES AND NATIONS,
INCLUDING TOURISTS.

FOR THE SAKE OF OUR EARTH
MOTHER, WHO WE ARE IMPREGNATING
WITH OUR HOT TRASH, PAY
ATTENTION TO WHAT YOU EMPHONER:
DO TO THE ESSENCE: REMEMBER THE
AIR, THE WATER, THE EARTH
HERSELF...AS THEY ARE
PERSONIFIED YOUR CHILDREN, AND
IN YOURSELVES.

TO YOUR STYLE OF INTEGRITY, ADD
USEFULNESS AND
CONSCIENTIOUSNESS. ASK NOT THAT
YOUR SCIENTISTS AND DESIGNERS
DEAL WITH ISSUES THAT DO NOT
WORK. AS A NATION, A STATE, A
DEMOCRACY, ASK FOR THE RIGHT FOR
THE PEOPLE TO DECIDE THESE
ISSUES, NOT GOVERNMENT
OFFICIALS.

LET THE GOVERNMENT OFFICIALS
FULFILL THE WILL OF THE PEOPLE.
NOT THE WILL OF A FEW. AND TO
YOU OFFICIALS: NEVER TAKE YOUR
WILL TO SERVE TO SUCH A PLACE
THAT YOU ENDANGER THOSE YOU
SERVE.

SING, DANCE ON THE EARTH.
*AND KNOW YEE, MAN, THAT IF YOU
MESS UP, YOUR FUTURES WILL BE
CONSUMED BY THE CONSEQUENCES.
FOR NATURE WILL TAKE ITS COURSE
AND SHOW YOU THAT THE TRUTH
CANNOT BE HIDDEN. NEITHER CAN
NUCLEAR WASTE.

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15-JUN-89: EX-00407
PAGE 3 OF 3

15-JUN-89: EX-00408, PAGE 1 OF 2

COPY TO: Mr. W. John Arthur
ATTN: SEIS Comments
U. S. Department of Energy
Albuquerque Operations Office
P. O. Box 5400
Albuquerque, NM 87115

My name is Casandra Tate. I am the granddaughter of
Lovinia Guilloroy Tate and Aza Ardoin Solleau and the
great-granddaughter of Emily and Salina. I am also the
grandmother of four-and-a-half month old Ariel Elise
Josefina Cantu -- the only native New Mexican on OUR side
of the family.

I'm here on her behalf to express my feelings about
what I perceive to be a gross and insane determination on
the part of the U. S. Department of Energy to once again
have its way -- AT ANY COST -- Ignoring the concerns of
citizens and the right of New Mexicans to a clean and safe
environment for many years to come.

As I observe representatives of federal and state
government, most recently GARY CARUTHERS, in positions of
unlimited power, I am not only disenchanted with authority
but deeply embarrassed by a government which from an early
age I was taught to respect and obey. I question the
injustice of their remarks, the lack of conscience in their
actions and the lack of intelligence with which they set
policy and grant permits which affect our lives.

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2

All I have to give are my words and my presence here, as if my words and my being here are enough to prevent the dark cloud of ignorance from taking away my right to life, liberty and the pursuit of happiness, my right to a clean and safe environment -- for my granddaughter's great-granddaughters.

"That to secure these rights, governments are instituted among men, deriving their...powers from the consent of the governed; that whenever any form of government becomes destructive of these ends it is the right of the people to alter or to abolish it..." That sentence is from the Declaration of Independence signed 213 years ago, BEFORE nuclear reactors were in our backyards and BEFORE BIG MONEY!

At Gettysburg, Lincoln said "...that this nation under God, shall have a new birth of freedom, and that government of the people, BY the people and FOR the people, shall not perish from the earth." He was assuming, I'm SURE, that Earth would outlast the U. S. Department of Energy!

I am an American. Up until several years ago I felt like I was making choices about my future. In the matter of the WIPP, Gary Caruthers and the U. S. Department of Energy have made it very clear to me that I have no choice, and Ariel Elise Josefina Cantu, a questionable future.

God save us all!

(2)

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32-1
9-8

Steve Kauffman
985 Agua Fria #110
Santa Fe N.M. 87501

I'd like to thank you for this chance to speak. I'd also like to say that I'm unhappy with the way the hearings are being held. I know that there is a need for a nuclear waste dump. In looking over the SEIS document I'm not convinced in the least bit that WIPP is the answer. This SEIS document has much misleading information and doesn't address issues fully and completely such as alternatives, human error, transportation, and site problems to name just a few. I feel a strong need for new EPA standards to be met when they are released before any waste is taken to the site. I feel that the tempac containers should meet NRC standards. I also seriously question the safety of the site location. There are so many variables coming up like the bane pockets, cracks in the walls, seepage, gas accumulation, and the aquifer above that I find it hard to believe the DOE when they tell us it's safe. If there is to be a nuclear waste dump made shouldn't we be as meticulous with thought time, and money as we were with the Manhattan project? Speaking of, just how many bombs do we really need? And is this considered National Security the way we are polluting ourselves and Mother Earth? Look at Savannah, Hanford, Rocky Flats, Idaho. Look at the pollution there do we want to do this to yet another site?

(1)

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231-2
52-1
52-2
733-31

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731-2

714-17

31-2
31-4
36-1
52-1
52-2
9-2

Maybe the DOE should focus on cleaning these areas up, storing the waste above ground, slowing and stopping bomb production, and look for a viable alternative before we rush on to contaminate yet another site.

I've been here for a lot of the day and have heard a lot of people speak. I want to thank them and the ones to speak.

I'm one that doesn't get up and speak in front of groups and feel that it is due time to start expressing the way I feel about certain issues.

All I can say for a final statement is that I deeply hope that all that is said and felt at these hearings is looked at closely by the DOE and that the best choices for ourselves and Mother Earth to live cleanly are made.

Sincerely,
Steve Kauffman
SKK

361
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384 I have been here
385 w/ Spm
386 w/ Fred. Justin & Mary
387 All the facts trying to

388 Support that Wipp

389 May be HARMFUL

390 to your health —

391 I don't want to

392 Use facts, I'd like

393 to appeal from a

394 point of passion.

395 I have been

396 w/ Spm & my another once

397 w/ Spm walked through SF

398 on the Camino Real ①

399 EX00410

15-Jun-89; EX-00410, PAGE 2 OF 5

or now you want
to call it to

El Canino final

Please do not make
my land of instant
the land of permanent

If the politicians

do support WIPP

I would like to

encourage that

EX00410 ②

7.15.4.1
7.15.4.2

15-Jun-89; EX-00410, PAGE 3 OF 5

Until there
is a by pass
through SF

I suggest we
send a round
barrel of waste
to each Round

House here & abroad.

If these supporters

supply no damage

in 5 years - Stay the course
EX00410 ③

7.15.4.1
7.15.4.2

~~Waste~~ ~~garbage~~

Please do not compare
Pot Ash to Nuclear
Waste - It is a
Material in which
there is much
unknown why
can't DOE accept
that human side -
Take all precautions

EX00410 (4)

7:13.3-1
7:14.2

3 Safety
Showing the opening
of WSP & humbly admitting
room for Human Error.
NEET/PA should
Why must I whose
inventions are buried
in this land alone
this land with
the world's garbage

EX00410 (5)

7:14.2

3:1.3



Carlsbad Chamber of Commerce • 302 S. Canal • P.O. Box 910 • Carlsbad, N.M. 86220 • (505) 887-6516

June 15, 1989

My name is Terry Burns, 302 S. Canal, and I am the Executive Director of the Carlsbad Chamber of Commerce. My purpose here today is to register the support of the 700 business and professional members of the Chamber for the WIPP project.

While it is true that the project is an economic plus for the area, none of us are willing to place any economic factors above the health and safety of our families. The support of the business community clearly demonstrates that our community is comfortable that the project poses no threat to the well being of the community.

It appears to us that there are two areas of opposition to the project. The Santa Fe business community seems to have a problem with the transportation of the transuratic waste through their community. The Carlsbad business community, as represented by the Chamber, does not desire to place themselves in opposition to our fellow business people here in Santa Fe. We would support their effort to not have waste routed through the community, and are behind Senators Domenici and Bingham in their current bill addressing this issue.

15-Jun-89; EX-00411, PAGE 1 OF 2
Serving Carlsbad Since 1892

1-1
3.1-1

7.3.3-3

Testimony of Terry Burns
June 15, 1989
Page 2

15-Jun-89; EX-00411, PAGE 2 OF 2

The second point of opposition is the safety of the site. In our minds, the safety concerns of people hundreds of miles away, and the concerns of those located close to the site are two different animals. Just as we feel we should not come up here and tell people what they should or should not allow to be transported through their communities, neither do we feel people from areas remote to us should come in telling us what we should or should not allow to be stored near our community.

We process nothing in Carlsbad which produces nuclear waste. Neither do we have to accept it. It is, however, a fact that the waste exists, and is threatening large areas of our country. No solution is perfect, but we cannot in good conscience sit by and allow fellow countrymen to be at risk when we possess the means to remove that risk. We feel WIPP is a viable and reasonable solution to a serious national problem.

If a better solution was brought forth, we would be quick to switch our support. However, we feel to oppose the only viable solution presently available, and to keep the population at risk over very minor points compared to the alternatives is irresponsible. Anyone can identify problems, the trick is to identify the best available solution. We feel at this point in time, WIPP is exactly that.

Thank you for your attention.

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My name is Michael Motley. I am speaking as a citizen of New Mexico.

The people of Fernald, Ohio trusted the Department of Energy. So did the workers at the Feed Materials Production Center which processed uranium for nuclear weapons for 35 years before the government shut it down. These workers were exposed to uranium concentrations 1000 times higher than the legal limits, and the people of Fernald were exposed to 552,000 pound of radioactive dust from 1951 to 1955. These exposures were the result of negligent pollution control practices and admitted 'limited' DOE monitoring of emissions.

The people of Idaho Falls also trusted the Department of Energy. From 1952 to the mid-60s over 16 billion gallons of radioactive waste were dumped into their scumifier thru injection wells. The scumifier now contains Plutonium, Strontium 90, Cesium, Cobalt 60, Tritium and Iodine 129 which has a half-life of 16 million years.

Most recently, the people of Broomfield, Colorado trusted the DOE. The FBI has alleged that the Rocky Flats Plant dumped toxic wastes into Walnut Creek, which flows into their reservoir. The FBI also says that hazardous wastes were burned illegally in an incinerator that was shut down for safety violations. For these crimes Rockwell International was awarded an \$1.6 million dollar bonus for their excellent management of the site.

The people who live near Hanford Reservation and other contaminated installations all trusted the DOE. They were used as Guinea pigs without their consent or knowledge. And now you are here asking the people of New Mexico to believe that the WTPP site is truly safe. Gentlemen, we don't trust you.

You have estimated that it could cost between 100 and 200 billion dollars to clean up, after yourselves. This figure accounts for

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32-1
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2.

some 932 sites, and possibly 770 others, not including your innumerable leaking burial grounds, your previous exonerations in hazardous waste disposal. Your appalling record shows a consistent pattern of improvisation, neglect, lies and contempt for the safety of our lives and environment. You make your own rules and you break them when it suits you. You don't even comply with the standards our government imposes on private industry. When you have a problem you change the definitions of high and low level wastes rather than develop appropriate technologies. When things go wrong, you lie to us. You are being investigated by your own government for safety violations and blatant disregard of public health standards.

You are here telling us the WTPP site will be secure for thousands of years based on a study that refers to EPA standards that were thrown out of court because they weren't stringent enough to comply with the Safe Drinking Water Act. You tell us you can safely transport nuclear waste thru Santa Fe on roads that aren't built yet, in containers that don't work yet, and you don't factor in human error.

Based on your dismal record of human error with which we will have to deal with for years to come, I don't believe you. You should be held accountable to the Standards set by the Environmental Protection Agency and the people of the United States who you are poisoning with your criminal neglect. You must answer the criticisms of the National Academy of Sciences with positive action rather than misinformation and more lies. You should be monitored by as many oversight agencies as possible, every step of the way. Because we don't trust you. We can't. Your record speaks for itself.

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1-3
3-3
3-16
32-1
731-2
731-121
733-5
735-1
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WIPP Testimony June 16 7:15 a.m.

EX-00413

My name is Amy Bunting and I would like to begin by saying that I think the way the DOE is handling these hearings is despicable--dividing us into 3 separate rooms and giving us unreasonable hours to testify makes it clear to me that the DOE could care less about what we have to say. Be that as it may and mad as I am I shall continue: I live in Eldorado development access to which is via Rte. 295. If the WIPP site were to open those of us in Eldorado could expect 3 truckloads of radioactive waste per day for the next 20 years-- (there is no bypass planned for Rte 295). Each of those 3 trucks would be carrying 3 truptacts each, each truptact as stated in the SEIS would be 8 feet wide by 10 feet high. We are not talking about pickup trucks here, we are talking about 3 very, very large trucks daily. Just turning off 295 to Rte 295 will be an interesting maneuver to say the least especially during the icy road conditions of our winters. And anyone who has driven down 295 at that intersection is aware of the narrow traffic feed lane and hazardous conditions any kind of inclement weather poses.

When I look at the map of the transportation routes planned for this nuclear waste, I am appalled. Does the public realize that practically every state in the union will have these giant radioactive ~~truptacts~~ going through on a regular basis? Why oh why spend billions of tax dollars to haul this deadly waste all over the country?? It just doesn't make sense!! In order to create the bombs from which this nuclear waste comes we have used billions and billions-- not millions-- of tax dollars which could have been used on our dangerously deteriorating infrastructures such as our national highways down which the DOE now wants to haul this nuclear waste. The DOE is willing to risk endangering and in some cases the nuclear waste has already killed by cancer deaths-- our citizens because of a mass hatred and fear of citizens in another country about whom our citizens know next to zero. Such is our National Insanity perpetuated by the DOE.

Now maybe its the mother in me but I love where I live and I have a gut instinct that you don't foul the nest you live in and I have an equal gut instinct that you don't systematically think up ways to exterminate your own species. If I sound emotional, you bet I am and we had all better start feeling emotional caring for this planet that we live on. We can dig leaky holes in the ground and try to hide the hideous waste

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16-JUN-89: EX-00413, PAGE 2 OF 2

we have created and then go right on creating more or we can choose to take responsibility and say no and keep the existing nuclear waste ABOVE GROUND. We need to let the government, the DOE and the scientific community know that we do not want any more nuclear warheads to be built. The scientists were so brilliant that they thought up these monstrous weapons, now we want them to use their expertise to solve the real problem of how to deactivate the radioactive waste so that it doesn't continue to threaten life on earth.

I say no shoving it in an expensive hole in the ground with the stupid "out of sight out of mind" mentality. It must remain above ground where it can be visibly monitored and as a constant reminder of the total failure of this nation to deal with conflict in any way but violently to the max you can't get more maxer than instant frying or slow cancerous death.

We are told that those giant truptacts are absolutely leakproof--well then why not put the nuclear waste in them as planned and let them stay right where the waste was created above ground. There is no need to haul the waste thousands of miles away.

So now what to do with this marvelous technological wonder of a hole called WIPP? My suggestion is that we turn it into a maximum security prison for particularly irredeemable lifeterm prisoners. We could get the word out that instead of prison ordinary style, anyone convicted of major drug or murder crimes will be forced to spend the rest of ~~their~~ life -no parole- underground in the WIPP hole never to see the light of dry. That ought to take a bite out of crime! And just to test the living conditions it would be a good idea for our governor to spend a few years down there since he seems so enamored of the site.

My final word is to the DOE: You have lied to us, withheld information, misled us and generally ignored us--there is no reason for us to trust you on the safety of this project, particularly on the transportation of the nuclear waste. So I say keep it in your wonderful leakproof truptacts right where it is being created and let the people in Rocky Flats, Idaho Falls, Hanford and Savannah River live with the truptacts since it was their choice to make their living by creating nuclear weapons. It is not New Mexicans' responsibility to turn our beautiful state into a radioactive waste heap.

(2)

16-Jun-89: EX-00414, PAGE 1 OF 1

For: Maurice Weisberg

From: Nancy C. Childs and Prastine Childs

Re: Statement to be read by Mr. Weisberg on behalf of Mr. and Mrs. Childs, pre-registered commenters, who will be in Europe on June 15, 1989, at the SMIS PUBLIC HEARINGS, June 15, 1989, Sweeney Conference Center, Santa Fe, New Mexico.

As long term residents of New Mexico, we have been concerned about the WIPP project since its inception.

Millions of dollars have been spent on preparing environmental impact statements. Worthless documents answering nothing. A disgrace. We are asking that NO ACTION BE TAKEN BY DOE. STOP WIPP SHUFF. TAKE WASTE ELSEWHERE. Or, better yet, stop generating radioactive, nuclear waste altogether.

The citizenry of both Idaho and Colorado are "up in arms" about transuranic waste storage (and generation). Why should New Mexico have to accept what Idaho and Colorado reject??? Why should New Mexico have to accept the piles of contaminated gloves, tools and other radioactive rubbish that have been building up for years in the ten various weapons plants and research laboratories????

WIPP cannot be operated safely. The study makes this clear by neglecting to prove the contrary. It would be insane to open WIPP without even complying with Federal environmental standards, which are minimal. WIPP, as Don Hancock of Albuquerque's Southwest Research and Information Center says, will be another DOE facility that will contaminate the environment and cost billions to clean up.

We do not want WIPP to open now or ever. We do not want nuclear waste passing through Santa Fe County, where we live. Remember, it takes 24,000 years for a speck of plutonium to lose half its radioactivity!

Thank you for considering our views.

With great sincerity,

Nancy C. Childs
Prastine Childs
 22 May 89. ①

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3.6-1

4.1-1

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3.1-21-2
7.3-3.3

16-Jun-89: EX-00415, PAGE 1 OF 9

Seis hearing
 Testimony of Lisbeth Rymland
 914 Alto Street
 Santa Fe, New Mexico 87501

The poisoning of our planet challenges us to put nationalism, patriotism and factionalism to bed forever. Patriotism no longer serves us. It is a baby blanket. The only thing about nationalism that serves us is Marilyn Horne singing the anthem at the Macy's Day Parade. Nationalism no longer serves us. Political, oppositional thinking no longer serves us. Because we are all made of the same stuff. We are all made of the same stuff that is being poisoned. We all come from the same gene pool that is threatened by gene deranging substances and if we don't act fast we will soon feel sick. It's no fun to be sick. Besides at heart we are tired of the dogfight between the black and the white dog. We are tired of politics. It's boring. We've got to go beyond yay or nay with this issue. We've got to begin to create at the same scale as we're destroy. We've gotten lost in the details. We're all armed with facts and figures about a set of bad ideas that are over forty years old. The radioactive waste issue is no longer a political problem. It threatens us all equally. We are all caring and concerned people who need to pool their resources quickly. That might be an interesting adventure. International ecological squads will take business away from Club Med as singles adventures. The radioactive waste issue is a creative problem. It is an economic problem. The more we treat this as a political problem, the more we factionalize the more we lie to each other, the more we project our shadows and hatred onto each other. This hatred is the stuff of toxic waste. It is the same thing. And it is making us sick. The DOE are not Nazi doctors. The opponents of WIPP are not mindless hippies. We have to go beyond oppositional thinking with this thing. We have to get really creative with it. If we have the money and the resources to de-toxify and revive the planet, Nature itself has given us ten solutions to every problem. We don't have to pay for research. All the solutions to clean, free energy and the transformation of waste exist in vaults under lock and key and just need to be brought to the light of day. An example, A Filipino has taken a biological problem and turned it into a miracle. From a total lay position Dr. Godfredo Monsode has worked for years studying the Water Hyacinth. It is considered by the petrochemical/pesticide manufacturers as one of the most noxious weeds known to man. It is clogging the waterways in Australia. It grows wherever there is waste. It is another piece of God. A miracle because what it does is take toxic wastes such as Dioxin and a

great number of other life-threatening chemicals, and like a jackal, an angel, or a saint, this plant, this piece of God, takes up the poisons into its root systems and cellularly and microbiologically crunches them. The petrochemical/pesticide manufacturers treat the Water Hyacinth as an enemy. Imagine, Nature is begging to give us medicines and solutions to toxic waste in abundance and what do we do? Poison these plants from the sky. We should be worshipping this plant, not waging war against it. Dr. Monsode recognized the miracle in this plant. He thought, there must be a reason why God would have this plant grow in abundance all of the sudden. It grows wherever poisons are. He thought, you don't poison life. You use what God gives us in abundance. As a layperson he went on to make forty major products from the water hyacinth. Each of these products embodies a solution to a world problem. First he discovered that a compound of Vitamin A could be extracted from this plant. We all know that Vitamin A deficiencies in third world countries cause blindness. The abundance of this product offers a cure to blindness. We all know that with the tree shortage on this planet, paper making has become a problem. Dr. Monsode has started making paper products out of the Water Hyacinth. The abundance of the Water Hyacinth offers us paper. Then he discovered the Water Hyacinth gives protein. He did another miracle. He got the Filipinos to eat green bread. We sell them our shitty, depleted wheat to keep them stupid, and he adds water hyacinth protein into their bellies. He's made organic dyes out of it. As well as organic preservatives. It's a God given thing isn't it? Another God-given thing that we degrade and treat as a pest is hemp. Our founding forefathers were horticulturists. They grew hemp as a God-given fiber for rope, for baskets, for producing organic phosphorus which goes back and replenishes the soil. Every starving farmer on the earth could make a good living cultivating hemp or water hyacinth. The water hyacinth makes forty useful and commercial preservatives. Don't believe me, go and see for yourself at NASA's Water Hyacinth and Aquatic Program. And someone on the earth has neutralized radioactive waste through Algae and water hyacinth. I don't know who it is right now. When Monsode started to be successful everyone thought of him as insane. We banish our visionaries to the fringes and call them cranks. I suggest we begin looking to the fringes for solutions. The heroes journey involves thinking for clues. The heroes journey involves thinking for ourselves. The heroes journey involves thinking for transformation of waste. It is time we stick our hands into the wound and bring life to the scorched and ailing places. We have created a world economy based on

stockpiling death. Is it possible for us to put our best minds and energies to recreate a world economy based on our most wild imaginings? Is it possible to create a world economy based on reversing our bad mistakes, to cleaning up our messes? Other instances of heroic transformations of waste can be found in the numerous case studies of the conversion of military industries to domestic production. The Lucas Aerospace Plan, the Landskrona Production in Sweden, the conversion work at Krupp's MAK factory in Kiel, Blohm and Voss in Hamburg. Blohm and Voss, for instance, converted tank parts production into two main areas--shipbuilding and energy policy--the workers decided to investigate a plan to build anchored ships containing small windmills that would be installed in off-shore locations and could generate as much energy as a 700 megawatt, nuclear-fueled power plant. Now! ...the challenge is...to transform wastes in the form of human beings... What do we do with prisoners? What can they teach us? What can we do with mental patients? What can we do with the mafia? What do we do with the corporate gamblers? We have the means to heal the crazies or at least study them in kind environments. We have the means to make the mafia and corporate gamblers happy without untold destruction to the biosphere. All of these people could be made very useful.

We are bored with oppositional thinking. We need to build an economy based on better, more exciting games than war. Our nomadic ancestors were thoroughly challenged by the mysterious forms and changes of nature. As they moved across the land, their bodies and minds were entirely charged and challenged by the soulful intelligence of Nature. Even war was beautiful then. We were painted and strident and aware of the soul of the wilderness. The non-human world was alive with secret information for us. We have stopped physically moving. We have become stagnant. Our little clapboard homes are stultifying. The work is no longer a spiritual adventure. Our only adventure in life comes vicariously through the television set. No wonder we behave like sleepwalking demons destroying everything that once sustained us. There is no more deep purpose in our lives.

I'm not suggesting we go back in time. I am suggesting we invent better, more exciting games than war. There have been sources of clean and free energy since beginningless time. There are ways to neutralize the waste. No one wants to. It is a multibillion, zillion, squillion dollar business run by the Mafia. Even the opponents of WIPP don't seem interested enough in solving the problem. How do we create an ecology of motivations in which both the landbased peoples and the

corporate gamesters are happy? That is our challenge. The mark of courage will be the ability to look into the face of our shadow side and begin to re-configure it into life-giving substance. That means discovering wisdom and value in our enemies, for the things we can learn from them. The Soviets, for example. The fact that we have had so much trouble with the Soviets and communism probably stems from the fact that we have some hard lessons to learn from them. The problem with communism has always been that it sacrifices the individual for the good of the whole. The problem with capitalism has always been, it sacrifices the whole for the good of a few strong, well-bred individuals. The Soviets, the Americans, we mirror one another. Now we must trade aspects, trade secrets and each become more intelligent and whole. That means looking at the poisons we make, sticking our hand into the wound and bringing life, spirit and imagination into the scorched and damaged places. This is the contemporary heroes journey.

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The poisoning of our planet challenges us to put nationalism, patriotism and factionalism to bed forever. Patriotism no longer serves us. It is a baby blanket. The only thing about nationalism that serves us is Marilyn Horne singing the anthem at the Macy's Day parade. Nationalism no longer serves us. Political, oppositional thinking no longer serves us. Because we are all made of the same stuff. We are all made of the same stuff that is being poisoned. We are all made of the same genetic pool that is threatened by some deranging substances and if we don't act fast we will all soon feel sick. It's no fun to be sick. Besides at heart we are tired of the dogfight between the black and the white dog. We are tired of politics. It's boring. We've got to go beyond yay or nay with this issue. We've got to begin to create at the same scale as we destroy. We've gotten lost in the details as we armed with facts and figures about a set of bad ideas that are over forty years old. The radioactive waste issue is no longer a political problem. It threatens us all equally. We are all caring and concerned people who need to pool their intelligence and resource people who might be an interesting adventure. The radioactive waste issue is a creative problem. It is a radioactive problem. The more we treat this as a political problem, the more we factionalize, the more we lie to each other, the more we project our shadows and hatred onto each other. This hatred is the stuff of toxic waste. It is the same thing. And it is making us sick. The DOE are not Nazi doctors. The opponents of WIPP are not mindless hippies. We have to go beyond oppositional thinking with this thing. We have to go really creative with it. If we have the monies and the resources to stockpile death, we certainly have the resources to de-toxify and revive the planet. Nature itself has given us ten solutions to every problem. We don't have to do any more research. All the solutions exist in vaults under lock and key and just need to be brought to the light of day. An example. A Filipino has taken a biological problem and turned it into a miracle. From a total lay position Dr. Monsod has worked for years studying the Water Hyacinth. It is known by the petrochemical/pesticide manufacturers as one of the most noxious weeds known to man. It is clogging the waterways in Australia. It grows wherever there is waste. It is another piece of God. A miracle because what it does is take toxic wastes such as Dioxin and a great number of other life-threatening chemicals, this piece of God, an angel, or a saint, this plant, and like a jackal, takes up the poisons into its root systems. The petrochemical and microbiologically crunched them. The petrochemical/pesticide manufacturers treat this miracle as an enemy. Imagine, Nature is begging to give us medicines and solutions to toxic waste in

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abundance and we fly in airplanes and poison them from the sky. We should be worshipping this plant, not waging war against it. Dr. Monsode recognized the miracle in this plant. He thought, there must be a reason why God would have this plant grow in abundance. It grows wherever poisons are. He thought, you don't poison life. You use what God gives us in abundance. As a layperson he went on to make forty major products from the water hyacinth. Each of these products embodies a solution to a world problem. First he discovered that a compound of Vitamin A could be extracted from this plant. We all know that Vitamin A deficiencies in third world countries cause blindness. The abundance of this product offers a cure to blindness. We all know that with the growing shortage of trees on this planet, paper making has become a problem. Dr. Monsode has started making paper products out of the water hyacinth. The abundance of the water hyacinth offers us paper. Then he discovered the water hyacinth gives protein. He did another miracle. He got the Filipinos to eat green bread. We sell them our shitty, depleted wheat to keep them stupid, and he adds water hyacinth protein into their bellies. He's made organic dyes out of it. As well as organic preservatives. It's a God given thing isn't it? Another God-given thing that we degrade and treat as a pest is hemp. Our founding forefathers were horticulturists. They grew hemp as a god-given fiber for rope, for baskets, for paper. Hemp has proven to be an alchemical laboratory producing organic phosphorus which goes back and replenishes the soil. Every starving farmer on the earth could make a good living cultivating hemp or water hyacinth. The water hyacinth makes forty useful and commercial preservatives. Don't believe me, go and see for yourself at NASA's Water Hyacinth and Aquatic Program. NASA went to the Philippines to learn from Dr. Monsode. And someone on the earth has neutralized radioactive waste through Algae and water hyacinth. When Monsode started to be successful everyone thought of him as insane. We banish our visionaries to the fringes and call them cranks. I suggest we begin looking to the fringes for solutions. That we start looking to the cranks for clues. The heroes journey involves thinking for ourselves. It is time we stick our hands into the wound and bring life to the scorched and ailing places. We have created a world economy based on stockpiling death. Is it possible for us to put our best minds and energies to recreate a world economy based on our most wild and exquisite imaginings? Is it possible to create a world economy based on reversing our bad mistakes, to cleaning up our messes? We are bored with oppositional thinking. We need to invent better, more exciting games than war. We need to re-create an economy based on better, more exciting

games than war. Our nomadic ancestors were thoroughly challenged by the mysterious forms and changes of nature. As they moved across the land, their bodies and minds were entirely charged and challenged by the soul and intelligence of Nature. Even war was beautiful and intelligent. We were painted and strident and aware of the soul of the wilderness. The non-human world was alive with secret information for us. We have stopped physically moving. We have become stagnant. Our little clubhouse homes are stultifying and the work is no longer a spiritual adventure. No wonder we are acting like monster sleepwalkers destroying everything that once sustained us. There is no more deep purpose in our lives. I'm not suggesting we go back in time. I am suggesting we invent better, more exciting games than war. There have been sources of clean and free energy since beginningless time. There are ways to neutralize the vast, trillion dollar business run by the Mafia. Even the opponents of WIPP don't seem interested enough in solving the problem. How do we create an ecology of motivations in which both the landbased peoples and the corporate gamblers are happy? That is our challenge. The mark of courage will be the ability to look into the face of our shadow side and begin to re-configure it into life-giving substance. That means discovering wisdom and value in our our enemies, for the things we can learn from them. That means looking at the poisons we make, sticking our hand into the wound and bringing life, spirit and imagination into the scorched and poisoned places. The DOE are not Nazi doctors. The opponents of WIPP are not mindless hippies. Both sides have only half the makings of an excellent team. You at the DOE have put yourselves at the heart of the battlefield with this issue. You have acquired technical prowess. You have positions of responsibility. Many of you are householders concerned about your children and grandchildren. That is more than the opponents have done. Your designers and engineers saw a problem and began working to invent something unprecedented. The WIPP site seemed an excellent solution. New Mexico is sparsely populated. Salt beds would seem to be the safest spot for radioactive waste. Who would have ever imagined anyone near the site? Who would have ever imagined the very real possibility of the waste draining into the water tables of Mexico. No one wants to harm Mexican people. The Mexican people are a beautiful people full of spirit and imagination. No one wants to make them sick. The problem with political, oppositional thinking is that once you discovered your mistakes you had to hide them. You couldn't come out on TV and immediately say, "Look, we've made a horrible mistake with the WIPP site in Carlsbad and we need creative thinking and

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money to solve the problem. Appropriate clear thinking on these issues will be greatly rewarded." But no, our egos are too precious for that kind of generosity. We have to be the ones who know it all. I say if we have the monies and resources to stockpile death, we should certainly have the monies to reverse our bad strategies like a terribly swift and heroic army. Environmental issues challenge us to put nationalism to bed forever. They challenge the evolution of the human race to put oppositional, political thinking as well as national patriotism to bed forever. The biosphere is in danger. The planet is in danger. When the biosphere is in danger we are all bound to be sick. It is not fun to be sick. The heroes journey becomes the process of inventing better games than war. The heroes journey becomes the work of acquiring wisdom and information from the opposing point of view. The heroes journey becomes the establishment of international ecological squads. We need an international army corps of ecologists willing to stick their hands into the wound, to bring forth revival and spirit and new life. For the planet's health and for the health of our children, the U.S. would be better off in an energy black out than in perpetuating the destruction we're doing. Those of us who believe in armageddon think it doesn't matter if we treat the earth like a whore. It doesn't matter if we turn forests into ugly suburbs. It doesn't matter if the rainforests are turned into McDonald's hamburger meat. They think the kingdom of heaven is the only thing that really matters. I think they are bound for a big surprise. The day they march up to those pealy gates, the angels will see them coming and hold their noses. "You were supposed to make heaven on earth, you jerks! You've contaminated our paradise with your hells, your nuclear tests, your poisons, go back and invent a better game than war! Go back and create the same scale as you destroy!" They'll give Americans a short quiz at the gates. "What's more beautiful and valuable, the rainforest or a fleet of McDonald's hamburger stands?" And the average American who has no education because his childhood was sacrificed to the military industrial complex will say, "Uh, I think McDonald's hamburger stand" and the buzzer will go off and he will be ejected straight out of there. Who cares about being an American? I am not a communist. I believe the soviets are an exquisite, free-spirited independent people with the bad habit of picking stern patriarchs to keep them in line. They could learn from us about how to lead independent autonomous lives without the guidance of a superstructure. We have a lot to learn from them as well. We could learn about nobility. We could learn there brand of free-thinking which is more individualistic, in some ways than ours. The problem with communism has always been that it

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sacrifices the individual rights to the good of the whole. The problem with capitalism has always been it sacrifices the whole for the good of strong, well-bred individuals. We need to trade aspects, to share our secrets. Not hurt each other. The human race and the biosphere would do better if America had a temporary energy black-out, if we lost the ability to manufacture weapons. What are we fighting to preserve here? Hell on earth? Can we re-create an economy based on bringing heaven to earth instead of hell on earth? That is the contemporary heroes journey.

Elaine Giocondo June 16, 1989

D.O.E./SEIS HEARINGS.....SANTA FE, NEW MEXICO

Gentlemen,

Recently, I called the D.O.E. and Los Alamos Laboratories to gather some factual information. I was asked if I were a member of some group. Let me begin by saying that I speak now as an individual and that as an individual I fully support the work of one group: Concerned Citizens for Nuclear Safety. That group has provided me with accurate information about the WIPP project. Where as I was unable to get my questions answered by either the D.O.E. or Los Alamos Labs, within the time limitations set by this meeting.

I have lived in Santa Fe for 16 years, but I have also lived in other parts of the country: New York, New Jersey, Connecticut, and California. I've lived in other countries: Germany, Canada and Colombia, South America. The issue of nuclear waste is not a local issue. I'm not speaking as a New Mexican trying to shove this problem into someone else's back yard. I'm speaking as one inhabitant of this planet looking for solutions to what is now a global problem.

We "invented" nuclear power right here in Los Alamos and as a nation we have profited from the spread of nuclear industries through out the world. I think we have a responsibility to the nations that have followed our example in the past, not to rush through this problem, not to bury it for future generations to take care of, but to face it in an impartial, non political manner and to look for real solutions.

One objection that I personally have to the SEIS document is that it is based in the assumption that there can be levels of evasion from either the trucks that will transport waste material through 23 states, or from the WIPP site itself that this policy of acceptable levels of poison understand that this policy of acceptable levels of poison is one that has been used by the Environment Protection Agency since it first came into being in the early seventies. (It is not only the D.O.E. that needs to update it's policies to the problems of the nineties.) This assumption that low levels of radiation or chemical poisons are not harmful is being challenged by independent medical research. The Petcau study made in Canada indicates that

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sustained low level exposure may cause chronic fatigue and damage to the immune system. But frankly gentlemen I don't need medical research to convince me. I recognize that my own body is a delicate balance of energy that is influenced by other forms of energy, like fluorescent lighting for example. Why then would it be immune to the effects of low level radiation. The lesson of the unexplainable disease, called a modern disease, is that has to do with the weakening of our immune system, is that low level exposure to poison, in our food, in our air, and in our water, will mix together, will accumulate, and will become harmful. I do not need medical research to prove this point either. It is fundamental logic.

Gentlemen I would like to thank you for taking the brunt of what is being said at these D.O.E. hearings. I watched you yesterday and have the impression that you stand as loyal guards to a cause that you feel is a matter of national security. I think Mr. Ashland particularly should be commended. He managed to be deeply insulted by one speaker and remain attentive and receptive to the next, taking notes on the information that he thought would be of value to his organization. I respect loyalty. I am wary however when government interest and corporate interest combine on a level such as here at WIPP. Then that same loyalty that is of value to our country could be used to profit a corporation such as Westinghouse. It is an honor to be able to speak at these hearings and I hope you feel it is an honor to be spoken to as well. We are united on both sides by the same feelings of anxiety, what to do with toxic waste, how dangerous is it? Where is it already in the environment? What form will the inevitable disasters take? These questions are unsettling. It is no pleasant task to deal with them even in debate. And I appreciate that you have taken the bad guy role here in order to make the debate possible.

For the record I will repeat the fact that WIPP must meet the national E.P.A. revised standards for health and safety. As it stands today it can not do this. The WIPP site was chosen originally for it's stability. It was thought that salt beds would be stable. After water was discovered below, above (as rain), and moving towards the WIPP site, many members of the scientific community have questioned the stability of the site. An eruption of brine into one excavation, has confirmed that salt does in fact react to water. The original goal set by the D.O.E. itself can not be met at the WIPP site. And yet the D.O.E. continues to defend the project.

I didn't spend all day yesterday listening but during the time I was listening no one mentioned the sweet sum of \$770 million dollars, the amount of tax dollars that I

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believe has been spent on the project so far. Is this the stumbling block here? That a bad idea remains a good idea if it has cost enough? Maybe if we have less of it, maybe it's an important factor. There is no cost that could match the cost of a nuclear spill. There have been unreckoned costs in the nuclear industry since it's inception including the great inevitable cost of dealing with nuclear waste. It is this cost that is making nuclear energy less attractive to investors. It should be noted that taxpayers pay the bill for all D.O.E. activities. And yet if taxpayers get sick from exposure to radiation there will be no compensation from the government. We are to have no input, no access to information and no compensation if the project fails. That deal between citizen and state, does not look like democracy to me.

Nuclear Waste will be transported by trucks through twenty three states. 23,000 truck loads will pass through Santa Fe in the next 25 years. The D.O.E. claims that 25,000 barrels of waste are needed to begin a five-year experimental test/middle phase as soon to find out whether or not this is a good idea. The barrels would be sent as if the site were in operation. Gentlemen it is obvious that the test phase is an attempt to begin the project with out making tests.

Finally let me comment that I am personally shocked by the fact that human error is not included as a factor in any of the models used to calculate risk. Could it be that the department of energy is too busy to read the news papers? Perhaps they were not told about Chernoble or The Three Mile Island accident or the Alaskan oil spill? Training for emergency along the WIPP route is inadequate. It will be the best of our civil servant, the police, firemen and nurses that will be sacrificed to an idea conceived by the worst of our civil servants.

There are many unresolved technical problems presented in the SEIS report. The group Concerned Citizens for Nuclear Safety has done an excellent job of identifying most of them. I wanted only to comment on a few of my pet concerns.

Research has only just begun to explore the possibilities for how to neutralize nuclear waste. Lets give research a chance. Store the waste in above ground monitorable units until real solutions to the problem become available. It is entirely possible that five years from now we could be using the WIPP site for storage of deactivated waste. Then non of the money would have been wasted.

Elaine Giovando
535 Camino Militar
Santa Fe, N.M. 87501

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TO: Department of Energy Hearings, WIPP, Santa Fe, June 16, 1989
From: Judith Weinstein, Teacher of Gifted and Talented Children,
202 E. Coronado Rd., Santa Fe

I am speaking to you as a schoolteacher on behalf of the children who are too young at this time.

I want you to understand that morally your are in the same category as the men who dropped the atomic deathbombs on the people of Hiroshima and Nagasaki, and that you are as culpable and responsible as the German officers and bureaucrats who were eventually tried at Nuremberg for crimes against humanity.

The unique distinction you, gentlemen, are incurring, is atomic crimes against your own people, your own population, your own nation. This is an historical distinction for which few would envy you.

I suggest you think on this at night, alone, by yourself, and understand the personal destiny you are accruing. The pilot who pushed the button over Hiroshima ended up in the mad house. I suggest that that was the most honorable thing he could do.

I think perhaps, that the children whose bodies you will ruin will try to someday, and that history will forever hold you in contempt.

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723 Gomez Road
Santa Fe, NM 87501
June 15, 1989

Mr. John Arthur
DOE/SEIS
PO Box 5400
Albuquerque, NM 87115

Dear Mr. Arthur,

Thank you for this opportunity to share my views on the DOE/SEIS/WIPP project, and to have my views become part of the public record.

As a resident of Santa Fe, a citizen of the United States, and as an individual who deeply cares about the land and people of New Mexico, I am very concerned about many insufficiencies that exist in the SEIS document and in the whole of the WIPP project. I share the concerns of people who have already written and testified about transportation issues, the geologic uncertainty of the site, the socio-economic effects on communities along the WIPP route, and the far-reaching health risks at every stage of waste transport. I am particularly upset about the fast-track approach that the DOE has taken on this project, insisting that WIPP open in September of this year, when many safety issues have not been addressed, and before complying with EPA standards. It seems that the DOE is willing to put public health and safety at risk, and to possibly contaminate a large portion of New Mexico's desert, in the name of political and economic pressures. This is absolutely inappropriate in this case. The new EPA standards must be met and the WIPP site must be proven safe before any nuclear waste is transported to Cristobal.

The SEIS document clearly reveals that there is less risk of negative impact to public safety, health, and the environment in the "no-action" alternative than in proceeding with WIPP. It states that the waste slated to come to New Mexico could remain where it is with no serious environmental threats for perhaps a century. There is no need to hurry in getting the WIPP open and trucking plutonium through 23 states. The time must be taken to bring WIPP up to EPA standards, to thoroughly test the facility, to address each and every citizen concern about the entire process of waste disposal, and to boldly investigate other alternatives that haven't even begun to be explored. I believe that it is also much more important to devote funds to cleaning up existing contaminated DOE sites that have resulted from the mis-handling of nuclear waste, than to plunge ahead in opening new facilities. We can't afford to make another mistake. New Mexico is a particularly pristine

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environment with clean air, water, and soil -- we must not create another Rocky Flats, another Hanford, another Savannah River Plant.

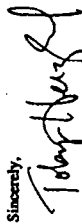
The Iroquois Indians, whom the white man held in high regard as being a "civilized" people, had a guideline that they employed in all of their actions which affected the tribe. Each decision was made with the next seven generations in mind. If the results would be beneficial for the seventh subsequent generation, then they would accept the choice and move forward. Now we're dealing with Plutonium, an extremely dangerous substance with an active life of 240,000 years. That's 7000 generations. I urge you, the DOE, and our legislators, to do your decision-making with the care that it deserves.

Also, for the record: 1) I object to the way that the SEIS hearings are being conducted. I was not informed of my speaking time until the day before the hearings, and then I learned that the citizen comments would be split into three groups. I am very interested in the views of my fellow citizens, and I believe that dividing the participants lessens the impact of the hearings. I would have preferred that the hearings be extended for as many days as needed to allow for all the testimony to be heard by all.

2) In view of the many problems with all aspects of the WIPP project, I want to strongly encourage all legislators, particularly those from New Mexico, not to introduce or push a land withdrawal bill through Congress until all of the concerns of the EEG, the SRP, the NAS, the EPA, and New Mexico's citizens have been addressed and resolved. Nor should the DOE attempt to force an administrative land withdrawal for National Security or for any other reasons.

Thank you.

Sincerely,



Toby Herzlich

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My name is Daniel K. Statnikov. I am here to go on the record in asking you the Government employees of the Department of Energy to obey the law regarding the Waste Isolation Pilot Project. I ask that you obey the law enacted by the Congress of the United States, the law that is the reflection of the will of the citizens of this country, the law that has been signed by the President of the United States, and that has been the subject of interpretation by duly constituted judicial bodies. What are the laws that apply to WIPP? Three laws that obviously apply are first The National Environmental Policy Act which requires a federal agency to complete an Environmental Impact Statement that assesses the impacts of the projects action and all reasonable alternatives. DOE's failure to consider long term above-ground storage for the purpose of further experimentation and research into other methods of waste treatment and disposal is a violation of that enacted law. The second law that applies to WIPP is compliance with the Resource Conservation and Recovery Act (RCRA) which regulates wastes containing hazardous toxic chemicals and radioactive material. Under RCRA, the DOE must demonstrate to the EPA to a reasonable certainty that there will be no migration of hazardous constituents from the disposal unit for as long as the waste remains hazardous. BUT THERE IS NO DETAILED CHEMICAL AND PHYSICAL ANALYSIS OF REPRESENTATIVE SAMPLES OF THE WASTE! and therefore no understanding of what sort of reactions might occur should these wastes come in contact with one another. And, it is my understanding that the DOE is seeking a variance to this section of the law. I vehemently protest the issuance of such a variance. This is not a songing lot line we're talking about here, it is a variance to potentially create the most horrific chaos that man can imagine. Once again, I protest the issuance of any sort of variance in this matter. The third law applicable to WIPP are the EPA standards themselves. The EPA standards are legally constituted regulations, currently being rewritten as the result of due legal process. Until the new regulations are formulated there is no legal precedent that can allow the DOE to proceed, especially to proceed on the basis of regulations that have been determined in a court of law to be insufficient to safeguard the public. The law is how we operate within the Democratic system in which we are so fortunate to live, and despite recent actions by Oliver North, Et.Al., we still live in a free and democratic society. I adore all of you gentlemen to remember as you proceed in your business to OBEY THE LAW. They are laws that are meant to protect our children, and they are laws that are meant to protect your children too. Thank you.

Daniel K. Statnikov
P.O. Box 607
Teague, New Mexico 87574

1-3
3.1-3

22-4
3.1-10
3.6-2
5.3-1

3.7-1
3.7-2
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7.3-3

Dear D.O.E.:

Who do you think you are?
I despise your mentality
I abhor your tactics
I'll take
Planetary purity
over
temporary jobs
You epitomize shortightedness
You willingly ravage
the Earth
and poison it's life.
Who do you think you are?
You sit there smirking
not really listening
going through these motions
like puppets
Your bombs do me no good
your enemy is not
my enemy
You are my only enemy
Who do you think you are?

6-16-89

David Cunningham
Box 9307
Santa Fe, New Mexico
87504

32-1
36-1

16-Jun-89: EX-00422, PAGE 1 OF 4

Richard Lehnert
P.O. Box 6005
Santa Fe, NM 87502

June 16, 1989

Department of Energy
WIPP Hearings
Sweeney Center
Santa Fe, New Mexico

When preparing my statement, I thought long and hard about how I should address the gentlemen and ladies of the DOE.

Should I be emotional, pouring out my heart in a plea for mercy for the residents of New Mexico and their children for generations to come? Certainly no scream of anguish, no cry of passion, could be loud enough.

Or should I explode in rage, furious at the fact that anyone---much less our elected officials and their appointees---could dare to decide for me and my children that nuclear waste should be trucked through town and country to be stored in a repository the safety of whose construction and maintenance are, at best, questionable? My fury would seem but the beginning of an appropriate response.

Or should I let you see my fear---my terror---at the long-term effects of even a single trucking accident involving nuclear waste. Waste, I might add, that, according to the DOE's own figures, would be more safely transported by rail. Such accidents, despite all the assurances of the powers that be, are impossible to foresee or prevent. Those powers project a minimum of such accidents; in fact, two years ago I heard the DOE, in a hearing in this very building, project no accidents at all. The SIS is slightly more realistic, predicting 8.3 deaths by trucking accidents over the course of WIPP's

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active life. That seems to me to be 8.3 deaths too many. Unfortunately, there is no such thing as a "reasonable risk" when dealing with nuclear waste. The proposed bypass routes, even if they are built, are only a few miles west of Santa Fe. Anyone who lives here can tell you that the prevailing winds blow from west to east 99% of the time. In a single accident in the Santa Fe area, even from 10 miles away, the wind could blow waste into town. It takes only one air-borne particle of plutonium to cause cancer.

The plans do not take into account the possibility---I should say certainty, given the history of the nuclear energy industry in this country---of human error. Such is the false security of statistics. It only takes one such accident to cause fatal cancer, to destroy life, to make an area uninhabitable, not only for humans, but for all species, for generations. Effectively, forever. This is the sort of risk that I would never take for myself, let alone for another. I deeply resent the choice being taken out of my hands. The world is simply too complicated a place for a few to take risks on behalf of the many, that the many must, sooner or later, pay for themselves. The risk is far too great; the benefits---that from nuclear reactors we might have even more energy to continue to consume at our present reckless, gluttonous, suicidal pace---such benefits are trivial when compared to permanent contamination. I assure you that my fear is not born of ignorance---in fact, it is far too fully informed.

Environmental Impact Statements are only part of that information. But perhaps I should play it safe, and be politic, embodying the voice of reason and rhetoric. Excuse me, gentlemen and ladies, if I

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7.354-3

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insult you with recitations of the lethal facts. Surely, any intelligent, compassionate person who has read the facts can not help but work against the Waste Isolation Pilot Plant, in all of its manifestations. Surely, any such person would see the very concept of a "National Sacrifice Area" as an obscenity.

I reveal to you these strategies because I do not believe in subterfuge, of working for the right and by indirect or incomplete means. Still, I could speak to you in any of the voices I've listed with the utmost sincerity---all are justified. But none of them would be the whole story. I hope that I have chosen a more comprehensible language.

To those who believe that "not in my backyard" is a selfish or short-sighted response, I say this---and the logic is simple: If all of America's backyards refused to accept nuclear waste, there would be no place to store any more of it. If there is no place to store more nuclear waste, and if we refrain from shipping it to the third world, then we shall have to stop producing it. And that is the only rational choice left: to stop, dead in its tracks, a source of energy that is too deadly, too expensive, too permanent in its side effects, too absolute in its risks. When we do this---and it is inevitable that we shall---we shall prove to ourselves that we can learn from our mistakes, and that stepping aside can sometimes get us farther than stepping ahead. Nuclear power and its attendant waste simply cannot be controlled.

In closing, I am astonished that the DOE should have stated, as it did last week, that it would receive all simple rejections of the

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WIPP site with no credibility whatsoever. Our government seems to think a simple "no" more than sufficient in the war against drugs. That the burden of proof should fall upon those who oppose the far more dangerous, far more lethal, far longer-lasting plague of radioactive waste, seems insupportable. Had the citizens of New Mexico been asked to put such an important issue to a vote---as they most certainly should have been asked---the simple "no" cast in the voting booth would have more than sufficed. It has already sufficed in Austria, a country not known for its history of civil liberties. Why not here in the USA, supposedly the birthplace of modern democracy?

That the storage of the most dangerous, deadly toxins ever manipulated by humankind should somehow be exempted from EPA standards, standards which themselves are not as stringent as the Safe Drinking Water Act, is, frankly, insane. That WIPP's radioactive control, electrical, and fire systems were never diagrammed, and are therefore virtually impossible to repair when they break down, is criminally irresponsible.

Refusing to be politic, then, and risking incredibility, Do I want WIPP? Simply, no.

Philip Zelensky

16-JUN-89: EX-00423, PAGE 1 OF 2

My Name is the Queen Appalachia
1676 Cerro Verde Rd.

First of all I'd like to thank the DOE. . . .

I sympathize with DOE's problem of having all the radioactive waste. It's a mess for sure, but as many of us were saying 20 years ago there was no where to go with it. These guys with 5 kg radioactive for 1/4 million years. How can any solution right now be safe?

So let's look at this site on Collier Avenue. You guys are in such a hurry to get your feet that hurry something as incredibly important as this.

EPA standards must be met ^{when} and no storage experimental storage ^{is} at the site until all standards are met. I understand rooming pre-closing in a very first state. If this is even possible my opinion is that this site can not be proven safe at all. But put even small % in. Just for

As far as transportation. As I understand it the NEC has not criticized this procedure. From what I could gather over the T.V. the trucking firm was picked because it was the lowest bidder and not for its experience in handling toxic waste.

Also communities the waste will pass there are in no way prepared to handle an accident - not in equipment or experience.

Here in S.F. there is no by-pass - Trucks will come right down St. Francis.

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If there was an accident 1000's 1000's of people would be seriously affected, not to mention the dozen or so schools so close to the route.

In conclusion, if this site in Collier can be proven 100% safe for the next 1/4 million years then let's go for it, but I strongly believe it can't. Something this incredibly serious to the survival of our planet can not be rushed into. But that's OK.

I suggest we immediately stop making these totally needless bombs - stop creating the waste and put our some brilliant scientist's mind to work on solving the problem of neutralizing this terrible stuff. Let's not ~~just~~ hastily bury it in Culbaldi caverns! We're making a decision that will have an effect on this planet for what seems to be forever. ~~Let's~~ Let's be sure sure before we act.

STOP THE BOMBS!
STOP WIPP NOW!
THANK YOU!

16-Jun-89: EX-00424, PAGE 1 OF 7



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*For my Grandpa
with love!*

*Melani Quillen
Nov 1988 6 mos old*

EX-00424 ①

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JAMES CAMPBELL, PhD
232 Irvine, PA
Santa Fe, New Mexico 87501
505-982-0283

Department of Energy
IS Project
PO Box 3400
Albuquerque, New Mexico 87115

16 June, 1989

Dear Sir:

There is no doubt that nuclear waste presents a problem, but it's clear that WIPP won't provide the answer. In fact, WIPP will cause more problems than it will solve.

I'm concerned with the basic assumptions behind the SEIS document. The SEIS assumes that we can "control" the release and/or migration of radioactive materials for a period of at least 10,000 years (and by inference, for a much longer time). The document ignores the fact that climates change, that land-uses at and near the site can not conceivably remain static for even a single half-life of plutonium, that population patterns will not change appreciably over the generations -- in short, that all conditions will remain responsible for the site for thousands of years. I have had experience with the world simply doesn't work the way DOE seems to think it should.

Among the many things the DOE ignores is the obvious fact that climates, land-use patterns, and the movements of populations are dynamic. None of these things are constant, and it's ludicrous to assume that they are. One has only to look at the changes which have occurred in the past 1000 years to understand that basic fact.

At present, we have neither the knowledge nor the means to safely encase radioactive waste at the WIPP site. We simply don't know enough about the site to predict its present safety, let alone safety at some future date. The SEIS doesn't acknowledge our ignorance, it glosses it over, and that's dangerous.

Campbell, DOE WIPP SEIS Oral Commentary
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There's also a moral issue to be addressed. We have the responsibility to do what is right, rather than what is convenient or what fits some political timetable. Doing what is right in this case may mean that WIPP will never open.

It's vital that the Department of Energy assume a "worst-case scenario" which recognizes all of our knowledge, and one which is based on the most realistic and conservative (including that which is negative), rather than derive scenarios which assume the most optimistic possibilities and ignore the rest.

The SEIS certainly should not be accepted by anyone as a rational or scientific document -- it has obviously been prepared in support of a particular point of view. It's not an objective examination of the problem or the possible solutions. There are too many questions about the site itself -- how long will it last? How much waste can it hold? Questions about containment of leaked materials about health risks, and too many uncertainties about the project's long-term social and economic effects. These questions must be answered before a single truck rolls.

Specifically, the following problems should be addressed:

- The WIPP site itself:

- Is the site suitable? We don't know enough about the geology or hydrology of the site to judge.
- What about pressurized brine? The presence of a pocket of pressurized brine beneath the disposal area gives great cause for concern.
- What about gas generation? Gas generation within the disposal area will increase fracturing of the basement material and may actually drive contaminated brine from the disposal area.
- What about aquifer flow rates and directions? The rate and direction of flow within the Rustler Formation isn't known with any certainty.
- Do we fully understand the geology of the region? The WIPP site is located in a hard area, a geologic system characterized by intersecting channels which can

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speed the movement of groundwater (and anything carried by the groundwater).

* Do we fully understand the role of salt dissolution? Dissolution of salt at the depository site is not sufficiently addressed.

* What will be the effect of increased temperatures within the repository? If temperatures rise due to decomposition and gas generation, rates of salt creep and closure may increase.

* There are logical flaws in the SEIS document:

* The SEIS relies on documents that are not in final form and have not been approved, yet which are used as the basis for assessments and conclusions.

* Consideration of alternatives is inadequate, especially consideration of the "No Action" alternative.

* The potential for human error is not considered in calculating accident and exposure risks.

* The possibility of equipment error is not considered to any realistic level.

* There is no reason to suppose radioactive waste for a five-year test phase. Such tests can be better conducted either in the laboratory (for re-generation tests) or at other sites (for drum-handling and emplacement tests).

* The SEIS makes assumptions which under-estimate the risks from WIPP. These include:

* Assuming that the Waste Handling Building's filters operate at 99.999% efficiency (compared to the filter failure are not taken into consideration).

* Workers are "... to respond as trained ..." and leave the scene of any accidents". This assumes that workers are physically able to respond and leave. What if they aren't?

* Unsubstantiated assumptions and overly simple models of geologic and hydrologic features were used, and then projected over a 10,000-year period.

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7.7.1.2-1
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7.7.2.9-7

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Overall, the SEIS document is so flawed from both scientific and procedural standpoints that it should be rejected. It simply does not stand scrutiny.

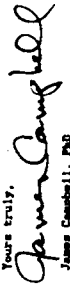
What is the public to think of the Waste Isolation Pilot Plant project? Certainly, the Department of Energy wants approval of the facility, and wants it at the earliest possible time. From my point of view, the DOE has not provided sufficient evidence that the public health and safety will be assured. In fact, it appears that the DOE has little concern for these issues.

The WIPP project will become the model for other waste isolation sites, and as such it should be the most carefully selected, most carefully designed, safest and most secure facility we are capable of conceiving. At present, it is far from ideal: it is a disaster waiting to happen.

After careful review of the SEIS document, I'm left with the feeling that the DOE is still an agency out of control, creating crises, waving the banner of national security, using its mandate not to promote the health and safety of the public, but to follow its own agenda. The SEIS document, with its flaws and omissions, its use of selective data, its subjugation and optimistic scenarios, indicates a dangerous lack of respect for both the environment and the public.

We have a responsibility to the future, one which requires us to care about what we do and how we do it. WIPP does not meet those responsibilities. We are capable of doing better. Why not do what is required to insure our own safety and the safety of future generations? Either do it right, meeting all environmental safety standards, or abandon it and start over with better ideas.

Yours truly,



James Campbell, PhD

Campbell, DOE WIPP SEIS Oral Commentary
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2.3.1-2

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3.1-8

U.S. Nuclear Regulatory Commission
Docketing and Service
Washington, D.C. 20555

Dear Sirs,

I strongly oppose your recent proposal for cutting the public out of the decision-making process in the case of radioactive-waste storage permits.

As it is now, federal officials who regulate the nuclear-power industry routinely ignore public opposition to the industry. Instead of just covering your ears, you now want to simply silence the opposition.

We have seen that those who merely regulate themselves without any independent oversight do not place health and safety issues on the top of their priority lists. As a result, thousands of people have had their health and safety placed in jeopardy.

We need to do more, rather than less, to insure that the nuclear power industry is forced to take every possible precaution to avoid poisoning our land, air and water. By eliminating the public from the licensing process you would be making the statement that you don't give a damn about the health and safety of the nuclear workers and the citizens of this country. The Nuclear Regulatory Commission must not become the Nuclear Rubber-stamp Commission and give nuclear-reactor operators blanket permission to store waste without seeking a permit from the NRC.

This foolish idea of yours must never become law.

Thank You,

Sincerely,

P.S. I hope that you will extend the time beyond June 19 to receive public comment. I have many friends who need to know of this attempt of yours to short circuit and kill the basis of democracy, an informed, active and empowered citizenry.

9-1

Written Statement from comments by Jesus Carlos Galvan, D.D.S.
at the SEIS Hearings held at Santa Fe, New Mexico, June 16, 1989.

My name is Dr. Jesus Galvan. I am a general dentist in Santa Fe, New Mexico. I give these comments both as an individual citizen of the community and as a health care professional whose responsibility is the well-being of that part of the community that I serve.

I am contesting both the opening of the WIPP site and the transportation of hazardous wastes to the project site. My objections are based on the failure of the Department of Energy to establish and follow current and adequate standards for the safe transport and storage of hazardous wastes that will comply with existing Environmental Protection Agency standards.

Although I am not some expert on the technical aspects of TRUPACT containers, salt beds, ground water movements, etc., I feel qualified to address the lack of standards for WIPP. I base my qualifications on common sense, something that must prevail if we are going to find a solution for the handling and storage of these wastes, and the fact that I also am regulated by the New Mexico Environmental Improvement Division (EID) of the Health and Environmental Department, the same state agency that oversees the WIPP Project.

Even I in my dental office, one-half block from the WIPP route, I must meet EPA approved biohazardous waste disposal standards. These are current standards, effective May 15, 1989. By law, I must account for and dispose of in a sterile manner all biohazardous waste in order to protect our environment. Of course, that is only common sense. We all remember the specter of needles and syringes washed up on the beaches in New Jersey last year. Many states, including New Jersey, New York and several Great Lakes States are just starting pilot projects that will eventually lead to standards even stricter than those of the EPA. In my office, any waste that might be contaminated with blood or saliva--needles to paper towels--must be collected, weighed, accounted for, and sterilized before disposal.

Consider for a moment that one cuts his/her finger while preparing a meal. The average person would use a paper towel or tissue to help stop the bleeding. That is biohazardous waste. It is thrown in the garbage which is taken in a couple of days from the curb in front of the house to the local city landfill. My similar bloody waste is isolated and transferred to special treatment plants where it is incinerated. Consider also that

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Written Statement, Jesus Carlos Galvan, D.D.S.
Page 2

most viruses and bacteria can be killed with ordinary household bleach or would soon die anyway in the dry environment outside the body--even those that cause deadly diseases like hepatitis, tuberculosis, and, yes, AIDS.

Yet, why should not I be required to prevent exposure to potentially harmful pathogens. At least I feel I have some control over environmental pollution--however small that role happens to be--by complying with these state and national standards. But, if the state regulates paper towels, whose contamination can be rendered harmless with common bleach, more than it regulates radioactive waste that will remain deadly for tens of thousands of years, common sense should tell us there's something wrong.

Let us consider radioactivity. As a doctor I depend on x-ray images for the diagnosis and treatment of decayed teeth, various infections, cysts and tumors. If one goes to a dental office, before an x-ray picture is taken the patient is covered with lead aprons and shields to protect the rest of the body. All x-ray generating equipment is licensed by the state and is required to be maintained safe. The Department of Energy in its draft SEIS report admits there will be very small radiation releases into the environment from TRUPACT containers. By law--and common sense--my x-ray machines cannot leak no matter how low-level or slight.

Admittedly, these TRUPACT releases would be less potentially dangerous if Santa Fe had its promised bypass--a bypass that will go through residential areas. But we do not have and will not have a bypass for years to come. And what about cities like Roswell and Artesia where there never will be a bypass.

Any one of us here in Santa Fe could survey the intersection of St. Francis and Cerillos and observe the accident waiting to happen. What a curious mixture we would see of TRUPACT trucks, tourists in oversized RVs, lost and trying to make sense of our unique street system, delapidated pick-up trucks, cars at one end or the other of a rope or chain, towed or towing, and sundry other ordinary people--like me--in a hurry to get to work, an appointment, or home. Common sense should tell us these do not combine to make a safe WIPP route. It is this same unpredictable human element that is so frighteningly absent in the SEIS report.

We could, of course, make a lead apron large enough to spread over Santa Fe to protect us from the radiation leaks. However, even if we were to make it turquoise blue and paint howling coyotes all over it, I do not think we could convince

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7:33:1-2
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7:15:4-2

Written Statement, Jesus Carlos Galvan, D.D.S.
Page 3

a single person that it is "Santa Fe Style."

As a dentist, I frequently have a credibility problem. Like the old phrase, "the check's in the mail," I am confronted with disbelief when I say, "this won't hurt a bit." Likewise, all of us have grown skeptical of anyone saying, "I'm from the government, trust me."

Yet, with all the improvements in dentistry and proper care and technique, most of the time a trip to the dentist will be painless. I would hope that my trust in the government would someday be restored by similar care and thoroughness--as in establishing and following standards and procedures that protect me and my environment. Standards for the WIPP site need to precede its opening not follow an accident or irreversible contamination of our environment when it will be too late. Santa Fe--all of New Mexico--is unique and can never be replaced. Let us not turn it into some kind of abscessed tooth.

32-1

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32-1

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SANTA FE FRAGRANCE RESEARCH

Post Office Box 282 • Santa Fe, New Mexico 87504 • 505/964-9524

Specializing in Natural Aromatics of Botanical Origin

Mr. John Arthur
DOH/SEIS
PO Box 5466
Albuquerque, NM 87115

June 15, 1989

Dear Mr. Arthur:

My name is Christine Malcola. I appreciate this opportunity to share my views on the DOH/SEIS/WIPP project.

Firstly, I object to the way in which these hearings are being split up into "day" and "night" rooms. This approach diffuses the impact of these hearings, which are meant to be heard in a single session. I came to New Mexico to learn about natural healing and to get more in touch with the land and culture of this nation. I lived in place on the east coast that was ridden with pollutants and poisons. I worked on a street which was referred to as "cancer alley". A place where many children get leukemia and disease is prevalent amongst all age groups. I, myself contacted thyroid cancer after working in this region for only one year.

People all over the world perceive of New Mexico as a land of natural beauty and harmony. If WIPP in its unsafe state is set into action, I believe that the perceived value of this state will be greatly depreciated. The value of the state lies in its preservation of nature. The people here would like to live in harmony with this nature.

Two years ago I started Santa Fe Fragrance Research. I promote the use of natural aromatics that are derived from plants, flowers and trees for aesthetic and therapeutic purposes. I am investigating the possibilities of distilling sage and juniper berries here in the southwest. I also educate through seminars and published articles in nationally magazines and newspapers on olfactory perception. Research is constantly being conducted at Yale and Duke University medical schools about the deleterious effects that odors may have on our psychological and physiological states of being. Although there may not be an odor associated with radiation, how much more so with the Monell Institute-a center solely devoted to the study of the senses of smell and taste- have confirmed that what comes in passively through the olfactory and gustatory senses has a potential to be much more harmful and even lethal than a substance that we may actively take through oral consumption.

The possibilities of physical and psychological disturbances due to the perceived lack of safety in the air we breathe is enough of a deterrent to stop the transport of nuclear waste through Santa Fe in my opinion.

I am very unhappy about the way in which pollution problems are always being looked at after the fact. Perhaps there should be considered in a preventive fashion, which is what we who are opposed to the WIPP project have come to speak about today. Thank you for considering my appeal.

Christine Malcola

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BARRY GREEN

ATTORNEY AT LAW

Telephone
Santa Fe, New Mexico 87501 (505)963-0305
610 Valverde Street (505)963-0713

June 16, 1989

UNITED STATES DEPARTMENT OF ENERGY

Albuquerque Operations

P.O. Box 5400

Albuquerque, New Mexico 87115

RE: WIPP & THE SEIS

Dear Sirs:

I have been licensed to practice law in the State of New Mexico since 1982. I am also licensed to practice law in the federal courts of the State of New Mexico. I was notified of my time to speak at this hearing less than forty-eight (48) hours ago. In a court of law under almost all situations, that would be insufficient to prepare the constitutional guarantees of due process, also object to the splitting of these hearings into "day" and "night" rooms, which I believe to be a violation of the National Environmental Policy Act (hereinafter NEPA).

It prevents me from listening to the comments of other speakers and it prevents the panel from hearing all of these comments. As a reader of many a transcript, I know that even if the other panelists read the transcripts, it will not have the same meaning.

I am against the opening of the Waste Isolation Pilot Project (hereinafter WIPP). I have received and read copies of the Final Environmental Impact Statement, the Executive Summary Environmental Impact Statement and the Draft Supplemental Environmental Impact Statement (hereinafter SEIS). I find them inadequate, biased and scientifically. I think WIPP is technologically unsound and I think that we should not endorse any nuclear wastes at WIPP and we should not build any other WIPP-type dump areas for nuclear waste.

I have listened to hours of public commentary on WIPP and have heard many different terms for not opening WIPP. I would like to stress three (3): first, WIPP is based on an environmentally backward public garbage policy. That policy applies equally to nuclear waste, toxic waste and non-toxic waste. That public policy forces the garbage of one community on another community while doing nothing to encourage the focus to reduce its waste. It's an out-of-sight, out-of-mind policy. There is not enough room left in America or the world to continue that policy. The infamous New York garbage barge of a few years ago is an excellent example. A better public policy would require the communities that generate the waste or that benefit financially from the operations that create the waste to bear the responsibility for those wastes. They should not be allowed to dump it on their neighbors.

A major step towards easing the garbage problem is source reduction. Thus, the way to ease the problem of dangerous generated nuclear waste is to end production of nuclear weapons. We don't need them. We already have enough nuclear weapons to destroy the world. These weapons don't represent any kind of deterrent because

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8-71-2
2.3-1.21-2
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52-2

they cannot be used. Any kind of use, even in a limited nuclear war, would result in either our direct nuclear destruction through retaliation or our destruction through a nuclear winter (oh, we probably could make Grenada and not destroy the world). If we are being realistic, we would realize nuclear weapons represent no deterrent at all. If nuclear weapons were eliminated, seventy percent (70%) of the defense-generated nuclear waste destined for NPP would be eliminated and the need for NPP drastically reduced.

In conjunction with this source reduction, all other defense related nuclear weapons should remain where they are produced and the on-site storage facilities should be upgraded with the money that would have been spent on WIPP and WIPP-type projects. The on-site storage should be constructed above ground, in a facility that would have a sealed outer containment area with sensors. The facility should also have a hollow, underground containment area with sensors to detect any leakage of the weapons. In the meantime, that key if any storage would be destroyed. Such a facility would also allow for the use of low reactivity waste to escape the facility. This facility would also allow for the use of low reactivity waste to be implemented. This method would immediately (and not as expensive) ease the defense related nuclear waste problem. The result, no WIPP-type projects need be built.

[illegible]

This type of thinking is a major resource we now faced with WIPP. The nuclear waste management program will have to deal with over 240,000 years. We had never constructed anything that has lasted 240,000 years. The Department of Energy and the WIPP contractor, Westinghouse, have stated that they believe that what they have proved that nuclear waste can be safely stored at WIPP. So now our government is ready to open WIPP. It is that non-religious belief that causes our government to believe those scientists. Our government believes even though scientific contrary scientific evidence and our government believes even though scientific "proofs" constitute changes. That was a scientific given yesterday is discarded as a scientific change. What was a scientist given yesterday is discarded as a scientific change. What was a scientist given yesterday is discarded as a scientific change. What was a scientist given yesterday is discarded as a scientific change. What was a scientist given yesterday is discarded as a scientific change.

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the 240,000 years it will take these nuclear wastes to lose their radioactivity. WIPP is also designed to be sealed so that no changes can be made to update its technology. What happens when, not if, we discover that we need to change the technology (or there is a radioactive leak)? As far as I can tell, the Department of Energy (nuclear) DOE does not appear to have any plans on how it will remove nuclear waste after the nuclear waste is entombed at WIPP and removal is certainly not addressed in the inadequate SKIS.

This new religious belief in science and technology does not even consider that the "human factor" may be the most important factor in determining how well the technology it is designed by humans, built by humans, used by humans and serviced by humans. That seems that there is plenty of opportunity for a human to make a mistake that could lead to disaster. Again there have been plenty of examples where neglect of the "human factor" has led to disaster. In design, there is the space shuttle, Challenger. In building, there are the nearly yearly collapses of buildings under construction. In use, there is the Exxon Valdez. And in servicing, there are the ever frequent plane crashes. Thus, the warp effect of the technological revolution is being played out by humans. It is being used by humans. The warp effect is being produced by humans. At the very least, the warp should be considered in independent peer review and built-in backup systems, such as universal planners, WIPF nautics and SEIS are inadequate and can therefore only lead to disaster.

[illegible]

My final point has to do with NEPA and our form of government. I went to public school in the 70's. At that time the public schools that I attended taught us not to stereotype people. I guess they did it well because I have a very hard time with stereotypes and labels. I think though, that there was an unforeseen

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"There are other examples, but I don't want to try and stretch my analogy too far. The point is that our government does not listen to us either and NEPA legally requires meaningful public input. The Secretary of Energy has been quoted as saying that he doesn't care what we think. He's right. We're not important. The public comment didn't matter. WIPP would open in September. The hearings in Santa Fe are a joke, with speakers not given sufficient notice to appear and then unprepared charges made to the hearing times and places. You, the DOE and our government are not listening to us. You have not met and will not meet with us. We've written you letters, but they've disappeared. It's polluted by the triple entendre from WIPP."

Very truly yours,
Harry Green

THE INDEPENDENT SCIENTIFIC COMMUNITY HAS RAISED LOTS OF QUESTIONS ABOUT THE S.E.I.S. AND ABOUT THE WIPP SITE EVER SINCE MEETING THE E.P.A. STANDARDS. WE'RE NOT SURE WE CAN TRUST THE D.O.E. AND THEIR S.E.I.S. TO EVEN TRY TO MEET ANY E.P.A. STANDARDS - OR EVEN TO BE CONCERNED ABOUT THE DETRIMENTAL EFFECTS FOR NEW MEXICO.

WE WOULD LIKE TO SAY THAT IT IS NOT GOOD FOR THE NATIONAL SECURITY TO WASTE NEW MEXICO

IT'S ALREADY HAVING A DETRIMENTAL EFFECT ON TOURISM AND POTENTIAL BUYERS AND INVESTOR IN NEW MEXICO. BY LOCAL FILLING STATION MAN HAS TOLD ME THAT TOURISTS ARE ALREADY TELLING THEM THAT THEY WON'T BE BACK ONCE THE TROOPS START BOLING. AND THE LOCAL REAL ESTATE BOARD HAS REPORTED SALES THAT ARE ON HOLD UNTIL THE POTENTIAL BUYERS SEE WHAT HAPPENS WITH GIFT.

AND TO OUR ELECTED OFFICIALS WHO ARE FOR WTP WE'D LIKE TO SAY NOW ASHAMED AND DISAPPOINTED WE ARE THAT WE VOTED FOR THEM. DOES OUR GOVERNOR THINK THAT POLLUTING NEW MEXICO WILL QUALIFY HIM FOR THE JOB OF SECT'Y OF THE "INTERIOR" SO HE CAN THEN POLLUTE THE WHOLE UNITED STATES???

YOU HAVE ALREADY HEARD THAT HOSPITALS AND FIRE DEPTS. ARE NOT PREPARED TO DEAL WITH MANY ACCIDENTS OR SPILLS. AND YOU WANT TO TRUCK NUCLEAR WASTE IN A STATE THAT HAS ONE OF THE WORST ACCIDENT AND DRUNK DRIVERS RECORD IN THE U.S.???

DOING NOTHING AT ALL IS PREFERABLE TO TRUCKING AND SHIPPING BY RAIL. BUT WE'D
LIKE TO STRESS THAT WE FEEL THAT THE D.O.E. NEEDS TO QUIT SPENDING MONEY ON THIS
DANDELOUS PLAN AND CONCENTRATE ON DEVELOPING WAYS OF NEUTRALIZING THE NUCLEAR WASTE
WHERE IT IS AMONG THE COUNTRY. THANK YOU.

WALKING IN A RADIOACTIVE LAND

[EX-00428]

(To the tune of: Walking in a Winter Wonderland)

Come on folks, are you listening? WIPPS unfit - safety's missing,
New Mexico must fight or we'll glow in the night, we'll be a radioactive land.

Sirens wail - are you blistering? All the residents are glistering.
A horrible sight - we're in shock tonight - walking in a radioactive land.

No more need to worry 'bout pollution. There's so many kinds for you to try.
The air we breathe's a horrible solution; the rivers and the oceans gonna die.

Come away is the bluebird. Here to stay is nu-cle-ar waste and radiation -
spreading through the nation: living in a radioactive land.

Tourists ~~like~~ like to come here. How they hardly come here anymore.
Oh, that do come wear those suits and gas masks; we don't make money like we did // before

~~Pollution~~ - acid rain - New Mexico is down the drain.
Politicians popped out - can't we even stop it? New Mexico's a radioactive land.
The politicians must be on payola. They act as if there's really nothing wrong.
The D.O.E. is passing out granola. The land will all be worthless before long.

Later on, we'll expire. No more dreams by the fire.
No insurance or compensation - the government's on vacation.
The earth is now a radioactive land.

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COYOTE - Pete Seeger

Coyote Coyote What have they done?
Little brother where - where do you run?

They've stricknined the mountain
They've stricknined the plain
My little brother, the coyote, won't come back again.

When you hear him singing -
The few that are left -
He's warning the human race of his death.

Don't poison the mesa.
Don't poison the sky.
Or you won't be back. Little brother - Goodbye.

There will be moons to listen.
And no one to sing.
And never - and never will there be spring.

Coyote Coyote What have they done?

16-JUN-89: EX-00429, PAGE 1 OF 4

June 11, 1989 Rte 1 Box 373, Las Vegas, New Mexico, 87701

WTPP Hearings on June 15 and 16, 1989, in Santa Fe.

Dear DoB,

If the USA is a democracy and not a dictatorship, then you, the DoB, should serve all Americans and our land - not just be stooges of the nuclear Oligarchy.

Nuclear is an impossible technology, the most costly way to boil water. Tailings piles, production of yellow cake and the plants themselves constantly leak radiation and thereby will render earth unfit for life (Dr. Alice Stewart), and the connection between AIDS and radiation exposure should be admitted. (Dr. E. J. Sternglass, et al.) In my childhood we were far healthier; Doctors had time for horse calls. Today with all the hi-tech junk, Doctors offices are jammed. Our Immune System seems to be failing - radiation wrecks the immune system. How many thousands of acres of soil (and ocean areas) have nuclear facilities destroyed for 500,000 years? How the DoB wants to load up WTPP, contaminate its down stream area, and the land along US highways. You want to open Seabrook and destroy that area too.

Nuclear is an impossible technology in itself: the plants are poorly designed, badly built and run. After 40 years of miscompop Public Relations Jokers pushing sex, violence, greed, on the TV, we have 2 or 3 generations of kids dumb, drugged, pregnant and utterly irresponsible. Look at the record of 3,000 accidents per year, ^{of nuclear} We've got to STOP MAKING MISTAKES by SHUTTING DOWN ALL nuclear facilities NOW: starting today. You still do not know what to do with nuclear wastes - so have the common sense to STOP MAKING THEM.

Don't make me look as stupid as usual.
Let me list a few alternatives which are for the good of America and all its citizens. 1) Use energy more efficiently (Amory Lovins), and 2) GO SOLAR. Attached are copies of the JOURNAL OF SOLAR ENERGY 5-31-89 /

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and BOSTON BUSINESS JOURNAL 5-8-89. The Chinese and Taiwanese are working on Alvin Marks' patents to produce energy with luneloid - not at 30¢ per kWh (by nuclear) but at 1¢ per kWh - with no wastes. Marks also has patents for the control of NOx and SOx from oil/coal power plants to cut out acid rain and for a tail pipe insertion for cars. Each needs about 280,000 to get into blue print stages. Why do you ignore these things?

And until luneloid films are in production, last month Asians produced blue prints of Marks' solar cookers which produce 600° stored heat. When joined together they boil water at a fraction of the cost of a nuclear plant-again with no wastes.

With really cheap electricity, dirty or salty water can be split into Hydrogen and Oxygen: the Oxygen put into the air, the Hydrogen used for energy as in a fuel cell to retrofit cars. There are cars run on electricity or solar panels that compete in the four de Sol here and abroad. There is something called an electric static energy conversion system. Do the nuke boys insist that you ignore all these things?

Americans have been rightly horrified that old Chinese dictators have shot some 2,000 protesting students asking for democracy. One can see blood and bullet wounds, but it is harder to count the dead, diseased and dying here in the USA and abroad caused by nuclear radiation,

which one can neither see, smell, taste or feel - but the count of dead and diseased goes into the millions - starting with soldiers sent into radiation zones at Guinea pigs; the increase in infant deformities, cancer, leukemia around nuclear facilities, the cattle in Utah and all the diseases resulting from loss of immunity. ^{radiation from Chernobyl} ~~shield the soil,~~ ^{had now the DOE wants to dump radiated materials into general garbage and the Alaska wants to burn plutonium contaminated trash.}

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The plutonium, unchanged by heat or fire, simply goes into the air with the smoke. It will be taken into the body with breath and food. Do you want to kill all life on earth - including yourselves? STOP IT.

Let me tell you of my life after Trinity from 1945 to 1955. Only later did I read Dr. Sternglass' analysis of wind and rain patterns which carried radiation from Trinity to fall on northern New Jersey where my kindly, responsible, humorous mother was working to restore an old farm. Our 3 healthy, intelligent children and I often went to help her. 11 months after Trinity our 4th baby was born with no brain tissue. Frank goodness the little thing died within 12 hours. In 1948, from excellent health, Mother died a horribly painful death - her whole body riddled with cancer. In 1952, our gentle daughter died of leukemia; and in the early 50ies I underwent surgery, first for cancer hysterectomy and then for cancer colostomy. Some years later 2 sisters-in-law and my husband died of cancer.

And you at DoD, DoB, NRC, the bought Pels in Washington, and everyone else in this room will also die of cancer or AIDS or other diseases since radiation destroys the immune systems of all creatures.

So STOP Yammering about WEP WEP, get busy shutting down all nuclear facilities and develop alternate solar technologies. We cannot use nuclear weapons. All the money you squander only puts us more into debt, and subject to blackmail. If Japan stops lending us 240-odd billion per year, government checks will bounce - including yours. Nuclear has turned America into a 10th rate country, a Colony. We're broke and incompetent. We're a mess.

And we're into WWII. The "enemy" is Mother Nature who has no use for fools and against whom we have no weapons. We have maybe 5 years in which to change our ways drastically, to crash program for peace and environmental protection. Let the old fat-cats go home and enjoy their

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ill-gotten gains.

Stop supporting the nukie boys and so get us out of debt. Let America be a leader in getting us all unhooked from nuclear addiction and become again a powerful nation.

I close with 3 short quotes from Aldo Leopold.

"Modern natural history deals principally with relationships. This is called ecology. The question is does the educated citizen know that he is only a cog in an ecological mechanism? That if he will work with that mechanism his mental health and his material wealth can expand indefinitely? But that if he refuses to work with it, it will ultimately grind him to dust? If education does not teach us these things, then what is education for?"

"The problem is how to bring about a striving for harmony with land among a people, many of whom have forgotten there is such a thing as land, among whom education and culture have become almost synonymous with landlessness?"

"Voluntary adherence to an ethical code elevates self-respect... but voluntary disregard of the code degenerates and depraves."

Sincerely Frances Tyson, Vassar '34
Mrs. C. Wesley Tyson

Frances Tyson -

*Shut down the nukies -
Stop making nuclear wastes.*

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16-Jun-89; EX-00430, PAGE 1 OF 2

June 16, 1989

W.I.P.P. Hearings

Santa Fe, New Mexico

Gentlemen, Mr. Hearing Officer:

My name is Barbara Bayer and my address is 401 Sunset, S.F. I would like to appeal to you from a rational mind. Now, it seems obvious to me that this idea you have of transporting toxic, radioactive materials through major metropolitan areas at a frequency of approximately 4 shipments a day for the next 20 years is neither of sound mind nor clarity of heart, and therefore, I urge to dismiss this ludicrous proposal on the grounds of insanity.

Gentlemen, where are your hearts in this matter? Do you sincerely believe that the production of materials so deadly to humankind and all living things is in our best interests? I think this concept would baffle the simplest of minds. Why do we seem to be on a path of self destruction? Why are we so determined to wipe out and disvalue every life sustaining natural resource that is made available to us? How is it that we choose to generate our energy from means which are harmful to us and are literally killing ourselves and our planet? Why do we insist on creating bombs which will complete this process? Why ARE we so suicidal?

THIS mind cannot reason or justify our actions. There are alternatives for providing our needs without these noxious ramifications but we have chosen not to take them.

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EX-00430
B. Bayer
W.I.P.P. Hearings

Much of the demand here today is to comply with safety standards before continuing with this madness. I do not believe these safety standards can ever be met. I do not think the degenerating poison we are producing can ever be considered safe or stable with any devised containment.

Therefore, in regard to this hearing today, I am totally against the transportation and storage of nuclear waste at the W.I.P.P. site or any site in the state, country or world for I have an unrelenting will to live.

I wish to submit these comments as an exhibit of this hearing.

Thank You,

Barbara J. Bayer

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June 15, 1989
Santa Fe, New Mexico
WIPP/ DOE Hearings

Comments Submitted by Lou Montgomery

The first major concern is as to why the opening of the WIPP site cannot be delayed until EPA standards are met. The public has a legitimate right to insist that all health and safety standards are met BEFORE they are subjected to severe and lethal toxic hazards to which they would be exposed in the event of the premature opening of the site.

The rationale that the DOE needs to do a "test phase" seems unfounded, unexplained and not in accordance with scientific recommendations that such a study would be better conducted in a simulated environment that more accurately duplicates a closed repository rather than being conducted in an open facility. Rather, it clearly seems a ploy on the part of the DOE to push for the opening of the site regardless of whether safety standards are met or not. It seems that the DOE began advocating the "test phase" plan AFTER it realized it could not meet EPA standards by the October 1988 scheduled opening. Why could the tests not be conducted in a more carefully monitored environment? What if the "tests" fail and there is contamination? What contingencies have been planned?

In the draft SEIS why is there not more discussion of how the REST of the waste accumulated around the country and stored or buried will be disposed? WIPP is slated to handle

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only 15% of stored TRU wastes and only 11% of all TRU wastes and contaminated soils. When could such a broad-based study be available to the public? It seems that either there is no mega-plan on a national level that adequately addresses the issue of nuclear waste disposal or that the information is not available to the public.

The no-action alternative of leaving the waste where it is presently stored which according to the draft SEIS would not impact water quality, land use, biology, etc. has not been fully explored but has been rejected. Why has the no-action alternative especially if EPA standards cannot be met, not been more fully analysed? Why should the public be exposed to more risk in terms of transportation of waste than what in the DOE's own assessment is already acceptable storage at sites such as INEL, Savannah River, and Hanford?

The DOE has rejected the alternative action of delaying the opening of WIPP until standards are met because of costs, a 5-year delay, and the claim that experiments would not resolve all the uncertainties in the performance assessment. This is unfounded especially when one considers the tremendous cost of bringing the waste to the WIPP and then having to retrieve them if the site does not meet EPA standards, not to mention the tremendous risk to which the public will be exposed and the cost of transportation during the test phase. Experience at the Rocky Flats site certainly

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multi-generations.

In terms of immediate safety issues, I am deeply concerned that the proposed shipping is to be carried out in containers that have not received certification that the containers can withstand Nuclear Regulatory Commission test conditions. The containers tested in the past have failed. When will certification be complete? How can the public be given proof that the proposed NUPAC 72 B shipping containers will not leak?

Based in general on the DOE's track record I have little confidence that the public's safety and environmental protection is given more than cursory priority. Nor do I accept the rationales given for not meeting EPA standards BEFORE the site's opening. I have grave concerns about the DOE's admission of potential deaths and accidents which I assume have been grossly underestimated. What would the DOE consider "acceptable" in terms of a death toll before it defined the hazards presented by WIPP as "unacceptable"? The accident release scenarios are not credible and cannot be relied upon to ascertain the effects of a severe transportation accident.

Lastly, I feel that the proposed administrative land withdrawal is unjustified and is only being proposed so that the DOE can remain unaccountable to the public. Only Congress can grant land withdrawal to allow wastes to be brought to WIPP. The DOE is attempting to circumvent

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7.13.4-2

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Congress and avoid meeting health and safety requirements. Luckily, the strategies taken by the DOE are so unfounded that even the "uneducated" public can clearly see right through them.

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16-Jun-89; EX-00432, PAGE 1 OF 6

TESTIMONY OF JIM TIRJAN

June 16, 1989

My name is Jim Tirjan and I live at 1477 Canyon Road, Santa Fe, NM 87501. I am not a scientist but I have worked in industry for over twenty years, a good portion of that time for defense contractors. My educational background is in systems analysis and operations research, specializing in the design and implementation of information and materials handling systems. It is my belief that the DOE and the Bush Administration have a serious credibility problem with the planned WIPP implementation for a number of reasons:

1) Complex man-machine systems poorly conceived and/or incorrectly implemented invariably fail in the long run. Obviously, the DOE is already off to a very bad start here. For the many technical reasons stated in these hearings - the location of the repository in salt beds with characteristics substantially different from what was

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originally assumed, the problems anticipated with gas accumulation, cracks in the roof and walls at the site, inability to demonstrate non-migration of radioactivity over time, lack of adequate testing or independent verification of tests, transportation by truck rather than by rail, transportation through population centers necessitated by non-construction of planned by-passes, lack of training for emergency medical and public health personnel along the shipment routes, uncertainty regarding those routes and material content, health hazards to materials handling and transportation personnel, and on and on - for all these reasons, the SEIS is seriously, probably fatally, flawed and should be declared unacceptable.

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2) The citizens of this state and of this country will find the idea of a permanent nuclear waste repository acceptable only if they do not feel threatened by it. As the program implementer, the DOE is charged with the responsibility of making us feel less threatened by what is contemplated in the SEIS. Here too, not only the DOE, but also the SEIS itself is counter-productive. We fear we are being

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lled to. We fear that WIPP is a Big Lie thrust upon us by our government and large defense contractors to cover their rear ends for past foul-ups. It seems the major concern is not national security but job security - both your jobs and those in the so called private sector.

A case in point is the several roles played by Westinghouse in this whole dirty business. As both producer of weapons-grade materials and the contractor supervising the clean-up at Fernald, Savannah River, Hanford and Idaho National Laboratories and then the contractor and builder of the operating WIPP site, Westinghouse literally has it coming and going. Further, the Price-Anderson Act exempts Westinghouse from all liability for injuries, deaths and environmental contamination resulting from these operations. Given this set-up, how can we as citizens possibly believe that Westinghouse WIPP would ever reject materials received from another Westinghouse-managed facility? We believe it's not a pilot project at all. Obviously, as far as Westinghouse is concerned, once the stuff is placed in the WIPP site, it's not coming back out. Without

P. 4

meaningful independent oversight, Westinghouse has every incentive to unload their biggest, nastiest problems right into the salt mines and breathe a big sigh of relief. And we believe that's exactly what they intend to do.

3) Start-up and operating problems must be anticipated and eliminated or reduced by investigating any and all alternatives wherever they exist; accurate modeling of all alternatives and analysis of their probable outcomes should be employed. Here too, the SRIS is misleading because it appears obvious that the DOE knew the conclusion it was going to reach before drafting of the initial document even began. Each of the three alternatives (and there certainly many more than three) is not considered thoroughly. Only the preferred Alternative described in the SRIS is any kind of a model at all. The Proposed Action Alternative, let's face it, is actual implementation without testing. Why does the No Action Alternative, the safest and sanest of the three alternatives discussed in the SRIS, get the shortest shrift? The DOE would have us believe that

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WIPP implementation is necessary now to clean up problems that resulted from improper planning and rushed implementation in the past. And now you want to do it again! If the clean-up program carries a price tag of \$280 billion and the materials are going to be around for another quarter of a million years, don't you think you owe it to the American people to do it right this time? We believe the SESIS describes a radioactive Love Canal or Times Beach in the making. Furthermore, we believe the DOE can't prove that we are wrong in that assessment.

4) Implementation can be affected if and when, and only if and when, those problems encountered in the test phase are completely addressed and minimized or totally eliminated as determined by further testing. Further testing doesn't mean requesting waivers from compliance; throughout all testing, retesting and eventual implementation, if warranted, conformance with EPA Standards is an absolute must. Testing must be verified independently and completely in all phases. Lastly, the dressing up of a ten-year old

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document in slap-dash fashion to meet some artificial deadline is just one more example of a "good enough for government work" mentality that we, as citizens and taxpayers, find insulting and infuriating. We deserve better and will insist upon better value for our tax dollars. We are sincerely asking the DOE, as our public servant, to become part of the solution, not part of the problem.

I thank the DOE for inviting public comment on the SESIS and only hope that you will incorporate our concerns and recommendations in your decision-making. Clearly a 1989 opening is out of the question if the DOE acts responsibly. We would welcome the opportunity to participate in future hearings as you look for solutions to these dreadful problems. Since the future of humankind as we know it may well depend on finding those solutions, we intend to watch you, and hopefully work with you, every step of the way.

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WIPP 6/16/89

John Harrison

Over 20 years ago, my brother William died of leukemia, killed by the nuclear industry. This was the conviction of his doctors, who saw cyclical waves of teenagers and young children brought in to their hospital with leukemias and cancers within months of atmospheric nuclear testing by the French in the Sahara. My brother's doctor had correlated these events and was in no doubt of the link.

Of course, the British government, like all governments with nuclear industries, has consistently denied the relationship between nuclear power plants, weapons establishments, waste dumps and the outrageously high rates of cancer and disease surrounding those sites.

Let us remember, when governments assure us how safe the nuclear industry is, that the same governments lie to us every day. We all know this. We've come to expect our governments to deny the ill-effects of Agent Orange, cover-up influence peddling or corruption and misrepresent unpleasant or unpalatable facts. The British government is no exception.

And now we have evidence of malfeasance and cover-up from the government nuclear facility at Rocky Flats. The DOE has long argued that their nuclear activities should remain self-regulated rather than controlled by national laws and

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standards and outside inspectors. What we get is Rocky Flats, and many other horror stories. Why should we trust DOE any more? Or believe it when we are told that the nuclear industry is safe, that the arrangements made in Carlsbad are safe, that the vessels used to transport the nuclear waste are safe? Especially when independent experts testify that they are not.

To the sadly shortsighted citizens of Carlsbad who welcome the waste plant, because it will bring them money, I want to address the following remarks about the infamous Windscale plant in England, which is the equivalent of WIPP in my country. It was so infamous that the Government had to give it a new name: Sellafield. Windscale, as I shall continue to refer to it, is currently the biggest nuclear waste dump in the world. It is also the largest source of radioactive contamination in the world. It was built and is wholly owned by the British government. Government data show that 1 child in 60 in the locality of Windscale has leukemia. Adult cancer rates are shockingly high. The government denies any causal link. The government also covered up, for 30 years a reactor core fire that occurred in 1967, that was far worse than 3 Mile Island, and comparable to Chernobyl. Cancer rates in the whole of Northern England for that period were far higher than average.

Windscale routinely releases plutonium, caesium, curium,

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americium, and radioactive iodine into the environment. And still, until Chernobyl occurred, no testing or restrictions were enforced by the government on local food production, even though Windscale is located in a highly-developed agricultural region. It is also located, ironically, in Britain's largest and most used National Park, the Lake District, and our government allows millions of tourists to tramp the radioactive hillsides and dales. The government admits to an offshore underwater lake of discharged waste, including 1/4 ton of plutonium, which is regularly washed up on the beaches; and yet has never placed any kind of restriction on fishing in these prolific waters. Independent tests show these fish are 5,000 times as contaminated as fish in other British coastal waters. Storage silos, designed to store nuclear waste, leak uncontrollably. Windscale has seen 300 accidents (these are government statistics). Still, the government assures the public that Windscale is safe.

I ask the people of Carlsbad to consider: 1 child in 60 in and around Windscale with leukemia. You are told WIPP is quite safe, just like we in Britain are told that Windscale is safe. These figures mean 1 family in 20, maybe less: why not just offer the DOE your first-born?

At Windscale, nuclear wastes from Britain, Europe and even Japan are processed. Is there a reason, do you suppose, that Japan sends its waste to us? Why do we, or rather, why does

9-1

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our government allow this? The people of Carlsbad will recognize the reason: Windscale is the biggest single earner ^{for} of Japanese yen for ^{the} British government.

The government assures us Windscale is safe, that all nuclear plants are safe. This is a lie. I visited one 3 years ago, the Dungeness "B" nuclear plant. I was allowed to wander around, even in the control room. How safe do you think that is? And why, 3 years ago, was Whitehall, the center of British government, sealed off and evacuated for 4 hours when a group of citizens from Windscale emptied a barrel of acid from their shore onto the street? And why did it get cleared away by men in radioactive protective suits if Windscale is so safe and harmless? Lies and more lies.

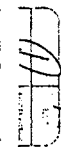
Mortality data in Britain show there are 6 localized areas where leukemias and cancer rates are at least triple the national average. 5 of these 6 so-called "hot spots" are towns adjacent to nuclear facilities. One is Windscale. Still the government denies the link; they claim the numbers involved are too small to be statistically reliable. More lies -- my brother was a statistic, and the people and children of Carlsbad will just as surely become mortality statistics. Maybe innocent bystanders along the WIPP route will also become statistics.

We all remember the trauma of 3 Mile Island. That incident

9-1

produced 15 curies of radioactive iodine. Windscale, over the last 35 years of operation, has released an estimated 100,000 curies, dwarfing 3 mile Island. The scale of pollution, poisoning, disease and death, and the complicity and silence by the governments we imagine are there to protect us, violates common decency and common sense. I am angry to the depths of my soul by the blindness of people, by the willingness to sacrifice life and our environment for very short-term financial gain, by the abuse of our planet, and by the lies and denials we are served up. Windscale and WIPP are so grossly anomalous. We do not have the technology to handle nuclear waste; we do not need nuclear energy and we do not need nuclear weapons for our security. Meanwhile, to paraphrase the writer Marilyn Robinson, the people of Carlsbad and all of us should keep Windscale in mind: it pours plutonium into the world's natural environment, and bomb-grade plutonium into the world's political environment -- for money.

9-1



unavailable for the opportunity to speak here today.

I believe the issue of waste disposal is
can be personally trying, yet it is very important that
we be at our best. I believe that most of us are respon-
sible to some degree for the safest disposal possible, and
for limiting our use of products that lead to toxic waste.
I hope we all discuss WIPP in an open and honest man-
ner, with willingness to let the good outcome happen,
not necessarily our individual will.

As I understand it, there were two major reasons
for choosing this site. One, the hydrogeologic stability, and
two, the sparse population and limited business activity. Neither
of these justify continuing in the present manner. The
hydrogeology is far more liable to spread toxic waste than

②
previously thought, as clearly stated on page 5-3 of the summary of the SETS. Also, the low population density should not be an excuse for lack of care or ^{denial} observation of facts.

The salient fact that ~~lament~~ think about is that regardless of the disposal method, as long as we produce, ~~live~~ waste the animals, plants and land will be tainted and people are going to ~~die~~ get sick and die. We only have hard choices, and the best ones come through honest and open discussion among interested, informed people, guided by a living desire for good.

I am not here to say, "You can't put it in New Mexico!" which is really saying it is better for ^{them} to die than for us die. That is wrong. I believe the responsibility for much of this waste belongs to all Americans. I am here to say

3-2-1

that I don't feel safe with the Department of Energy making decisions about WIPP. I believe they have acted in a ^{consis-} ~~system-~~ ^{terly} ~~atically~~ dishonest manner. I hope the scientists at UNM will be tightly integrated in the decision-making process.

Furthermore, our Governor has recently shown himself to be unfit for office in a democracy. ^A ~~the~~ ^{most} basic democratic

principle is that citizens can come to an opinion about any political issue without threat of punishment. Governor

Canidore ~~has~~ publicly flouted that guarantee of rights by suggesting anti-WIPP businesses should not receive

certain government contracts. ^{is a} ~~This~~ ^{is a} ~~celebrity~~ ^{celebrity} threat, and it shows

lack of support in ability to govern by ^{new Mexico} ~~adhering~~ ^{adhering} a principle we treasure and need. With this

governor ~~not~~ ^{new Mexico} ~~first~~ ^{first} officer, we do have certain freedoms.

9-7

We are free to agree with the government.

We are free to disagree when our voices are ineffective or unheard. But when our opinions may keep the Governor Carruthers from realizing his will, we can be ~~personally~~ specialized.

I call on other New Mexicans to act on this

It is in a conflict of wills that principles are tested.

All government officials, by law and by right, must adhere to principles of truthfulness and ~~democratic~~ fairness

Citizens in a democracy are in agreement to act by principles of responsibility, humility and consideration. I encourage

people to live by these principles. In a difficult world, ~~where~~ we can find ~~these~~ found great fulfillment in a clouded ~~and only~~ but always genuine endeavor to do so. May each will, not mine, be done

9-7

My name is Karen Hase, my mailing address is P.O. Box 9132, Santa Fe, New Mexico 87504. I am a registered voter, resident of New Mexico, and I have chosen to speak here today to demonstrate my concern about WIPP. I would like to briefly address the issues of WIPP's impact on the environment and our health. It is my understanding that the long-term radioactive releases from WIPP and subsequent environmental impacts cannot be accurately predicted from the information the DOE has compiled about the site, to date. The DOE's long-term release scenarios are based on a chain of assumptions that cannot be considered credible. Different interpretations of the same data or use of slightly different but equally plausible models, reveal the potential for massive contamination of ground water, air and soils from the facility, and resulting negative health effects on humans, plants and animals.

7:46
7:49
7:45

Karen Haas
Page Two

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The DOE selectively analyzes possible release paths for radioactivity from WIPP, randomly dismissing some, while down-playing the significance of others. The DOE says that airborne releases during the operational phase will be cut by 99.9999% by filters on the ventilation system, and assumes that this filter system will never fail. Filtration systems have been a weak point at many other DOE facilities. The DOE goes on to say that surface water releases aren't analyzed because there are no major surface streams at the present time. It makes this assumption in spite of the fact that mankind is now altering global weather patterns, and that the Pecos River is only 15 miles from the site and is fed by the same aquifers which overly WIPP. The DOE says that migration through aquifers will not present significant radioactive releases within the 10,000 year control period, yet it also clearly states that aquifer flow rates and direction have yet to be quantified or determined. Regarding health risks, the DOE has not considered the Petkau effect in their BEIR III health risk assessment model. Failure to include the Petkau effect invalidates all the DOE/SEIS health

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7.13.1.7
7.14.10

Karen Haas
Page Three

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risk assessments which use BEIR III modeling and ICRP standards. At the request of the Canadian Atomic Energy Commission, Dr. Petkau performed research to establish the effect of low dose/long term exposure to radionuclides. His results, as reported in the March 1972 issue of HEALTH PHYSICS, suggest an entirely different mode of operation for the damaging effects of low dose/long term exposure. Through the creation of free radicals, especially of the oxygen molecule, low dose/long term radionuclide exposure leads to the dissolution of the cell membrane and the eventual death of the cells involved. Obviously, this wreaks havoc on the immune system and potentiates all sorts of immune-deficiency diseases. Current research in the field is corroborating Dr. Petkau's original findings. Therefore, we have a health risk from low dose/long term radionuclide exposure that is 1,000 times more dangerous than is currently accepted by the DOE or any standard-setting body. Without considering the Petkau effect, the health risk of the routine releases of radiation during normal operation of WIPP, are grossly underestimated.

7.13.1.7
7.14.10

In the past we were led to believe the flourless admission was from himself, but now we are convinced, that it is from himself.

[illegible]

disincenting effects. If that's not incentives are important, they are only possible in a margin of 1 to 1 million. But never-
giving the enormous guarantees they gave us and the facts they
substituted. We were led to believe that not incentives
we only possible in a margin of 1 to 1 million. It revealed how truly
believe there incentives ~~did~~ happen. It revealed how truly

to be at times.
can be at times.

Can we trust the ^{new} government of Mexico will be
the people of New Mexico will be

Wipp? Can we see it? I calculated 4 years
I still he decided to / was the

Can we force
human words to pass? Can we force
human devices. Can we force

What means or search means
 means of track drives or the built up of grass to the
 the means of storage? Can we give the means of slow
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intention of nuclear personnel? And finally can we
give the excess of the Dept. of Energy and unconditionally
trust them?

The Albuquerque Journal of June 8, 1989 reports:
Rocky Flats probe is over of a nuclear facility. Quote

No longer can and will we be mislead.

32-1

Rocky Flats Probe Is First Ever of a Nuclear Facility

THE ASSOCIATED PRESS

DENVER — A criminal probe of alleged environmental violations at the Rocky Flats nuclear weapons plant is the first ever of a nuclear facility and the latest black mark on the plant's spotty safety and environmental record.

About 75 agents from the FBI, the Environmental Protection Agency and the Department of Energy searched for evidence at the plant, about 16 miles northwest of Denver, for a second day Wednesday.

Rocky Flats, owned by the DOE and operated by Rockwell International, makes plutonium triggers for nuclear bombs.

It's the largest environmental investigation in history and it has to raise very serious questions about how federal officials at Rocky Flats and the Department of Energy may have covered up problems and whether the Department of Energy can be trusted to police itself, said Rep. David Bonior, whose district includes Rocky Flats.

Shays has been a staunch proponent of independent oversight of



Rocky Flats nuclear weapons plant, northwest of Denver, is the first nuclear facility to undergo a federal criminal investigation.

the nation's nuclear weapons facilities.

The Justice Department initiated the raid as part of an ongoing probe, announced Tuesday, into allegations that plant employees may have falsified documents concerning compliance with state and federal pollution laws.

Other allegations include concealment of contamination, and illegal treatment, storage and disposal of

hazardous and radioactive waste.

Both Rockwell employees and energy department employees are believed under investigation. Search warrants also were being executed at the DOE's Albuquerque office, which oversees Rocky Flats.

Rocky Flats has been plagued by safety and environmental problems since it went on line in 1966, and particularly in recent years.

Last year, the DOE identified the

plant as the most environmentally hazardous in the nuclear weapons industry because of its extensive contamination in underground reservoirs and streams near by city water supplies.

In October, the department closed Rocky Flats' main plutonium processing building because of safety violations. The DOE had considered closing the plant entirely that summer because of repeated safety

violations and alleged "an attitude" on the part of Rockwell managers and employees.

In December, the DOE issued a report revealing 32 new safety problems at the facility.

Rockwell officials have maintained that they give top priority to safety at the plant.

The DOE announced plans last last year to close Rocky Flats within the next 20 years as part of a

consolidation of the nation's nuclear weapons facilities.

Environmentalists, who have fought the plant for years, hailed the federal probe Tuesday.

"The Sierra Club's glad to see that the regulating agencies are starting to do something about the problems we've been saying have been out there for a long time," said Dr. Rogers Dahlman, the club's coordinator for Rocky Flats.

The Sierra Club is suing Rocky Flats to keep it from using an inducement to lure hundreds of radioactive waste.

"It's way, way overdue," said Greg Marsh of the grassroots Citizens Against Rocky Flats Coalition, which formed three years ago in opposition to the proposed incinerator.

Marsh said he thinks the probe will vindicate Dr. Carl J. Johnson, an early critic of Rocky Flats who was fired from his job as head of the Jefferson County Department of Health in 1981 after a demand of suing with Rocky Flats over alleged health dangers to the plant's neighbors.

7

16-Jun-89; EX-00437, PAGE 1 OF 1

Route 6 Box 40D
Santa Fe, New Mexico 87501
June 7, 1989

DOE-SHIS Project
P. O. Box 5400
Albuquerque, New Mexico 87115

To Whom It May Concern:

I first became aware of the Waste Isolation Pilot Plant 10 years ago. The issue that most concerned me then and continues to go unresolved is the issue of water at the site. I feel that storage underground where there is a highly pressurized brine reservoir negates WIPP as an option.

And before accepting the storage of low or high level radioactive waste, that now seems the only solution, I would strongly like to state that I feel the long-term goal of deactivating radioactive material should be the focus. If the time and resources had been put into research rather than into developing what continues to be a very controversial choice, I feel that the very urgent problem of disposal would be nearing a more logical plan.

On a visit to the site, I remember driving through a field of vibrant, yellow sunflowers. I believe that WIPP will jeopardize the environment and the health on this planet forever. With the Alaskan oil spill as a small example of destruction, WIPP could ultimately destroy far more than it would ever temporarily resolve. If the water table becomes contaminated, the scenario is unimaginable.

Please dump WIPP!!!

Sincerely,

Dianne E. Eblen
Dianne Eblen

/de

cc: CCNS
Senator Pete Domenici
Senator Jeff Bingaman
Representative Bill Richardson

16-Jun-89; EX-00438, PAGE 1 OF 4



Darren Vigil-Gray

For starters as I look around I am surprised and not so surprised at the how turnout of Native Americans at these WIPP hearings.

I am here on behalf of my spiritual brothers and sisters to protect this pre-planned devastation of our sacred place here in the mountains and deserts of New Mexico.

Our Indian Dreams were shattered long ago. Our blood memory goes deep, and I imagine that there are many, many voices out in our lands that want to be heard. Those Indian voices carry thoughts that many in high places have no time to hear. We are still crying out to you people - you people in charge.

Our people are not here with us today perhaps because - Too many dreams have been shattered - Too many promises broken.

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782-2

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16-Jun-89; EX-00438, PAGE 2 OF 4



Darren Vigil-Gray

Native Americans possess an understanding that the land is sacred and live in accordance with that idea. A concept the Dept. of Energy does not seem to understand or respect.

Obviously judging from the last two days of testimonies ~~the~~ from very concerned citizens. This sends you a strong message of what we as a people (humanity as a whole) feel about your proposed shipment of nuclear waste ~~from~~ our land.

You say you will protect the environment but protect the material most. Why must you always be thinking up new ways of trying to overcome Mother Nature. It is hard to supply, but how ~~you~~ ~~are~~ going to do it, but not quite sure of.

9-1

32-1

16-Jun-89; EX-00438, PAGE 3 OF 4



Darren Vigil-Gray

This Indian wise speaks of Mother, but who listens? This Indian soul lives in and out of their reach - in the wind, air, water, soil, sky, sun, moon, stars, plants, animals, birds, memories, laughter, tears - this Indian past - This Indian future waits!!

'Song of the trees' (John Trudell)
 Listen, as the trees sing their songs
 in the wind - lyrics and melodies for the
 spirits senses - songs of laughter and
 life - timeless things in timeless places
 do not be afraid to be strong - do not be
 afraid to love, but always remember -
 Always remember - love wise the love
 of being - Free of possession - the love of
 being beyond desire - the love of being respected
 for Mother Earth.

... Dreams

(4)

WIPP DRAFT SHIS - Nepa Hearing Testimony
 Barbara Stevens
 P.O. box 567
 Chimayo, N.M. 87522

June 10, 1989

I appreciate this NEPA provision for the SHIS and these public hearings. I request a less hurried time period for citizen input, thanks for the extra 30 days, however that seems like only a token gesture for the need for a longer time for public and state and other scientific group study of the document and also there will be a definite need for a longer time period for the DOE's study of the response.

As the purpose of the SHIS is to study and allow for changes, make corrections in light of the new geological, geotechnical problems at the site, such as Karst (and I ask that the SHIS face that problem clearly) and rapid flow of water through the nuclear aquifer, the unanticipated salt closure rate and resulting lack of retrievability of the waste, and of course the brine (the idea of WIPP was dry salt, right? However your Kansas dry salt experiment proved that high level waste won't work in dry salt, certainly not in a situation with brine, pressurized gas and now the cracking. Your own people told me over the phone that retrievability would be difficult. In light of all this and the prediction that a rather fast contamination of the Pecos River, underground water, and then the Rio Grande and surroundings, etc. can take place. As well as the risks with transporting wastes (evidently some which are unknown quantities) through many cities throughout America, including right past my only sons school building in Poquosque, New Mexico, discrepancy re: unsafe/safe doses of radiation in addition to this risk the public community. In light of all this your rejection of meeting the new EPA standards, your rejection of the sensible, timely, safe saving solution of a no action alternative in seems illegal and a untenable position, a position not justified in the SHIS. Please reconsider it.

The credibility of the DOE is so low at this point, with a Democratic majority in Congress there is a grass roots rumor to demand the DOE give its money to an agency which will deal with WIPP honestly, getting rid of this 'politics as usual' trying to open WIPP for political reasons when Idaho has just the right Governor, but in fact has safely monitored above ground facility, while Rocky Flats and the other disasters must be cleaned up and WIPP needs the no action alternative.

The state of New Mexico, when you started this 'national sacrifice area' land of Hispanics and Native Americans, beaten down by poverty and controlled by the Federal Government (the nuclear related custodial jobs, etc.) and the patron system and the cultural heritage of respect of authority it represents (when seen in the best light), and the Native American's intense loyalty to the flag and its authority, in spite of everything, they are respectful like that, all of this you found here and have taken into account in these waste dump plans, I believe you have taken advantage of these people. And now

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that all white America has moved to Santa Fe, or at least visits annually, and now that trustworthy historians and world wide opinion has realized the treasure here represented by these Native American and old Hispanic (the Conquistadores) cultures here and the need to protect them and to safeguard one of the worlds finest vacation places and if your eyes are open, a top area for scenic beauty. This place and its people, etc. must be protected. It's going to be worth the cost.

PLEASE GIVE SPECIAL NOTICE TO THIS NEXT POINT.

The problem that will incur if the Pecos - Rio Grande Rivers become contaminated is the genocide of the Native Americans. From 36 States, members of the Native American Church, whose Holy Sacrament, an ingested plant, grows only near the Rio Grande. You can go down in history as all General Custers - like the giving of contaminated blankets to the Indians (But does Rocky Flats already tell me that the DOE are already hopeless sociopaths?)

These Native American people elect AT THIS TIME, I Believe, to pray WIPP away from their Holy Garden. My understanding of this religion is that it is Christian and also an 'Earth' religion, belonging to and protecting the Earth, as well as having an ongoing consciousness of their ancestors and the future generations of people binding them always to the 'Earth'. They will continue to use the Holy Sacrament be it known to the 'Earth'. They will continue to be, not monitored, generation after generation you can kill them, as long as they last, they are a larger group than you might think. The Native American Church.

THIS IS A REQUEST THAT YOU CAREFULLY CONSIDER WITH HUMILITY THE DISASTROUS IMPACT WIPP CAN MAKE ON THE NATIVE AMERICAN CHURCH.

I am an active, legal member of a New Mexican (non-Indian) chapter of the Native American Church, American Church of God.

Barbara Stevens

7.14-9

Expt. of Envr, 16-Jun-89: EX-00439, PAGE 3 OF 3

since I am unable to attend the public hearings on the Draft Supplement to the Environmental Impact Statement for the Waste Isolation Pilot Plant. Here are my concerns expressed in a letter.

1) On the SEIS report I can find no reason or excuse for opening WIPP for legal without complying to EPA standards.

2) I fear that WIPP will just become another DOE sight. That will have to be cleaned up at the cost of millions just like Rocky Flats etc.

3) No where do you state that you have a "plan B" for safe storage should in case WIPP fails to be a viable sight.

4) No where in your model have you figured in the "human error" factor - the 1st cause of injury and death in the city, on earth, and maybe the support of the planet.

Frank J. Allen
P.O. Box 675
Chimney, N.M. 87522

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My name is Leslie Lakind, and I live at 502 Leona St. here in Santa Fe. I am a dentist and have been practicing here for 13 years. My wife is a physician, and I have two small children.

There has been a stereotype that there is opposition to WIPP as an environmental, or technical, fringe element of society. I hope my presence shows this stereotype is inaccurate. Opposition is now broad-based.

As a dentist, health professional, father, and spouse of a plant, I am concerned with long term health effects of any mishap in the storage process.

When you survive an accident, make a mistake, make a wrong choice, or forget something.

When you are not healthy or dishonestly because of pressure from family, two peers, from employers, or co-workers, who have it?

If a dentist makes a wrong choice, he can cause great pain and inconvenience. It's an image that can make an epidemic. If an MD makes a wrong choice, the result can be great human suffering or even death to an individual. But if you make a wrong choice, you can cause 240,000 years of dreadful contamination to the environment.

240,000 years is a very long time.
24,000 years ago we were coming out of the last ice age.

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240,000 years ago we were deep into the last ice age. Cro-Magnon and Neanderthal man walked the earth.

The SEIS document proposes WIPP open before meeting new EPA standards.

After all this testimony, are you that sure of that choice?

Have experts ever been wrong? Of course, what we know to be true, changes daily. Once it was a fact that the world was flat.

Have experts ever made mistakes? Once we tested nuclear weapons above the ground. But then folks in St. George Utah, with their increased rate of cancer and leukemia, it that was a mistake. Have we ever been misled? You bet.

It is said that those most from decades will be a burning point in our survival as a species.

We have some disturbing pollutants in our air, acid in our rain, arsenic in our water, waste on our beaches, and toxic elements of poisons in our food chain.

Can we be too careful here, with this worst of all poisons?

We may TATs, chloroalkanes, Freons, herbicides and baby bottles will it take to prove that accidents do happen.

Last night a man from Carlsbad said that what they do there should not be our concern here in Santa Fe. Evidently, he hasn't been paying much attention there past few years or he'd know that everything is inter-related.

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3 16-JUN-89: EX-00440, PAGE 3 OF 3

Fallout from Chernobyl lands in a wheat field; the wheat is made into bread, and that bread is sold in Bloomington like the rest of it.

A cow drinking contaminated water near Ruby Flats is your highest concern.

In a murder trial, because of the gravity of the decision concerning one human life, the judge instructs the jury to beyond a reasonable doubt in their decision.

In your decision to open wells, can you be that sure?

3.1-8

16-JUN-89: EX-00441, PAGE 1 OF 1

My name is Kristi Poling. I live at 5 Monte Court, Santa Fe, N.M. 87505. I also happen to live directly on the WIPP route, about a mile off Hwy. 285. I thank you for this opportunity to be able to share with you my views on the proposed WIPP project.

Let me first say that I object to the way that you have divided these public hearings. I get the distinct feeling that this is an effort to diffuse the energy and lessen the impact of what we all have to say here. I believe that we all have the right to be present to hear each others statements, and support and band together as a group of concerned citizens. Would it have really been too much to continue the hearings just one more day to accommodate us all to speak, and also be present for the complete hearings, not just segments of it?

I come to you as a private citizen speaking directly from my heart. I am the mother of a beautiful 4-year old daughter and am deeply concerned for her future. As I said earlier we live very close to the proposed WIPP transportation route and in all honesty I have to say that I have no confidence in the DOE's ability to safely transport such a highly toxic material. The trust is just not there considering the DOE's track record and now most recently the DOE's attempt to cover up the illegal dumping of radioactive waste at the Rocky Flats, contaminating their air and drinking water. I am not only concerned for myself and my family but for all the people living along the WIPP route. Can the DOE really guarantee the health and safety of the people living along the WIPP route? Human error alone would make this impossible. For one thing, New Mexico has the highest rate of alcohol related traffic accidents in the nation, let alone the poor road conditions of much of the route.

I am also concerned for our environment. Our already threatened fragile biosphere, our sacred Earth. The WIPP site is full of problems and more are coming to light all the time. We are dependent on the earth for our very existence and can't afford to take this kind of chance, do you feel? I wonder, have all alternatives been fully explored? Concerning the gravity of their actions, can the people making the decisions at the DOE honestly say they know what they are doing? Look into your hearts, as I feel myself and many others are doing at this time, and do you sincerely feel that to open the WIPP project in September of 1989, is ready? Do you sincerely feel in your hearts that it will be ready at all? Do you sincerely feel in your hearts that this is the answer?

Thank you .

Sincerely,
Kristi Poling
6/16/89

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7.3.5-1
7.3.5.4-3

3.1-2

3.1-8
3.2-1
5.3-1

16-JUN-89: EX-00442, PAGE 1 OF 1

Stephen Poling
5 Monte Alto Court
Santa Fe, N.M.
87505

My name is Stephen Poling. Thank you for this opportunity to state my views on the WIPP project.

I strongly object to the opening of the WIPP site at this time, given the many serious flaws with the SEIS report, the site, and with the transportation of the waste.

Out of a long list of problems regarding this project, I will choose only two to make my point.

First, the entire SEIS report refers to the old EPA safety standards that were rejected by the First Circuit Court of Appeals in 1987 because they were not stringent enough to comply with the Safe Water Drinking Act. And now the DOE wants to open the WIPP site before the new safety standards are even written and approved!

The EPA standards were mandated by the federal government to protect the health and safety of American citizens in the disposal of nuclear waste, and we are entitled to this protection. I have to conclude that the DOE doesn't have the American citizen's health or safety at heart. Why not? Then how can we trust them?

Another flaw in SEIS that I find particularly unacceptable is the neglect in seriously looking into any alternatives to burying it. What about leaving it above ground until the technology is developed to neutralize it?

I think the whole idea of burying this highly toxic waste in the earth is a bad one. Do we really know the consequences of doing this? Can we really guarantee that there will be no radioactive migration into the water supply or contamination of the atmosphere over the next 240,000 years?

I think we've got to re-think this problem through.

Considering the way the DOE is handling the WIPP project and now with the Rocky Flat violations, I think the DOE has a very long way to go to re-establish confidence with the American people.

Thank you.

Stephen Poling

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My name is Sarah Stout. My address is 318 Reed St., Santa Fe. I am grateful, gentlemen for the opportunity of speaking. I have been in the health professions, as a registered nurse, for 20 years and a mother for 12 years. I am no stranger to New Mexico. I have lived here and considered it home since 1974.

As part of the "baby boom generation" I have grown up under the shadow of nuclear disaster and nuclear accidents. Even as a child, I was interested in health. I would take my dollie clothes out of their chest and pack it with first aid supplies. I'd worry about how my family could convert our basement to a bomb shelter.

I remember this and I realize how this shadow has been over my whole life. Much of the time I forget about it and push it out and deny it. It's easy to deny something that one can't see — something that might not cause death for 50 or 10 or 20 years.

I'm not the only one who's denied. A couple of years after the 3 mile

16-JUN-89: EX-00443, PAGE 2 OF 4

②

island accident I visited a vineyard a few miles away from the plant. I asked the burguide about the wine produced the year of the accident. My questions were evaded.

As a nation we deny our problems, our pain, our fallibility, and our waste problem as being entirely over our heads. We find ourselves denying the potential dangers of handling, transporting and storing such waste, ~~WIPP changes our generation also.~~ the denigly of the possibility of human error. WIPP helps me remember.

I am really concerned.

1. By Passes were promised and have not been built.

2. It has been admitted that there will be radiation exposure to the public through Trupact II. In Santa Fe alone, there is one elementary school directly on route and several other schools within a half mile of route.

3. There is inadequate emergency response capability.

4. There is no rationale for estimated potential costs to individuals, families, workers.

5. There are valid EPA standards

yet the DOE is not enforcing the standards. ⑤

7.15.41
7.15.43

7.35.24

7.33.3
7.33.4

7.12.9.7

3.1.3
3.1.3

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③

4. The chief contaminant of the WIPP waste is Plutonium ~~plutonium~~ which can be spread & resuspended in the air and produce lung cancers for 240,000 years.

I look at the history of the nuclear industry and see how important "illusions of certainty" and a willingness to harm other people in order to get what one thinks one needs have been backbones of its development. WIPP is no exception.

I see the money put into WIPP as serving to distract attention from the real problem and as an excuse to continue expansion of the nuclear industry.

WIPP, & the waste of the nuclear industry, is truly a dragon unleashed by humankind, who created it but cannot control it. We must admit our fallibility and put money into cleaning up what we have created in a way that is not of danger. We cannot ignore the growing number of contaminated areas in our country.

We pay not a species destined to create our demise by our attempted rule of the earth in a wild, careless ③

3.1-8

3.1.2
3.1.3
3.1.47.14.10
7.14.15

and unconscious way. To me, transporting wastes in ways that do not meet standards is careless.

I again remember the child who packed bindalls and worried and then forgot. I see that there is another path. I feel that it is imperative that we fully admit our problems and join hands in mutual cooperation whatever our position. We can address the problem of our wastes and our survival. It starts here and now with WIPP.

3.1.2
3.1.7
3.6-1

My name is Caitlin Phillips. 136 W. Berger St. Santa Fe 87501. Please let me begin by expressing my deep disappointment in our having been separated into 3 rooms. I believe this was unnecessary.

While having spent most of my day and evening in these 3 rooms for the past 48 hours, I must say I feel as though I've been listening to my death sentence. And the truth is, I have! To mine, to New Mexico's, to the Nation's, and eventually, the world's. We're talking about mass murder through many generations to come.

There are terms in the SEIS document such as "further investigation that is needed", and "remains to be verified" among others with the same degree of negativity. These appear throughout the SEIS pages. By your own admission, the WIPP site is questionable in regards to safety factors...why then do you insist on a September 1989 opening?

In the past 2 days, we have listened to doctors, scientists, teachers and children express their fears, apprehension, anger and grief not only at the opening of this site, but in response to the larger and longer implications, in response to the lack of grace and respect with which you regard ~~our~~ earth.

I wonder, are we being heard?

Emergency medical technicians, doctors, and nurses employed in the MN area say they and our hospitals are not prepared to serve effectively if and when an accident occurs. Our roads are not prepared to guarantee the lack of an accident, and truck drivers, human beings, are not infallible. This is ~~the~~ ^{the} ~~of~~ ^{of} Hitler's Germany - of the Holocaust - with just as much denial in operation!

7.3.1-6
7.12.9-1
7.12.9-2
7.12.9-5
7.12.9-7

3.1-2

8-7

2.3.1-1
2.3.1-2
3.1-2
3.1-8

I've seen Plutonium referred to as "the most deadly substance produced by man..." Do you hear those words? How can you and still continue your plans? The most deadly substance produced by man is about to be transported, not only through our state, but through 22 others - past pre-schools and highschools, dogs and cattle, oceans and rivers and lakes, through mountains. This most deadly substance produced by man may be sitting twenty-one hundred, fifty feet under the ground of my home and the homes of thousands of others. This most deadly substance may be sitting in the ground! I quote Helen Keller from a 1912 interview, "...as the eagle was killed by the arrow, winged with his own feather, so the hand of the world is wounded by its own skill".

Let us not have another Holocaust. Please listen to our words. You must not open the WIPP site until EPA standards have been met, if you open at all.

Thank you for this time.

1-3

June 16, 1989

To the DOE:

We've all heard and read lots of facts and figures about the inadequacy of the WIPP site in meeting EPA safety standards, as well as many details about the hazards of transporting refuse related nuclear waste to the site. And it's not forgot that if WIPP fails, what it almost certainly will, the waste must be returned, thereby extending the people in the twenty three states along the WIPP route to get more opportunities for radiation exposure. After all new evidence is daily revealing that shows now geologically unstable the site is for its proposed use.

The safety of the WIPP site and the radiation of the transportation issues involved can never be satisfactory because they can never be safe enough. As the many facts and figures have shown, the risk of radiation exposure is not only likely, but is in fact, a given in many stages of waste emplacement. No level of radiation exposure is acceptable. This is my gut feeling, not it is substantiated by the research done by Dr. Rethen for the American Atomic Energy Commission in the 1970's, as well as by current research in this area. Dr. Rethen's findings show that low dose/long term exposure to thousands cause a breakdown of the immune system on a cellular level. This leads to many more diseases than would otherwise be possible, especially immunodeficiency diseases, of which chronic fatigue is often a symptom. How often do we tell someone that one?

7.3.5.1-6
7.12.6-47.13.1-7
7.13.4-1
7.14-10

At this point in time, human beings have not developed a safe way to produce, use, and dispose of radioactive products. By safe, I mean absolutely no radiation leakage whatsoever. Until that day comes, we must stop all processes that necessitate WIPP and other radioactive waste disposal facilities, whether they contain defense related waste or by-products of nuclear power plants.

I'm not trying to sidestep the issue of WIPP. Rather, I want to get right to the source of the waste disposal problem by eliminating the need for products and services that create this radioactive waste. Let's create world peace instead of nuclear bombs. I noticed of using nuclear energy. Let's investigate solar power and other alternative energy sources. More fundamentally, let's reexamine, re-use, do with less, and do without. How many appliances do we really need? And how many of them bring us "real happiness"? Especially knowing that they are run by nuclear power?

It's human kind's greed for power and things that causes conflict and war in the world today. And greed is one of the deepest roots underlying this obsession with creating nuclear bombs, and being nuclear power, and even for this ready access need to irradiate food.

We all need to realize that the WIPP issue is completely connected on many levels to the health and well-being of this country and of the world. WIPP is intended to store defense related waste, and is therefore connected to the way in which the United States relates to other countries. Or a broader, more basic level WIPP is connected to

issue of peace and war. By eliminating the need for WIPP at its source, we take a giant step towards world peace.

Sincerely,
Patricia Whalen
7127 Camino Santa Ana
Santa Fe, NM 87501

16-JUN-89: EX-00446, PAGE 1 OF 2
 "OPPOSITION TO WIPP: THE AMERICAN PEOPLE WANT HEALTH, SAFETY AND DEMOCRACY"

My name is Johanna Maybury. I am pleased to speak to you as a resident of Santa Fe and a homeowner whose house is near 1-25. Also, I speak as a practicing psychotherapist and a business person in this community, as well as an educator and historian. My strongest credentials, however, come as a parent and as a grandmother.

I want to speak about my opposition to WIPP on the health and safety issues. Last, I want to address the issue of democracy in this debate over WIPP.

There is simply no compelling evidence that WIPP is, or can ever be, safe. We are dealing with a deadly substance that lasts for 4 or 5 million years, yet no EPA safety standards exist for this project. Nor has it been written since the old ones were thrown out in 1987 by the First Circuit Court of Appeals because they weren't stringent enough.

Compliance with the Resource Conservation and Recovery Act (RCRA) is mandatory. Nevertheless, the DOE plans to violate federal law because EPA has not granted WIPP a RCRA permit.

Moreover, the potential for minerals and underground water to seep is extremely high and the potential for radioactive material can seriously affect the soil and aquifers. Still, DOE admits that the seepage rates have not been quantified or determined, even while they claim they will be. Any impact on the aquifers for thousands of years. The point is that they have no data and their statements are made in ignorance.

SEIS admits surface facilities will become contaminated. Even DOE realizes the potential for endangering people, but underplays it — what we say in the psychological profession as "minimizing" so as not to appear culpable for causing real harm to others. This kind of cunning and distortion conceals the imminent threats to workers, scientists, the public, or the general environment that are genuinely present in the WIPP project.

As for health risks, they are numerous. The known effects of low dose and long term exposure result in dissolution of cell membrane and eventual cell death. This profoundly affects the immune system in healthy individuals and destabilizes their ability to resist all kinds of diseases in the future. Nothing so devastating should be permitted in the general health of the American population.

Furthermore, DOE fails to comply with federal law (NEPA) in making truthful comparisons of doses and risks. Also, Transport transport containers are not certified.

But the most damning indictment of DOE irresponsibility is that it has grossly underestimated human error in the packing, loading, transporting, unloading, and storing of these dangerous materials. This deserves SERIOUS EVALUATION. Even SEIS predicts 8 deaths and 106 injuries due to truck transportation alone. How much more damage will there actually be, given the fallibility of predicting "safe guarantees" before the terrible "accidents" at Chernobyl, Three Mile Island, the Exxon spill in Alaska? Moreover, it wasn't until recently that the FBI discovered that the supposedly safe Rocky Flats area, operated by the DOE, has engaged in long-term contamination.

In testimony before the DOE, the public has overwhelmingly opposed WIPP and Dept. of Energy policies. We live in the United States of America by the principles of democracy and the doctrine that political leaders must follow the "will of the people." We also link to see our leaders confirm their respect for the people by the acts they perform.

16-JUN-89: EX-00446, PAGE 2 OF 2

It is now clear, however, that DOE opposes the will of the people and imposes its authority against the people's will and the people's interests. To serve politically expedient ends, it knowingly endangers public health and safety, while it ignores the detrimental impact on the environment and the earth itself.

Accordingly DOE is a harbinger of death and destruction, as much a threat to democracy and peaceful tranquility in the United States of America as Li Peng and Deng Xiaoping are to the people of China. However, there, in China, the threat of abusive power is immediately visible and the consequences well-known. But here, it is covert and secret, covered up by the illusion that these hearings will ever be taken seriously. As a result, we face the policy of bureaucracy in DOE making deadly fatal decisions that will affect terrorism, the environment, and the earth for thousands, perhaps millions, of years.

Stop the abuse of the American people and their environment. The will of the people in this democracy says "NO TO WIPP," and "No RCRA." In our hearts &

mind, we want to stop this tyranny

My name is Mary Brewer
 PO Box 16196
 Santa Fe, New Mexico 87506

For the past 10 years I have worked as a professional in the solar and alternative energy industry in California. Specifically the California Energy Commission and the Sacramento Municipal Utility District, a nuclear utility that has been plagued with management and technical problems.

From my experiences in the energy industry I have all too often seen economic and political solutions used to answer technical problems.

In the usual scenario we get to listen to excuses as to why something that could never happen - did happen.

I have seen the alternative energy industry decimated when new political administrations took office - Not for technical reasons ~~but~~ or any regard to the effects on the environment, but purely as part of a political power struggle.

I feel once again we are being driven by economics and politics instead of true technical and environmental information.

①

to expect a 200 year old country to safe guard radioactive wastes for 100's and 1000's of years is ludicrous.

Meaningless assurances from people who have no way of knowing what can happen in the future or how to correct mistakes and accidents that surely will happen is tragic! A good example is the oil spill in Alaska. We were assured it wouldn't happen. Unless the average citizen takes a stand against the pollution of our environment, we will all perish in the waste that we are creating.

I feel it is imperative that the average citizen speak out against WIPP.

DOE doesn't have the solutions they only create the problems. Problems with which this country and specifically New Mexico will have to deal. New Mexico has a bitter and black history surrounding its involvement with nuclear power.

It is time to stand up and say enough is enough. We do not have to quietly be lead down the garden path again by empty promises that can not be kept.

I would like to formally protest the DOE's "divide and conquer" tactics of the hearing process.

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EX00448
The Department of Energy has designed to come here and allow us to voice our concerns about WIPP. What freedom we have in this country!

Except the freedom to live without contamination; carcinogenic chemicals in our food, oil poisoning our streams, toxic and nuclear wastes travelling our highways to be dumped later in our backyards. I have to buy safe drinking water; how soon before I have to purchase breathable air?

If we truly had a voice in our government we wouldn't even have to be here to plead with our public servants to stop WIPP. My government would not be generating nuclear waste with no possibility of safe disposal.

As an Earth Firster, I am often accused of being irrational, unreasonable, and impolite. Well, trucking nuclear waste through hundreds of towns and dumping it in a city depository is irrational, ~~was~~ unreasonable, and it is totally unacceptable. And I refuse to be polite to those who would willfully poison this and future generations of all species.

EX00448

~~As a citizen~~
As a citizen and taxpayer of this country, as an inhabitant of Turtle Island, I do not ask, I DEMAND to live free of the fear of toxic contamination from WIPP.

I also give you a promise: I will insist, persist, and resist until WIPP is stopped. The WIPP trucks will not pass. We the people will not allow it.

16-JUN-89: EX-00449, PAGE 1 OF 2

June 16, 1989

Mr. John Arthur, SEIS Project Manager,
Department of Energy, Albuquerque Operations,
PO Box 5100, Albuquerque, N.M. 87115

I strongly object to the opening of
WIPP. I am outraged with the
Department of Energy's willingness
to risk the public's health and safety
in its rush to open WIPP before
E.P.A. standards are met.

I feel very personally affected by
this flagrant disregard for the
people's welfare. Last August I
moved from the White Cloud to Santa Fe
with my husband and two young
children. We were unaware of
the WIPP project before we arrived
or we surely would never have
bought property as we did right off
the designated WIPP route.

The prospect of three trucks
a day for the next 25 years hauling
radioactive nuclear waste past my
home. I feel so direct threat to
the health and safety of my family -
as it is to all Santa Feans.

What happened to the promised
by-pass road. It is inconceivable to
me that you plan to drive the
stuff through the most congested
intersection in town. We are
entitled to more protection than this! ①

1-2

1-3
2-2
3-1-3

3-2-1

7-3-3-4

7-3-3-3
7-3-3-47-3-3-5
7-15-4-2

16-JUN-89: EX-00449, PAGE 2 OF 2

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I believe that WIPP is no solution
at all to the problem of what to do
with America's nuclear waste. The
word that the Department of Energy
plans to file more than 100,000
of WIPP's capacity, not with the
existing backlog but with newly
generated waste, thus keeping the
door open for the continuation of
the deadly bomb production while
we all throw in our hearts to
Complete Madness, and which
results in more nuclear waste, and
more contamination.

I propose that we take the 2.5
billion dollars in funds programmed
for WIPP and use it to help clean
up existing contamination of natural
resources of other DOE facilities.
And to research alternative ways
for dealing with nuclear waste
other than burying this lethal
poison in our mother earth, thus
risking the very living body that
feeds and sustains us all.

Yours Sincerely,
Jill Marking
Rt. 9 Box 82 EM
Santa Fe, N.M. 87505 ②

3-1-8
3-6-15-3-1
9-2

15-Jun-89; EX-00450, PAGE 1 OF 1

MY NAME IS BOB PAGE AND I ADVOCATE CCNS AS WELL AS MY BUSINESS IS A MEMBER AGAINST WIPP.

WHAT I WANT TO ACCOMPLISH THROUGH MY TESTIMONY IS VOICE MY CONCERNS THAT ENOUGH CONCRETE EVIDENCE ~~RECEIVED FROM THE DOE~~ DOES NOT EXIST FROM THE DOE REGARDING THE SAFETY, ENVIRONMENTAL CONSEQUENCES, HEALTH EFFECTS, TRANSPORTATION, STORAGE AND DISPOSAL OF THIS NUCLEAR WASTE.

LET US CONSIDER THE TRANSPORTATION ISSUE: NEW MEXICO AND SPECIFICALLY SANTA FE HAS THE HIGHEST ACCIDENT RATIO IN THE UNITED STATES. THE SANTA FE POLICE DEPARTMENT HAS GIVEN ME STATISTICS THAT REPORT 70 TO 80 ACCIDENTS PER WEEK IN SANTA FE WHICH TOTALS 3640 PER YEAR AND 1,000+ TAKE PLACE ON THE PROPOSED WIPP ROUTE OF ST FRANCIS DRIVE.

HAS TERRORIST ACTIVITY BEEN THOROUGHLY AND OBJECTIVELY ADDRESSED? IF ~~WIPP~~ TERRORISTS CAN BLOW UP A 747 IN FLIGHT WHAT MAKES YOU BELIEVE THAT THESE SHIPMENTS IN ROUTE WILL NOT BECOME TARGETS FOR THEIR ACTIVITY. ONE MAJOR ACCIDENT OF CONTINUATION HAS AUTOMATIC DEATH SENTENCES REGARDING THE ENVIRONMENT ~~CONSEQUENCES~~ AND HEALTH EFFECTS OF THE PEOPLE AND PLACES AROUND US.

THIS IS THE LAND OF ENCHANTMENT NOT THE LAND OF ENTRAPMENT.

OTHER ISSUES OF LEAKAGE INTO THE PECOS RIVER AND MASSIVE GEOLOGICAL SHIFTS CANNOT BE ACCURATELY PREDICTED.

WHEN WE REPRESS WE BLANK OUT THE FACTS AND OUR FEELINGS ABOUT THE FACTS. IN THE HISTORY OF THE ARMS RACE IS THE STORY OF MEN SO ENAMORED WITH THE PROCESS OF TECHNOLOGICAL CREATION THAT THE PROBLEM OF WHERE TO PUT THE WASTE NEVER HAS CROSSED THEIR MINDS. AS CAROL WILSON, THE FIRST GENERAL MANAGER OF THE ATOMIC ENERGY COMMISSION HAS SAID: WE JUST DIDN'T THINK ABOUT IT.

GOVERNOR CARRUTHERS IS NOT A GOVERNOR FOR THE PEOPLE BUT FOR HIMSELF. HE SUPPORTS THIS PROJECT IN THE ~~NAME~~ ^{NAME} OF ECONOMIC DEVELOPMENT BUT IN MY OPINION HE WANTS TO JAM THIS WASTE DOWN THE PEOPLE OF NEW MEXICO'S THROAT JUST TO SECURE A POSITION IN WASHINGTON AFTER 1990.

IF YOU GENTLEMAN FROM THE DOE BELIEVE THAT THESE CONTAINERS AND ITS ACCEPTED TRANSPORTATION IS TOTALLY SAFE I SUGGEST THAT YOU EACH TAKE A COUPLE OF BARRELS ~~FROM~~ HOME AND PUT IT IN YOUR BASEMENT OR UNDERGROUND CAVERN AND TEST IT FOR RESULTS AND COME BACK WITH THE EVIDENCE AT A LATER DATE *date*

THANK YOU

5:12

7:33:3
7:36:1-47:32
7:35:1-317:14:9
7:14:13

9:8

3:12
5:31

15-Jun-89; EX-00500, PAGE 1 OF 2 Statement submitted by
Iris Kramer

Page 1 of 2

¡Bienvenidos a Movemáxico (Nuevo México)! ¡Bienvenidos a la tierra del encanto! Welcome to New Mexico! Welcome to the Land of Enchantment!

Perhaps the first thing that one notices about our state, if he or she ventures beyond the airport in Albuquerque, is that this is a land of great natural beauty, as well as geographical diversity. It is a land of shimmering mountains with lush valleys and plentiful streams. It is also a land of high mesas and almost mystical, golden deserts. However, regardless of the landform, it is a land abundant in wildlife, a wildlife which thus far has been relatively unscathed by the ravages of pollution and toxic contamination.

In addition to the magnificent natural resource that is New Mexico, it is a source of great cultural wealth. It is home to nineteen Indian pueblos and seven indigenous languages, which are not found in any other region of the country. Remains of civilizations which date back over a thousand years have been found throughout this land. New Mexico is also the home of a great Spanish heritage, whose roots in America predate Plymouth Rock.

Now, all this is threatened by the proposed opening of the WIPP site. I am most concerned with the issue of transportation of transuranic waste, which threatens the well-being and harmony of both human and animal life. First, one should note that the Department of Energy admits that there will be routine releases of radiation during normal trucking operations. Even if these releases are ~~minimal~~, even minute, over the years the cumulative effect may be deadly, as has been noted by Dr. Petkau in his study conducted for the Canadian Atomic Energy Commission. The average citizen is warned by doctors to avoid x-rays unless absolutely necessary. Now, we will, in effect, be x-rayed by virtue of simply living close to the WIPP route. To make the situation even more sinister, DOE has not provided adequate funding or training to deal with special medical needs related to either short term or long term exposure to radiation. Hospitals along the route are not prepared or equipped to

7:33:3
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7:35:4-37:12:9-1
7:12:9-2
7:12:9-5
7:12:9-7
7:12:9-11

13-Jun-89; EX-00500, PAGE 2 OF 2
Iris Kramer
Page 2 of 2

deal with these situations. Of course, the possibility of an accident leading to a spill with immediate catastrophic health and environmental effects looms ominously in the background. DOE seems not to consider the possibility of human error. It has not even required that the TRUPACT containers pass a crush test, even though they admit that "the dominant accident effect (for truck shipments) is crush rather than impact." (Draft SEIS, p. D-65) Furthermore, DOE does not require that drivers hauling the transuranic waste have any prior experience trucking hazardous materials. Unfortunately, highway accidents are a fact of life in New Mexico and elsewhere. Let us remember that the potential for a disastrous transportation accident involving a vehicle loaded with radioactive waste and bound for the WIPP site near Carlsbad extends beyond New Mexico, as highways in twenty-three states are included along the WIPP route. All of these pass by major population centers. Radioactive contamination does not respect state or even national boundaries, as was so aptly demonstrated by the Chernobyl disaster in the Soviet Union. Finally, I would like to conclude by saying that if we have the know-how to produce bombs that can destroy our world a hundred times over, we can at least develop the technology to produce containers that won't leak!

13-Jun-89; EX-00501, PAGE 1 OF 1

Hello, my name is Melanie Farmer. I live in Zuni, New Mexico. I am very concerned about WIPP. Zuni is an Indian village about 250 miles from Carlsbad. I feel upset and scared about the WIPP site. I feel upset about the possible leakage of the plutonium in the truck containers. If the plutonium escaped, it could cause leukemia and other diseases.

I think the states that make the waste should keep it. Or if that is not possible, and they absolutely HAD TO dump the waste in New Mexico the government should wait until the EPA standards are met.

I feel scared of the consequences if the plutonium escapes from the WIPP site into our water supply.

The government is dumping the waste in New Mexico because we have a low population. It could still kill many people. If this nuclear waste escapes it won't just spread in New Mexico, it will spread all over the world.

I think we should tell the people that are on the WIPP route that the waste is coming through. Bypass roads were to be completed around the cities before the site opens, but they are not finished yet.

I urge you not to allow the site to open until EPA standards are met for the safety of the citizens of New Mexico.

So please, think about our future, think about the diseases the nuclear waste could cause, think about the EPA standards, and remember, this is a world wide problem.

Thank you,
Melanie Farmer
Zuni, New Mexico

15-Jun-89; EX-00502, PAGE 1 OF 2

Hello! My name is Sarah Kosteletzky. I am 10 year old. I am from Zuni, New Mexico.

I am concerned about W.I.P.P., the Waste Isolation Pilot Plant. nuclear waste will be taken to W.I.P.P. Out of that waste the most harmful substance in it will be plutonium. You can not see, hear, taste or smell plutonium. If you breath plutonium you could get cancer or get very sick. Some people think if the waste is spilled we can just sweep it up. If it is spilled everybody and everything has to pay the consequences.

The waste will go by Gallup. We live very near Gallup. There are many drunk drivers in Gallup. There could be an accident like in the past. Our land is sacred to us. Our ancestors are buried here. In the middle of the village we have a plaza. There the kachinas dance. They dance for rain, good crops and health. Near the plaza we plant prayer sticks. If the sand was contaminated because of an accident, we could not do these things. Land that originally belonged to the Zunis has been taken or sold. If the waste comes to Zuni we won't have any land left.

The nuclear waste will come in trucks. The trucks will be unmarked. You cannot tell if the waste truck is behind or in front of you because it would be unmarked. The waste will be in Trupact containers. The DOE tested the Trupact containers under heat for 30 minutes. In an accident the containers would probably burn longer. They also dropped the Trupact containers and when they landed they had dents in them, then the nuclear waste would escape.

W.I.P.P. needs to meet the Environmental Protection Agency's standards. It has not. The water could get contaminated because W.I.P.P. did not meet E.P.A. standards. This contaminated water could get into the food chain which

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7.3.1-1
7.3.4.1-1

3.1-3

15-Jun-89; EX-00502, PAGE 2 OF 2

could lead to death for humans, plants and other animals. Then everything would be gone.

Remember, future generations and us will have to live with W.I.P.P. If it is opened. We have only one place to live, Earth. Please think about our sacred land. It's all we have.

Sarah Kosteletzky

3.1-3

13-Jun-89: EX-00503, PAGE 1 OF 1

Hello my name is Kelly Cheema. I'm from Zuni, New Mexico. I am concerned about V.I.P.P. Our friends from CONS come to Zuni to talk to us about the Waste Isolation Pilot plant. I hear that it can be very dangerous to the environment. It can get in to the water and kill the fish and other living animals.

The trucks carrying nuclear waste will go through Gallup, New Mexico. I live near Gallup. There are many drunk drivers in Gallup. What if a drunk driver hits the truck? The contaminated waste will travel through the air and maybe pollute the water. If we drink the water, we might get very sick. People won't know if they are eating or drinking contaminated food or water, because you can't see, hear, or taste radiation.

I think they should wait until V.I.P.P. meets EPA standards to open because the site is dangerous to the environment and us!

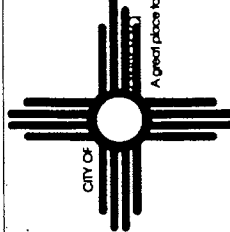
Please don't put the waste in Carlsbad because the nuclear waste could leak into our environment. The environment would be contaminated with radiation and nothing could live in it.

Thank-you
Kelly Cheema
Kelly Cheema

3.1-2

7.3.3-1

1-3



Mayor
BOB FORREST
City Administrator
DON R. PATTERSON

Agreed place to visit: o wordnet/place to be

June 15, 1989

U. S. Department of Energy
Sweeney Convention Center
Santa Fe, New Mexico

Re: Public Hearing - SEIS/Waste Isolation Pilot Plant (WIPP)

I am Jack Skinner, a native of Carlsbad, and a resident for 43 of my 47 yrs. I have previously completed eight years as a member of the N.M. House of Representatives. I am presently in my sixth year as a Carlsbad City Councilman. I am President of The Mine Supply Co., an industrial wholesaler who has sold to underground mining in New Mexico, Illinois, and Maryland, since 1960. The total gross revenues of WIPP in its last fiscal year constituted less than 1% of our total gross revenues.

I started serving in the state legislature in 1977 at a time when New Mexico was just beginning to formulate the role it should have in the WIPP process. In 1979, as Chairman of the House Energy and Natural Resources Committee, I was the prime sponsor of the legislation that provided for the orderly, responsible consideration of WIPP by authorizing a Governor's Task Force to formally negotiate on behalf of the state with the federal government, and by creating the legislative oversight committee which has actively and productively participated in the process for the intervening 10 years. Further, the legislation (H.R.C. SUBS. for #106, et al) reserved to the legislature the right of final concurrence before construction could begin.

The combined vote of the House and Senate on this legislation in 1979 was 96 - 14. In 1981, by a combined vote of 78 - 18, the provision for concurrence was revised to require that the legislature's concurrence be given with a two-thirds vote. These votes are noteworthy coming as they did after years of scientific and political debate, and following many intense public hearings, such as we are involved in tonight.

Were it possible to separate the politics of nuclear energy from the WIPP debate, the remaining central issue, and the only issue that properly should be considered, would be: Is the planned method for disposal of radioactive wastes at WIPP superior, from a safety standpoint, when compared with the methods currently being used at various sites around the country? The bulk of scientific evidence concludes, resoundingly, "Yes". A course of "no action", or an "alternative action", would be unwise, unproductive, and irresponsible in meeting this nation's critical need to find a safe method for storage of these wastes. Since its inception, WIPP has been designed to demonstrate deep geologic disposal of radioactive wastes in a safe, as determined in 1955 by the National Academy of Science. I urge our government to move posthaste to open the WIPP facility.

Signature
Jack Skinner, City Councilman
P. O. Box 1330
Carlsbad, N. M. 88220

CARLSBAD, NEW MEXICO • BOX 1569 • ZIP CODE 88502 13-Jun-89: EX-00504, PAGE 1 OF 1

15-Jun-89: EX-00306. PAGE 1 OF 2

Nuclear waste exists—it is a fact of life. Some people believe if there is not a safe way to store nuclear waste, the production of nuclear energy and nuclear weapons will have to be stopped.

Even if this is true, we must find a way to safely dispose of the nuclear waste that now exists. WIPP is our best alternative.

No one is more concerned about the safety of WIPP than the people
 living in Carlsbad, ~~the area~~ ^{we call it}—but nothing is 100% safe.

Do you remember, as a child, wanting to learn how to ride a bike? If you had reasoned with yourself before getting out the bike and decided it was unsafe because you might lose control and fall, you wouldn't know how to ride a bike today—for that matter, you may not have learned to drive a car.

Because we already have nuclear waste, we need to try to find a million uses for it. Now, already a good way to dispose of ~~waste~~^{it}. Putting a cap to WIPP now would be like getting off the bike just as you're setting the bang of it.

WIPP as
money
at Oak
202-761-8422

Give the WIPP site a change—let WIPP have the five year testing

Marlena Homer

Marilena Hower

I understand the great fear of the waste while it is being transported--well, you should also be afraid of ~~the~~ ^{the} down your street right now. There are many dangerous toxants transported everyday, every hour.

I have faith in the TRU PAC container. They are working on making it as safe as possible--and it can only get better. Accidents do happen, so each city should have adequate emergency response training and equipment, but I also believe that it is the responsibility of the city to ask for it and keep asking for more. You can never have too many safety precautions.

A fact of life--Nuclear Waste--we need to do something with what we already have. Stopping WIPP now will not make existing nuclear waste disappear. We need a good alternative, and we the people of Carlsbad do believe that the WIPP site is the best alternative right now.

I support the opening of WIPP and a five year test to determine ^{status} safety under the actual operating conditions.

15-Jun-89: EX-00506, PAGE 2 OF 2

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7.12.85

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15-Jun-89: EX-00507, PAGE 1 OF 4

- I saw Thomas Morgan, 138 Oregon, Coe Avenue, Pitts.
- change the solidified material at the five year Test Phase at WIPP using transuranic waste as proposed.
- May involve... in the U.S. nuclear waste... program... back to the 1970s and include contract work for WIPP.
- During the 50 year period have noted literally thousands of research studies devoted to various aspects of the problem of safety and permanent storage of our nuclear waste.
- This subject has been discussed and discussed to both effect all of the other nuclear waste studies or mathematical modeling using process of large scale effects or propagation.
- It is now time to move to the next logical step in design a safety program that is feasible; namely the Test Phase.

1-1

15-Jun-89, EX-00507, PAGE 2 OF 4

My experience in performing mine design research in many mines including 9 salt mines, three potash mines (including 2 near Carlsbad), and other evaporite mines, has shown me that these mines can't be designed precisely above ground. The first thing designers always involve with experience. This will also be so at WIPP.

The salt and other evaporite mines we have worked on were often below lake level, and in some cases below the Gulf of Mexico. They also were often above or below surface, some of which contained topographic. Many of the mines dipped and in some cases occasionally the gusted water. The old and cracks in the rock and closed it shut as rapidly as occurs at WIPP.

712.8-1

15-Jun-89, EX-00507, PAGE 3 OF 4

Yet these mines are considered safe. I doubt if the miners working in these mines would hesitate to work at WIPP. I have heard of nothing about the structural behavior of WIPP that surprises or alarms me.

I think the concerns over WIPP are largely misdirected. It would be more to the point and more powerful if the people were specifically WIPP related with the same energy the nuclear utilities and safety agencies involved in continuing to store the material and the power facilities. If these agencies were as closely involved as those involved with WIPP and similar F15 public command meetings and held in the committee

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*unless these wastes are being stored,
I predict that we would hear
even more vocal opposition to
storing wastes in this neighborhood
than we are having in Smith P.*

Thank you.

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112
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522

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June 11, 1989
Priscilla Logan
Rt. 2 Box 305-62
Santa Fe, N.M. 87505

As a school teacher, I spend time teaching students to protect our environment. One way that I have done that is to act as ENVIRONMENTAL. I deputized the entire school of Alford Elementary in Santa Fe, New Mexico, to help keep our world clean. I gave each student a golden star and explained that the star was magic. The magic of the gold star is its ability to forever remind each person that their responsibility is to safeguard the world. At Alford Elementary we started by cleaning our school yard. We will continue by being aware of how our actions affect ourselves today and tomorrow and into the future.

I'd like to give each one of you one of these magic gold stars. Gold is the color of transformation. I hope we can transform these hearings from one of confrontation of opposing ideas to one of cooperation in solving one of the world's crucial problems. I also anticipate that, if we work together on this problem, we can find a way to transform the deadly nuclear waste to a safer form, perhaps even something that will be useful to us. You are now deputized to safeguard the world forever.

As ENVIRONMENTAL deputies, I have four concerns that I would like to bring to your attention. The concerns are safety standards. The opening of WIPP without meeting the promulgated EPA safety standards. The soil and drinking water of thousands of people could be contaminated for 240,000 years due to the unstable condition of the WIPP site.

2. transporting the waste along highways instead of on safer rail transport. Catastrophic accidents such as Chernobyl could occur throughout the nuclear waste transportation route in the United States. Human error, which caused Chernobyl and many other accidents, was not taken into account in the SEIS. 3. placing any amount of waste at WIPP for experiments that could be more safely performed at a laboratory (no transportation involved). Performing the gas experiments, etc., on the nuclear wastes in the laboratories where they are stored is also more cost efficient (no transportation involved).

4. rejecting the "no action" alternative with no explanation of why this alternative is being disfavored. Perhaps in a relatively short time scientists could develop a method to change radioactive waste to non-radioactive. If we could develop an Atomic Bomb in five years, the same could happen with transportation.

I know that you are under lots of political pressure to proceed with the opening of WIPP before all concerns are dealt with. It takes a lot of courage to stand up to that pressure. That kind of courage comes from our hearts. Nuclear waste was created by using our minds. Let's transform it to a completely safe form by using our hearts.

31-7
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52-2
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711-2-1
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53-1
31-8

GOOD MORNING - THANK YOU FOR GIVING ME THE OPPORTUNITY TO SPEAK TO YOU ON THIS CONCRETE NEW MEXICO MORNING...

I MUST WASH YOU THAT THIS WILL BE ONE OF TWO "EMOTIONAL TESTIMONIES"....BUT WITHOUT APOLOGIES... I AM A MOTHER, A CHILD ABUSE SPECIALIST, A PSYCHIATRIC SOCIAL WORKER... I AM ALSO SMOCKING WHAT SOME CALL ME "ENVIRONMENTAL CRAY".....

WASH YOU AT THE ONE ARE DOING, AND WHAT THOSE BRILLIANT BUT KINDLESS FOLK AT LOS ALAMOS ARE CONTEMPLATING WITH THEIR INCUBATORS, ARE ENVIING ME, AND OTHERS LIKE ME, CLOSE TO THE EDGE....(AND WHEREVER IS DREAMING OF OPENING A URBAN DRAMATIC HIDE AT THE GRAND CANYON WILL BEARLY FOR ME MOTHER).

I AM A REFUGEE FROM TOXIC LOS ANGELES, WHERE THE HUNDREDS FOLKISH STATEMENTS FROM COMPANIES EACH DAY ON HOW MANY CARCINOGENS THEY PLAN TO SPIN INTO THE AIR...

I CAME TO NEW MEXICO IN PART 6 BECAUSE OF ITS BEAUTY AND ANSWERS....THE CRISTAL CLEAR AIR AND BLUE SKIES, AND BECAUSE YOU CAN ALWAYS SEE THE MOUNTAINS.... (YOU USED TO SEE THE MOUNTAINS IN LOS ANGELES 16-JUN-89; EX-00509, PAGE 1 OF 3

31-8

EX-00509

6. 2.

16-JUN-89; EX-00509, PAGE 2 OF 3

I rationalize that I WAS TOO YOUNG TO KNOW HOW TO PREVENT POLLUTION WHEN IT BEGAN, AND TOO TRUSTING IN GOVERNMENT'S ABILITY AND WILL TO DO SOMETHING ABOUT IT, AND BY THE TIME I Woke UP TO THE FACT THAT SOMETHING WAS BEING DONE, IT WAS NEARLY IMPOSSIBLE TO REVERSE

AS A MOTHER, I BELIEVE THAT WE MUST RESTORE THE EARTH AND ALL LIVING THINGS ON IT...TO PROVIDE FOR ALL OUR CHILDREN AND GRANDCHILDREN A GOOD AND BEAUTIFUL PLACE IN WHICH TO LIVE AND GROW.

AS A MOTHER, A SOCIAL WORKER, AND AS A CITIZEN OF EARTH, I BELIEVE WE HAVE SEIZED OUR PRIORITIES IN THIS SOCIETY...ONE IN WHICH MILITARY SPENDING HAS INCREASED AT THE EXPENSE OF OUR CHILDREN...WE HAVE THE RICHEST MILITARY BUDGET IN HISTORY, AT THE SAME TIME THAT MORE PEOPLE AND CHILDREN ARE LIVING IN POVERTY.... WE CAN KILL BY NUCLEAR MEANS EVERYONE IN THE WORLD THE TIME....WE SPEND NEARLY 3% OF OUR TAX DOLLARS ON THIS ISSUE, NUCLEAR WASTE-PRODUCING MACHINERY....

31-8

EX-00509

63. 16-Jun-89; EX-00509, PAGE 3 OF 5

FACTORY THAT WILL KILL, HARM, SICKEN THE EARTH BY EITHER ITS USE OR BY THE WASTE FROM ITS MANUFACTURE....AND ON ALL SERVICES TO CHILDREN, YOUTH, AND FAMILIES, WE SPEND 5.3% OF OUR TAX DOLLARS FOR MEDICAID, CHILD NUTRITION AND WIC, AFDC, HEALTH CARE SERVICES, EDUCATION, JOB TRAINING, SUMMER YOUTH EMPLOYMENT, SOCIAL SERVICES BLOCK GRANT, HEAD START, AND FAMILY SOCIAL SERVICES....

AND IN NEW MEXICO, 1 IN 5 CHILDREN IS POOR, ONE HALF OF ALL INDIAN CHILDREN ARE POOR, ONE QUARTER OF ALL HISPANIC CHILDREN ARE POOR....ONLY 4 STATES HAVE HIGHER POVERTY RATES AMONG CHILDREN THAN NEW MEXICO

AND THE DOE DARES TO SPEND 770 MILLION DOLLARS ON A LEAKY HOLE IN THE GROUND AND FAULTY CONTAINERS WEST, AND COMPUTERIZED PROJECTIONS OF SAFETY THAT DON'T TAKE INTO ACCOUNT NEUTRON ERROR.....

THAT SUGGESTED IN PREPARING OUR TESTIMONY THAT WE DON'T GET ANGRY....I'M NOT ANGRY, I'M TOTALLY OVERSICED....

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64.

16-Jun-89; EX-00509, PAGE 4 OF 5
DO YOU KNOW WHAT 770 MILLION DOLLARS WOULD PAY FOR IN SERVICES TO KIDNAP BIRDS ?

FOR THE ENTIRE NATION IT WOULD PAY FOR: 30 YEARS OF CHILD ABUSE AND FAMILY VIOLENCE PROGRAMS....30 YEARS OF CHILD WELFARE OR 30 YEARS FOR HOMELESS YOUTH SERVICES, OR, 30 YEARS OF COMPREHENSIVE CHILD DEVELOPMENT PROGRAMS FOR LOW INCOME CHILDREN....

DO YOU KNOW THAT 770 MILLION DOLLARS IS MORE THAN THE ANNUAL BUDGET FOR ALL MENTAL HEALTH SERVICES IN THIS COUNTRY?

WHAT A WASTE OF VALUABLE DOLLARS THE DOE IS....BUT BETTER PERHAPS A WASTE THAN A WASTELAND...I SUPPOSE IT WOULD BE WORTH 7 TIMES 770 MILLION IF YOU COULD GUARANTEE

THE SAFETY OF WIPP....BUT YOU CAN'T AND I DOUBT THAT YOU EVER WILL..... AS A PSYCHOGRAPHER I KNOW ABOUT THE DEFENSE MECHANISMS OF DENIAL AND REPRESSION AND RATIONALIZATION....I BELIEVE THAT THE PEOPLE OF THE STATE OF NEW MEXICO NEED TO

SAY NO TO THE MOVING OF NUCLEAR WASTE WILLY-NILLY ABOUT ITS HIGHWAYS....AND WE NEED TO SAY NO TO THE BURIAL OF OTHER PEOPLE'S WASTE.....

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16--Jun-89: EX-00509, PAGE 5 OF 5

IN THE CHINA, EVERYTHING I NEEDED TO KNOW ABOUT LIFE I LEARNED IN KINSHASANTEN IS A STATEMENT ABOUT PICKING UP AFTER MYSELF...NOTHING ABOUT MOVING MY TAIL IN SOMEONE ELSE'S BACKYARD....IT WILL ONLY BE WHEN THE PEOPLE OF THIS COUNTRY ARE FORCED TO LOOK AT THEIR OWN NUCLEAR WASTE, THAT THEY WILL ALSO BE FORCED TO LOOK AT THE CAUSES THAT WASTE....WE CAN NO LONGER ALLOW ANY MORE NUCLEAR ENERGY PLANTS TO OPEN OR ANY MORE NUCLEAR WEAPONS TO BE MADE ANYWHERE UNTIL WE REALLY STOP DREAMING THAT WE DON'T KNOW WHAT THE HELL WE'RE DOING WITH THE WASTE....

AND STILL THERE ARE THE CHILDREN....CROWING UP WITH POLLUTED AIR, POLLUTED FOOD AND WATER, ACID RAIN, LEAD IN THEIR VERY BONES'S BLOOD....AND RADIOACTIVITY.....

HERE WE MUST MAKE THE WORLD SAFE FOR CHILDREN.....THEN IT WILL BE SAFE FOR ALL OF US.....TODAY, IT'S NOT SAFE TO BE A CHILD....

THANK YOU

EW0509

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3.1-2
3.6-1

16--Jun-89: EX-00510, PAGE 1 OF 5

ON SEPTEMBER 13, 1987, IN THE CITY OF GOIANIA, BRAZIL, TWO MEN ENTERED AN ABANDONED CLINIC, LOOKING FOR SCRAP METAL. THEY FOUND A LARGE MACHINE WHICH HAD BEEN USED TO TREAT CANCER. THEY TOOK IT APART AND REMOVED A STAINLESS STEEL CYLINDER WHICH THEY MOVED TO A JUNKYARD, AND THEN PROCEEDED TO OPEN IT WITH A SLEDGE HAMMER. INSIDE THEY FOUND A SMALL PLATINUM CAPSULE, WHICH THEY CUT OPEN WITH A HACKSAW. INSIDE THIS CAPSULE THEY FOUND WHAT WITNESSES DESCRIBED AS "CARNIVAL GLITTER." CHILDREN PLAYING IN THE JUNKYARD WERE ATTRACTED TO THIS "MAGIC DUST." THEY TOOK IT HOME WITH THEM AND SHOWED IT TO THEIR FRIENDS, WHO SHEARED IT ON THEIR BODIES, CLOTHES, FLOORS, AND WALLS. ONE CHILD ACTUALLY ATE IT, AND BEGAN TO VOMIT AFTER JUST TEN MINUTES. WITHIN A FEW DAYS, MANY OTHERS FELL ILL. IT TOOK TWO WEEKS BEFORE THEIR ILLNESSES WERE DIAGNOSED AS RADIATION POISONING FROM EXPOSURE TO CESIUM-137.

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72-31

IMMEDIATELY IT BECAME AN INTERNATIONAL MEDIA EVENT. BEYOND THE SHORT TERM PHYSICAL CONSEQUENCES OF THE ACCIDENT (WHICH INCLUDED FOUR DEATHS, ONE AMPUTATION, AND FIFTY HOSPITALIZATIONS) THE ECONOMIC, SOCIAL AND POLITICAL CONSEQUENCES WERE VARIED AND FAR-REACHING. IN AN ARTICLE CONCERNING THE INCIDENT FROM THE NOVEMBER, 1988 ISSUE OF NUCLEAR NEWS, JOHN S. PETTERSON STATES, "WHEN MEASURED IN TERMS OF FATALITIES AND INJURIES...THE EVENT ITSELF HARDLY SEEMS TO BE OF INTERNATIONAL SIGNIFICANCE---CERTAINLY NO MORE SO THAN ANY OTHER INDUSTRIAL ACCIDENT. ON THE OTHER HAND, THE SECONDARY CONSEQUENCES HAVE BEEN CONSIDERABLE... THE AGGREGATE SOCIOECONOMIC IMPACTS HAVE INDEED BEEN REMARKABLE."

WITHIN TWO WEEKS OF THE ANNOUNCEMENT OF THE CONTAMINATION, THE WHOLESALE VALUE OF THE ENTIRE STATE'S AGRICULTURAL PRODUCTION FELL BY FIFTY PERCENT, EVEN THOUGH NONE OF THE REGION'S CATTLE, RICE, AND OTHER GRAINS WERE SHOWN TO BE CONTAMINATED IN ANY WAY. THE SALE PRICE FOR ITEMS PRODUCED IN AND AROUND GOIANIA (SUCH AS TEXTILES, CLOTHING AND OTHER FINISHED GOODS) DROPPED BY ABOUT FORTY PERCENT EVEN THOUGH NONE OF THESE ITEMS WERE EVER SHOWN TO BE CONTAMINATED. IN FACT, THERE WAS NEVER EVEN A PUBLISHED SUGGESTION THAT THEY COULD HAVE BEEN CONTAMINATED.

IN THE TOWN OF GOIANIA, HOME SALE PRICES, RENTAL PRICES, LAND PRICES, AND THE RATE OF PROPERTY SALES PLUMMETED. HOTEL OCCUPANCY, NORMALLY AT CAPACITY THIS TIME OF YEAR, FELL TO FORTY PERCENT AND REMAINED THERE FOR SIX WEEKS FOLLOWING THE ANNOUNCEMENT. VIRTUALLY ALL CONVENTIONS, INCLUDING ONE FOR

THE REGIONAL MEDICAL ASSOCIATION, WERE CANCELED OR MOVED ELSEWHERE IN RESPONSE TO THE PERCEIVED RISK AND STIGMA ASSOCIATED WITH THE ACCIDENT. HOTELS IN OTHER PARTS OF THE COUNTRY REFUSED TO ALLOW GOIANIA RESIDENTS TO REGISTER. THE ATTENTION OF VARIOUS AGENCIES INVOLVED IN THE AFTERMATH WAS FOCUSED ENTIRELY ON THIS PARTICULAR ISSUE--TO THE DETRIMENT OF THEIR OVERALL MISSIONS. THERE APPEARED TO BE NO ACCOUNTABILITY FOR THE ACCIDENT. THE INCIDENT PRECIPITATED A RASH OF POLITICAL ACTIONS BY OTHER BRAZILIAN STATES TO PREVENT NUCLEAR WASTE FROM BEING BURIED WITHIN THEIR BORDERS. OVER ONE HUNDRED TWENTY-FIVE THOUSAND CITIZENS (ONE OUT OF TEN) IN THE REGION TOOK TIME OFF FROM THEIR DAILY ROUTINES TO HAVE THEMSELVES CHECKED FOR CONTAMINATION, EVEN THOUGH LOCAL AND FEDERAL AUTHORITIES TOOK PAINS TO DISCOURAGE THEM FROM DOING SO. OF THE FIRST SIXTY THOUSAND PERSONS MONITORED, FIVE THOUSAND PRESENTED SYMPTOMS OF

7.2-31

ACUTE STRESS OR ALLERGIC REACTIONS, EVEN THOUGH NOT A SINGLE ONE WAS FOUND TO BE CONTAMINATED. AIRLINE PILOTS REFUSED TO FLY WITH GOIANIA RESIDENTS ABOARD. BUS DRIVERS REFUSED TO ALLOW GOIANIA RESIDENTS ON THEIR BUSES. AUTOMOBILES WITH GOIANIA LICENSE PLATES WERE STONED.

THIS INCIDENT TOOK PLACE IN A WELL-EDUCATED, URBAN POPULATION. IT'S IMPORTANT TO REALIZE, HOWEVER, THAT THE RISKS ARE PROBABLY GREATER FOR THIS TYPE OF REACTION HAPPENING IN THE UNITED STATES, BECAUSE INFORMATION TRAVELS FASTER HERE, AND HAS A GREATER IMPACT ON A GREATER NUMBER OF PEOPLE. AS THE BRAZILIAN CASE ILLUSTRATES, THE PHYSICAL IMPACT OF A NUCLEAR SPILL ON THE LIVES OF THE CITIZENRY CAN BE MINOR COMPARED TO THE CONSEQUENCES OF THEIR REACTIONS TO THE PERCEIVED RISKS OF SUCH AN EVENT.

HUGH HAZELRIGG JUNE 16, 1989



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16-Jun-89; EX-00511, PAGE 1 OF 2

June 16, 1989

To the Department of Energy

From Louise R. Rasmussen, M.A.

1435 Monterey Drive
Santa FE, New Mexico 87501

I want to speak as a teacher. As a teacher of teachers who have been entrusted with assisting in the development of our children and grandchildren. We need to talk today about children.

In classes today, we have units on the environment. We are beginning to drop the "fear of the enemy" and to teach children about cooperation and global viewpoints. We also teach children about their government.

I would like to teach children that they can trust authority, that adults are trustworthy, that their government gives them safety and stability.

But I do not trust the Department of Energy today. I do not trust the S.R.I.S. report. I do not trust that the safety of children is being considered sufficiently.

I do not trust your INTENTIONS. From hearing informed analysis of your work, I think you have slanted the information in the report to support only one action--to open the WIPP site without following all EPA standards.

I do not trust your REPORTS. With the time-frame within which you have done the investigations and written the report, I do not think you have allowed adequate time to truly look at the possibility of human error, and at the impact on fragile humans of the possible errors or omissions in your work.

I do not trust your VALUES. The D.O.E. seems to reflect the American focus on "do it now--let someone else clean it up if it doesn't work". In covering up certain reports critical of WIPP procedures, you expose us all--children especially--to the risk of radioactive accidents. What shall we teach the children about how the waste will be recovered if the experiments fail?

I do not trust your PRIORITIES. Protecting the initial investment of \$700 Million is not a priority. Creating jobs with dangerous side-effects is not a priority. Taking the problems from the site of manufacture to create a serious problem of transportation and possible storage dangers is not a priority. Getting started by a certain date is not a priority. Rocky Flats has 3 years it is reported. Even creating the first repository so that it looks as if we have solved the massive problem of 40+ years of nuclear waste is not a priority. Safety and finding the truly best solution is the priority.

32-1

16-Jun-89; EX-00511, PAGE 2 OF 2

I do not trust the CRISIS MENTALITY. It is now time for us all to think globally, creatively and long-term. We need the time and attention, and government assumption of responsibility, to bring together our brightest minds to find a solution to the nuclear waste that will ensure life on the planet, not toxicity.

I would like to teach children to trust science.

It is time for jobs in science that pay well for bright minds to work on creating ideas other than defense.

We need to allow scientists to look at the broad picture of earth's survival--not be given projects in which the outcome is so narrow and defense-related.

I want to teach children open inquiry, creative and critical thinking, not just statistical probability.

I worry about a mind-set in government and science that is afraid to admit error, afraid to be wrong. How else do we ever learn?

I fear the earmarking of resources, so that once committed, as in WIPP, there is a momentum that does not take into account new information as it is presented. Is this what we want to teach our children?

I want to teach children that we can change our minds.

That our values put the worth of the human person first. That our priorities are to create a quality of life, not a fear of power or fear of loss of possessions.

That we can experiment with open minds. That adults provide safety for children within which they can grow and learn.

I believe we adults must pick up the cost of the 40+ years of nuclear bomb production, and not pass it on. We must find a way to clean up the bomb factories, a way that does not endanger all of us and that doesn't leave a legacy of danger to the future children of this planet.

1

Last night, while trying to formulate the ideas I thought I wanted to communicate here this morning, I realized that others would be addressing the practical issues that touch upon my own fears. Surely there are many of us who have been in car accidents, who can hear the horrid crunch of metal I heard as my car was broadsided by a drunk driver ignoring a stop sign, who know these errors of human judgment do happen, and they do happen to us. Perhaps some of us here have heard about the ~~fact~~ *fact* that barreled out of control on I-25 last week when a drunk driver fell asleep at the wheel. And I'm sure we can all imagine what one drunk driver--and New Mexico has more than just one--could do careening out of control into the vehicle carrying Trupact containers.

In all my darkest fantasies of Trupact containers dropping down our beautiful rugged mountainsides or colliding with oil tankers, I have wondered how could the D.O.E. go ahead with this? With all the safety requirements yet unmet, how could they? What arrogance! Or ~~more, especially, what greed?~~

But then I realized this wasn't the true heart of the matter. In reality, the WIPP site in Carlsbad, if fully operational, will only handle a very small percentage of the nuclear waste already produced in this country. If WIPP opens, or if it doesn't, the problem of the enormous amount of waste we have already generated will remain, and continue to grow. How can we turn over a

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3.6-1

7.3.1-2
7.3.1-9
7.3.1-20
7.3.1-12
7.3.3-43

2

situation of this magnitude to the D.O.E.? Why can we not turn over the best minds, and hopefully, the best hearts, of our time to creating a possible solution?

Schlomo Carlebach tells a story: "At the end of days, perhaps even tomorrow, two Messiahs will appear--one a son of Joseph, the other a son of David from the tribe of Yehuda. Both these Messiahs are needed to correct the world--the son of Joseph for the holy chutzpah never to do wrong; the son of David for the strength to do everything wrong and still find a way to return. The first teaches us not to destroy the holy ways we still have, the other not to give up even though we have destroyed so much already. The way of Joseph is to know, the way of the son of David is to repent."

I came to New Mexico because I felt it was still sacred space. I pray that we repent of our unconscious ways, and that we listen for a way to know.

2.2-1
3.2-1
3.6-1

I am here to speak against EX0513
the opening of the WIPP right in
the state of New Mexico at Carlsbad.

My husband was born in New
Mexico and we both grew up in Santa Fe.
This is our home and we hope to raise
our two small children here.

I feel that many issues concerning
the transportation of waste through our state
have not been addressed or dealt with.
My husband was a volunteer fireman
in the Taos fire department for 7 1/2
years ending last Sept. In that time
hardly a week went by without a
serious accident occurring on the small
stretch of highway 285 that they covered.
Many of these accidents involved alcohol
many had fatalities and some involved
fires. The potential for fire was always
there.

Santa Fe is not a sleepy little
town in the desert, but a major tourist
attraction whose streets and highways
have not been able to keep pace with
the rapid growth of our town and its
highly increased in traffic. Our highways
are crowded and inadequate.

16-Jun-89: EX-00513, PAGE 1 OF 3

While the competence of the drivers
of trucks carrying nuclear waste is very
important, it is only one of the factors
to be considered.

The transport containers for holding
the waste have not been proven to
be a safe way of transporting waste
materials. An accident involving a fire
could spread deadly particles far and
wide.

There are no personnel trained to
deal with an accident involving nuclear
waste and no plan of action in the
event there is one. Before waste is transported
through this state, a bypass must
be built and people trained to deal with
an accident. It is not a matter of if there will be
an accident, but when.

One that we have worked long and hard
to develop, but no one is going to want
to tour the sight of a accident involving
nuclear waste and the idea of
truck loads of waste materials passing
through, and around Santa Fe every
day will certainly make this a less
appealing place to visit or to live.

16-Jun-89: EX-00513, PAGE 2 OF 3

EX-00513

When my mother learned about WIPP she said she was certainly glad she had chosen to buy property in Arizona.

I think the story coming out about Rocky Flats proves that the DOE is neither competent to run a nuclear waste facility nor would be honest about problems which may occur.

Brine seepage, cracks in storage chambers, and the question of whether the vaults can really be sealed are serious issues. EPA standards have not been met.

Although they would have us think otherwise, there ~~are~~ ^{are} ~~alternatives~~ ^{alternatives} there are alternatives and there is time to consider them.

I personally believe we ~~can~~ ^{can} want a future for my children and personally believe we can live on this planet without creating this deadly waste which lasts not for 25 years but for thousands of years to come.

16-Jun-89; EX-00513, PAGE 3 OF 3

16-Jun-89; EX-00514, PAGE 1 OF 3.

WIPP

<born Santa Fe, school here; MA UCLA; instructor nuclear energy AFSC (3 yrs); Asst Comdt FTSill; CG I Corps Arty>

He's outgoing
He's not a
Have you ever been responsible for a nuclear warhead?
I HAVE!! Have you ever trained individuals to arm.

transport, store, disarm, or disable a nuclear warhead. I HAVE!... Have you ever been responsible for the protection of nuclear weapons in a foreign nation? I HAVE!

Have you ever been responsible for the safeguards which maintain these weapons under control of the proper national authorities come hell or high water; moral or physical weaknesses, liquor abuse, temptations of the flesh, or mere ineptitude. I HAVE!

AND HOW DO YOU DO IT!

You do it by detailed, tedious, technical, scientifically accepted procedures which cover all possible catastrophes, stupidities, terrorist schemes. Your plan must cover specific responsibilities at all levels. In my military example the levels extend from the President--and the guy carrying the black box for the President--to the Battery Commander of a unit in Europe, and to his Sergeants and corporals. The procedures, developed at Los Alamos, and Sandia Base, and at intermediate headquarters, are implemented by constant inspections (Technical Proficiency Inspections), and if one General, Colonel, Major, Lt, or Sergeant fails to pass the inspection he is then relieved from his responsibility in the chain of command....and his

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career has no future. So why have we not established similar criteria with respect to WTPP????? What are the responsibilities of the President and DOE? of the Governor, state Highway Department and State Police; of the county commissioners and sheriff; of Mayor Pick and our local police; and of local MD's, EMT's, Hospitals and even the National Guard? Let's face facts and spell out the details!

If I had failed to spell out transportation routes for the transportation of nuclear weapons I would have been fired. Why have not the routes been spelled out?

If I had failed to spell out the requirements for medical training and drug and emergency needs in case of accidents I would have been fired! Why have we not clarified such essential REQUIREMENTS?

If I had not considered gas build up in storage bunkers I would have been fired!. Why have we not clarified scientific concerns about gas build up?

If in other nations (Germany again, for example) we had not designed a PR campaign to ease the concerns of natives I would have been fired! Why have we not seen such a technically detailed PR campaign in New Mexico?

If one of my storage bunkers had a salt crack or water seepage which I did not have scientifically studied and systematically reported on I would have been fired! And yet we have a report from the SEIS director that the brine was unexpected, but not really too bad! We think!

3.1-8

7.3-1
7.3-2
7.12-4

7.12-1
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7.12-7

3.1-2
7.8-1
7.11-4

8-1
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7.7-1
7.8-2

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SEIS is a DRAFT document. Let us finish it, study it, and not rush into an unnecessary and irretrievable panic solution. LET US DO IT RIGHT THE FIRST TIME!

The BUREAUCAST who was in charge of cleaning up the two uranium tailings at New Mexico mines should not be charged with this SEIS!! We are no happier with the so called clean up than with this SEIS. Let us meet the EPA standards.....transportation safety issues.....and baseline health studies. LET US DO IT, NOT RUSH IT, BUT FOR GODS AND OUR GRANDCHILDRENS' SAKE LET US DO IT RIGHT!

Brig. Gen. John J Kenney

2.3-12

1-3
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3.1-10
9-2

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MARY BURTON RUSLEY
179A CAMINO CORALES
SANTA FE, NEW MEXICO 87501

June 16, 1989

DOE
WIPP SEIS Hearing Officers
PO Box 5400
Albuquerque, NM 87115

Dear sirs:

First I would like to thank you very much for offering New Mexicans these generous opportunities for speaking out on the WIPP site. I appreciate your attention and your willingness to listen, even when what you hear is sometimes the sllings and arrows of angry citizens.

I speak from my heart and with a mind that has given this matter some considerable thought. I also recognize your sincerity. Whatever you believe about the WIPP, I'm sure you also are caring and thoughtful. You will do the best you can in reaching your decision, and whatever the outcome, Americans will learn and move on to built on that experience.

I do not believe that the WIPP should or that it will ever be opened. The reason is that it is too late. We are living in a time in which the clear tenor of American experience is overwhelmingly the Unearthing of waste, not its burial. We are bringing into the light and out of protective hiding so many forms of human waste. I refer to alcoholism and drug abuse, incest and domestic violence. There are others, too. Maybe some of you are acquainted with these destructive experiences.

As a society we are for the first time looking these toxic byproducts of our high-powered lifestyles right in the eye. And people everywhere are using them, using the facing of them, as tools for transformation and personal growth. In the 1980's many of us are honestly evaluating our mistakes, whether we acted as victimizer or victim, and taking responsibility for them. In this context, I cannot make sense out of the idea of burying the physical wastes of our high-powered weaponry. Geological encapsulation is metaphorically incongruent with the spirit of our times.

So what are the alternatives? When I've expressed my ideas to people, some have said, "Aw, you're unrealistic. We have to get rid of this stuff. We'll never figure out how to detoxify nuclear waste."

But we are living in a period of varied and enlightening breakthroughs. In a sense, I think of superconductivity,

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cold fusion, Dr. Salk's promising work in AIDS research; in politics, the INF, the Polish elections and the Chinese student aspirations. Life is surprising. Let's take advantage of the intellectual fecundity of this period, and the great good fortune of relative peace among the superpowers.

A few handfuls of scientists from one country in less than three years were able to split the atom and make the first atomic weapon at Los Alamos. Who can anticipate what solutions scientists from all the nuclear powers could develop? We don't have to tackle this matter alone. Does it make sense to try, when every country that makes nuclear weapons has on its hands the same toxic waste products that we do?

Your agency has made assurances that the TRUPACT containers could safely hold waste for a period of up to ten years. So as an alternative to testing the problematic logistics of transporting this waste all across the country, potentially exposing millions of people to extremely adverse public health consequences, I propose that we store the waste where it is in these safe containers for ten years, putting the WIPP on hold during that time.

I know that if President Bush were to take a leadership position in enlisting an international consortium of scientists, with program support from their countries on the scale of United States support for the Manhattan Project, a solution or several solutions would be found. And in the process, we would be using the reality of this shared problem of radioactive contamination to bring our nations closer together, just as people in twelve step programs like AA use their shared emotional scars to build communities of openness and support.

I guess what I'm really saying to you is that I believe that we will learn how to dispose of or recycle our waste safely, because I believe that human behavior makes sense and is unified in any historical period by a few central ideas. What is happening in society in the personal and social realms will spill over into the scientific and political fields. The question about the WIPP specifically is, will we put our noses to the grindstone and do this voluntarily and with forethought, or will we be forced to do it by the sacrifice of the thousands of people who will be hurt if the WIPP site is as unsafe as many reputable scientists believe it may be?

Perhaps the recent revelations of human error and duplicity at Rocky Flats and the Fernald plant will give us a time of public skepticism and official enquiry in which to consider this question thoughtfully.

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I want us all to look at the possibility that WIPP may be left empty, a historical monument to the end of the throw-it-away, out-of-sight, out-of-mind part of our old mentality as we leave that thinking behind and enter a NEW AGE of responsibility and transformation.

Thank you very much for your attention.

Mary Burton Riseley
Mary Burton Riseley

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52-2

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SOUTHWEST RESEARCH AND INFORMATION CENTER
Albuquerque office: P.O. Box 4524, Albuquerque, New Mexico 87106 (505) 263-1882
Washington office: 2001 O Street, N.W., Washington, D.C. 20036 (202) 457-0546

May 2, 1989

Dear Friends,

Enclosed is our Citizen's Guide to DOE's draft supplemental environmental impact statement (SEIS) for the Waste Isolation Pilot Plant (WIPP). The Guide was prepared in response to many requests for a (relatively) brief discussion of issues people should emphasize in their oral and written comments.

The Guide does not attempt to discuss all issues. Rather, it describes major issues that are important to people from across the nation. Those issues are also important in pointing out the fundamental flaws in DOE's nuclear waste management program. We hope that many of you will include those issues in your comments, so that DOE and Congress understand that citizens from across the nation have a common concern about protecting public health and safety.

DOE is trying to fast-track WIPP so that the facility opens to receive wastes in September 1999 despite the fact that the site still has not met federal health and safety requirements by that time. As the draft new DOE nuclear facility in many ways that these decisions, we believe that WIPP should not be a precedent for a new emphasis on public health and safety, and not be another leaking DOE site.

If you have questions or suggestions, or if you need more detailed information, please contact Don Hancock in Albuquerque or Caroline Pettit in Washington, D.C.

Thank you very much for your assistance.

Sincerely,

Don Hancock

Don Hancock, Director
Nuclear Waste Safety Project



SOUTHWEST RESEARCH AND INFORMATION CENTER
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**THE NPP DRAFT SUPPLEMENTARY ENVIRONMENTAL IMPACT STATEMENT (SEIS)
 A CITIZEN'S GUIDE**

May 1, 1989

COMMENTS

Introduction

1. Purpose of the draft SEIS

- A. DOE's proposed schedule
- B. Need for a longer comment period

II. Major issues for public comment

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- B. The draft SEIS does not contain any analysis of the failure of NPP to comply with EPA standards
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- D. DOE has not addressed the full range of TRU waste problems
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References

Introduction

On April 21, 1989, the Department of Energy (DOE) released a draft Supplemental Environmental Impact Statement (SEIS) on the Waste Isolation Pilot Plant (WIPP) in southeastern New Mexico. This document is important not only to New Mexicans, but to people throughout the nation who are concerned about public health and safety and the federal government's policy regarding nuclear waste management.

After the national scandal of 1986 — which revealed DOE's gross mismanagement of nuclear weapons facilities, its years of concealing the intentional discharge of large amounts of radioactive and toxic materials into the environment, and its continued opposition to oversight by independent scientists or state agencies, DOE is now launching a national campaign to fast-track the opening of WIPP in September 1989 as its first new weapons facility in three decades.

The WIPP draft SEIS is a major opportunity for citizens to let decision makers know that "business as usual" will no longer be tolerated. Public comment on the draft SEIS can emphasize that:

- All DOE facilities must comply with federal and state health and safety laws
- Cleanup of existing contaminated DOE facilities must be given top priority over the opening of WIPP, and
- Citizens must be included in the national debate over what should be done with the contaminated DOE facilities, and they must also be included in the implementation of new policies and programs.

The following outline summarizes the purposes of the SEIS, the process for public comment, and the major issues that should be emphasized (underlined) in public comments. Additional issues also deserve comment, and SEIS can provide more detailed information about them upon request.

SEIS is a nonprofit educational and environmental organization which has been involved with WIPP and nuclear waste management for more than a decade.

1. Purpose of the draft SEIS

The National Environmental Policy Act (NEPA—42 U.S.C. 4321) requires that a supplemental SEIS be prepared if a major federal project is changed or if there is significant new information about the project. Since both of these conditions are met regarding the draft SEIS (FRLS, released in October 1980), DOE had to issue a draft SEIS to avoid a lawsuit which could have forced the release of a draft SEIS. Major changes regarding NPP include:

- eliminating high-level waste experiments;
- complying with the Resource Conservation and Recovery Act (RCRA) for "mixed" radioactive and hazardous wastes;
- not complying with Environmental Protection Agency (EPA) standards for waste repositories before replacing wastes;
- transporting all wastes to WIPP by truck, not train; and

- changing the types of wastes by eliminating those with lower concentrations of radioactivity and including higher radioactivity transuranic wastes.
- New information exists about those changes and about:
 - several geotechnical problems with the site, including the large pressurized brine reservoir underlying WIPP, the brine seeping into the waste room, rapid movement of water through the hostler aquifer, rapid closure of the salt and the resulting rock cracking, and more.

EPA is primarily a public participation law. Its intent is to ensure that the environmental impacts of the federal projects are evaluated and that the policymakers consider public input before final decisions are made. Thus, the heart of any EPA document is the evaluation of the government's proposed action and all reasonable alternatives, including a "no action" alternative, to compare and evaluate the environmental impacts of the alternatives. If the federal government does not implement the alternative that causes the least environmental impact, it should fully discuss why it chooses another alternative and what actions it will take to mitigate the resulting negative effects.

The draft EIS considers only three alternatives. DOE's preferred alternative is to proceed with its fast-track opening of WIPP before showing that the site complies with Environmental Protection Agency (EPA) disposal standards. The alternative action, which DOE rejects, is to delay WIPP's opening until compliance with the EPA standards is demonstrated. The no action alternative, also rejected, is to not open WIPP and to continue operating existing DOE nuclear facilities that generate and store wastes.

DOE is legally required to leave the draft EIS and wants to use the document as part of its campaign to fast-track the opening of the nation's only repository for all nuclear waste (WIPP). DOE's EIS is contaminated with racism and other long-held prejudices. However, for citizens the draft EIS provides the opportunity for public discussion of all aspects of WIPP and military waste storage, transportation, and disposal. The comment process can be used to ensure that DOE and other federal agencies, Congress, and state and local officials clearly discuss their policy options and that the public provides its input into those options and decisions.

11. Process for public comment

A. DOE's proposed schedule

Citizens can discuss the draft EIS by speaking at public hearings and by submitting written comments to DOE. DOE has scheduled hearings in 11 cities in five states — Atlanta, GA on May 25; Portland, ME on June 11; (location changed from Boise); Denver, CO on June 11; Pendleton, OR on June 11; Albuquerque, NM on June 13-14; and Santa Fe, NM on June 15-16. Additional hearings and a longer comment period are being requested. The 60-day comment period ends on June 20. Submit written comments to:

W. John Arthur III, Project Manager
WIPP EIS Project Office
U.S. Department of Energy
6301 Indian School Road, N.E., 7th Floor
Albuquerque, NM 87130

Call 1-800-274-0545 to request the draft EIS summary, the entire draft EIS, a time to testify at any public hearing or a longer comment period.

B. Need for a longer public comment period

In April 1979 when the WIPP draft EIS was released, DOE proposed a 60-day comment period. Because of demands for additional time by elected officials and the public, the comment period was extended to 141 days. A similar extension is necessary for the draft EIS. Such a comment extension is warranted because the draft EIS is a massive document (two volumes with more than 1,000 pages), the need to order the final EIS (which was released), the fact that some of the most important reference documents (including the Final Safety Analysis Report) for information contained in the draft EIS are not yet available to the public, and the importance of the decisions to be made about military waste storage, transportation, and disposal.

III. Major issues for public comment

Given the major decisions that must be made, the document is most notable because of the important items that it does not discuss. Also, the draft EIS evaluation of alternatives and transportation issues is wholly deficient. Commenters should focus on those problems to ensure that decision makers understand that the draft EIS is totally inadequate.

A. The draft EIS does not justify DOE's preferred alternative of opening WIPP without complying with EPA standards

In its haste to get WIPP open, DOE has been campaigning to postpone compliance with the EPA standards (40 CFR 191, Subpart B). The draft EIS does not support DOE's central premise that the standards must be applied at WIPP in order to generate data necessary for the performance assessments. The only way to determine the suitability of WIPP for nuclear waste disposal is through a demonstration of compliance with those standards, which set limits on projected radioactive releases from nuclear waste repositories. Computer models are used to estimate long-term releases to the environment under various possible scenarios. If projected releases fall within the limits set by the standards, the overall adverse health effects and damage to the environment are deemed acceptable.

The EPA standards were issued on September 21, 1985. In June 1987, the First Circuit Court of Appeals ruled in favor of four states and three environmental organizations who requested that the standards be

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struck down because they were not stringent enough. EPA is currently developing new standards, which are scheduled to be released in draft form for public comment in late 1989 or early 1990. The final standards could be released in late 1990 or 1991.

In 1979 comments on the MIPP draft EIS, RUC and the U.S. Department of Interior requested that MIPP be delayed until the EPA standards were finalized so that the site could be evaluated for compliance with those standards. DOE replied that there was no reason to delay MIPP because "the MIPP design will be modified as necessary to comply with legally applicable EPA rules and regulations promulgated in the future." (MIPP EIS, p. 15-11) In its 1984 Modification to the future, DOE agreed that "DOE will comply, at a minimum, with all applicable state, federal and local standards, regulations and laws, including any applicable regulatory standards promulgated by the Environmental Protection Agency (EPA)."

Despite these commitments, by 1987 when it realized that MIPP could not be shown to comply with EPA standards by the scheduled opening in October 1989, DOE began a campaign demonstrating that MIPP be allowed to open for a "test phase." During the test phase, DOE would allow 15 percent of the total volume of waste placed in MIPP to be released before showing compliance with the RUC and DOE standards. For two years DOE did not publish any scientific plan justifying the need for any amount of waste for experiments to develop data necessary to show compliance with the EPA standards. Nonetheless, the draft EIS mentions the employment of up to 10 percent of MIPP's capacity during the test phase. (pp. 3-5, 3-21, 5-39, 5-44, 5-56, 5-98)

On April 24, 1989, DOE finally released a draft test phase plan, which describes a program for bringing 4.4 percent of the contact-handled (CH) waste capacity (37,400 drums—about 900 truckloads) to MIPP from September 1992 and for bringing 3.6 percent more (30,200 drums—about 750 truckloads) of remote-handled (RH) waste — about 800 truckloads — during the following two years. When it released the draft plan, DOE announced that the Secretary of Energy had decided to limit the initial employment to 3 percent, although there is no discussion of how the reduction would be achieved. DOE also announced that a revised draft plan reflecting the reduction in release for review by independent scientists and DOE staff.

Since it is impossible to predict precisely what will happen during the hundreds of thousands of years that some radioactive materials remain hazardous, EPA standards set a 10,000-year timeframe for a repository to contain the waste. Compliance with the standards must be shown by performance assessments — computer models using existing data, conservative assumptions, and alternative release scenarios. The standards do not require that any waste be released at any site in order to develop the performance assessments. For any site other than MIPP, which

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In 1979 Congress exempted from the licensing requirements of the Nuclear Regulatory Commission (NRC), DOE must perform the performance assessments to show compliance with the EPA standards before they can receive a license to construct the repository. The draft EIS does not explain why MIPP cannot meet the EPA standards before waste are released.

Moreover, the draft EIS analysis shows that MIPP, as currently planned, will not comply with the EPA standards. Pages 5-114 to 5-167 describe four scenarios of the repository being disturbed by human intrusion. In two of the four cases, the maximum projected release exceed the EPA standards — by 2.5 times and by almost 3 times. (pp. 5-164 and 5-165) DOE believes those maximum projections are unrealistically high and that "engineering modifications to the waste [treating] waste at each site before they are transported to MIPP and/or backfill ... should be able to improve performance enough to give a high confidence of compliance." (p. 5-167)

Given the fact that even DOE's own current analysis demonstrates that MIPP does not comply with EPA standards that have been tried legally invalid because they are not stringent enough, ~~compliance with EPA standards will not be gained until a demonstration of compliance with EPA standards is achieved.~~ ~~Without such compliance with EPA standards, MIPP will almost certainly be another DOE facility that will contribute to the environment and cost billions of dollars to clean up.~~ ~~3.1-3~~ ~~5.4-7~~ ~~7.11-1~~

a. The draft EIS does not contain any analysis of the failure of MIPP to comply with EPA standards.

Since the draft EIS contains no scenario in which MIPP fails to comply with EPA standards (see section III.A. above), the document must describe and evaluate the specific plans to remedy the problems at MIPP so that DOE can demonstrate to EPA through a public process that the site meets the EPA standards. Among the issues that should be addressed are:

- Would waste treatment and processing facilities be built at each generating site or would all waste be shipped to MIPP for treatment and backfill would be needed at MIPP? What specific engineering barriers would be caused and what would those plans cost to implement?

Alternatively, the draft EIS must discuss what specific plans DOE has to develop alternative storage or disposal sites in case MIPP does not meet the standards. Among the issues that must be addressed are:

- Where would such alternative facilities be built, what environmental impacts would be caused, when could they be operational, and how much would they cost?

The draft EIS must provide the information necessary to evaluate alternatives that are required if MIPP fails to meet the EPA standards.

C. DOE has not analyzed necessary interim and long-term storage alternatives

The wastes generated at most major DOE nuclear facilities are stored on site (at Hanford, RI, Savannah River, SC; Oak Ridge, TN; and Los Alamos, NM). Since 1970, wastes generated at the Rocky Flats Plant (RFP) near Denver have been shipped by train to the Idaho National Engineering Laboratory (INEL). Idaho Governor Cecil Andrus wants MPP to open right away so that RFP wastes are shipped directly to MPP and so that RFP-generated wastes stored at INEL start going to MPP. In October 1988 after Congress failed to pass a MPP land withdrawal bill, Gov. Andrus closed Idaho's border to RFP waste shipments. In February 1989, Gov. Andrus released the ban and is allowing a few shipments to INEL so that Rocky Flats storage capacity does not fill up. If MPP is not open by September 1989, Gov. Andrus says that he will permanently ban further RFP waste shipments to INEL.

Although DOE's target opening date for MPP is September 1989, the major unresolved safety issues at MPP (see attached summary) will not all be resolved by September. Further, the U.S. Congress will likely be reluctant to pass the required land withdrawal bill until those issues are resolved. Even if MPP were to open this fall, it would not be able to handle all the RFP wastes produced during the next three years. Thus, DOE must have alternative storage plans -- at RFP, INEL, or other sites -- until MPP is ready to open. And if MPP cannot meet EPA standards, DOE must have alternative long-term storage sites.

Even DOE recognizes the need for alternative interim and long-term storage sites. In response to Gov. Andrus's October 1988 action, DOE formed a task force to develop alternative interim storage sites and to assess the need for sites to provide long-term waste storage should MPP not open. The draft SES does not discuss alternative interim or long-term storage sites. The draft SES also fails to provide for the consideration of storage alternatives and the need for public comment. Such comments must be considered before DOE or Congress act to implement such plans.

D. DOE has not addressed the full range of YU waste problems

The draft SES fails to address the largest volume of YU wastes -- the pre-1970 wastes buried at Hanford; INEL; Los Alamos; Oak Ridge; Savannah River; and Sandia National Laboratory in Albuquerque, NM and the wastes contaminated by those buried wastes. DOE currently estimates the existing buried YU wastes totaling to MPP to be 54,764,700 cubic meters, while the buried YU wastes totaling to MPP to be 54,764,700 cubic meters, and the contaminated soil is estimated to be 130,437 cubic meters, and the wastes stored YU wastes totaling to MPP account for no more than 11.1 percent and possibly only about 11 percent of all YU wastes and contaminated soil. DOE still has failed to develop a plan to address the buried YU wastes, which are not coming to MPP, even though the General Accounting Office pointed out the problem in a 1986 report.

It is the buried wastes, not the stored wastes, that have released radioactivity into the environment, resulting in uncontrolled contamination of soil and water. Using the limited scientific and financial resources to send the stored wastes to MPP may well delay having the expertise and money necessary to clean up the buried wastes.

DOE has not described in the draft SES what it intends to do with buried YU wastes nor has it justified why the stored YU wastes should be sent to MPP. It is not clear why the stored YU wastes should be sent to MPP for health and safety (or any other) grounds over the buried wastes.

E. The draft SES evaluation of public health and safety issues does not justify proceeding with DOE's preferred alternative

DOE has not identified any immediate health and safety or environmental problems at its existing facilities that would be alleviated by MPP. The draft SES, like the MPP SES, states: "no environmental reasons have been found why YU waste could not be left at the Idaho National Engineering Laboratory stored as it is for several decades or even a century." (pp. 5-19, 5-173) The draft SES offers no different assessment for any other facility.

However, DOE acknowledges that opening MPP will create public health and safety problems. The draft SES calculates that there will be 4.3 deaths and 106 injuries trucking wastes to MPP (pp. 5-15, 5-35) and that in two of the four long-term release scenarios analyzed radioactive releases would exceed the EPA repository standard. (p. 5-167)

While all of these estimates may be overly optimistic, several important questions are raised in the draft SES. For instance,

- If wastes at INEL will not move to MPP, what is the justification for proceeding with MPP, which will certainly result in deaths and injuries?
- Since DOE calculates that deaths and injuries from train transportation (3 deaths and 34 injuries, pp. 5-15, 5-35) are about one-third of those from truck shipments (8.3 deaths and 106 injuries), why does DOE plan to use trucks?
- Has DOE determined how many deaths are acceptable? Since apparently eight deaths are acceptable, would 20 deaths be acceptable? Would 100 be acceptable? What number of deaths is unacceptable to DOE at any site, along any transportation route or at MPP?

DOE must realistically discuss "acceptable" and "unacceptable" risks to public health and safety at MPP, at the existing sites, along transportation routes, and at any interim storage facilities.

F. The draft SES does not justify the validity of the 5-year test phase

According to the draft SES, the preferred alternative is to proceed with opening MPP for a five-year test phase (pages 3-21 to 3-25) during which time the facility would store into full operation. The primary purpose of the test phase in terms of volume of wastes, costs, and

personnel is to replace wastes at MPP, not to conduct scientific experiments. As noted in section III.A. above, there is no scientific evidence to indicate any valid gas generation experiments could be conducted underground at MPP because an "open" facility cannot approximate a closed repository.⁴ On the contrary, normal operation of the facility could disrupt any experiments because of movement and the continual changes in atmospheric pressure. (See section III.B. below.)

As for the need to demonstrate operational capability -- loading wastes at the generation site, shipping them to MPP, and receiving them at MPP -- shipments with dummy wastes could provide such experience. In fact, if extensive experience is needed, such dummy shipments would be much safer and make more sense than waste shipments.

Commenters should point out that the test phase employment of radioactive wastes is a prerogative of DOE to test the opening of MPP.

6. The draft SEIS grossly misrepresents the no action alternative

DOE defines no action as leaving the wastes at IME, Hanford, and Savannah River. No adverse impacts related to biology, land use, air quality, cultural resources, water quality, and transportation are identified at any site. Radiological impacts of continued storage at IME, Savannah River, and Hanford are calculated and are considered acceptable. The only difference noted is the negative economic impact on Carlsbad, New Mexico if MPP does not open. (pp. 5-16 to 5-17).

The draft SEIS contains no explanation about why the no action alternative was not chosen since its impacts to public health and safety are calculated as being much less than proceeding with MPP. The document merely concludes that the alternative "would result in the potential for long-term degradation of the environment and potential public health consequences at DOE waste generator and storage facilities and may have adverse impacts on nuclear weapons programs and maintenance." (pp. 5-30 and 5-7) The draft SEIS itself does not justify such conclusions. Nor is any document cited to support the conclusion (see section III.C. below). Therefore, at a minimum, DOE must explain more fully why the no action alternative was not chosen.

Moreover, the no action alternative should be more fully analyzed because it ultimately could be the only possible alternative if MPP does not comply with EPA standards. An adequate draft SEIS also must discuss a no action alternative with mitigation measures, including expanded on-site storage and compaction or processing of stored wastes, to determine the environmental impacts of such measures and to compare them to the impacts of DOE's proposed action for MPP.

Commenters should point out that the no action alternative must be fully analyzed. Moreover, a no action alternative combined with a cleanup program at existing DOE facilities should be considered fully to determine the environmental impacts of such a program.

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8. The draft SEIS inappropriately rejects the alternative action

The only other alternative considered -- and rejected -- to proceeding with waste employment at MPP is to delay the opening until compliance with EPA standards is demonstrated. (p. 3-30) In this alternative, DOE would conduct laboratory and bin-scale tests to collect data on gas generation of wastes. DOE's objections to this alternative are its costs (\$3,473,000), a projected two-year delay in starting the experiments since a new facility would have to be constructed and provided, a 3-year delay in shipping wastes from RFP and IME to MPP, and claims that the experiments would not resolve all of the uncertainties in the performance assessment. (pp. 3-30 and 3-31)

DOE's objections to this alternative are not well founded. The projected costs are much less than costs of bringing wastes to MPP and then having to retrieve them if the facility does not meet EPA standards. The alternative also eliminates the risks to the public and the costs of transporting the wastes during the test phase. The two-year delay is highly speculative since DOE, in fact, does not have a DOE-permitted facility at MPP to do the bin-scale tests, so existing facilities might be able to do such experiments as quickly and as cost-effectively as MPP. The 3-year delay in shipping wastes is irrelevant to the safety of the site. In fact, the delay could be longer if the site does not meet the standards. Moreover, the delay in opening MPP would likely force DOE to address the need to develop interim storage facilities, which it must do regardless of whether MPP opens (see III.C. above).

As to the technical reliability of data, the independent scientists review panel on MPP previously demonstrated that the only kind of experiments that can generate useful, reliable data are those in a controlled laboratory-type environment, which cannot be achieved underground at MPP. The draft Test Phase Plan again fails to show the necessity for, or any justification for, waste employment in order to develop the performance assessment.

If DOE intends to proceed with MPP, it must select the alternative action and demonstrate compliance with the EPA standards.

1. DOE has not explained the supposed "national security" implications if MPP does not open

When it formally released the draft SEIS, DOE said "the filling of available storage capacity for radioactive waste at certain sites may impact defense production operations vital to national security." (16 Federal Register 16350, April 21, 1989) The draft SEIS does not discuss what such national security concerns might be. No other public document discussing the national security aspects of MPP, although at the time of its release DOE was in the process of releasing the draft SEIS, was released. In fact, the national security issues were involved if Gov. Andrew maintained his ban on RFP shipments.

1-3
5.1-1-1
5.3-1
7.11-1

3.1-4

During the fifteen years that WPP has been under development, there has never previously been any mention that there are national security implications to WPP not opening by a certain date. If a delay in the opening of WPP would create national security problems, DOE should and evaluate the alternatives to address that concern in the draft EIS.

J. The draft EIS inadequately evaluates transportation problems

Transportation issues affect citizens in the 23 states along proposed WPP shipping routes. Transportation issues not adequately addressed include reliability of the shipping containers, using trucks rather than trains, unrealistically low projected releases from accidents, and inadequate training and equipment for emergency response personnel.

In the WPP FEIS, DOE assumed the reliability of shipping containers, because no WPP shipping packages existed; the draft EIS will assume that. The draft EIS assumes that CH-RNU wastes will be shipped in 20,000-gallon drums. The draft EIS assumes that the first drum will be filled to meet MC regulations, the drum will be modified and released. On the other hand, the MC regulations also failed to survive the tests without leaking. The container was again redesigned and DOE now says that a test unit has successfully passed the tests. However, a complete application for certification has not yet been submitted to MC, and no certification has been given.

For shipping the CH-RNU wastes, DOE assumes that it will use a type of MFC 728 shipping container. The actual container does not exist, and the draft EIS says that it will be fabricated and tested "in the early 1990s." (p. 3-14)

In the WPP FEIS DOE assumed that 75 percent of wastes would be shipped by train and that 25 percent would be shipped by truck. (FEIS, pp. 6-18 and 6-19) The draft EIS says that DOE expects to ship all of the wastes by truck (p. 3-5), although shipping all wastes by train is included as a possibility. (p. 3-14)

The WPP FEIS estimated about 3,600 train shipments and 3,700 truck shipments of CH-RNU wastes. (FEIS, p. 6-19) The draft EIS estimates 26,131 CH-RNU truck shipments and 14,509 CH-RNU train shipments. Combining both CH and CH-RNU wastes, the draft EIS estimates that a total of 34,144 truck shipments or 19,467 train shipments would be required during the 25-year lifetime of WPP. (p. 3-15) However, the draft EIS also calculates 34,144 truck shipments or 18,509 train shipments (pp. 5-17 and 5-18, D-47), and 34,144 truck shipments or 18,505 train shipments. (p. D-50)

The likely truck and train routes are shown on attached maps 1 and 2. Specific routes are described on pages D-34 to D-36. The number of shipments from each site have been included on the maps.

As a result of the State of New Mexico's 1981 lawsuit, the state and DOE agreed in December 1982 that DOE would provide about \$18 million to upgrade two-jan highways in New Mexico that could be used for WPP shipments. In 1987, DOE agreed to assist the state in asking Congress for \$200 million to build a new highway from Albuquerque to Santa Fe Highway and bypasses around Santa Fe, Roswell, Arroyo, Carlsbad, and Hobbs. The draft EIS does not analyze potential differences in the number of accidents and predicted radiation releases if the bypasses are built.

The draft EIS predicts less than one excess cancer death from radiation exposure from normal (no accident) waste shipments. (p. 5-15 and D-34 to D-36, D-101) The draft EIS estimates that in accidents not releasing radionuclides 8.3 people will die and 108 will be injured from truck shipments; 3 people would die and 34 would be injured if wastes are shipped by rail. (pp. 5-15, 5-25) DOE's only stated rationale for using trucks rather than trains is "the greater accessibility to the site and greater control of the transportation system and routes." (p. 3-14)

The "bounding case" accident (most severe imaginable) described in the draft EIS would be .0002 of the wastes being released from WPP/CH-RNU. Accordingly, DOE concludes that even in the bounding case accident, there would be no detectable health effects. (p. D-56)

In addition to the unrealistically low and unsupported estimate of potential releases, DOE's bounding case involves average CH-RNU wastes from Rocky Flats. However, the bounding case assumes that the CH-RNU wastes represent the average radioactivity of shipments from WPP. It is not realistic to assume that the CH-RNU wastes from WPP are the same as those from Rocky Flats. In shipments contain more than 4 times as much radioactivity; Oak Ridge, TN shipments contain more than 2.5 times as much radioactivity, and Savannah River shipments contain more than 12 times as much radioactivity. (p. 3-9) Moreover, averages do not represent the shipments with the highest amounts of radioactivity, which should be considered to analyze a "worst case" accident scenario.

Moreover, the draft EIS does not even consider releases of CH-RNU wastes even though some shipments could contain dozens of times the amount of radioactivity as the average CH-RNU shipment. The draft EIS also has not considered low organic materials would interact with radionuclides in a fire because of the "lack of analytical data." (p. 3-2)

Commenters should note that the accident release scenarios are not credible and cannot be relied upon to evaluate the effects of a severe transportation accident.

While no accidents releasing a significant amount of radiation are expected, DOE has provided some assistance in planning for emergency response in case of accidents. According to the draft EIS, in 1988 more than 2,400 emergency responders were trained in 5 states. (p. 2-18 to 2-20 and Appendix C) However, that number is small compared to the people

who are potential first responders. Further, the draft SEIS assumes that the only additional training to be conducted in the future will be that done by states, despite the fact that during the 25-years of MPP's operation, continuing training will be necessary. Moreover, the draft SEIS does not discuss equipment needed by emergency responders, nor the fact that such emergency response personnel will not have equipment necessary to clean up an accident scene.

The draft SEIS inappropriately assumes that waste packages will be totally reliable and predicts that releases in case of serious accidents would be virtually nonexistent. Given the history of human error and technical failure during 25 years of operation, such serious accidents can potentially occur.

k. The draft SEIS does not justify the proposed administrative land withdrawal.

Congress must set aside the land at any site to be used for permanent nuclear waste disposal. DOE's application for an administrative land withdrawal is an attempt to circumvent Congress and to avoid meeting health and safety requirements at MPP.

On April 7, 1989, DOE filed an application with the Bureau of Land Management (BLM) for an administrative land withdrawal of the MPP site to allow the test phase to be conducted on. (54 Federal Register 19419, April 29, 1989) The Federal Land Policy and Management Act (FLPMA), U.S.C. 1701 requires that public hearings be held on such applications. According to the public notice, BLM intends to use the draft SEIS and the DOE SEIS public hearings as the basis for approving the land withdrawal application.

The draft SEIS does not provide any detailed explanation of the basis for an administrative withdrawal. The document does not adequately justify the test phase underground experiments. Among the other issues that must be addressed to provide an adequate basis for an administrative land withdrawal are:

- compliance with EPA standards and RCRA would be accomplished before testing can proceed;
- BLM's ability to review and oversee the test phase;
- The need for nuclear administrative withdrawal now, since the existing withdrawal (Public Land Order No. 6403 -- June 29, 1983) remains in effect until June 1991 (and prohibits any waste emplacement at MPP);
- The legal basis for such an administrative withdrawal, since the BLM's position has always been that only Congress can approve any withdrawal that would require waste emplacement.

The draft SEIS provides no adequate technical or legal basis to justify an administrative land withdrawal. Land withdrawal to allow testing to be brought to MPP can be given only by Congress, so BLM should reject DOE's land withdrawal application.

References

- 1 DOE, 1989. Draft Plan for the Waste Isolation Pilot Plant Test Phase: Performance Assessment and Operations Demonstration, DOE/MIPP 89-017, April 1989.
- 2 DOE, 1988. Integrated Data Base for 1988: Spent Fuel and Radiotoxic Waste Inventories, Projections, and Characteristics, DOE/RS-008, Rev. 4, September 1988, pages 44-45.
- 3 General Accounting Office, 1986. Department of Energy's Transuranic Waste Disposal Plan Needs Revision, GAO/RS-86-40, March 1986.
- 4 Scientists Review Panel on MPP, 1988. Evaluation of Preliminary Draft of the Radiotoxic Waste Experiment (Panel One Monitoring Plan) Waste Isolation Pilot Plant, May 10, 1988.



SOUTHWEST RESEARCH AND INFORMATION CENTER

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Unresolved Safety Issues at WIPP

Safety and environmental protection have historically been given very short shrift by the Department of Energy (DOE). As a result, serious problems are emerging at DOE facilities around the country. To avoid these kinds of problems, DOE facilities should be subject to strict safety requirements.

The Waste Isolation Pilot Plant (WIPP) is an underground repository in southeastern New Mexico for the disposal of radioactive wastes from the Department of Energy's (DOE) nuclear weapons production complex. As the first new federal nuclear facility in decades, WIPP presents DOE with the opportunity to do things right from the start. There are a number of safety issues which should be resolved before waste operations begin at the facility:

1) DOE should demonstrate that the WIPP can comply with EPA safety standards.

Environmental Protection Agency (EPA) standards (40 CFR 191) were issued to help ensure protection of public health and the environment from the dangers of radioactive waste repositories. Ascertaining compliance with these standards involves identifying and evaluating processes and events that could affect the performance of a given repository, using computer models to predict radioactive releases, and measuring predicted releases against EPA release limits. It is assumed that if predicted releases fall within the EPA limits, overall adverse health effects and damage to the environment will be low. Waste receipt at the WIPP should not begin until DOE has demonstrated and EPA has certified that the WIPP can comply with EPA standards.

2) DOE should comply with federal hazardous waste regulations.

At least 60% of the radioactive waste destined for the WIPP is subject to regulation under the Resource Conservation and Recovery Act (RCRA), which is designed to ensure that hazardous waste is properly managed from point of generation to final disposal. The process of complying with RCRA standards involves compiling an inventory of the hazardous constituents in the WIPP wastes, obtaining a permit from the EPA or state government to receive these wastes at the WIPP, and treating the

wastes (i.e. to reduce mobility, toxicity, etc.) prior to placement in the WIPP.

3) DOE should develop an experimental program to address technical uncertainties at the WIPP.

There are a number of technical uncertainties that must be addressed before DOE can demonstrate that the WIPP is suitable for nuclear waste disposal. Chief among these is the effect of water seepage on the integrity of the repository. Independent scientists have revealed that water is seeping into the WIPP and that a large body of pressurized brine is located directly beneath the site. They warn that water in the WIPP could migrate off-site and contaminate nearby water supplies. In March, 1988 the National Academy of Sciences Board on Radioactive Waste Management recommended additional analysis of the amount, character and migration of water at the WIPP and asked DOE to develop a detailed experimental plan outlining the program.

4) DOE should complete necessary WIPP environmental analyses.

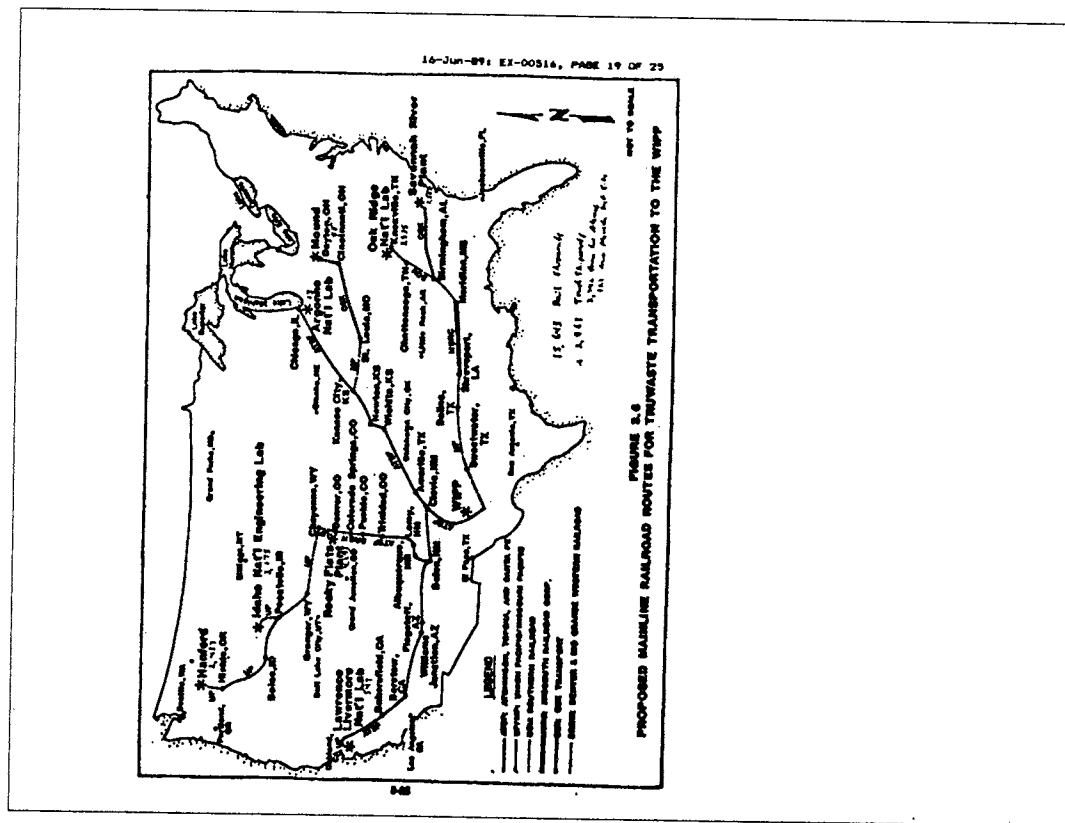
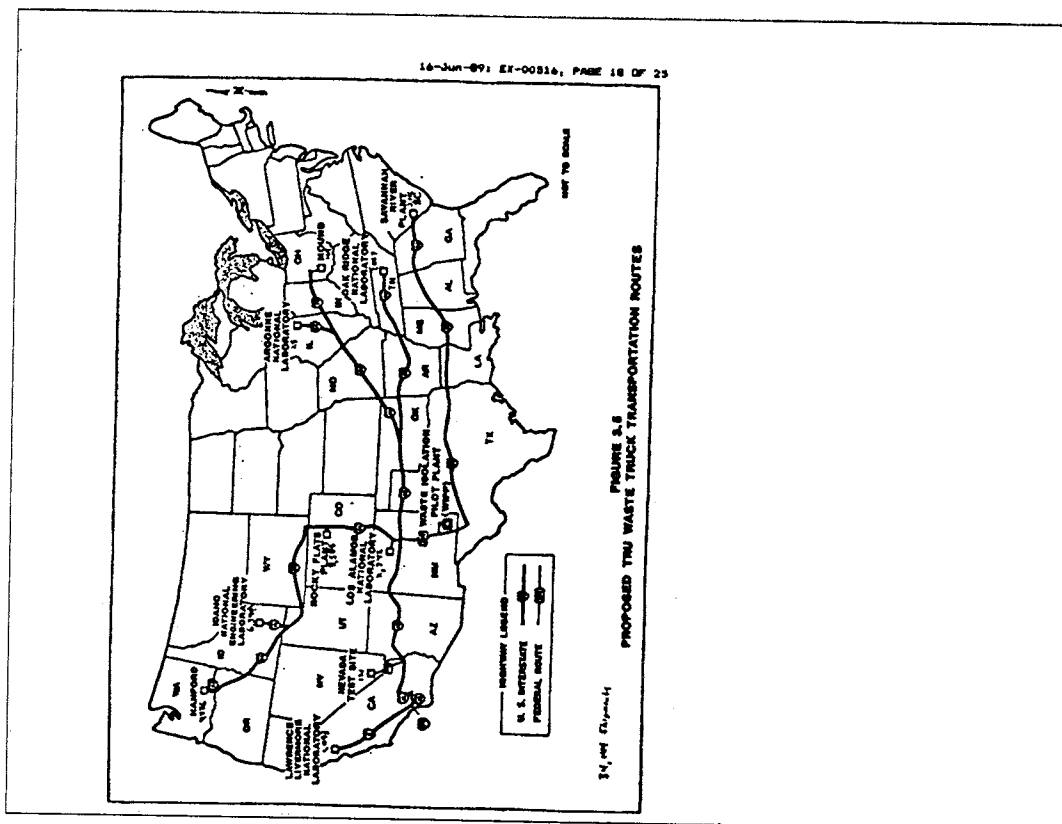
The National Environmental Policy Act (NEPA), described as the "basic national charter for protection of the environment", sets up a process for helping public officials make decisions that are based on an understanding of environmental consequences. NEPA requires preparation of Environmental Impact Statements (EIS) in the quality of the major Federal actions significantly affecting the quality of the human environment. DOE recently released a draft EIS for the WIPP. The EIS contains new site information and proposed program changes. In 1986, DOE conducted a 10-day public comment period on this draft EIS. DOE has not yet responded to the comments. DOE should select, from among the alternatives evaluated, the course of action which causes the least environmental impact.

5) DOE and MRC should ascertain the safety of WIPP shipping containers.

DOE estimates there will be over 1300 shipments/year to the WIPP from 10 DOE sites around the country. Wastes will be shipped by truck in TRUPACT II casks. DOE is currently in the process of testing prototypes of the TRUPACT II cask and their ability to withstand Nuclear Regulatory Commission (NRC) test conditions. Test results will be forwarded to the NRC for review before a safety certificate for use can be issued.

Southwest Research and Information Center is a non-profit environmental organization with offices in Albuquerque, New Mexico and Washington, D.C. For more information about the WIPP, contact Caroline Pettit at (202) 457-0545 or Don Hancock at (505) 362-1642.

May 1989





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WIPP: ISSUES AND ANSWERS

o What is WIPP? The Waste Isolation Pilot Plant is an underground repository in southeastern New Mexico for defense nuclear wastes. When it opens it will be the nation's first repository for waste destined for disposal at WIPP are currently being stored at DOE nuclear response plants around the country. Federal legislation to open WIPP is now pending in the U.S. Congress.

o WIPP will not solve the nation's nuclear waste disposal problem. No low or high-level defense wastes or nuclear power plant wastes will go to WIPP. Wastes going to WIPP are "transuranic" wastes; that is, material contaminated with man-made radioactive elements like plutonium. Of these, only a small portion of the total transuranic waste inventory will go to WIPP. A 1986 GAO report (GAO/RCED-86-90) identified that waste going to WIPP is waste that is stored above-ground in 55-gallon drums. This amounts to only 1% of the total transuranic waste inventory. The other 99% not going to WIPP is waste buried in shallow, unlined pits and soil contaminated by liquid rad-waste drained into the ground. DOE has not decided how to dispose of these wastes even though they pose a more immediate hazard than the stored wastes.

o WIPP may not be safe for nuclear waste disposal. There is evidence that WIPP may not be able to contain radioactive materials. Scientists have reported that brine is seeping into the underground salt chambers and that the site has a reservoir of pressurized brine directly beneath the site. Brine could mix with wastes to form a sort of "radioactive slurry" which could then migrate off-site and contaminate nearby water supplies.

o DOE should ascertain whether WIPP can comply with EPA safety standards before waste is received at the site. The only way to determine the suitability of WIPP for nuclear waste disposal is through a demonstration of compliance with nuclear waste standards issued by the Environmental Protection Agency (40 CFR Part 191.) These standards set limits on radioactive releases from nuclear waste repositories. Computer models are then used to predict expected long term releases to the environment. If predicted releases fall within EPA release limits, it's assumed that overall adverse health effects and damage to the environment will be low. DOE should show that expected releases from WIPP will not exceed EPA release limits.

2.2.2

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3.1-3

o DOE's planned 5-year "experimental" program with radioactive wastes is a phony ploy to fast-track the opening of WIPP. DOE is trying to defer compliance with EPA standards by claiming they need to first do underground experiments with radioactive waste. They say they need to do these experiments to collect information to demonstrate compliance with the EPA standards and to gain operational experience. But, scientists are not convinced these claims are valid. They say underground rad-waste experiments are not necessary to demonstrate compliance with the EPA standards; DOE can use information they already have. DOE can use dummy drums of waste for "operational" experience.

o Nuclear waste shipments to WIPP may not be safe. There will be over 1300 shipments/year from 10 DOE sites; 23 states will be affected. The first line of protection from an accidental release of radioactive materials is the waste shipping cask. DOE is trying to speed up the process of testing the WIPP shipping cask--TRUPACT II--according to Nuclear Regulatory Commission safety requirements. The NRC has not issued a safety certificate of approval.

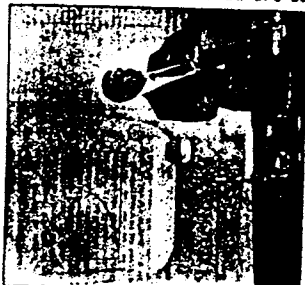
o DOE should resolve outstanding safety issues before opening WIPP. Recent revelations of safety and environmental problems at DOE weapons facilities around the country underscore the importance of taking safety precautions seriously. As the first new federal nuclear facility in decades, WIPP presents DOE with a unique opportunity to do things right from the start and avoid the mistakes of the past. DOE should comply with all state and federal environmental laws and regulations before opening WIPP. This includes compliance with EPA nuclear waste standards, with a federal hazardous waste law called the Resource Conservation and Recovery Act and with the National Environmental Policy Act.

Southwest Research and Information Center is a non-profit environmental organization with offices in Albuquerque, New Mexico and Washington, D.C. For more information about WIPP, contact Caroline Petti at (202)457-0545 or Bon Hancock at (505)262-1862.

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WIPP Test Phase Outlined Waste Shipments Set For September

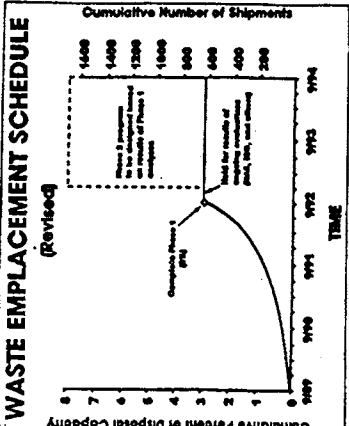


The Waste Isolation Pilot Plant (WIPP) is set to begin its first phase of testing in September. The test phase will involve the shipment of waste to the plant and the subsequent disposal of the waste in the underground salt caverns. The test phase is a critical part of the WIPP's certification process and will provide valuable data on the plant's ability to handle and dispose of waste safely. The test phase will be conducted in three main stages: first, the shipment of waste to the plant; second, the disposal of the waste in the caverns; and third, the monitoring of the waste disposal process. The test phase is expected to last for several months and will involve the participation of a large number of personnel from the WIPP and its contractors.

Continued on page 23

WIPP Sets September For Waste Tests

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UP FRONT

City/State/Region

Andrus sees 3-percent cap at WIPP a compromise

'We're still making progress,' says Idaho governor

By Associated Press
WASHINGTON, June 15 (AP) — Gov. C. L. Andrus of Idaho says a 3-percent cap on the amount of nuclear waste that can be stored at the Waste Isolation Pilot Plant (WIPP) is a compromise. He says the cap is a step in the right direction, but he wants to see more progress made in the future.

Richardson ticks along just fine

By Associated Press
WASHINGTON, June 15 (AP) — President George H. W. Bush says he is "tickled" by the progress of the WIPP project. He says the project is moving forward and that he is confident that it will be completed in the near future. He also says that he is pleased with the progress of the project and that he is confident that it will be completed in the near future.

The Earth Is Alive and Running Out of Breath

Joan Price

Joan Price is an author, lecturer, and television producer. She has a B.S. in geology from the University of California at Berkeley, and is a member of the Hopi, Navajo, and Lakota Indian tribes. She has traveled throughout the United States and Europe, and has been featured on television and radio. Her latest book, *The Earth Is Alive: A New Understanding of the Planet's Vitality*, is available from Viking, New York, NY 10016.

For years Hopi leaders have warned that draining underground water reserves in their lands could upset natural balances across the planet, but their warnings were ignored. Now science is starting to recognize the validity of their claims as a new, more unified picture of the globe emerges from recent research. Studies of electromagnetic force fields in the atmosphere and underground water systems reveal a meaningful pattern that links critical points on the map with the health of all life on earth. One of these key points is the Hopi area.

Often called the Four Corners Area, the Colorado Plateau, where Arizona, New Mexico, Utah, and Colorado meet, is roughly circular and approximately 350 miles wide. The Colorado Plateau sits within a ring of volcanic mountains which experience an extraordinary concentration of lightning activity. The Hopi and other indigenous people claim that this region is a "spot of power," one of several particularly sacred places on the planet.

The direction of recent scientific studies increasingly corroborates the knowledge of peoples indigenous to the Plateau. Indigenous spokesman Rolling Thunder observes, "Professors teach so much about the atom and of different sources of energy, but they have forgotten about the lightning—the source of life energy. They still have to discover just how lightning is formed and transferred to the Earth and about certain rocks that hold that energy, and that all life has some of the lightning in it. Everything that has life also has an electrical force. The flow of energy has to be in certain directions, and if it gets upset or unbalanced it flows in the wrong way, it's very important." And the flow of energy in specific directions is no less important to the human body.

Wilderness professor, layman scientist, and author, there exists a factor which quite literally unites every individual, opinionated or not, which is the common sense of experience. That factor is the requisite quality of air unique to the Southwest, renowned by environmental forces of such precision as to be unnoticed and taken for granted until one.

Nearly thirty years of scientific study by Dr. Albert Krueger at the University of California, Berkeley, indicate how important electricity in the air can be for our state of physical and mental health. Lightning poles are evidence of the dynamics between ether atmospheric fields of positively or negatively charged ions; air particles, or between these charged fields and the negatively charged earth. There is a critical minimum number of ions that are essential to proper and healthy growth of plants, insects, and mammals particularly.

Ideally, the ions should be present in a ratio of four "neg-ions" to five "pos-ions." Excess pos-ions cause increased production of serotonin, a powerful and versatile neurohormone governing transmission of nerve impulses. Pos-ion overload leads to respiratory ailments, stress, traffic accidents, and even suicide. Conversely, a high concentration of neg-ions is a significant factor in healing, facilitating proper oxygen metabolism and a sense of well-being. The main sources of positive and negative ions are solar radiation, rushing water, and radioactive materials, all of these are particularly concentrated in the Southwest. The Colorado Plateau receives one of the highest amounts of daily sunlight on the continent and in one third of the United States. The Plateau is also a source of uranium, which is a natural source of radiation. Great quantities of molten uranium, copper, and other vibrant mineral deposits are also found here; their ability to absorb and emit energy is a natural source of electrical energy. The Plateau is also a source of electrical energy, thereby linking them into a positive and negatively charged particles. As for rubbing water, phenomenal amounts are found underneath the desert, a subject we will return to in greater depth.

A significant percentage of contemporary diseases and deaths has been correlated to any-

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key and arrest the Colorado Plateau has the nation's lowest death rate per thousand inhabitants. Stress has also been shown to significantly affect the health of the Hopi and Navajo. The Colorado Plateau is a region of low birth rates per thousand inhabitants. The remarkable alignment of the numerous ruins sites in this region suggest that ancient cultures built their cities here for reasons of spiritual balance. These are cultures that traced lightning as the Lord of the Elements, and whose word for "spirit" or "soul" was "breath" or "wind." In fact, in the language of every ancient culture, Hebrew, Greek, Mayan, Egyptian and Indo-European, to name a few, breath is equated with spirit.

At least seven native American "Sacred Breathing Mountains" have cave systems associated with volcanic mountains, a significant factor in the volcanic cycles on the Plateau. Dr. Doyle Sator of the National Center for Atmospheric Research (NCAR) investigated the August National Monument at the base of the San Francisco Peaks, where the ruins of a prehistoric Hopi village, within the ruins are a series of "breathing holes," into which air rushes at the rate of up to thirty miles an hour for approximately six hours, then it rushes out again for six hours, in constantly repeating cycles. Sator deposited fluorescent particles in one blow-hole and collected them from another one located twenty-four miles away. He estimated that seven billion cubic feet of underground waterways and caverns exist in that area. Evidently, the pos-ion count of the dry desert air is reversed as it rushes into the cool

Moreover, in the "Sacred Lands" of the South Dakota Sioux are found the same dimensions—concentration in uranium and electrical energy, with an extensive underground cave system. Sator and his team wonder that these people have spiritual acclimation and development of that vital land for so long.

In spiritual traditions, mountains are holy places often termed "gateways" to deeper dimensions of awareness of universal truths. Mountains are a key geophysical feature in the global circulation of atmospheric electric currents. Dr. Ray Rodde of NCAR calls high mountain peaks "generators" of the global circuit.

Just as in the general circulation models of global wind and water currents, the global electric circuit is completed and slightly altered in one part of the system in response to energy shifts in another. Increased wind speeds in one region are balanced by increased calm in another; increased lightning in the Four Corners leads to a decrease elsewhere (an consequent rainfall pattern). The Oriental system of acupuncture points in the human body is mirrored in the planetary body. Thus, a blocking of energy leads to imbalance and disease such as droughts, floods, extremes in climate, and attendant human struggles to adjust.

IONOSPHERIC SHELLS

Porter design representing the world antique the flow patterns discovered by Dr. Masaharu, also of NCAR, by several hundred years. Masaharu's of the NCAR offers

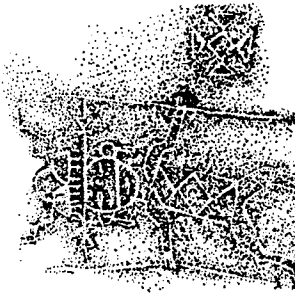
an intriguing theory to explain this wind and water cycle. A solar magnetic "shell" and a "counter-clockwise" solar current are the two main elements of the theory. These shells remain stationary while the earth rotates. The lunar magnetic shell lies 110 kilometers above the surface of the earth; it forms four fields in the four quadrants of the Northern Hemisphere.

Within one quadrant, a lunar magnetic current flows in a clockwise direction, while in the neighbouring quadrant, the flow is counter-clockwise. The clockwise direction yields a positive charge of energy while the counter-clockwise direction yields a negative charge. The solar magnetic shell is located 120 kilometers above the earth and it contains two magnetic fields, one of which flows in a clockwise direction while the other is counter-clockwise.

The centre of each current—whether solar or lunar, positive or negative—is termed the Focus and is the quietest area of the current. It has a diameter of approximately 350 miles, which is the same size as the Colorado Plateau. The Focus is the quietest area of the solar magnetic shell, lying between 20° and 40° longitude on the Northern Hemisphere within which clockwise activity is unique in several ways—8. It has the highest concentration of summertime lightning activity on the surface of the earth.

Let us follow the Four Corners length of this band starting with the band in position underneath a Focus. Looking into a Focus is like being at the end of a tunnel to outer space through which both solar sunspot activity and cosmic rays can easily enter; both of these are known to influence lightning frequency and intensity. Then for the next few hours, as the plateau moves under a current flow and its associated charge, positions and regions are separated into fields.

The magnetic pull of these charged fields affects air and water movements, creating tides. This tidal pull moves underground lakes into cavern systems, mixing with the heated steam air to produce healing vapours. Meanwhile, overhead on the surface of the earth, the magnetic fields are pulling them outward, making into the open air the next electromagnetic current. Caves breathe out and underground water volumes shift, rushing to other "lungs" and networks miles away. And so it goes, on to the next current and in opposite pull, and then into another Focus of stillness, locking 350 mile diameter to 350 mile diameter, an unobstructed tunnel into space, never-ending.



isthucan, the lunar focus is over an ancient sacred cave system at Palenque, Mexico.

Several factors, such as the variable influence of solar flares, combine to affect this simplified picture. Theoretically, the focus is a specific point, while practically it is a fuzzy line. The focus has a diameter of roughly 350 miles, spanning thousands of miles north-south, 20° in latitude and 2° in longitude.

Located inside this band of electric oscillations circling the Northern globe are all the sources of ancient culture: Egypt, Mesopotamia, the Indus River valley, the Hindu Kush, Tibet, central China, the Japanese Kanto, Hawaii, and Hope land. At certain times of the year, as the Four Corners area

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CHILADINI FIGURES

The work of the German physicist Ernst Chladni and the late Hans Jenny of Zurich offers a model to explain the vibrational nature underlying all these correlations between energy nodes and physical features.

These two conducted a series of experiments on patterns in sand spread over a large circular steel disc suspended from its centre. When one tone from a violin or a tuning fork was sounded, the sand accumulated in a characteristic pattern around the central point. The thin layer of sand tended to vacate the areas of greater vibration, called nodes, and to collect in the less agitated areas, called anti-nodes. Changing the amplitude of the frequency resulted in new, characteristic patterns.

Analogous to this model of sand forming significant patterns in response to sound vibrations, the earth's water, atmospheric currents, and magnetized particles are also subject to repeatable arrangement under vibrational pulses.

One can envision the Colorado Plateau and the other ancient sites around the world as Chladini figures set within a global grid pattern of energy. We see repeating patterns involving underground water networks, atmospheric currents, charged ion fields, and a seasonal cycle of lightning pulses. It may take many years to fully understand and document this phenomenon with adequate data.

In the meantime one can respect the fact that for centuries the traditional peoples of North America have maintained a seasonal, ceremonial cycle in phase with the harmony of all land and life. The Navajo phrase "to walk in beauty" refers to this breathing web of immense and rhythmic waveforms.

THE SITUATION TODAY

Modern civilization, in exploiting electricity, has unwittingly created a planetary grid of setting and pulling megalopolis centres connected by ultrahigh power transmission lines and invisible pathways in the sky. This artificial network is out of phase with the natural grid, whose energy flow and direction are constantly being altered. The balance of the Colorado Plateau as a "edge of power," the National Academy of Science in 1974, declared that the Southwest may have to become a "national sacrifice area" to supply the growing energy demands of the country. The Hopi, who have lived for centuries under the Focus of the clockwise solar current, Tibet (opposite to it on the Northern Hemisphere) is passing under the Focus of the counter-clockwise solar current. Twelve hours later, the effects are reversed for the two land masses.

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Jerusalem (with its near neighbour the Great Pyramid at Giza) on one side of the globe and the Sacred Breathing Mountain of the Hawaiian natives on the opposite side of the globe are passing through the Focus of the counter-clockwise lunar currents. Six hours later, the lands have shifted approximately 90° to the next set of lunar currents.

The sacred areas in this band of Focus activity comprise key points in a global energy grid recently outlined by a team of Russian archaeologists. Dr. David Zirc sums it up succinctly, "The presence of such elements reflects the idea that the cosmic temple was a living organism with the capacity to resonate with all other living systems."

Each of these four "spiritual" nodes plays a vital role in global climate balance. Plotting sites of all known ancient cultures on the planet and connecting these sites with straight lines, the Russians came up with a pattern of energy nodes; the lines of the grid pattern coincide with weather patterns (including hurricane), mid-ocean ridges, and the edges of continental plates.

tures in the center of the Four Corners Area, however, had based this statement in 1948:

Everything depends upon the proper balance between the forces that attract the ground acts like a magnet attracting iron from the clouds; and the rain in the clouds also acts as a magnet raising the water table and plains, the water in the clouds comes from beneath Black Mesa in connection with the storming will destroy the harmony, from everything we have tried to maintain the balance of the forces that attract the land will die. This happens, our land will die like the things that are buried in the land will die. Rain will be buried by the sun force because we have tried to protect the land given us, as we were in- corn will not grow; our corn will not yield and we will die, we will die, we will die, but all will subordinate to nothing ... time is very short.

Today the situation at Black Mesa is degrading. Mountainous piles of dynamited earth, broken, newly-cut seams of coal. The overburden has been broken and the small is food. Since 1949, the area has been sucking water at a rate of 1,200,000 gallons a minute from the aquifer at Black Mesa. The San Juan Aquifer is not in line. According to the United States Geological Survey (USGS), southeast Arizona has sunk twelve feet since 1952 as a result of underground water withdrawal.

The plume of particulate emissions from the Four Corners Power Plant in northwest New Mexico is the most visible feature of satellite photography. These particulates de- cussively interfere with natural ion fields. The ion environment has not been taken into ac- count in modern architectural designs or construction materials and, as a result, severely depleted neg ion levels have led to increased anxiety, disease, social unrest, racism, and general negativity. In addition, high-voltage transmission lines and unshielded radioactive wastes lead to physiological stress such as changes in the electrical polar- ization of the cell membrane and disturbances of resonances of protein molecules.

Curiously, the major supercenters have chosen to locate their atomic testing sites within the 130-mile-wide band between 20° and 40° latitude. Within this narrow strip of earth, specifically in the Four Corners Area and in an area quite close to Tibet, America and China have conducted their

above and below ground nuclear weapons explosions.

The electromagnetic law of induction states that a current flowing in one direction in the atmosphere will induce a current flow- ing in the opposite direction in the earth. Un- derground atomic tests decrease the delicate balance of these magnetic currents. Prior to 1977, Maunabuta became deeply alarmed at the total disruption of the solar and lunar patterns enveloping our planet from under- ground nuclear tests. The response of the U.S. Atomic Energy Commission was to deny him access to data for two weeks after each blast.

Project Earth, an independent research program, is looking at energy (heat) transfer systems from inside the earth out to the crust through resonant lines. The tests destroy this transfer process and ionized build up can eventually explode as volcanic erup- tions or earthquakes. Over the last thirty years, scientists have also been carrying out lightning suppression, cloudseeding, and weather modification experiments, including general manipulation of the water cycle. These experiments, under research grants from the Departments of Interior and Defense, also threatened to destroy the biosphere developed over tens of millions of years of evolution.

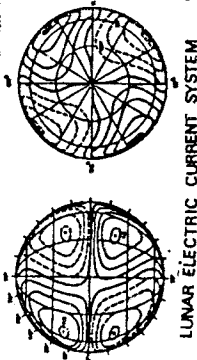
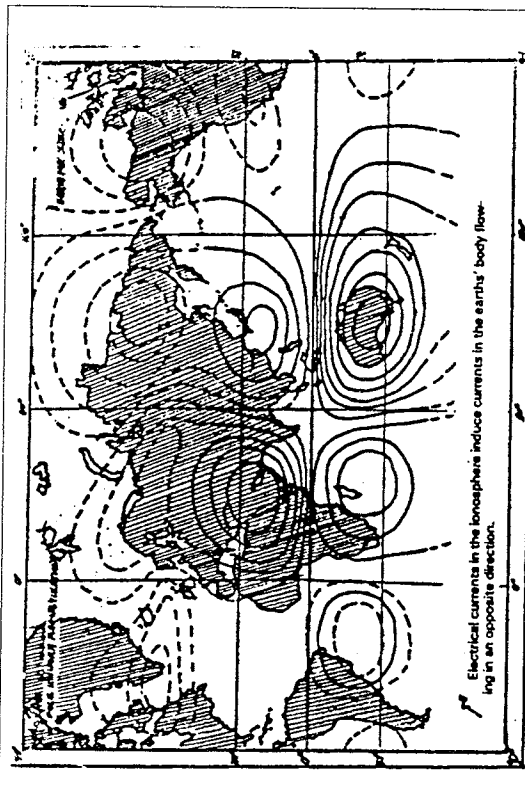
Author Hugh Gardner warns:

Two new technologies powerful enough to change the destiny of the planet have come along since the Second World War. One of course is nuclear fission. The other is nuclear fusion. Nuclear fusion, the most powerful heat engine that drives our global civilization, is the most powerful force in the world. It is just as many fire crackers. For the world, nuclear fusion has the energy of a hydrogen bomb.

What began as a murmur by the Hopi and other traditional peoples is now becoming an organized protest against the ignorance and greed that, if unchecked, will destroy our planet's delicate bioelectric balance and our own internal bioelectric responses.

Each of us has the responsibility to protect sacred land and life in every country of the world. In whatever way we can. We must remember that lightning and wind are not controlled by human boundaries. A sacred breath enters the atom's web of life. Any part that is broken affects us all. May you walk in balance.

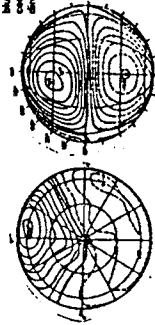
WINTER/SPRING 87 61



LUNAR ELECTRIC CURRENT SYSTEM

The earth is enclosed in a electric shell called the ionosphere. The ionosphere is composed of several layers separated by concentric shells. Electrical currents flowing within a shell at ap- proximately 80 miles out from the earth are created by energy from the sun. Energy from the sun creates electrical currents flowing in the ionosphere. These currents flow in the same direction as the earth's magnetic field. These globe movement place while the earth receives on a daily basis underneath.

The yellow fields signify an overall positive charge, while the blue fields indicate an overall negative charge. At equator the centers of the solar fields in the Northern Hemisphere sweep directly over the equator and the Colorado Plateau.



SOLAR ELECTRIC CURRENT SYSTEM

October 19, 1979
Ithaca, New Mexico

[illegible]

Frequency of lightning does correlate with positive/negative ion levels. Charles Wallen, consultant to the U.S. Dept. of the Federal Drug Administration, told Project 2012 that in a telephone interview that there is a definite correlation between ion levels and lightning activity, that there is an enormous compounding of positive ions hours before a storm-calls, voltage gradient increasing dramatically days to hours before a storm-calls, resulting in spark triggering lightning. Water molecules are ionized.

Thus, the basis for the relationship of fire and lightning activity has been established. The lightning is the cause of the fire, and the fact that alteration of the landscape can alter macroclimatic patterns including lightning and thunderstorm location. University of Maryland, a specialist in the area of area of inadvertent weather modification from urbanization, researched and documented permanent changes of climate from lightning strikes with the increasing urbanization of it.

Formation of timbering techniques and lightning suppression techniques to control forest fires were considered in 1965 at the Arizona Academy of Science. Problems of inadvertent change were dealt with at length in a 1970 conference near Stockholm, Sweden, sponsored by the Massachusetts Institute of Technology. The topic was "Inadvertent Change in the Environment" (MIT Press).

• **WAB 0000**

In the field pattern of the global electrical circuit that is mainly established by thunderstorms, as much as 20% of the global current may stream toward high mountain peaks. This current, supplied in part by natural background radiation, is channeled by mountains and thundercloud movements into the magnetosphere which is also highly ionized. This circuit is then completed or returned to the earth in fair weather areas, generally broad flat lands. (6)

I would like to read some questions and answers from an interview I held with Dr. R. Noble, who is employed by National Center for Atmospheric Research in Boulder, Colorado.

price. In order to maintain an overall circuit all the time it might affect thunderstorm activity somewhere else?

I hope that with this short introduction to natural forces intrinsic to the Colorado Plateau, you will understand the opportunity that the NRC has to assess environmental impacts with more comprehensive and effective data in order to fulfill its function in protection of public welfare and safety. The following are highlights of the report to the Nevada Department of Conservation which I am submitting as Secretary of the Federal Emergency Management Agency. The report was prepared by the weather modification which is the subject of the Secretary's Commerce from the Weather Modification Advisory Board in 1978 is a critical problem.

"Unintended weather modifications" is the name applied to weather changes resulting from actions that are taken with the intent of modifying the weather. Such modifications can occur over areas ranging from one up to thousands of square miles and can last from minutes to years. ... We believe an integral part of atmospheric modification is ... (and) occurring unintentionally as a result of man's land use changes ... These clearly modify the weather, often dramatically, on local ... These unintentional effects are so important and pervasive that an analysis of their scale and nature, and their policy implications, is essential to judgments about a national policy and program for the

In terms of the Technical Criteria, page 5020, Federal Register, Vol. 44, No. 146, I would like to offer some suggestions to you on how your draft CRIS can be a truly comprehensive use of tax monies.

First of all, I would commend any direction on the part of the NRC towards a very conservative set of standards for regulation of uranium mining, milling and reclamation. The issue I am raising today has never

page three

16-Jun-89; EX-00317, PAGE 9 OF 43

Sincerely,
Joan Price/Director
3726 So. 2nd St., W.

REFERENCES

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- Report of the National Academy of Sciences, National Research Council of the National Academy of Sciences, Washington, D.C., 1972.
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- Private Interview with Dr. Lambrecht in Sept. 1978.



Service Employees International Union

LOCAL 105, AFL-CIO • 2701 ALCOCK, SUITE 200 • DENVER, COLORADO 80211
 AFFILIATED WITH: TELEPHONE: 552-1783
 COLORADO LABOR COUNCIL
 DENVER AREA LABOR COUNCIL

October 7, 1980

Susan Vogt, Labor Liaison
 National Commission on Air Quality
 499 South Capitol Street S.W., 2nd Floor
 Washington, D.C. 20003

Dear Susan,

Enclosed as we discussed are documents I am submitting as an Information Study Group Member regarding the impact of energy development on air quality in the Four Corners (Colorado Plateau) area:

1. THE COLORADO PLATEAU: A Meteorological Profile Indicating the Presence of Unusual Air Ionization Conditions and Related Health Effects (C. 1980, Colorado Plateau Project, Joan Price, Director)

The above document was prepared by the Colorado Plateau Project. We wish to draw the Commission's particular attention to the ARIZONA THREE MESA AIR IONIZATION STUDY included in the appendices to this paper. A study of this nature is absolutely essential for the Four Corners Area.

2. One page summary of the above document. We hereby request that this summary be forthwith transmitted to all Information Group Members with a cover letter from your office advising members that they may obtain a full copy of the document free of charge from the NCAQ.
3. Statement of the Colorado AFL-CIO Environmental Task Force regarding the Proposed Oil Shale Research, Development and Demonstration plan.
4. Statement of the Colorado AFL-CIO Environmental Task Force for the preliminary scoping hearing regarding the Environmental Impact Statement to be prepared for proposed development of the Naval Oil Shale Reserves.

- 4 (a). Copy of letter from William Goode, U.S. Department of Energy, regarding our MOSR comments.
- 4 (b). Copy of our letter to William Goode in response.

These documents raise substantive questions regarding the impact of energy development on air quality in the Four Corners area. On behalf of the People of the State of Colorado, it is the public responsibility of the NCAQ to seek answers to these questions.

We trust the issues we've raised in fulfillment of our duties as an Information Group Member will receive the NCAQ's thoughtful attention.

Very Truly Yours,

Jan Bell
 Jan Bell, Information Group Member, Four Corners
 (V.P. and Organizer, Service Employees International Union)

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16-JUN-89: EX-00517, PAGE 12 OF 43

SUMMARY OUTLINE: The Colorado Plateau: A Meteorological Profile Indicating the Presence of Unusual Air Ionization Conditions and Related Health Effects. (C. 1980, Colorado Plateau Project; Joan Price, Director) 73 pages, 32 references, \$5.00

The Colorado Plateau is a distinct geographical region contained entirely within the Four Corners Area and spanning the 37 degrees latitude north line. Recent research in geophysics and cloud microphysics suggests a relationship, possibly a critical one, of its geological features to climatological processes on not only a regional scale but also on a global scale. This relationship affects behavior and growth processes of soil, vegetation, animal life and humans through atmospheric ionization.

The COLORADO PLATEAU (The Four Corners Area) where Colorado, Utah, Arizona and New Mexico meet is a roughly 350-mile diameter circle of tangential fault lines containing the greatest number of high mountain peaks in North America outside of Alaska. The landbase also supports the San Juan Basin Uranium Field and Coal Reserves and an extensive cave system. These four geologic features (faults, high mountain peaks, radioactive mineral deposits, and caves) are all products of land-associated atmospheric ionization processes (the stripping of electrons from air molecules which can give the air a net electric charge derived from proportions between positively charged and negatively charged air particles) which may couple into participation processes.

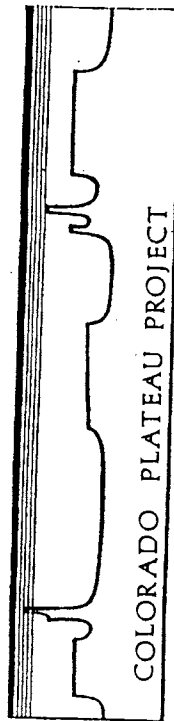
Spanning the 37 degree latitude north places the Colorado Plateau in a significant location in terms of global models of the fundamental properties of the atmosphere. These include the morphology of weather systems, cloud cover and cloud heights; the distribution of water vapor and liquid water; the electrical potential of the ionosphere; worldwide lightning activity; and limits to predictions.

There exists some early indication in popular and professional literature of the 1940's that atmospheric electricity was being considered a possible fundamental basis of biological life. Forty years of research has clearly confirmed this early speculation. The position, possibly a critical one, of the Colorado Plateau in ionization generation calls for a brief review of present findings for humans.

The report suggests a basic model within which bio-electric, bio-chemical life processes are connected to geographically defined regions. Evaluation of this model provides a basis for the collection of data in order to understand the characteristics of air quality and resulting parameters of human urbanization on the Colorado Plateau and related areas.

The proposed ARIZONA THREE MESA AIR IONIZATION STUDY conceived by E.A. Raucher, D.L. Murphy and Q. Chen of the Lawrence Berkeley Laboratories and J.S. Hayes and K. Mullins of Mullins Engineering is suggested as a research proposal in partial evaluation of this model. This study is included in the appendices to the paper.

In view of the research correlating atmospheric electricity to microbiotic, animal, plant and human health and behavior, serious attention is warranted concerning the effect of man-made interferences with the geology of the Colorado Plateau and the implications for weather systems, health, and economy.



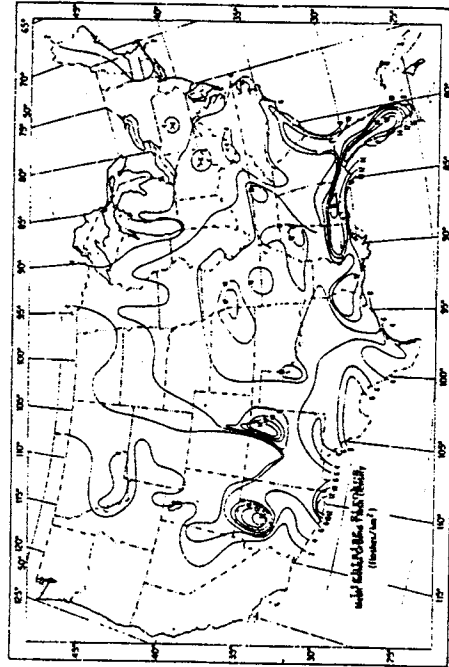
THE COLORADO PLATEAU:
A Meteorological Profile
Indicating the Presence of
Unusual Air Ionization Con-
ditions and Related Health
Effects

Prepared by: Joan Price/Director
Colorado Plateau Project
Prepared for: National Commission on Air Quality
P.O. Box 1000
499 South Capitol Street, S.W.
Washington, D.C. 20003
© September 1980

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Joan Price
Colorado Plateau Project

courtesy Michael Maier
Lightning Protection Systems
Tucson, Arizona



INTRODUCTION

The Colorado Plateau is a distinct geographical region contained entirely within the Four Corners Area and spanning the 37 degree latitude north line. Recent research in geophysics and climatology suggests a relationship, possibly a critical one, of the Colorado Plateau to climatological processes in not only a regional, but also a global scale. This relationship affects such things as the processes of soil, vegetation, animal life and humans through atmospheric ionization.

Among others, Yale geographer Ellsworth Huntington has made a persuasive case that climate stimulates achievement, so great a civilization, he showed, ever flourished in either polar or tropical regions.

The most productive and the most lasting civilizations--along with cities like New York, Chicago, Los Angeles, Amsterdam, London, Paris, Berlin, Rome, Moscow, Peking--all lie within 30 and 60 degrees north latitude.

The most temperate climates for mankind generally are found in these regions, where there are frequent mild storms, moderate rainfall and an average temperature range of 40 to 60 degrees Fahrenheit. (1)

The intention of this report is not to overwhelm the reader with studies, but rather to suggest a basic model within which bio-electric, bio-chemical life processes are connected to geographically defined regions. Evaluation of this model provides a basis for the collection of data in order to understand the characteristics of air quality and resulting parameters of human urbanization on the Colorado Plateau and related areas.

Without this overview and resulting corrections, we see several areas of interference with atmospheric ionization processes that, if not corrected, will lead to severe and accelerating degradation among all aspects of biological life processes and possible extreme changes in precipitation processes on a regional and global scale.

We will first review the geological features of the Colorado Plateau having a role in atmospheric processes. Then we will review evidence supporting the role, possibly a critical one, of the Colorado Plateau within a global atmospheric electrical model and precipitation patterns. From this, we will identify some related growth and behavior processes of plants, animals and humans. Then, with this perspective on air quality, we will identify problems and recommend further areas of investigation.

(1)

1. THE RELATIONSHIP OF GEOLOGIC FEATURES SPECIFIC TO CLIMATOLOGICAL PROCESSES OF THE COLORADO PLATEAU

The COLORADO PLATEAU (the Four Corners area where Colorado, Utah, Arizona and New Mexico meet) is a roughly 350,000-square-mile area of continental fault lines containing the greatest number of high mountain peaks in North America outside of Alaska. The landbase also supports the San Juan Basin Thermo-Hydro Field and Coal Measures and an extensive cone system. These four geologic features (faults, high mountain peaks, radioactive mineral deposits and cones) are all components of land-associated atmospheric ionization processes (the stripping of electrons from air molecules which can give the air a net electric charge) and precipitations between positively charged and negatively charged air particles which may couple into precipitation processes.

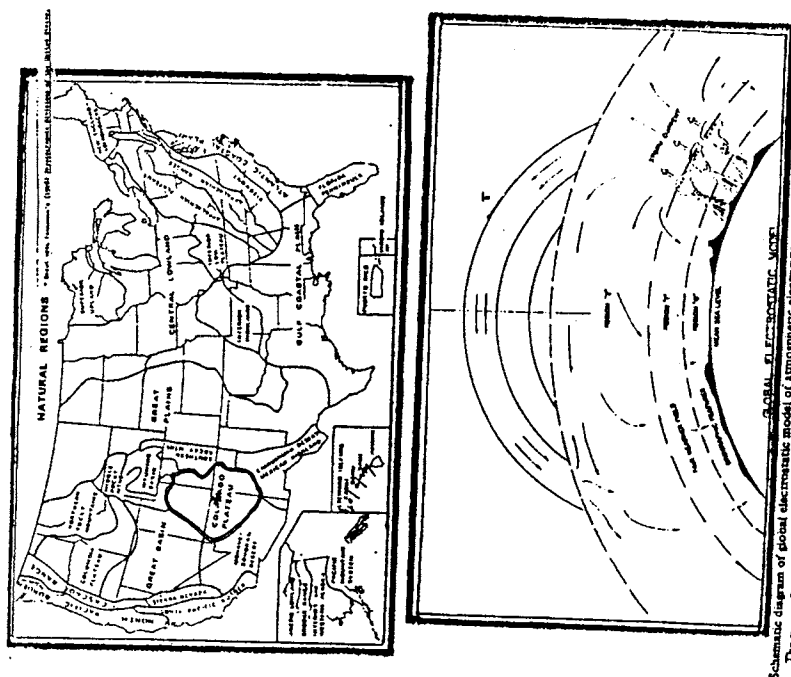
1. Evidence exists that fault lines under certain seismoelectric conditions may contribute ions to surface atmosphere. Tribush (2) suggests that animals behave strangely when they sense electrically charged aerosol particles that are produced by a rich electrical potential changes which occur just prior to earthquakes. Finkelshteyn and Powell (3) suggest that, during the strain of seismic pressure, forces pushing on rock crystals in a large area release radon gas and produce electrical fields. These fields and associated magnetic fields could involve large volumes of space, taking the form of columns of ionized air. The ionosphere is the location of the electric field lines for the electric column did not exceed the mechanical strength of the local rock structures, then an earthquake would never take place.

2. Orographic features (mountain structures) are being shown to be a significant factor in atmospheric ionization processes. Noble (4) suggests that atmospheric conductivity is much greater over high peaks and that as much as 20 percent of the global atmospheric electrical current may stream toward high mountain peaks. (See Figure 2 and Figure 5)

The point or corona discharge from pine trees, lightning and precipitation currents are important charge transfer mechanisms. (See Figure 3)

3. Lightning strikes concentrate on the high mountain peaks surrounding the Colorado Plateau. According to E.V. Komrek, Schultz Pass on San Francisco Peaks in Arizona register "the highest incidence of lightning in North America." (5) Dr. H. Kasamir of the National Oceanic and Atmospheric Administration, 1976, stated by telephone that the Front Range of the Colorado Rockies bordering the northeast perimeter of the Colorado Plateau supported the highest number of lightning strikes on the North American continent. In the same year, NASA reported that the highest lightning frequency in the western U.S. was in the Colorado Plateau region. The most thunderstorm formation seasonally contradictory separately, but when taken all together, these statements clearly correlate to the volcanic perimeter of the Plateau illustrated in a tectonic map published by the American Association of Petroleum Geologists. (6)

(2)



(1) FIGURE 1: From Roble, D.D. CIT.

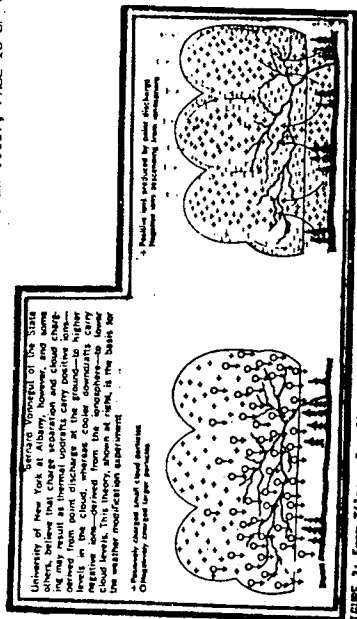


FIGURE 3: From Tilton, D.D. CIT.

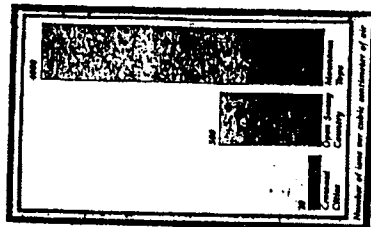
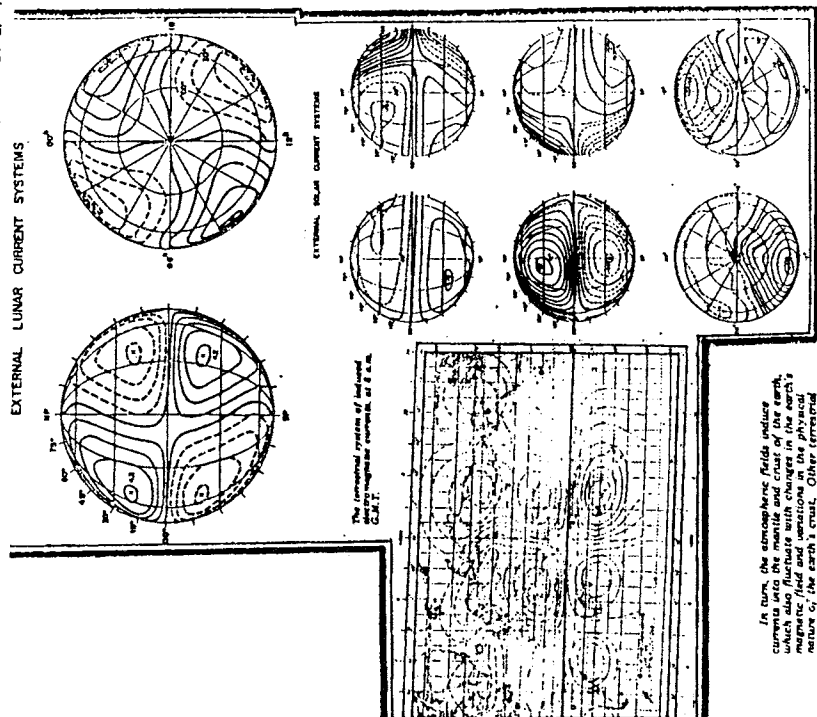


FIGURE 2: From Kostelny, Jr., and Middle, 'Air-Ions-Nutrients in Breathing'



In turn, the atmospheric fields induce currents into the mantle and crust of the earth, which also fluctuate with changes in the earth's magnetic field and variations in the physical properties of the crust. These induced currents are generated by electrical properties of rock and ore bodies, underground and surface water, topography, and other conditions.

FIGURE 4: From Matsushita, Op. Cit., and Sander, Environmental Geophysics Primer, p. 184 (Schocken Books 1976).

(5)

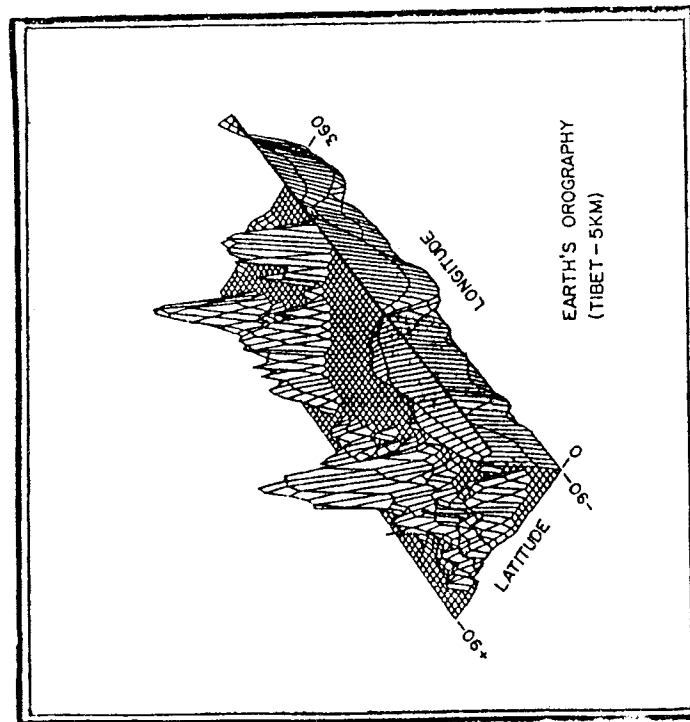


FIGURE 5: From Bable, Op. Cit., p. 127. Figure 17: Perspective illustration of the Earth's orographic surface used in the model. The model gives height averages over a 5° grid in latitude and longitude. The highest point is 5 km over the TIBET PLATEAU.

(6)

4. Radioactive mineral deposits containing uranium and thorium, as well as their decay products (such as radon gas), which are found in the rocks and sand in all parts of world, produce ionization processes in an air layer near the ground, according to Boett (7). Norton and Miller (8) state that within the lowest 2 kilometers, these radioactive gases are as important as cosmic rays in ionizing the atmosphere over land.
5. Cave systems of the Colorado Plateau may be a contributor to ions in the surface atmosphere. The United States Forest Service has recently completed research on levels of radon gas in caves in the Southwest that fall under its jurisdiction. Additionally, all cave systems "breathe" and installation of instruments at well-placed intervals permit measurements of air volume change and concomitant ion flow and atmospheric pressure changes. Sator (9) demonstrated regular air flow into and out of "blowhole" entrances to a cavern system at Huastli National Monument and the base of San Francisco Peaks at the southwest perimeter of the Colorado Plateau. The research part found that ionization due to radon and thoron in caves in which the primary cause of air flow is due to temperature/density gravity gradients increases in the summer and decreases in the winter. Our comparison of these monthly levels of frequency of lightning activity shows the peaks of both to occur in August. Myrup (11) shows the Southwest to have the peaks of both summer and winter temperature inversions (500 feet or lower) in the entire country, about 35 percent of the time in winter and 40 percent of the time in the summer.

This suggests a powerful mechanism for dispersion of ionization through cave/temperature dynamics.

6. Atmospheric ions may be the critical factor in precipitation processes and patterns in the regional and global atmospheric model. Krueger and Reed (12) and White and Peterson (13) suggest that particles dispersed in fog are sometimes highly charged and that introduction of ions materially alters stability in one area of the global model resulting in stress and alteration of charge in other active or passive models. However, are linear and therefore are not capable of duplication of the multiple, simultaneous and mutually interactive events which occur in actual weather. Tilton (14) states that workers in the field of atmospheric electricity and cloud physics have accumulated sufficient evidence to suggest that electric fields, forces the earth's lower atmosphere play a critical role--perhaps the critical role--in the development and behavior of clouds that produce precipitation. His review includes 34 references. (See Fig. 3)

(7)

II. EVIDENCE SUPPORTING THE ROLE OF THE COLORADO PLATEAU WITHIN GLOBAL MODELS OF ATMOSPHERIC PROCESSES

Spanning the 37 degree latitude north places the Colorado Plateau in a significant location in some global models of the "fundamental properties of the atmosphere. These include the morphology of weather systems, cloud cover and cloud heights; the distribution of water vapor and liquid water; the electrical potential of the ionosphere; worldwide lightning activity; and limits to predictions.

1. One of the main sources of global weather patterns are high and low pressure systems. Roberts (15) suggests the possible relation of pressure zone changes in the upper atmosphere to electromagnetic ionospheric processes. The author theorized a column of electrical current and associated magnetic fields generated by the geophysical components of the Colorado Plateau may ultimately reach into the ionosphere. The solar magnetic currents of the ionosphere being modeled by Matsushita (16). This occurs during September and March Equinox. This may provide the direct ionospheric coupling with the appearance of high pressure systems in the 500 millibar zone (just below the ionosphere) north of the 37 degree latitude line and the appearance of low pressure systems south of the 37 degree latitude in the Summer months. (See Fig. 4 and 5)

Additional support for this theory exists by the location of the Tibetan Plateau in Asia. It is north of the equator, opposite to the Colorado Plateau in the Northern Hemisphere and the two highest land masses in the Northern Hemisphere. These may alter the hierarchy in relation to the solar currents of the ionosphere. Noble has identified and-masses in the Polar zones taking this function (17). In addition, the 500 millibar zone manifests high pressure zones north of the 37 degree latitude clearly related to these two lofty land masses.

2. The distribution of water vapor and liquid water on the Colorado Plateau also occur at a distinct position on a global model. Eagleson (18) notes that "surface moisture coverage and thus the surface heat exchange, to a large degree, depend critically on the physical properties of the soil and vegetation as well as upon the weather conditions during the alternate periods of precipitation and evapotranspiration." Buoye (19) and Houghton (20) state the land surface alone returns to the base of the atmosphere by evapotranspiration about 12 percent of the entire earth's precipitation and through latent heat about 17 percent of its total solar radiation. Lee (21) designates the 37 degree latitude as the precast total thermal energy transfer (in terms of absorbed solar radiation and outgoing longwave radiation) to preclude excessive heating in the tropics and cooling near the poles.

Lightning is critical in the distribution of water vapor and liquid water for three reasons: First, lightning equalizes electrical charges in the atmosphere, thus being part of the coupling model. Secondly, electrical storms produce considerable quantities of nitrous oxide, a chemical element for fertile conditions for plant growth and resulting secondary evapotranspiration (return of water vapor to the atmosphere). And, thirdly, it has been (22) documented that a gush of rain shower follows every lightning flash.

(8)

3. A role of the Colorado Plateau as a generator in a global atmospheric electric circuit due to ionization processes from fault lines, high mountain peaks, redox/ventilational deposits and caves has been suggested in Part I. In addition, telluric currents, which flow beneath the earth's surface to complete the global current may be of a unique design within the plateaus, the function of which has not been considered. Spiraling electric currents and associated magnetic fields in the ionosphere induce electrical currents flowing in an opposite spiral direction in the earth's crust that may couple in with the mode in a measurable way. (See Fig. 4)
4. In global comparisons of lagged lightning activity by GPS satellite in 1977 (21) and 1978 (22) the Colorado Plateau at dawn exhibits the lowest level of observable ranges. However, by dusk, activity has jumped to the highest observed levels. During September and October, at dawn, the Colorado Plateau exhibits the highest of all observed areas, dropping slightly by dusk. By November, there is no observable activity (along with dramatic drops in all other areas).
5. Mathematical models of atmospheric predictability developed by Tolstoy and Lorenze may provide a very clear contrast for proposed new elements of the resources and concurrent utilization of the Colorado Plateau. Please see Tolstoy, 1978, "Limitations to the Accuracy of Energy Resource Allocations based on Weather Predictions", David Salstein, NCAR Reprints No. 2347, Boulder, Colorado.

(9)

FOOTNOTES, SECTIONS I AND II

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(11)

III. SOME RELATED GROWTH AND BEHAVIOR PROCESSES OF HUMANS, ANIMALS AND VEGETATION.

There exists some early indication in literature of the 1940's that atmospheric electricity was being considered a possible fundamental factor in the development of biological life. Forty years of research has clearly confirmed this early speculation. The position, possibly a critical one, was first advanced by the Colorado Plateau in contact generation on the for a brief period of time of Present Findings. (Please see also Appendix Two, "The Role of Present Findings in Biological Health and Behavior Impact of Small Air Ions", Science, September 24, 1976, Vol. 192 pp. 1209-1213).

Weather is a form of stress, and changes in it can have stressful effects. The body attempts to maintain equilibrium in its temperature under all environmental circumstances.

In warm weather, for example, blood vessels expand to help the body get rid of excess heat. In cold weather, they constrict to keep warmth in.

This induces changes in blood composition, body chemistry, and in oxygen supply to the brain—which alters our moods and behavior. (24)

1. Atmospheric electricity composed of positively and negatively charged air particles called ions—has been clearly shown to govern the levels of oxygen in the blood (25) and to govern the levels of serotonin, a powerful neurotransmitter in the brain governing mood and anxiety or stress (identified with the induction of 80% of modern illness).

Serotonin has also been implicated in changes in metabolism, circulation, and motor function (27). Atmospheric electricity may also provide a governing mechanism for the human aging process since another neurotransmitter, is closely related to serotonin and has been shown by Sepall (28) to stop or reverse aging processes in experimental rats.

2. Equally important in health maintenance is the role natural atmospheric electricity due to radiation appears to play in the control of bacteria. Saling (29) has shown that concentrations of ultraviolet light, one of the most toxic species produced in aerobic metabolism, are directly related to the rate of bacterial growth. Staphylococcus aureus.

3. Atmospheric electrical currents have associated magnetic fields. Bise (30) reviews research suggesting the hypothalamus-pituitary axis to be governed by electromagnetic fields leading to changes in temperature regulation, heart rate, arterial pressure, heart diameter, myocardial contractility and blood flow in humans.

(12)

4. Electromagnetic effects are not limited to human health and behavior. Brown and Barwell (31) have established that simple biological systems such as snails and planaria readily respond to changes in a weak magnetic environment displaying a degree of sensitivity many times surpassing that required for the organism to become aware of a thundercloud several miles away.
5. Homophores (essential to function of plant life) appear to use magnetic fields to orient themselves. According to Princeton University Professor Gould (32), birds such as robins (controlling insect populations) and gulls (controlling decaying organisms) also appear to be dependent on natural fields for orientation and navigation (33). (34).
6. Furthermore, the relationship of atmospheric electricity and associated magnetic fields to water phases (solid, liquid or gaseous) directly affects plant growth by controlling, for one example, nitrogen fixation cycles.

"Hydrogenation deals with more complex interactions of electrically conducting fluids with magnetic fields. When electrically conducting fluids are in a plasma state (or liquid plasma). A magnetic field has more effect on a plasma than on a conducting liquid of the same conductivity because of the latter's viscosity, or resistance to motion." (35)

7. Yung and McElroy (36) clarify an important source of nitric oxide to be reactions between N and H₂O in the air surrounding lightning discharges. even under conditions where O₂ is a minor atmospheric constituent, such as high mountain peaks. Lovelock (37) identifies the nitrogen cycle as an ammonia cycle to be the atmospheric buffer and the nitrogen cycle as an ammonia cycle to be the atmospheric buffer and the nitrogen cycle as an ammonia cycle to be the atmospheric buffer.

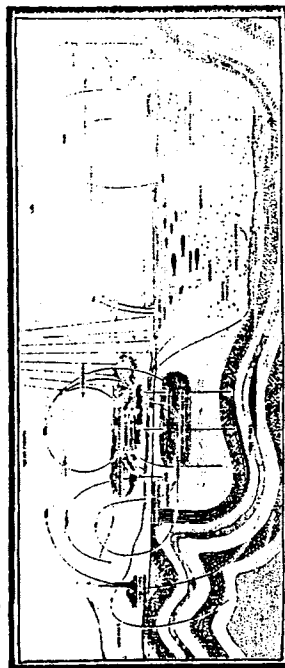


FIGURE 6: Major Cycles of the Biosphere. 6. Ewlyn Hutchinson, Scientific American, Sept. 1970, Vol. 223, No. 3.

(13)

These few examples of the relationship of atmospheric electricity to microbiotic, animal, plant and human health, growth and behavior by no means exhaust the bio-chemical processes controlled by ionizing radiation from solar and radioactive mineral sources over land.

As we noted earlier, the intention of this report is not to overwhelm the reader with studies but rather to suggest a basic model within which bio-electric, bio-chemical life processes are connected to geographically defined regions.

Evaluation of this model provides a basis for the collection of data in order to understand the relationship of atmospheric electricity and resulting parameters of human urbanization on the California and Nevada areas. Without this overview and resulting observations, we see several areas of interference of atmospheric ionization processes that, if not corrected, will lead to severe and accelerating degeneration among all aspects of biological life processes and probable extreme changes in precipitation processes on a regional and global scale.

(14)

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IV. SOME PROBLEMS RELATING TO INTERFERING WITH SOLAR AND TERRESTRIAL RADIATION AND IT'S PRODUCT ATMOSPHERIC ELECTRICITY.

In view of the research correlating atmospheric electricity to microbiois, animal, plant and human health and behavior, various attention is warranted concerning the effect of man-made interferences with the geology of the Colorado Plateau and the implications for weather systems, health and economy.

"In the view of a National Research Council committee, the 'earth sciences can play a unique role....in seeking to establish a better understanding of the complex interrelationships between the earth's atmosphere and the earth's surface. The committee's report, 'The Earth's Atmosphere: Its Structure and Dynamics', published in 1971, states that the need for such a record in better understanding the complex interrelationships between the earth's atmosphere and the earth's surface, there is a need also in understanding the effects of human activities on climate." (39)

Presently, long-standing climatic patterns are suspected to be on the verge of radical change due to human activities that perturb the structure of weather systems. Recent work in fluid mechanics (water and air) concludes that open systems in which a structure exchanges energy with the surrounding environment are self-organizing and maintain a continuous dynamic flow. The simultaneous multiple events of a regional and global atmospheric electricity coupled with precipitation processes are just such a structure. These structures are termed "dissipative structures."

This conclusion comes from the Center for Studies in Statistical Mechanics at the University of Texas at Austin under Dr. Ilya Prigogine.

"The more complex such a structure, the more energy it must dissipate to maintain all that complexity. This flow of energy makes the system highly unstable, subject to internal fluctuations--and sudden change."

"If these fluctuations, or perturbations, reach a critical size, they are amplified by the system's many connections and can drive the whole system into a new state."

"The new state occurs as a sudden shift, much as a kaleidoscope shifts into a new pattern. It is a non-linear event; that is, multiple factors act on each other at once. Prigogine puts it, there is a change in the nature of the 'laws' of nature." (40)

The Austin model neatly dovetails with work also completed under E.M. Lorenz of Massachusetts Institute of Technology clarifying one simple physical message--Unpredictable atmospheric instabilities may occur anywhere, anytime to upset our predictions...This is one of the most important insights of twentieth century science. It imposes limits on our ability to predict." (41)

Foreign particulate matter introduced into the atmosphere has been shown to change ion mobility and electrical conductivity resulting in chemical changes in the atmospheric gases and perturbations of the weather system. Some of the global weather systems' many manifestations are already being altered, some--namely bringing crucial weather prediction closer to total transparency. Large-scale weather changes will have devastating impacts on economies directly or indirectly linked to energy resource allocation (42), food production and distribution (43), and to public and private health.

1. The radiative effects of ozone are expected to provide insight into several general circulation models. (44) In the meantime, the massive use of nitrogen fertilizers and increasing injection of carbon monoxide particles from growing urban and industrial centers threaten to breakdown the ozone layer in the atmosphere. (45) (46)
2. Alarmed scientists have also issued dire warnings about "unprecedented chemical warfare" against the atmosphere due to intolerable levels of sulfur dioxide and nitrogen oxides from industry, resulting in corrosive acid rain. (47), (48)
3. Volcanic dust is another source of particulate matter that is taking on increasing importance as it scatters solar radiation and decreases ion mobility. Coakly (49) suggests that volcanic dust is now seen as being twice as effective in changing the climate as previously thought.
4. Selvam and others (50) and Project Metromex (51) have shown that large-scale urbanization has been associated with permanent changes in traditional weather patterns due to injections of automotive and industrial particulate matter into the local atmosphere.
5. In addition to unprecedented effects that perturb the weather system, there are 195 United States agencies involved in deliberate modification of traditional weather patterns ranging from taming hurricanes to suppression of hail and lightning. (52)
6. All of these perturbations, unprecedented and deliberate, public and private, are unmonitored and unregulated by any overall agency to maintain a check system aligned with the regional or global perturbation of the atmospheric electric system. All of these projects either study existing particulate pollution, or themselves introduce particulate matter into the atmosphere. This either reduces conductivity of the local event, or directly affects the electrification processes of cloud formation or precipitation. (53), (54).

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Roble (55) notes that if resistances are changed in one part of the global circuit, the currents may then have to flow in a different part and thus change the voltage between the earth and the ionosphere because there is a constant voltage level surrounding the earth. A change of conductivity in one area necessitates a balance of change in another to compensate and maintain the overall constant.

We have now noted many of the presently occurring perturbations within the many parts of the weather structure. We have noted that simultaneous events or perturbations will begin to amplify one another, and quickly conform to totally re-ordered "laws" of nature. The Colorado Plateau is facing massive urbanization in relation to extensive future energy development projects revolving around the uranium, coal and underground water natural to this region. We wish now to consider the implications of the following statements by prestigious consultant bodies to development interests, both public and privately funded, for the geology and atmospheric electric processes of the Colorado Plateau region:

"...Perhaps the solution to the radon emission problem [from mining and milling operations] is to zone the land into uranium mining and milling districts so as to forbid human habitation....."

"The National Academy of Scientists recommends that such areas [arid regions such as the Colorado Plateau] either be zoned the burden of mining [Coal], or that they be declared 'National Sacrifice Areas', where reclamation will not even be attempted." (56)

Please see also Figure 7. Wholesale mining and milling of uranium, coal and synfuels, accompanied by the demands for water necessary to these processes can be expected to so severely interfere with the geological processes of the Plateau as to lead to extreme and unpredictable perturbations of the precipitation processes on a regional and global scale. Following is a review of some of the reasons why this is so. Please see also Appendix Three, "Tail of the Dragon", Stavenhagen, RAIN, Aug/Sept. 1978, Vol. IV, No. 10; and Comments on Brett GELIS on Uranium Milling Regulations to the NRC, October 19, 1979, Albuquerque, New Mexico.

7. Several synfuels processing plants modeled after the SASB complex in South Africa are planned for the Colorado Plateau area. (57) Over 20,000 tons of "ash" are discharged per day from one of these plants. In addition, these plants require a considerable amount of electricity supplied by high voltage transmission lines. Rapidly mounting evidence links these lines to interference with electromagnetic fields and ion currents. Moreover, there is an extensive body of testimony on the probable biological effects of this type of interference, some of which we have already introduced. (58) (59)

(18)

FIGURE 7: Projects to Expand Energy Sources in the Western States, an update of Bureau of Mines Information Circular #8719.

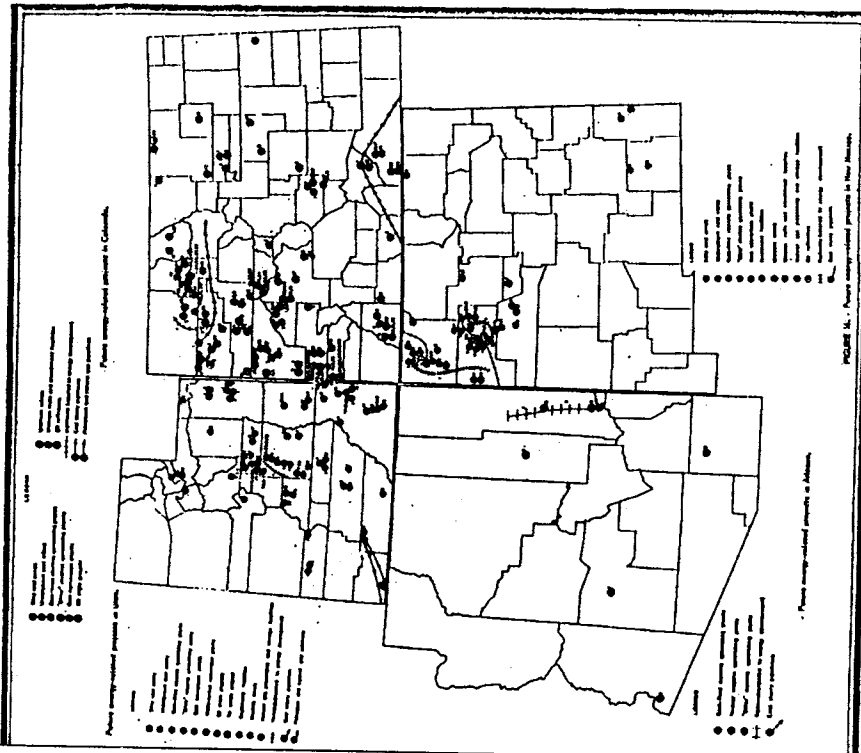


FIGURE 8: Projects to Expand Energy Sources in the Western States, an update of Bureau of Mines Information Circular #8719.

8. Dams will be constructed to retain precious water for processing typhals, uranium and coal projects. These can be expected to trigger the need to utilize atmospheric air (See Figure 8), and release of radon gas which leads to 300% increase in high-reaching columns. Rogers (60) has shown Nevada-Arizona.
 9. Another source of water are two of the three huge underground aquifers on the Colorado Plateau. One of these, the Black Mesa aquifer, has been drained at 2700 gallons/minute for 100 years. This slurry line for the stripping of up to 65,000 acres of land since 1900. This withdrawal is unequal to the natural recharge rate. The San Juan aquifer is slated to begin draining for the same purpose also at a rate unequal to the recharge rate. Persinger (61) states that substantial alteration of hydrologic cycles contributed significantly to the resistivity of subsurface minerals, resulting in increased atmospheric ionization.
 10. In light of the role naturally occurring radioactive deposits take in contributing half of the ions in the surface atmosphere, we must consider the evidence on the effects of uranium mining and milling, nuclear power plants and "Nuclear Energy Parks" upon atmospheric electrical and weather systems.
 11. Nuclear Energy Centers are clusters of 25 to 40 reactors located in "low population zones." Beck (62) states that if the release of 85/Kr from one reactor were to continue unabated, global changes in the atmospheric electric circuit would occur within 50 years. And the Editorial in Electrical World magazine on November 1, 1975 notes that the "possibility that such a concentrated energy source could modify certain types of weather systems in such a way as to create single strong vortices, such as a tornado. New Mexico is likely to proceed with the construction of these energy parks next to Socorro, New Mexico, location of one of the highest concentrations of naturally-occurring lightning on the continent.
- Keeping in mind the source of atmospheric electricity to be radiation, consider the implications of this statement by the Nuclear Regulatory Commission:
- "Uranium mining and milling are the most significant sources of radiation exposure...from the entire nuclear fuel cycle, far surpassing nuclear reactors or high level radioactive waste disposal." (63)
- More than one-half of United States uranium comes from open pit mines, releasing an estimated one to several hundred thousand curies per year per open pit mine. (64).
- This industrialization of a region for a national and global economy, this "sacrifice", may very clearly result in a national and global re-ordering of climate when imposed on an already precariously held self-ordering dynamic.

V. SOME ECONOMIC CONSIDERATIONS

Water and health are the key issues to a flourishing Four Corners region. It would appear that the activities of the Four Corners can better offer their services for "national security" not be serving up the limiting purposes of uranium, coal and water, but by reacting and protecting the area's natural role in maintaining regional and global weather and health systems, at least until they are better understood. The National Air Quality Commission Four Corners Information Study Group is ideally established for this purpose. A re-evaluation of the words "national security" has many stabilizing and cumulative economic advantages, not only for the people of the region, but possibly on an international scale as well.

1. Protection of the Colorado Plateau region would take responsibility maintenance of food production:

"...we must face the uncomfortable reality that for the immediate future, the likelihood of food shortages, food price rises, inflation, and famine will be governed by the vagaries of the weather at least as much as by the policies of agricultural bureaucracies. The issue can be simply stated: The margin between world food production of global food production and demand is so tight, and the level of reserves so low, that even a 1% reduction in global food production can have serious ramifications." (65)

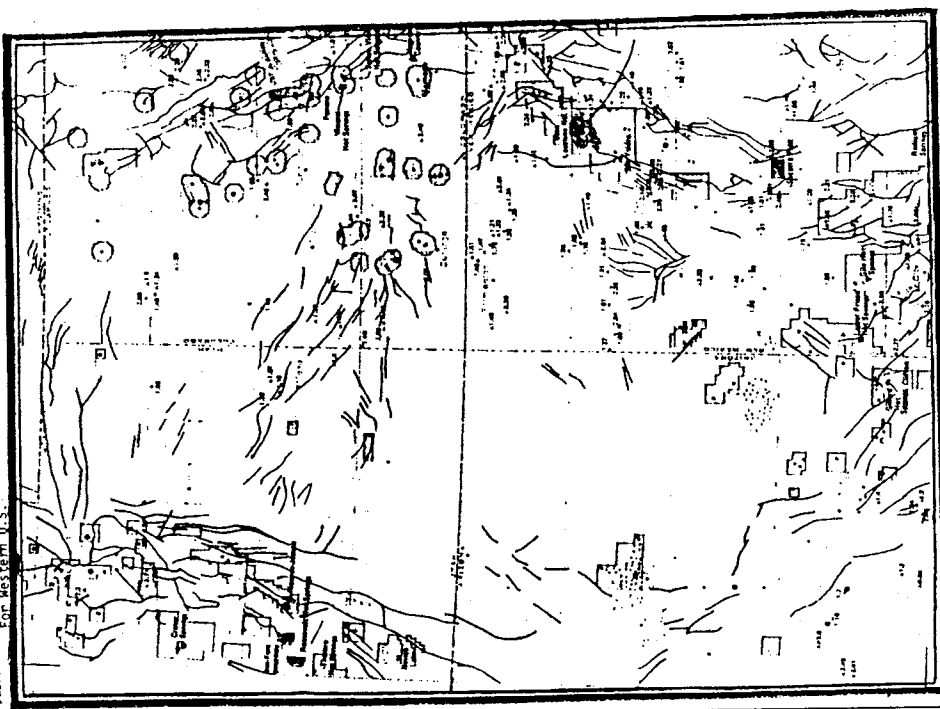
"...nine other biogeographical provinces around the Rockies are to some degree dependent on them for water supply and soil fertility...a base source of food and water for most of the plant, animal and human communities in the Western half of North America." (66)

2. Gardner points out that under present weather modification projects funded by private, state and federal entities to increase snowpack in the Colorado Rockies, the net economic effect...will be to shift taxpayer money from the public treasury to the pockets of the energy corporations which are deeply involved in both mineral development and irrigated corporate agriculture in the Colorado Basin...And much of the "extra" water made available for energy development will be diverted to fossil fuel mines and nuclear reactors rather than used to develop alternatives like solar electrification, for which the area is well-suited." (67)

Please see also Appendix Four: Agribusiness Company Director Interlocks, Southern Exposure.

(22)

FIGURE 8: Fault System of the Colorado Plateau, from U.S.G.S Geothermal Survey



(21)

3. Due to the unpredictability of weather responses, several disasters have already occurred. A flash flood in Rapid City, South Dakota, hours after a Bureau of Reclamation cloud seeding project produced an incredible deluge of about four times the six-hour amount that is expected once every 100 years in that area, killing over 200 people and creating damages of more than \$100 million. South Dakota plaintiffs are suing the Department of the Interior for \$1.7 million for loss of life and property damages. Protection and study of natural weather systems will avoid rampant economic speculation involved in weather modification.

4. Unpredictable and devastating weather events could cause a full-scale nuclear accident. An unexpected flash flood could wash away a radioactive tailings pile. A reactor could be torn apart by an unprecedented tornado or seismic event.

"Federal law sets a limit on insurance compensation for nuclear accidents, and the limit is ridiculously low....\$560 million. [However] a 1957 Atomic Energy Commission study estimated damage at \$7 billion in a full-scale nuclear accident. Seven years later, another government report set the figure at anywhere from \$17 billion to \$280 billion. A more conservative federal study in 1975 still predicted a loss of \$14 billion." (68)

5. In simple dollar expenditure, the Four Corners Area is much less an educated and healthy area as a military area. For example:

"In Colorado, in fiscal 1978...the federal government spent (per person) \$614 on military purposes, \$52 on health care and services, and a mere \$24 on education. Whereas military prime contracts increased 44% between 1976 and 1978, federal financial assistance for health, education, and welfare programs increased 34% in this same period. The gradual squeezing out of human and physical resource programs by the military has signaled the depletion of economic well-being, industry, education, medical care, and in civilian technology." (69)

These economic realities have a direct bearing on the atmospheric ionization of the region. For example, \$6 million to Martin Marietta's Denver Division for the systems definition phase of the 200 land-based mobile MX missiles to be installed in underground cave systems. Military functions contracted by Rockwell International under the Department of Energy run Rocky Flats Nuclear Weapons plant, 16 miles northwest of Denver. Weather patterns over Rocky Flats are already surpassing equipment expectations. Winds have been gradually increasing in velocity until they broke monitoring equipment. The DOE also runs Los Alamos Laboratories, located within and around an extensive cave system. Both this facility and Rocky Flats are now highly radioactive. (70) See also Figure 9: Total Electron Count During and Preceding Skylab Launch in Physics Today, December 1975.

(23)

6. It appears that insurance companies in particular stand to benefit economically by the lack of public awareness about the issue of inadvertent and deliberate modification of weather systems. No one, farmer or citizen, has yet to collect one penny in a suit brought against an act of weather modification, since that falls under the definition "An Act of God" (71) or scientific claims of "unpredictability." In the meantime, in 1974, government research and monitoring operations consumed \$259 million, never to be successfully challenged in court. A 20 year Bureau of Reclamation Project Skywater was estimated at its inception to require \$800 million. These kinds of projects perturb the weather systems without regulation, and are not accountable in court. Insurance premiums are never collected..

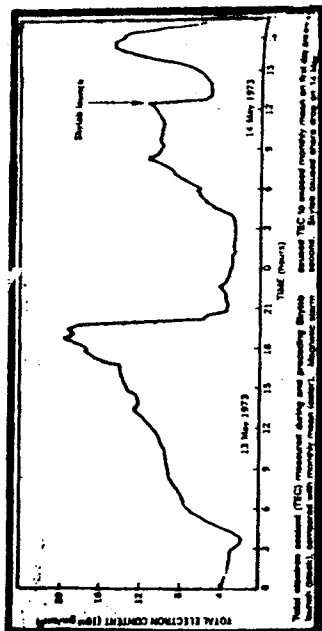


FIGURE 9: From PHYSICS TODAY, Sept. 1975

Addendum: May 1981 Please note also:

Gettler, Dr. John, "Geomagnetism and climate," *New Scientist*, February 5, 1981, page 350-353. "Scientists at New York's Columbia University have found convincing evidence - and an explanation for links between changes in the Earth's magnetic field and changes in climate through the research of Dr. Coenraad Kollin."

Cobb, V.E., Caldwell, B.R., and Weisman, D.L., "Altimeter Electric Field Measurements in Coal-Fired Power Plant Flumes," *National Oceanic and Atmospheric Administration*, 30th and Marine Street, Boulder, Colorado 80303. "The possibility that 10,000 worldwide electrostatic precipitator equipped chimneys might effect the global atmospheric electric climate is discussed..."

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SUMMARY OF APPENDICES TO COLORADO PLATEAU: A METEOROLOGICAL PROFILE

Salstein, David, "Migrations to the Journey of Energy Resource Allocation Based on Weather Predictions," NCR Reprint No. 2947, National Center for Atmospheric Research, Boulder, Colorado.

A margin of error is required for the best energy allocation scheme for weather centers. If this scheme were related to weather predictions as in the atmospheric projections, current predictions have larger errors than verified and thus, the margin of error should be greater.

Author's note: This suggests that there is a problem pertaining to current energy allocation schemes for an urban center in which projections of energy use must be higher than necessary due to unpredictability in weather. Decentralized energy production through, for example, individual solar units, would result in greatly reduced overall consumption, which in turn reduces demand for large-scale energy projects and possible climatic disruption.

Krueger, Albert Paul and Reed, Eddie James, "Biological Impact of Small Air Ions," Science, Vol. 193, Sept. 1976, p. 1209-1213.

Despite a history of contention, there is evidence that small air ions can affect life processes. Two examples are significant: the action of electric organisms and air-ion induced alteration of serotonin metabolism in rats and humans. Serotonin, 5-hydroxytryptamine or 5-HT is a very powerful neurotransmitter capable of inducing profound neuromuscular, endocrinal and metabolic effects throughout the body. It plays important roles in such basic processes of life as sleep and our evaluation of mood. Therefore, the ultimate impact of air ions can be considerable under both urban and natural atmospheric conditions.

Ashe, Steven, "Tail of the Dragon," RAIN Magazine, Aug-Sept. 1978, Vol. IV, No. 10, p. 8-11.

"...the nations electric generating system is being centralized into a surreal 'economy' of scale. Extra High Voltage (EHV) transmission lines capable of carrying huge quantities of electricity are a critical feature of this alleged strategy - they are the tie that binds. If the momentum behind the expanded use of EHV lines continues unchecked, there will be hundreds of thousands of miles of the generation stretched across the country by the turn of the century....

Critic's notes include:

- the serious neglect of the health problems of a high impact technology, and the term consequences rural people as guinea pigs in understanding its long-term consequences
- the churning up of thousands of acres of rural land and local agricultural economies to overfeed electricity to metropolitan areas.
- the patent abuse of eminent domain by large utilities for questionable purposes at the expense of local control, and a widespread loss of electricity by power companies and governments in attempting to build the lines."

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Price, Joan, "Comments on Draft General Environmental Impact Statement on Uranium Milling Regulations," Oct. 19, 1979, Albuquerque, New Mexico.

Very large deposits of uranium are located on the Colorado Plateau at an average altitude of 7000 feet surrounded by mountains peaks at 14,000 ft. and above. According to Dr. Ray Roble at the National Center for Atmospheric Research, is the field pattern of the global electrical circuit that is mainly established by thunderstorms, as much as 20% of the global current may stream toward high mountain peaks. This current, supplied in part by natural background radiation, is channeled by mountains and thundercloud ion movements into the magnetosphere which is also highly limited. This circuit is then completed or returned to the earth in fair weather areas, generally broad flat lands.

Large-scale mining and milling uranium on the Colorado Plateau may lead to changes in local conductivity which would lead to a balance of change in some other part of the global circuit. This may lead to climatic changes regionally or elsewhere especially when considered with other large scale energy resource projects in the same area that also perturb the global electrical circuit.

Agribusiness Company Director Interlock, Southern Exposure

60% of American food costs go to packaging and distribution that rely on petroleum products. Thus energy and chemical corporations have a large stake in food production along with financial institutions. The interlock documents this situation suggesting the widespread financial disruption that can occur with major climate changes.

Indeterminism on this scale "refers" to uncertainties concerning the long-term behavior of the earth's oceans, atmosphere and rocks, impinging upon society's workings in a myriad ways. Debate on pollution, resource depletion, population explosion, economic growth, nuclear power, even the planning of scientific research are all, in some measure, affected thereby. Consider the future of nuclear power. The complexities of this issue are endless: economic, ecological, environmental, social, political, geological problems, and many others, are involved — all embroiled one, willy-nilly, in uncertainties and at times indeterministic phenomena. The pollution problems involved in a nuclear industry alone are staggering; one must be concerned, however, with the dangers and uncertainties ahead, with the likelihood of radioactive catastrophes in the atmosphere, the oceans and the solid earth itself.

By the beginning of next century, a full-blown world nuclear war would be disposing of yearly quantities of radioactive wastes equivalent to hundreds of thousands of tons of refuse. The practicalities of such disposal confront us directly with our inability to make long-term predictions concerning the earth's climatic, underground water flows, ocean currents, or even the climate itself. Yet power of nuclear power maintains they will guarantee confidence of high-level radioactive wastes in geological formations on land or in the ocean bed for hundreds of thousands or even millions of years. This is a case of scientific illiteracy: the concept of indeterminism, it seems, has yet to permeate into industrial and technological circles.

Wrong turnings and technological errors
Civilization is faced today with conundrums for which



Technical solutions may or may not be possible, depending upon the degree of indeterminism one must concede to the phenomena. That indeterminism is present is indisputable; but when does it significantly affect our power to act? In fairness to the technologists and technocrats whose work this is, efforts to face the problems raised by technology have not been lacking — a proliferation of risk-assessment schemes, pollution controls, industrial legislation, technology assessment committees, silent to this. Nevertheless, one must concede the awareness of indeterminism is only marginal. Expert pronouncements on a variety of matters, from atmospheric pollution to radioactive waste disposal, all too often suggest a strictly nineteenth century faith in the technological fix — i.e.,

is forthcoming. Perhaps this is not entirely surprising, for basic theory, pure science is usually well ahead of technology and engineering — particularly when the message is an unenviable one. And the perception of indeterminism in a large-scale, macroscopic phenomenon is surely unattractive to technologists, economists, politicians, engineers, generals, astrophysicists — to all of society's decision-makers.

As far as the final decades of the twentieth century are concerned, the message of this kind of scientific indeterminism is clear: growing uncertainties concerning technical issues cannot be decided on technical grounds alone. This implies, inevitably, the politicalization of technology and, to some extent, the politicization of which, not so long ago, would have been regarded as only technical, to be resolved exclusively by scientists or engineers, may now turn upon values, not numbers.

In recent years, technology has supplied a variety of proof for its inability to cope predictively with the consequences of its decisions. Leaving aside the unsuccessful gropings of economic theory, there have simply been too many technical catastrophes, too many wrong turnings — thalidomide, Sorensen, DDT, industrial explosions, collapsing dams, worldwide pollution — the list is endless. The public, aware of vast threats lurking in the background, is worried and uncertain. Looking across them in the past, it is no longer convinced by the assurances of learned men, brandishing diplomas and strutting to that all is well, because they understand the problem, even if we do not. Perjury expert who tells us not to worry, you'll find one to contradict him, and the skeptical observer must ask himself how to find the truth. The sobering fact is that he won't get it from the truth. The sobering fact is that from their expertise, Presidents cannot be taken on purely technical grounds; logic alone may not win sooner or later, one must make a value judgment or an act of faith.

Indeterminism of principle, scientifically based uncertainty — this is a twentieth century insight. Appearing first on the atomic scale, in the microcosm, it has now spread to the everyday, macroscopic world of science and engineering. While science has endowed us with monstrous power, it is now, ironically, reaching us with restrictions, telling us that our abilities are circumscribed forever by uncertainties we do not control. Perhaps this will be our ultimate perception of the universe — a succession of insights each revealing the limitations of the ones that came before, a sort of philosophical Chinese box, enclosing ultimately some strange, and no doubt unsuspected, pearl of wisdom.



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SIES Cometary

Nancy Nichols
104 Williams St.
Santa Fe, NM 87501

This morning I would like to talk about some of the health risk assessments that the DOE does not fully address. In regard to safe radiation levels, there have been scientific findings made by Dr. Karl Morgan who was the director of atomic health studies for the Manhattan Project and, was for twenty-five years, the director of health physics at Oakridge National Laboratory, a weapons factory. Dr. Morgan concluded that there is no safe radiation level below which exposure is not harmless. Yet, the SEIS document reveals that there will be constant and routine emissions into the air from both the Truport containers and the plant itself. These radiation emissions are being predicted even without an accident. With policies of deliberate release there is an unnecessary risk contributing to increasing disease and immune deficiencies.

Also evident in the SEIS is that issues affecting long term health risks seem to be glossed over. The document makes no attempt to calculate the long term, low dose radiation exposure either to plant workers or the area residents. Additionally, the long term release scenarios predict unrealistically low exposure rates to any future populations. Future populations meaning not only future area human residents but also other forms of life indigenous to that area.

Another deficient assumption made by the DOE is that the isolation of mixed hazardous waste will delay the appearance of contaminants in the accessible environment for "very long times." Should the people of America put their trust in an agency that can only predict that the appearance of radiation will be delayed for possibly only a few generations rather than preventing the leakage forever? It is frightening to think about how such small amounts of a deadly substance can be so harmful to so many people for such a long time. Surely by now we have learned that environmental degradation causes human health problems that can not be necessarily traced.

The EPA standards were drawn up to protect the health of all Americans. Opening WIPP before new safety standards are written and approved would be immoral and irresponsible. Americans are entitled to this protection.

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16-JUN-89: EX-00519, PAGE 1 OF 3

Sisile Kasefield

Box 5307

Smith Fe, NM

87507

I stand before you today, as a citizen concerned with the many unanswered questions that still remain in regards to the Waste Isolation Pilot Project.

There is no doubt that we have an enormous problem as far as what to do with the large amounts of radioactive and hazardous wastes that have ~~been~~ accumulated thanks to our nuclear weapons industry. I am appalled at the Department of Energy's gross mis-management of these facilities and irresponsible actions in regards to intentionally discharging large amounts of these poisons into our environment.

I wonder, how can your conscious be resting at peace when your department deliberately releases these contaminants into the environment by way of pouring them into waterways that provide water for major populations and by burning these materials in incinerators surreptitiously. This is not the 1940's when we were possibly able naive to the dangerous health risks involved in the disposal of these radioactive and hazardous wastes.

32-1

16-JUN-89: EX-00519, PAGE 2 OF 3

The simple fact that plutonium is the deadliest substance known to man and that it is deadly for nearly to one quarter of a million years (which is 7,400 generations) tells me, a layperson, that it is not to be treated with condescension!

The discharge of radioactive wastes into our environment must be stopped immediately. This waste should be held in above ground concrete or steel storage bunkers where the material can be obtained and where it is easily retrievable until neutralization of site can be achieved.

It should not be employed 2000 feet below the earth's surface where it can potentially pollute yet another water aquifer and endanger the lives of millions of people en route to its destination.

It is sometimes hard for us to admit to our past mistakes. The Department of Energy has yet to admit to the atrocities it has performed.

I challenge you to lay your pride aside and humble yourselves to speak the truth about all of the cover-ups of vital reports that show the severe contamination problems that

16-JUN-89: EX-00519, PAGE 3 OF 3

have been created.

I ask you to take responsibility and to become a part of the solution rather than part of the problem.

To fast track the opening of the WIPP site with this out of site out of mind attitude is not acceptable.

It is up to us - the public - to continue to speak out as we see at these hearings and let the nation know that we will not allow the DOE to continue "business as usual".

Susie KaneField

Box 8207

Santa Fe, NM

87504-

3.2.1

3.1.2
3.1.8

P.O. Box 8207 Santa Fe, NM 87504

My name is Susan Cunningham I'm eleven years old and one of my concerns is that my school is Hongale Elementary and it is one block away from St. Francis Dr. Day there was an accident on St. Francis Dr. near my school. Your would you evacuate 600 children safely?

I'm feeling a little frustrated because As a child I shouldn't have to worry about is the air safe to breathe? Is the water safe to drink? Is the food I'm eating laced with toxins and chemicals? Due to the mismanagement of toxic and hazardous waste there are issues that my generation and those to follow will have to deal with. I do not wish to inherit these problems so let's stop making matters worse. Please take responsibility to safely and countless clean up these toxins. My advice to you is to

7.129.3
7.129.436-1
32-1
32-2

*quite producing hazardous
wastes because its killing us.*

*Cherise Cunningham
Hartfield*

3.61
3.61
3.62

Margret Carde
2758 La Sillo Dorado
Santa Fe, NM, 87505

When a ball has been set in motion, momentum makes it difficult either to change its direction or to stop its progress. When 700 million dollars has been invested in a project, momentum takes on a psychological meaning. WIPP has developed a psychological momentum which makes it difficult for the people involved in it to consider alternative ways of toxic, nuclear waste disposal.

Yet, in the WIPP solution we read in newspapers and hear from critics: 1) that the so-called "low level" waste to be buried at WIPP contains plutonium, a single atom of which has the potential to cause cancer and birth defects 2) that any spill or release of waste into the Rustler Aquifer located directly above the site, because of the Karst effect, would cause faster than predicted seepage between the aquifer and the Pecos River just fifteen miles away. 3) that ^{the SEIS} there has been no mention of human error in the loading, unloading and trucking of waste material across miles of populated land, 4) that the pressurized brine reservoir beneath the proposed site might infiltrate and erode the containers; 5) that the plutonium which will be deadly for 240,000 years will only be protected at this site for 10,000 years, and finally, 6) that in no scenario does the SEIS report either predict or deal with the possibility of an accidental release of radioactive material. In short, the SEIS report beattles the very real potential for irreversible destruction of our land and people. *Carde*
There are too many yet unanswered questions to go ahead with even an experimental opening of WIPP.

We need a solution which will take care of all of the toxic waste produced in this country; not only the 19% toxic waste scheduled for

3.1-8
3.2-1

7.3.5.1-12
7.3.5.4-3
7.13.1-8
7.14-10

7.7-3
7.14-9

7.3.5-5
7.7.2-6
7.8.2-1
7.12.6-5
7.14-16

7.14-10

7.3.5.1-14
7.13.3-2
7.14-3

1-2

2.2-2

Cardé Page 2

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storage at WIPP, but also the other BIG waste which is currently being buried in trenches, dumped in streams, rivers, and oceans, and let out into the air we breathe. It would seem that what needs to be done is to find a way of detoxifying the plutonium so that spills, leaks, and human error are moot points.

In view of so many unknowns it would be wise to build above-ground Monitored Storage Facilities so that all the radioactive waste can be ~~watched~~ *watched* for as long as it takes: either until research yields processes for the ultimate destruction or neutralization of the waste, or for the 240,000 years it will need to detoxify itself.

Here in the West we are still close enough to the land to feel the fine, delicately balanced, dynamic ecological systems which preserve life on earth. The following story, told to me by a friend, serves to remind us that destruction of even a small part of any system brings unanticipated disasters.

Who Will Sing to the Rain?

When The People were contained on the reservation, there was much suffering. Every year they would plant corn, and every year the prairie dogs would eat the young seedlings.

Scientists from the Bureau of Indian Affairs arrived to help The People. A council was called and the scientists explained: "We must bulldoze the prairie dog villages in order that the corn might grow."

After each chief was heard, it was the old chief's turn. With respect they handed him the pipe. The old chief sat a long time in silence. Then he

2.2-2
3.6-2
5.3-1

9-1

Cardé Page 3

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sister: "There will be no one to sing to the rain. No one knew what he meant and he did not elaborate, so they voted to bulldoze the prairie dog village."

The next spring the corn was planted and without the prairie dogs it grew well.

Then the rains came. The corn seedlings were swept away in the worst flood anyone could remember. It was then that they understood that the tunnels and burrows and mounds of the old prairie dog village had always before been able to "sing to the rain."

We have what the Chinese call a dangerous opportunity. Because we live in a democratic country, we have the possibility of reversing the WIPP momentum. We know that when we throw something away, there is no away. Waste, especially waste with a life of 240,000 years, goes into the cyclical processes of life on this earth. We must, therefore, find a way to recycle even nuclear waste. We must find a solution which allows the waste to fit into ecological life cycles. a solution which will sing to the rain.

5.3-1

9-1

I represent friends, neighbors, acquaintances & many strangers & community leaders who for whatever personal reasons could not join me today.

16-Jun-89; EX-00522, PAGE 1 OF 3

Ladies, Gentlemen:

I AM ENRAGED!

We have a governor, who has sought to intimidate a segment of our community by economic sanctions... for speaking out against WIPP. His opinion and pro WIPP feelings are personal, not the states'. The State, is We The People and We The People have not been given the opportunity to vote on the WIPP matter. I would like to know Gov. Caruthers can logically conclude that the state is dedicated to the opening of WIPP.

I AM ENRAGED... that the hearings here in Santa Fe are being conducted as they are. I think divisive and perhaps undemocratic that the hearings are being divided into three locations. This splitting allows no one to hear the entire testimony. I as a Citizen of a Democracy demand that an extension of hearings be granted if necessary. We The People have a right to personally witness the entire proceeding of this hearing, if we choose.

Considering all things, the SEIS itself, the attitude of the governor, the FBI investigations at Rocky Flats, the Closure of the Rancho Seco N Plant; which the people demanded by their vote: and a trail of other questionable events within the nuclear industry: I see no sane or logical reason to trust the credibility of the DOE or the nuclear industry itself.

(1)

16-Jun-89; EX-00522, PAGE 2 OF 3

The SEIS we are presently reviewing is not final. Therefore incomplete. I find it to be evasive...idealistic where further information and detail are necessary, counterfactual, and laborious, when a simpler direct numerical figure would suffice.

At this point we cannot be certain which wastes will be destined for burial at the WIPP site. What isotopes are actually to be considered as high level... or low level. If we bury PU239 we are talking a half life of 24,360 years, by elementary calculations. This deadly product we use to secure our economy and war industry, will be in our environment at least 97,440 years... at a minimum.

The entirety of SEIS is questionable: The trumps, the transportation, the ventilation, the emissions, handling of materials, the geology of the site in 5,25, 30 years. the results of investigation of other sites, the list of questions is as infinite as the problems.

We would be fools to proceed with such a project so weakly structured in reality. . Nice-try-but-no-thank-you. This room may not be filled with scientists ... but come we do have an I.Q. and we have a perception of the forest not merely a single vein upon a leaf.

(2)

16-Jun-89: EX-00522, PAGE 3 OF 3

The earth is alive. It doesn't give a damn about our

technology, our political systems, our wars, or any of

our petty concerns. The only truth the earth consistently

exercises is change. Caribad will change!

An Shakenphases' sillique of McReith *So eloquently said:*

Tomorrow, & tomorrow & tomorrow

creeps on in its' petty pace

from day to day

to the last syllable

of recorded time.

Out Out: brief candle

Life is nothing but a walking shadow

A poor player, who struts and frets

his hour upon the stage

and then is heard no more.

It is a tale told by an idiot

full of sound and fury

signifying nothing.

I am sure that must be how the earth sees us. We are, then
we pass. But the legacy we leave for future heirs of this
planet is certainly fear, and eventually death and desecration
in proportions never known to MAN.

It is this generation, the baby boomer, the grandchildren
of the creators of this nightmare that must bare the respon-
sibility and think ahead into time, not 5 years, not 25 years,
or 50 but we must think thousands of years into the future.

3

16-Jun-89: EX-00522, PAGE 4 OF 5

Scientists can be wrong. Remember when the earth was flat?

Ancient Chinese knew by their simple observations that
the earth was round.

Ancient pyramids still puzzle our scientists.

We are arrogant to believe we are superior to all cultures.

Are we going to leave mysterious monuments at all our

possession sites... the poison no matter where or how deeply

buried will always return to haunt and plague mankind.

There is much to contemplate. We cannot rush an answer

through The Indians in the Sonora Mts. in Mexico

have a saying that goes.... GO SLOW LIKE A TURTLE WITH THE

EYES OF AN EAGLE. I think we should take that advice.

It has taken at least forty years to create this dreadful

situation. Haven't enough accidents happened to open the

eyes of the scientific community and their followers? They

are not God! They are not perfect... The common sense of the

common people have gotten us from primitive times to now

and now that the world is in the hands of the scientific

community we face annihilation by the human hand, not nature,

not our gods, but ourselves.

The nuclear industry is a facade, a false front for the DOE.

Department of Energy has little to do with my refrigerator

and everything to do with war, violence, murder. It is

beyond primitive, beyond barbaric to accept any human

sacrifices for prosperity surrounded in a war economy. I

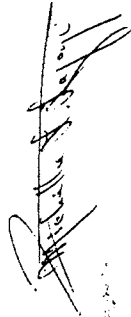
4

16-JUN-89; EX-00522, PAGE 5 OF 5
believe perhaps that is what we have. and any society which
has dealt in death has met its' own destruction.

We this generation must begin to solve these problems now!
However, I do not think burial at Carlsbad is the answer, &
There are to many questions(A having in my family... if in
doubt don't) I doubt the accuracy honesty of SETS. I doubt
the very motives of DOE.

Let each state be responsible for its own wastes and each
state answerable to the people and the EPA. (the only agency
I reasonably trust right now.)

I do not think the people of the State of New Mexico should
be the recipients of another grandiose NUCLEAR RESEARCH
EXPERIMENT. I do not believe this nation needs another
Trail of Tears.



5

N. Lynn Reabody - 1161 Maze Rd. Santa Fe, NM 87501 (EX-00523)

16-JUN-89; EX-00523, PAGE 1 OF 2

Fellow children of the Earth
We all share a common birth
Mother Earth is mother to us all
Never fear the loads, too heavy
Or the road, will never end
Cause the mother's always
got you held firmly in her hand.
A D A
A D A
D A D A E
A D A
A D A
D A D A E

I am just a simple soul
Walking on the land
With something deeply troubling me
I'm trying to understand
Seems the government that I elected
Is poisoning the earth, air and sea
They tell me not to worry and
That's just what's bothering me

I got bored when I write to congress
Don't care to carry a sign
I wonder if these things will help
To change the government's mind
But I really love to sing
Won't you join me in this song
We can share the joy and strength that comes
From knowing we're not wrong

I am filled with awe and anger
At the arrogance of some
Those who claim the stuff is safe
If we bury it in the ground
It's time we took these deadly toys
Out of these children's hands
I say make no more nuclear
Until we understand what to do with it.

*I am filled with hope and power
 When I look into the eyes
 Of the multitudes whose greatest goal
 Is to keep the earth alive
 Everybody's got a part
 So lets live it from the heart
 Do it for your mother and
 All children yet to come.*

3.1-8

7352.4
7354.3

731-2

731.1-9
734-2

732-4

EX-00524

Testimony to The Department of Energy on June 16, 1989.

My name is Geri Jimenez Gould, RT 10 Box 88-T, Santa Fe, NM 87501

Ladies and Gentlemen;

I am speaking as a very concerned citizen and member of the Democratic State Central Committee. This is an issue that not only affects New Mexicans, but also those who live in the cities who lie in the path of truck transport of nuclear waste.

You have admitted that a person in their automobile standing beside a Trupact truck will receive a dose of radiation equivalent to a chest X-Ray. With all the shipments that will be passing through Santa Fe, chances are that a person would be exposed to many doses of radiation, and that is totally unacceptable. One of the guarantees of our Constitution states that a citizen "...shall be secure in property and person". Being exposed to radiation is not my idea of being secure!

Another disturbing fact is you plan to open WIPP in September and the Trupact container has not been certified by the NRC. The tests that Trupact has undergone have not dealt with the crushing of the container, and you have conceded that the dominant accident effect for truck shipments is crush rather than impact.

I feel that the crush test should be mandatory, to give a true accident scenario.

The very fact that the Trupact will be transported by truck, instead of by rail will expose it to more chances of serious accidents, and possible breach of the containers. New Mexico leads the nation in drunk driving. Your own calculations show that fewer fatalities, and less radiation release would result

SEIS/WIPP	(2)	16-Jun-89: EX-00524, PAGE 2 OF 3	Ex00524
were you to maximize shipments by rail. The SEIS document states that recent truck accident rates are not available. Your data is obsolete. Compiled in 1977 it would hardly be relevant today. We have seen an alarming increase in recent years of substance abuse by a larger number of our population. With regard to this fact; we must have current reliable data which I am sure has been kept by the insurance industry. There are untold numbers of hospitals in the 23 states along the WIPP route. These health care providers have not been notified or trained to deal with an emergency involving victims of radiation exposure. Northern New Mexico, Santa Fe in particular will be severely effected economically if there were to be a Trupact accident with or without a spill. We are heavily dependent on the tourist industry. Its effects would be devastating in negative publicity and keep tourists away in droves. For example tourism is 40% off in Alaska as a direct result of the Exxon Valdez oil spill. It would also cause our property values to plummet. The real estate brokers are now recommending a WIPP disclosure statement to potential sellers. Real estate loan portfolios held by local banks and savings and loans could be adversely affected. By-pass routes have been promised to divert Trupact traffic around WIPP affected communities, but the by-passes have not been completed, and the proposed by-pass for Santa Fe is not a by-pass at all, but would be going through a new population growth area,			
		7.3.2.4	7.12.4-1 7.12.4-2 7.12.4-3
		7.3.6.1-3	3.1-3
			32-1

SEIS/WIPP	(3)	16-Jun-89: EX-00524, PAGE 3 OF 3	Ex00524
in fact it will be going 1,000 feet away from my bedroom window! I can't seem to get away from the hot trash! I demand that you comply with all new EPA standards, and I hold with suspicion the entire SEIS document, after reading recent headlines of the FBI's criminal investigation into the falsification of environmental documents, by you, at the Rocky Flats Plant. How can we trust the statements in the SEIS. This is your day of reckoning, the people shall speak, and Congress will listen.			
		7.3.2.4	7.12.4-1 7.12.4-2 7.12.4-3
		7.3.6.1-3	3.1-3
			32-1

Mr. John Arthur
DOE/SEIS
P.O. Box 5400
Albuquerque, NM 87115

June 16, 1989

16-JUN-89: EX-00525, PAGE 1 OF 2

EX00525

Dear Mr. Arthur,

My name is Pete Donaucci. I appreciate the opportunity to express my views on the DOE/SEIS/WIPP project.

First, I would like to read a quote of a Blackfoot Indian (Chick upon being asked for his signature) to one of the first land treated in his region in the NW Territories.

"Our land is more valuable than your money. It will last forever. It will not wear, perish by the flames of fire. As long as the sun shines and the water flows, this land will be here to give life to men and animals. We cannot sell the lives of men and animals; therefore we cannot sell this land. It was put here for us by the Great Spirit and we cannot sell it because it does not belong to us. You can count your money and burn it with fire. We need of a happy life, but only the Great Spirit can count the grains of sand and the blades of grass of these places. As a present to you, we will give you anything we have that you can take with you; but the land, never."

It is easy for me now, a non-Indian, to feel the true sadness, sometimes the hopelessness,

16-JUN-89: EX-00525, PAGE 2 OF 2

often the rage that the Indians must have felt a hundred years ago when they saw their sacred lands, their sun, desecrated, and taken from them. The only decent future for us who live in this country is to establish a right relationship with the land and its resources. Otherwise, the destruction of nature will be followed by the destruction of ourselves. Perhaps after ignoring for too long the cries of Mother Earth, the pollution of her streams, rivers, and oceans and the extinction of thousands of plants and animals, we may have to live in a state of balance, a state of grace.

I believe my voice, my actions do count. This is my legacy. I cannot turn around and run away from it. I have made the choice to leave a better world. I hope and pray you make that choice too.

WIPP must not open until it meets EPA standards. Better yet, let us work together to find a preferable solution other than burying toxic materials in the belly of our mother.

I thank you for listening.

Pete Donaucci

ESQUIVE PIERPONT

LAMY NM 87540

16-Jun-89, EX-00527, PAGE 1 OF 3 (EX-00527)

I want to speak on behalf of the life that is to come, on behalf of children.

I had not yet been conceived when the atomic bombs were dropped on the Japanese.

I was a child of five, sitting under the ironing board while my mother ironed, listening to the Mc Carthy hearings on the radio. I was astonished at the venomous animosity I heard directed toward people who were saying and doing what they felt was good, right, and just.

I was a girl of ten, sitting on the floor of the school hallway, my back against the wall with my coat over my head, hoping against my own better judgement that those groupings around me were right - that my wool coat and the walls of my school would protect me from harm when atomic bombs were dropped on us.

I was a young woman of sixteen, full of anger and despair at the mess of a world bequeathed to me by those who came before. I was determined never to marry, never to bear children.

I live in Lamy. Trains go by our home 6 or 7 times a day. Cars and trucks speed past our community on the designated WIPP route Highway 285.

This morning as we listened to the news about radio active contamination of the community around the Fernald Plant in Ohio, my daughter, who is seven years old, asked me when they were going to bring it here on the trains. I told her what I believe -

31-8

(EX-00527)

that if we do our job they will never bring it here.

I am mother to four children. Four times I have been filled with awe by the love, strength, trust, and promise streaming into this world through my children's new born eyes.

I believe to my soul that every person born is a gift to the earth, with the power and responsibility to nurture and increase the beauty of our planet, our home. The earth is also a gift, to every one of us. It is given to us, to treasure and to protect.

It is our responsibility, as the adults of those present times, to do everything in our power to open our eyes to things as they are, to rectify our mistakes, to clean up our own messes and those given to us by the ones who came before us. It is our responsibility to give our children and grandchildren a legacy of real love and respect, in the air that they breathe, in the water that they will drink, in the earth that they will walk upon.

It is not enough to settle for something that might work maybe if everything goes the way we think it will, because as every parent knows, almost nothing goes the way we think it will. It is not enough to stick our plutonium garbage in a 7 million dollar hole in the ground, cross our fingers and hope we're dead by the time the poisons migrate into the ground water, leaving it to some one else - our children, our grandchildren.

31-8

(EX-00527)
to clean up our mess. 10-Jun-89, EX-00327, PAGE 3 OF 3
It is not enough to settle for TRUPACT
transport that hasn't even been tested
for crush resistance when crushing is
a likely outcome of a truck accident.
It is not enough to put plutonium
high in salt caves for tests, with
the salt close around it, move it through
the earth and say we'll figure out
later how to retrieve it and what to do
with it, if we have to.
This is not enough. Our children, who
are our only future and our earth who
is our home, our mother deserve the best
that is within us. This present plan for
WIPP is not our best. It is incomplete.
It is about expediency, it is about protecting
jobs, not lives. It is about covering up
mistakes not correcting them. It is not
a solution. The DOE's preferred alternative
merely passes on what is our responsibility
to future generations. We have to do better
than this.

16-Jun-89: EX-00528
PAGE 1 OF 4

LAST NIGHT, I READ A STATEMENT
FOR SOMEONE WHO DOESN'T TALK:
RUBBER LADY. WHILE LISTENING TO
OTHER SPEAKERS, I HEARD A
REPRESENTATIVE OF CARLSBAD'S
CHAMBER OF COMMERCE SAY THAT THE
COMMUNITY OF SANTA FE SHOULDN'T
STICK ITS NOSE IN THE BUSINESS
OF A COMMUNITY 268 MILES AWAY:
"WE DON'T TELL THEM WHAT TO DO
IN SANTA FE, WHY SHOULD THEY
TELL US?"
THIS WAS APPALLING. DOESN'T THE
CARLSBAD CHAMBER OF COMMERCE
KNOW THAT NUCLEAR WASTE
RADIATES, PERMEATES EARTH AND
WATER AND THE ENTIRE ECOSYSTEM?
I DO, AND THE COMMUNITY OF SANTA
FE IS ALARMED BECAUSE WE, TOO,
WILL BE HEIR TO CARLSBAD'S
DECISION TO EMBRACE W.I.P.'S
NUCLEAR WASTE.

I OBJECT TO THE CONSENTING
COMMUNITY OF CARLSBAD ~~HAD~~ ^{HAD} ~~BEEN~~
CALLOUSNESS IN ACCEPTING
ECONOMIC DEVELOPMENT GAINED BY
SUCH A POTENT, AND POTENTIALLY
AMPHILATING ENDEAVOR. GAVE YOU
NOTICED HOW MUCH ~~POUCH~~ ^{POUCH} IS
TALKED ABOUT, BY THOSE WHO ARE
IN CONTACT WITH THE D.O.E. I
1 OBJECT TO THE GOVERNMENT USING
PUBLIC LAND... ARISING PUBLIC
LAND... WITHOUT THE PUBLIC VOTE
TO DO SO, AS MANDATED BY THE
FEDERAL LAND MANAGEMENT ACT OF
1976. ~~DO NOT~~ ^{DO NOT} ~~DO NOT~~ ^{DO NOT}

3.1-8

7.3.1-9
7.3.2-2

3.2-1

3.2-1
4.1-3
5.3-1

7.2-27

6.1-1

16-Jun-89: EX-00528
PAGE 2 OF 4

I OBJECT TO RADIATING WASTE CONTAINERS. I OBJECT TO A GOVERNMENT THAT TELLS US THERE IS QUOTE "NO IMMEDIATE HAZARD" CLOSE QUOTE TO A PERSON STANDING, OR PARKED, WITHIN TEN FEET OF A NUCLEAR WASTE CONTAINER FOR HALF AN HOUR. I OBJECT TO THAT HALF HOUR THEY ARE RECEIVING 2 to 38 MORE RADIATION THAN THEY WOULD NORMALLY RECEIVE IN A YEAR. I OBJECT TO A GOVERNMENT THAT CARES SO LITTLE FOR THE PEOPLE THEY ARE PAID TO GUIDE. THE ROOT OF THE WORD "GOVERNMENT" IS suborned to direct, steer. GOVERNMENT TODAY IS FAR FROM IT'S ROOTS, AS THE AMERICAN HERITAGE DICTIONARY DEMONSTRATES. IT STATES THAT THE NUMBER ONE DEFINITION OF GOVERNMENT is "to control the actions or behavior." I OBJECT TO A GOVERNMENT THAT SEEKS TO CONTROL MY FATE. I WAS NOT BORN AN AMERICAN TO BE TRAPPED IN A DICTATORSHIP. AMERICA IS STILL ONE OF THE FEW COUNTRIES IN THIS WORLD WHERE FREEDOM OF SPEECH AND THE RIGHT TO LIFE, LIBERTY AND THE PURSUIT OF HAPPINESS PREVAILS. BUT THIS IS A COUNTRY THAT HAS SPENT THE LAST TWENTY YEARS RUINING ITSELF/THANKS TO OUR GOVERNMENT'S POLICY TO CONTROL AMERICA'S FATE INSTEAD OF DIRECT IT, ALONG THE COURSE/SET BY CONSENSUS: BY TRUE EXCHANGE AND EXPLORATION OF FACTS AND FEELINGS.

3.2-1

7.3.5.2-4
7.3.5.4-3

16-Jun-89: EX-00528
PAGE 3 OF 4

DON'T YOU CARE THAT SO MANY OF US DO CARE ENOUGH, ARE ALARMED ENOUGH, TO TAKE THE TROUBLE TO PROTEST, AND ORGANIZE, AND GO HOME TO WRITE OUR LITTLE SPEECHES INTO THE WEE HOURS OF THE MORNING? WHO ARE YOU? I REALLY WONDER ABOUT THIS, THINKING OF THE HUMANS WHO "GOVERN" US, AND IN PARTICULAR YOU D.O.E. boys and GIRLS...WHAT MAKES YOU TICK? DO YOU HAVE HEARTS? DO YOU THINK OF YOUR CHILDREN'S FUTURE ON PLANET EARTH? AND THEIR CHILDREN'S? ARE YOU REALLY ASTONISHED, AND HARDENED TO THE VIRTUE OF, MOTHERS AND FATHERS WHO DON'T WANT THEIR CHILDREN TURNED INTO CANCER-RIDDEN ADULTS? "ALL GOOD WORK COMES OUT OF STRUGGLE, DOUBT, AND A BURNING NEED TO COMMUNICATE SOMETHING, A BURNING CONVICTION TO PROVE SOMETHING." I DON'T KNOW WHO WROTE THAT, BUT I HAVE EXPERIENCED ITS TRUTH. I SEE THAT THE ISSUE OF WIPP HAS ACCOMPLISHED GOOD WORK FROM US DISSENTERS, AND THESE HEARINGS HAVE BEEN OUR REWARD. BUT I BELIEVE SO LITTLE IN YOUR INTEGRITY...YOU WHO ARE HERE ON BEHALF OF D.O.E., AND YOU WHO GOVERN AMERICA... THAT I EXPECT THIS FORUM WILL BE OUR ONLY REWARD. YOU'LL PUT WIPP THROUGH, COME HELL OR CREEPING SALT WALLS. STILL, BELIEVING IN THE POWER OF COMMUNICATION AS I DO, I RISK HOPE AND ASK YOU:

3.2-1

3.1-8

16-JUN-89: EX-00528
PAGE 4 OF 4

PLEASE DON'T RISK RADIATION!
CHECK IT OUT THOROUGHLY.
AS IF YOUR OWN CHILD WERE GOING
TO STAND TEN FEET AWAY FROM A
TRANSURANIC WASTE CONTAINER.
USE YOUR BEST SENSE OF HONOR.
AS IF YOU WERE SENDING YOUR OWN
CHILDREN TO CARLSBAD TO RAISE A
FAMILY. EACH OF YOU AT THE
DEPARTMENT OF ENERGY, USE YOUR
CONSCIENCE. SOW YOUR DUTY TO
THE "GOVERNMENT!" REMEMBER YOUR
CIVIC DUTY AND STEER OUR
AMERICAN SHIP TO SAFETY.
DON'T W.I.P.P.
OUR KIDS!

3.1-8

1-2

Marcia Brenden
PO Box 175
Durham NM 87627

16-JUN-89: EX-00529, PAGE 1 OF 3

June 16, 1989

W. John Arthur III Project Manager
WIPP SEIS Project Office
U.S. Dept. of Energy
6301 Indian School Road, N.E. 7th Floor
Albuquerque, NM 87110

Dear Mr. Arthur,

Safety and environmental protection have historically been grossly mismanaged and given very short shift by the DOE. As a result, serious problems are emerging at facilities such as Rocky Flats Plant. As WIPP is the first new Federal Nuclear facility to be built in decades, "business as usual" will no longer be tolerated.

There are a number of issues which the recent Supplemental Environmental Impact Statement does not address. In fact, this SEIS is an attempt by the DOE to fast-track the opening of WIPP at the expense of public safety. The draft SEIS is totally inadequate for the following reasons:

(1) It does not justify DOE's preferred alternative of opening WIPP without complying with EPA standards. DOE agreed in its 1984 Modification to the Consultation and Cooperation Agreement with the State of New Mexico that it will comply with all state, Federal, and

3.1-2
3.2-1

2.3.1-2
4.1-3

2.3.1-2
3.1-3

2.

local standards, regulations and laws. The draft SEIS does not explain why WIPP cannot meet the EPA standards before the wastes are emplaced. Without such compliance with health and safety standards WIPP will almost certainly be another DOE facility that will contaminate the environment and cost billions of dollars to clean up.

(2) The draft SEIS must provide the information necessary to evaluate alternatives that are required if WIPP fails to meet the EPA standards. The DOE has not analyzed necessary interim and long-term storage alternatives.

(3) The DOE has not addressed the full range of transuranic or TRU waste problems, especially what it intends to do with TRU wastes that are buried at various nuclear facilities around the country. These wastes are not scheduled to come to WIPP. However, it is the buried wastes, not the stored wastes, that have released radioactivity into the environment, resulting in uncontrolled contamination of soil and water.

(4) The draft SEIS evaluation of public health and safety issues does not justify proceeding with DOE's preferred alternative of opening the WIPP site in September. The draft SEIS states: "...no environmental reasons have been found why TRU wastes could not be left at the Idaho National Engineering Laboratory stored as

2.3.1-2
3.1.2
3.1.32.2.2
5.1.1-1
5.3.11.2.2
5.2.1
5.2.2
5.3.1

3.

it is for several decades or even a century." However, DOE acknowledges that opening WIPP will create public health and safety problems and calculates that there will be 8.3 deaths and 106 injuries trucking wastes to WIPP. While these estimates are overly optimistic, several questions are unanswered by the draft SEIS. For instance:

* * If wastes at INEL in Idaho will not harm the public, why proceed with WIPP which will certainly result in deaths and injuries?

* * Since DOE calculates that deaths and injuries from train transportation are 1/3 of those by truck shipments, why does the DOE plan to use trucks?

* * Has the DOE determined how many deaths are acceptable? Would 20 be acceptable? Would 100 be acceptable? What number of deaths is acceptable to DOE at any site, along any transportation route, or at WIPP??

(5) The draft SEIS does not justify the validity of the 5-year test phase. The test phase emplacement of radioactive waste is a phony ploy to fast track the opening of WIPP.

5.2-1
5.2-27.3.2-1
7.3.2-2
7.3.2-3
7.3.2-4
7.3.2-5
7.3.2-64.1.3
5.1.1-1
7.1.1-1

4.

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6) The draft SEIS prematurely rejects the no action alternative of leaving wastes at INEL, Hanford and Savannah River. No adverse impacts related to biology, land use, air quality, cultural resources, water quality, or transportation are identified at any site. A no-action alternative combined with a clean up program at existing DOE facilities should be considered fully.

7) The draft SEIS inappropriately rejects the alternative action of delaying the opening of WIPP until compliance with EPA standards is demonstrated. DOE's objections are costs. However, the projected costs are much less than costs of bringing wastes to WIPP and then having to retrieve them.

8) DOE has not explained the supposed "national security" implications if WIPP does not open. Although at the Dec. 1988 meeting with the governors of Idaho, Colorado, and New Mexico, DOE officials tried to convince the governors that national security issues were involved, what are these national security implications?

9) The draft SEIS inadequately evaluates transportation problems. Transportation issues affect citizens in 23 states along proposed WIPP shipping

5.2-1
5.2-21.2
3.2-1
5.3-1
8.33.1-3
5.2-1
5.2-2
5.3-1

3.1-4

7.3.2.1-5

5.

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routes. These issues not adequately addressed include reliability of shipping containers (still no certification has been given by The NRC), using trucks rather than trains to transport waste, unrealistically low projected radioactive releases from accidents, and inadequate training and equipment for emergency response personnel.

6) The draft SEIS does not justify proposed administrative land withdrawal. Land withdrawal to allow wastes to be brought to WIPP can only be given by Congress. DOE's application for an administrative land withdrawal is an attempt to circumvent Congress and to avoid meeting health and safety requirements. The DOE should reject DOE's land withdrawal application.

7.3.1-2
7.3.2-4
7.3.2.1-5
7.12.9-1

6.1-1

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 Page 1

Arlene Zekowski

 Arlene Zekowski
 P.O. Box 4086
 Santa Fe, NM 87503-4086

505 983 8484

Testimony given in Santa Fe at Department of Energy hearings,
 June 1989

Before EPA standards have been met and Trupact containers have yet to be approved, The Department of Energy (DOE) would prefer to get underway with its project of 1450 radioactive shipments of nuclear waste from U.S. weapons plants--night and day for the next 30 years via 23, eventually 33-45 states of the United States, across the country to the Westinghouse WIPP (Waste Isolation Pilot Project) facility near Carlsbad, New Mexico.

DOE statistics estimate a minimum of 43 radioactive transportation accidents in the next 30 years. In real terms, this means about 40 "Chernobyls" en route from 23-45 state interstate town and city highways arteries and intersections across the country. Every last radiated cannister and powdered uranium or plutonium particle is capable of contaminating our air, soil, river systems, people and property, business and industrial centers, schools, hospitals, parks, recreation and wilderness areas--permanently and forever, resulting in potential liver and bone cancers, leukemia, sex organ destruction, genetic mutations, birth defects, heart disease, sterility and premature aging.

Plutonium--the chief radioactive contaminant of the WIPP

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 7313
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 7315
 7316

EX00530
 Page 2

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 waste--is the most toxic substance known to man--a carcinogen that remains radioactive for 240,000 years. One pound of Plutonium deposited in the lungs of people throughout the world is enough to kill every man, woman and child on earth!

Over the last 45 years, since WW2, hazardous and radioactive wastes have proliferated without exception at all DOE locations and installations across the U.S., polluting air, contaminating soil, groundwater, drinking water, with several spreading off-site into rivers and streams, including ocean dumping at both the East and West coasts.

According to the U.S. General Accounting Office (GAO/RCED-88-197BR), cleanup estimates of both existing and inactive facilities (including 3,276 inactive waste sites at bomb plants across the country), have now been projected at \$200 billion dollars! Despite Gov.Cecil Andrus claim that WIPP is the answer to our nuclear waste crisis problems, in reality WIPP is designed to hold only 1% of existing transuranic (plutonium contaminated) military waste. This represents less than 1% of all military nuclear waste and less than one tenth of 1% of the nation's nuclear waste.

So what is the solution to the potential radioactive waste holocaust that undermines the peace and tranquility of U.S. citizens, the ecosystem itself, as well as our children and children's children, if we allow further research and development

36-1
 52-1
 52-2
 52-3

7351-8
 7351-12
 7354-3

EX00530

Page 3

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of nuclear bombs when all the civilized world, including West Germany--considers the Cold War and the Nuclear Age at an end! In the U.S. alone, in addition to the 5.3 billion Shoreham Long Island closure, over 100 other nuclear plants have been cancelled or shut down due to safety fears, technical and managerial errors, cost overruns, insurmountable operational expenses--becoming "the white elephants of the atomic age." (See "Nukes No More." Life, August 1988, 22-25.)

If we don't leave Nuclear waste at its respective sites of origin for testing and decontamination, instead of shifting the problem to the WIPP site (in an attempt to sweep underground and out of sight the Dr. Strangelove monster we ourselves have created), then our nuclear development obsession in this country will continue to threaten not only New Mexico but every state of the U.S.

It is time for the Dept. of Energy to fulfill its role as a bona fide "Dept. of Energy" and not the "Dept. of Bombs" that it has become for the last 45 years and more--to accelerate energy alternatives such as Cogeneration (the use of industrial heat to generate electricity), wind, water, geothermal and solar energy. President Carter's Solar Energy Research and Development Program, with Federal Solar Rebates in Housing Construction, dismantled under the Reagan Administration's Oil and Gas Lobbies and the pressures of the Nuclear Industry, should be reactivated and greatly expanded.

Nuclear Power provides less than 6% of all energy consumed in the U.S. and only 17% of our electricity with construction costs

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EX00530

Page 4

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per nuclear power plant \$2-6 billion dollars per single unit. DOE in 1986 spent 60% of its budget on nuclear power, whereas every dollar of subsidy spent on efficiency and renewable energy technology bought 80 times as much energy as a subsidy dollar to nuclear power. Furthermore, each reactor produces approximately 30 tons of lethal high-level radioactive waste per year--and there is no safe permanent way of getting rid of it. (Nuclear Information & Resource Service.)

In New Mexico, it is time for us to encourage and support as our major priorities, education, professional research and development, by way of enlarging our socio-economic potential, so that we can distance ourselves as much as possible, from our dependence on the military industrial complex.

Remember President Dwight Eisenhower's warning to the nation, about 30 years ago when he said:

Guard against the acquisition of unwarranted influence...by the military industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.

As Senator John Glenn has recently observed:

Those who would choose to poison our own people in order to make nuclear weapons should be asked what the weapons are supposed to protect us from.

36-1

3.1-8

16-Jun-89: EX-00531, PAGE 1 OF 3 EX00531

DOE Hearings On the WIPP Project - Santa Fe, N.M. June 16, 1989

My name is Beth Dillingham, I live at 1111 Los Arboles N.W., Albuquerque, N.M. My sip code is 87107. My academic background is in Environmental Studies - Planning and Public Policy. For two years I worked in Environmental Policy Analysis as a consultant to the Federal Headquarters of EPA in Washington D.C.. I worked with the Office of Solid Waste in its Hazardous Waste Division.

My comments are directed to the agency of the Department of Energy and not to you personally. I would like to acknowledge that you have a difficult job. It is late in the afternoon and you have heard a great deal of testimony over a very emotionally charged issue, but I hope you will please bear with me as I discuss six points of concern.

There is an unquestionable crisis in the need for adequate storage of hazardous waste across the United States but the WIPP plan is not safe. This project has failed to demonstrate adequate safety precautions or sufficient study to warrant DOE's plans to open the facility before adequate protections are guaranteed.

1. It is inappropriate for DOE to receive a waiver of the RCRA regulations governing mixed wastes in its application for a no migration petition. Because of the discovery of the brine reservoir underneath the salt caverns and evidence of seepage - it is irresponsible to act on the assumption that there is no potential ground water contamination possible, especially in light of plutonium 239's toxicity for 240,000 years.

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785-2
714-9

EX00531

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2. I demand that DOE demonstrate scientific justification for placing radioactive waste in WIPP to study gas generation by the breakdown of organic wastes in its Performance Assessment Plan.

3. I ask you for a full explanation of why the SEIS report does not address the five year experimental plan.

Concerning Transportation Issues:

- a. I would like the final issue of the SEIS report to document a full explanation of why DOE has chosen to adopt the option of truck transportation of waste which, of the three options discussed, according to DOE's own figures, has the highest potential loss of life associated with it. Please document how DOE accounts for the value of human life versus the economic costs of trucks over trains.

5. Under MEPA, DOE is required to evaluate the worst case scenario in potential transportation hazards. DOE has designated the worst case scenario as the crush scenario with fully loaded Trupak II Casks. Crush tests have not been performed. I call for a halt to the NRC licensing procedure of Trupak containers until crush tests have been completed and demonstrate successful performance, and NEPA Law is fully complied with.

6. Finally I challenge the Department of Energy's capacity to operate a hazardous waste facility safely and legally. For two years I lived twelve miles from the Rocky Flats Plant. While I was there DOE officials constantly assured the public that the plant operated safely and that there were no significant health risks. Recent evidence of the horrible

EX-00532

ROBERT LEVITHAN

136 Daniel Street Santa Fe, NM

WIPP STATEMENT: June 16, 1989

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I am President of The Touch Foundation, Inc. a not-for-profit organization which presents touchable art programs for the visually impaired nationwide. I am also a consultant for a national optical business and work with the issue of support for people with AIDS and other life threatening illnesses, primarily through inner resources.

My life work at this time focuses on VISION. In regards to WIPP I find myself compelled to look at the immediate vision: An ill-conceived and improperly documented plan for nuclear waste transport and storage, and all too many possibilities for 'worst case' scenarios, and the larger vision of how nuclear waste is being produced and why. I believe that the people of New Mexico and Idaho and Colorado and Georgia are now taking a crucial stand against short-sightedness in terms of National and International nuclear policy. We are here not only to stop WIPP and its very real dangers but to question the Department of Energy and to speak our concerns to officials, legislators and the people of our state -- and beyond.

I am very moved by the testimony I am witnessing today and which I heard yesterday. AND, by the presence of so many supporters and speakers.

The perpetration of injustice or in this case, ~~error~~, not only requires error of judgement by the DOE, but ~~at least~~ of us looking the other way. I am heartened that so many of us are not looking the other way. Let us all join in a vision of sane nuclear policy, and let us begin by halting WIPP now.

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EX-00531

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violations and criminal activity including the illegal discharge of radioactive wastes into local water supplies and illegal operation of an incinerator are just a few examples of DOE's incredible mismanagement and abominable performance at federal facilities across this country. DOE has completely undermined my trust and its own credibility as a hazardous waste facility operator. Instead of DOE hearings of DOE's WIPP project - it is more appropriate for full congressional oversight hearing to be held on DOE's capacity to continue let alone initiate new hazardous waste facility operation. Thank You For Your Time

3.2-1

EX-00533

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Jetta Belwunde
829 Dunlap #3
8501 Santa Fe
N.M.

I think there is no safe way to store nuclear waste. Once it is stored it should stay there, because it is even more unsafe to transport this radioactive material.

More money should be spent to find a solution to neutralize the nuclear waste. I have heard that there are already successful alternatives to neutralize it, but it is too expensive.

So it too expensive to save our lives? I was in Austria when the accident in Chernobyl happened.

We got the radioactive fallout and it was scary to ~~know~~ hear following things:
• Make sure your children don't play in the grass or in sandboxes.

• Don't go out of the house when it is raining.

• Try to avoid salad, milk products, berries, wild mushrooms and meat.

Do you want something similar in the USA??

I hope it will never happen to you!

♥ Jetta Belwunde

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3-1-8
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5-3-1

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3-1-8
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5-2-2

EX-00534

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Testimony to the DOE hearings against WIPP
by Jonathan Crews

1880 Plaza del Sur #104D
Santa Fe, NM 87505

After reading extensively the information presented for and against the WIPP project as well as listening to hours of testimony by authorities stating the short and long range dangers of the WIPP project I wish to express my apprehension and disappointment over our nation's attitudes concerning nuclear power and disposal of nuclear waste. Nuclear power has proven unsafe with too much room for error and too many dire consequences if any error that may occur. I feel our country and our world should reconsider its use of nuclear power as a source of energy and weaponry. I also wish to express my feeling that our country should invest extensive money not in finding temporary solutions centering around storing waste but in finding real solutions to neutralizing these wastes. We should swallow the \$700 million that we've invested in the WIPP project and other such ill conceived and poorly executed stop gap measures regarding nuclear waste and look toward ways to permanently neutralize and clean up the problems created by Nuclear Energy. Thank You.

Jonathan Crews

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3-1-8
5-2-1
5-2-2
5-3-1
5-3

GEORGIA: THE STORY UNFOLDS

A 21 inch-long stainless steel capsule that leaked radioactive cesium at the Radiation Services, Inc. (RSI) facility in DeKalb County, Georgia last year was never intended to be used commercially, according to groups investigating the accident.

This capsule and hundreds of others like it were designed and manufactured from the storage of radioactive waste from the production of nuclear weapons. They were never designed for use in a commercial irradiation facility. After brief testing, which federal officials now acknowledge as probably inadequate, the capsules and their cesium contents were shipped to RSI and used to sterilize medical supplies and other commercial products.

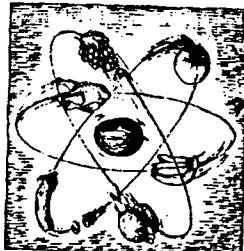
Dr. Ronald Halgren of the Department of Energy (DOE) and Jim Seiser, chairman of a state task force on the accident, agree that the six month test—which cost millions of dollars and contaminated products—may have been caused by the methods used when DOE loaded the capsules with cesium or by imperfections in the cesium. DOE apparently had about three potential problems years before the leak in the capsule.

As the task force reported (ENR No. 13, March 1987) originally reported (ENR No. 13, March 1987) DOE safety was recommended by the Nuclear Regulatory Commission's Office of Nuclear Material Safety and Safeguards.

DOE representatives on behalf of RSI which was in danger of suffering financially if testing was continued, the bill was originally specified. The RSI facility originally was to use cobalt supplied by Atomic Energy of Canada Limited (AECL). In this instance, however, AECL did not or could not ship the cobalt. According to Dr. Halgren, the DOE was happy to accommodate RSI because it was looking for firms that would use cesium. To insure prompt approval of cesium during its license review RSI assured the Georgia Department of Human Resources (DHR) that DOE had the equipment to isolate and remove any leaking capsules quickly. It turned out that this equipment actually had to be built after this leak was discovered.

The two bulging capsules that were removed from the pool of water are presently at DOE's Oakridge National Laboratory. Only one is actually leaking but they still cannot find the exact point of leakage. In fact the capsule is

changing shape as they investigate it. A research scientist at Oakridge reported to NCSRF that they really don't know what's happening to the capsule. They don't know what it will look like from one day to the next.



The investigation at Oakridge found that when capsules identical to those at Decatur are partially filled and then tapped off they buckle. DOE must know that the capsules in Georgia were in fact partially filled and then tapped off. The buckling container does show signs of buckling.

THE IRRADIATION INDUSTRY HALL OF SHAME

Part 2 of 2 parts

This is part two of a chronicle of significant events in the irradiation industry. It covers the events, incidents, and accidents reported in the industry from 1980 to 1987.

As employees at the Radiation Technology, Inc. (RTI) facility entered the radiation cell following a change of shift, not knowing that the 500,000 curie cobalt-60 source was unshielded. This occurred as a result of management's decision to save time by operating the facility with interlock and safety systems dismantled. The worker received an estimated 130,000 and whole body dose.

Take dislodged source and starts fire. North Canaan, Connecticut May 14, 1981

Aluminum tines jammed into the source rack at the Beckton Dickinson facility in North Canaan, Ct. Operators were unable to raise and lower the cobalt source manually. Even though the control panel indicated that the cobalt was lowered, radiation levels in the cell remained high. Eight days after the incident smoke came from the cell and activated sprinklers. Technicians called in from Atomic Energy of Canada Limited (AECL), suppliers of the cobalt, managed to lower the source, but in doing so knocked several cobalt-60 containers from the rack. Using long handled tools and mirrors the technicians were finally able to return the containers to the source rack.

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IRRADIATED SPICES USED IN BEATRICE/HUNT PRODUCTS



Unlabeled irradiated spices are already used in soups, frozen dinners, and other products, according to a recent newspaper article in the Seattle Post-Intelligencer.

One company which admits to using irradiated spices is Beatrice/Hunt Foods, Inc. If you don't like having irradiated spices "beatrice" into your diet, write or call Beatrice/Hunt Foods.

You might see this as an opportunity to talk about your feelings on finding out you have unknowingly been eating irradiated food. Information from *Common Worker-Cliffs*

CONSUMER ACTION

In issue Number 13, March 1987 we wrote about the Food Marketing Institute (FMI) and its promotion of irradiated food.

According to its Vice-President, Dr. John Pennington, FMI has 1,500 member-wholesalers and retailers who operate approximately 17,000 supermarkets with an annual sales volume of \$180 billion. This accounts for more than half of all grocery sales in the United States.

In light of the above information our ally in New Jersey, Food and Water, is calling on all food irradiators to contact FMI chairman Allen L. Blumberg.

Following: (1) You need to let him know the safety of the food you eat and what ever you purchase irradiated food. (2) You will shop at a supermarket that sells irradiated food and you will urge your friends to do likewise. You can address your letter to:

Allen L. Blumberg, Chairman of the Board
Food Marketing Institute
1738 K Street, N.W.
Washington, D.C. 20006

Information supplied by Michael Cady of Food and Water.

LEGISLATIVE SUMMARY 4/15/89

There has been legislative action on federal, state, and local levels. The following is a brief summary of federal and state action. In the next issue we will deal with local legislation and local action. It must be remembered that from four years ago few people other than proponents were even aware of food irradiation while presently there is legislation pending in eleven states and at the federal level. Food irradiation legislation introduced in 1984 will be reintroduced in 1989 on both the federal and state levels. Over 100 federal legislators have co-signed the Food Irradiation Safety and Labeling Act and consumer action is growing. The connection of food irradiation facilities has been completely and the associated decontamination facilities. Under moving public pressure the DOE has all but given up on the use of cesium in the plant for the sterilized decontamination facilities. In the national level we have been successfully sides to Representative Douglas Berman and Senator George Mitchell that they will reintroduce the Food Irradiation Safety and Labeling Requirement Act in the House and Senate respectively.

In May of 1987, Maine became the first state to pass legislation prohibiting the sale of irradiated food within the state. Exceptions were made for spices when the spices are an ingredient in food. Activities in Maine are planning to introduce new legislation to prohibit the irradiation of food within the state and to ban irradiated food from being brought into the state.

In June, Vermont passed a bill that would prohibit the sale of irradiated food. The bill is titled "Treated with Irradiation" or "Irradiated Food." It must be on the label, no matter what the FDA requires. In 1984, a bill similar to Maine's was introduced in the Vermont House but did not get out of committee.

In 1988 New Hampshire introduced a bill in both the house and senate. It differed from the Maine bill only in that foods containing irradiated spices must be as labeled. The bill passed the house but was killed in the senate. It will be reintroduced in January of 1990.

Washington activities have recently received to court action to keep the demonstration irradiation plant for its name (see article this issue).

The bill, HB 1000, did not get out of committee.

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Information provided by News Center, NCSRF.

In June, 1984, a bill was introduced in the Massachusetts house but did not get out of committee. Reintroduced this year (1988) and is presently before the Senate Ways and Means Committee.

In 1986, New Jersey reintroduced a bill in both the house and senate, prohibiting the sale and distribution of irradiated food with the exception of irradiated spices. The measure was "jettisoned" by the governor. It was reintroduced in 1988, passed in the senate and the bill is presently on the assembly calendar to be voted on. An important new factor this time around is that the chair of the Department of Health, Dr. Molly Corp, who last year had recommended that Governor Kean veto the bill, has changed her position. She now recommends he pass the bill to ban food irradiation for two to four years while the state of New Jersey and the FDA study the safety of consuming irradiated food and the safety of irradiation facilities.

In 1987 New York introduced a bill in the assembly similar to that of New Jersey. The bill passed through committee but did not get to the floor for a vote. The same bill was reintroduced this year by prominent members of each house.

In 1987 a bill prohibiting the retail food store and restaurant sale of irradiated food was introduced to the Pennsylvania house. It did not get a vote.

In 1987 a bill passed the Minnesota assembly, only to be killed in the senate. The bill was reintroduced this year but voted down in committee.

A 1987 a bill was introduced to the Oregon assembly, amended in committee but never got to the floor for a vote. A bill introduced in Oregon did not get enough legislators. A new bill was introduced to the senate this year and is in committee. Both the chair and vice-chair of the committee favor the bill.

In January of 1989 the state of Washington introduced a labeling bill in the legislature. The bill, HB 1000, did not get out of committee.

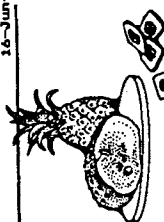
Washington activities have recently received to court action to keep the demonstration irradiation plant for its name (see article this issue).

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Information provided by News Center, NCSRF.

Perseverance is the key word. The movement is on.

15-JUN-89: EX-00535, PAGE 5 OF 8



HOT SPOTS

Our research has uncovered six new hot spots in the food industry. These are located in the following areas: 1. The Food and Drug Administration (FDA) is currently reviewing the safety of irradiated food. 2. The National Cancer Institute (NCI) is currently reviewing the safety of irradiated food. 3. The National Institute of Environmental Health Sciences (NIEHS) is currently reviewing the safety of irradiated food. 4. The National Institute of Health (NIH) is currently reviewing the safety of irradiated food. 5. The National Institute of Standards and Technology (NIST) is currently reviewing the safety of irradiated food. 6. The National Institute of Food and Agriculture (NIFA) is currently reviewing the safety of irradiated food.

A SURVEY OF FOOD MARKETS

Letters were recently written by NCI to 37 of America's top food stores to assess their policies on food irradiation. The stores were asked if they would carry irradiated food and what was the reasoning behind their decision. Within three months we received 18 responses. The following is a brief summary:

Shaw's, Supermarket of East Bridgewater, Maine was the only one of the eighteen that had prepared a position paper on the issue. Shaw stated that "the present consumer climate has been one of resistance," and that it decided not to carry any irradiated products. Shaw's, which has named its store "Maine Market," has no intention of carrying irradiated food.

The strongest statement was made by the Northern California division of Alpha Beta, proclaiming that it "has no present or future plans to sell any such irradiated (irradiated) food."

Eight other stores and they have no present plans to sell irradiated food. The common reason being that they would rather err on the side of caution until there are more answers concerning the complete safety and acceptance of irradiated products.

Five of the stores had not developed any policy. Essentially they felt that because there were no labeled irradiated products commercially available they would wait and see their position if and when that came about.

AAP of Monrovia, New Jersey, responded that it would consider carrying irradiated food only after the Food and Drug Administration (FDA) demonstrates to its satisfaction that such food is safe. Stater Brothers Markets of Colton, California sent one step further by stating that it would only stock irradiated food if it were certified safe by the FDA, and the United States Department of Agriculture.

HELP TAKE THE PORT TO COURT

In March, 1989, the Washington Environmental Council (WEC) and five local residents challenged the legality of building a food refinery at the Port of Puget Sound, Washington, without completing an Environmental Impact Statement (EIS). The port authority would house 3 million cubic feet of radiators, which would be transported from 1000 miles away to the refinery.

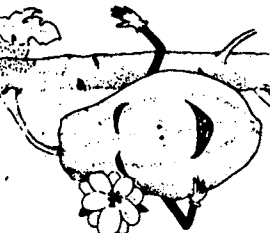
The Columbia River Refinery, which would be built on a 100-acre site in the Port of Puget Sound, would be a food refinery for radiators. WEC has agreed to fund for receiving contributions for the refinery.

WEC, Puget Sound Food Refinery, 4018 University Way N.E., Seattle, Washington 98105

Information supplied by Center Wheeler of CUPES.

Information by Ericine Albrecht, NCI

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NCSFI INC.
NATIONAL COALITION
P.O. Box 98,000 San Francisco, CA 94119

PO Box 180488 San Francisco, CA 94139

Phone: (415) 626-2734

May 1989

Dear Friend:

Stopping food irradiation is more important today than ever before. In April 1983 highly radioactive cesium-137 began leaking at an irradiation facility in Decatur, Georgia, near Atlanta. This facility irradiates medical supplies, packaging and food items. The leak was not detected until June. Three workers were exposed, two of them also contaminating their cars and homes. The plant's administrative offices were also found contaminated. The facility has been closed since then and millions have been spent to clean up the site. The clean up is still far from over; the source of the leaking cesium was not even located until late December.

Radioactive products are circulating in the marketplace right now. Irradiated milk cartons, eye lens solution cartons, and other containers were shipped to market before the leak was discovered. Many of these containers were contaminated when they were accidentally splashed with radioactive water. Common sense dictates that these containers, estimated to be around 70,000 in number, would be recalled. But they were not. Only about 900 containers were retrieved, less than two percent of the total. Consumers were exposed to significant radiation without any knowledge or warning!

The National Coalition to Stop Food Irradiation wants to know:

1. Why is it that the FDA did not order a complete recall?
2. Who in the FDA made the decision not to do a complete recall?
3. Why are two other cesium-tubed irradiation facilities allowed to operate normally when the Nuclear Regulatory Commission now knows that the cesium rods are not sound?

[illegible]

DOE knew plant spewed N-waste, committee says

WASHINGTON
A House committee says the Department of Energy (DOE) knew for years that a plant in Ohio was spewing nuclear waste into the air, but did nothing to stop it.

The committee, which was set up to investigate the problem, said it found that DOE officials had been aware of the problem since the late 1970s. It said that DOE had failed to take any action to stop the plant from operating, even though it knew that the plant was spewing large amounts of radioactive waste into the air.

The committee also said that DOE had failed to provide the public with information about the problem. It said that DOE had kept the public in the dark about the extent of the problem and the risks it posed to public health and the environment.

DOE knew Ohio plant was hazard, panel says

WASHINGTON
A House panel says the Department of Energy (DOE) knew for years that a plant in Ohio was a hazard to public health and the environment, but did nothing to stop it.

The panel, which was set up to investigate the problem, said it found that DOE officials had been aware of the problem since the late 1970s. It said that DOE had failed to take any action to stop the plant from operating, even though it knew that the plant was spewing large amounts of radioactive waste into the air.

Are these the people New Mexico wants to trust with WIPP?

Storing Nuclear Waste at Reactors Is Called Safer Than Quick Burial

By MATTHEW L. WALSH

A new study of how to dispose of highly radioactive wastes concludes that storing the waste at nuclear reactors is safer than quick burial in deep geological formations.

The study, conducted by the General Accounting Office and the National Academy of Sciences, found that storing waste at reactors would be safer than quick burial because it would allow for better monitoring and control of the waste.

The study also found that storing waste at reactors would be more cost-effective than quick burial. It estimated that storing waste at reactors would cost about \$100 million per year, while quick burial would cost about \$200 million per year.

The study was conducted in response to a request from the House of Representatives. It was one of a series of studies conducted by the GAO and NAS to investigate the problem of nuclear waste disposal.

The study found that there are a number of risks associated with quick burial of nuclear waste. These risks include the possibility of leaks from the burial site, the possibility of contamination of the surrounding environment, and the possibility of human interference with the waste.

Storing waste at reactors, on the other hand, would allow for better monitoring and control of the waste. It would also allow for the waste to be stored in a more secure location, away from the public and the environment.

DO NOT CONSIDER THIS?

A Citizen's Guide to Rocky Flats

Environmental and Safety Issues At the Nuclear Weapons Plant

By Marcia Klotz



Published By Rocky Mountain Peace Center

Steam Cleaning' Works in Test

New Way to Get Rid of Toxic Wastes

By David Perlebaum
Cherokee Tribune Editor

Cleaning up the poisoned mud and water around the site has cost the contractor the state's \$10 million Superfund program.

They have barely "made it" yet. They are still in the "newbie" phase of their careers. They have barely "made it" yet. They are still in the "newbie" phase of their careers.

Soil Samples
The oil field system involves excavating a field with horizontal wells. The oil is pumped out of the field and then is processed.

Multiple Endocrine Problems

A recent EPA survey estimated that a third of the country now has a family doctor, and that one in five has a general practitioner. This is a significant increase, in addition to the far larger number of family doctors in the age group 40-49 years.

Before the 1960s began, and even in the 1970s, the average man in the UK up to 40 years of age had no family doctor, and no physician, no nutrition expert, no psychologist, no dentist, no optician, and there were no different types of specialist. The only person he could go to for advice was the village or town doctor, who was a generalist, and was not a specialist in any one of the various systems.

The requirements at the time of the survey were that the General Services Co. should be able to provide a service that was as good as the best available, and that it was as good as the best available, and that it was as good as the best available.

San Jose Text

In the San Jose experiment, Udeli and his colleagues say, they have removed virtually all the material "chassis" from the method.

After five days of intense injections, the soil samples registered a 50 per cent reduction — a level considered possible by conventional chemical fumigation methods.

One such task this year under consideration for the team is to prevent Udeli's soil as an alternative to chemical fumigation near a contaminated site.

CY's special interest.

lead's Chandra, where underground tanks have left a rainbow of hexachlorobenzene and styrene in the soil and groundwater in the experimental area at the plant.

[illegible]

vice in Los Angeles.



Aerial view of Rocky Flats

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the Rocky Mountain Peace Center.

A Citizen's Guide to Rocky Flats

"There's Good News Today, U.S. To Build \$45 Million A-Plant Near Denver." This Denver Post headline of March 23, 1951, announced the birth of what was to become the only plant in the United States to manufacture plutonium triggers for hydrogen bombs. It also marked the beginning of a highly complex, forced relationship between a U.S. nuclear facility, the workers who staff it, and more than a million residents of the nearby metropolitan area.

Mass production of nuclear weapons was a new concept in 1951. The Los Alamos facility had served both the research and production needs of U.S. nuclear development up to that time. In order to allow Los Alamos to concentrate strictly on research, the Atomic Energy Commission (AEC) was developing a complex of facilities across the nation to build nuclear weapons.

The AEC's criteria for choosing a site included a western location; a dry, moderate climate; a dependable power source; the proximity of a population of 25,000 or more; and an attractive environment. Rocky Flats was chosen over 35 other sites.

To avoid a public health risk resulting from a nuclear acci-

dent, the AEC needed a location downwind of any dense population. The Rocky Flats site seemed safe because wind measurements at Stapleton International Airport showed prevailing air currents blowing from the south, from Denver towards Rocky Flats. These initial readings were incorrect. Winds coming from the mountain canyons to the west of the plant do not follow the same patterns as those at the airport. In general, air currents leaving Rocky Flats blow to the east or southeast — often towards downtown Denver.

The AEC originally contracted with the Dow Chemical Company to operate Rocky Flats. The facility's contract passed from Dow to Rockwell International in July 1975. That

same year, administrative authority also shifted from the AEC to the Energy Research and Development Administration (ERDA). The Department of Energy (DOE) replaced ERDA in 1977 and has regulated the plant since then.

Rocky Flats has grown significantly since it began full-scale operations in 1953. The original \$45 million price tag has ballooned into construction expenditures of \$250 million. U.S. taxpayers now pay \$450 million each year to operate the plant. Rockwell International's work force has grown to over 5200 (as of February 1988) from Dow's initial payroll of 200. And more than 100 buildings now occupy a site that started out with only 20

Plutonium found in Flats area residents

Investigative staff Bureau of Health, State of Colorado





The button of plutonium weighs ten pounds. This is the form in which it is shipped to Rocky Flats from Hanford and Savannah River. It is then machined into triggers. More than a ton of plutonium is "missing and unaccounted for" according to the General Accounting Office.

Rockwell International The Two Missions of Rocky Flats

Rocky Flats is a small town of 1,000 people. With \$12 billion in federal contracts, it is one of the most important nuclear weapons production sites in the United States. It is also one of the most important sites for the production of plutonium, a key ingredient in nuclear weapons. Rocky Flats produces plutonium for the production of nuclear weapons. It also produces plutonium for the production of nuclear reactors. The production of plutonium is a complex process that involves the use of nuclear reactors and chemical processing. Rocky Flats has been producing plutonium since 1953. It has produced more than 100 tons of plutonium for the production of nuclear weapons. It has also produced more than 100 tons of plutonium for the production of nuclear reactors.

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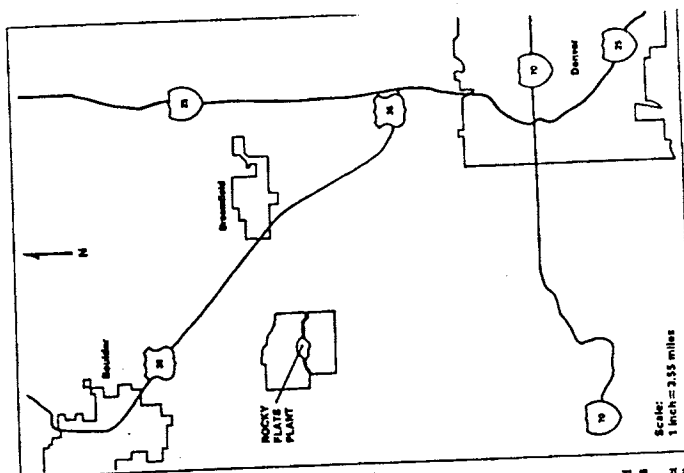
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* All words followed by an asterisk appear in the glossary.

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Rocky Flats Plant and Surrounding Area
Source: Fuel Environmental Impact Statement, Rocky Flats Plant (April 1987)

Major Fires at Rocky Flats

When plutonium comes into contact with air, it ignites spontaneously, smoldering like charcoal. Because of this danger, workers manipulate plutonium with heavy rubber gloves through air-tight, nitrogen-filled gloveboxes.

But in 1969, a glovebox developed leaks, allowing infiltrating air to ignite the plutonium within. This is probably what led to the explosion and fire at Rocky Flats on Sept. 11, 1967.

One of the plant protection workers who was on duty that night said the accident happened. "There was an explosion that nearly knocked me to the floor and blew all the doors on the west hall wide open. . . . I then heard Owen about that it had blown up and for everyone to get out."

Workers were ordered to evacuate the plant. Gloveboxes were closed to contain the blaze, leaving the plutonium particles lodged in them. Since these had not been changed since their installation in 1954, the filters alone may have released as much as 100 pounds of plutonium into the atmosphere.

Attempts to quell the fire by turning on ventilation fans only spread the flames to more plutonium. About 40 pounds of the deadly substance burned in the blaze. When carbon dioxide also failed to extinguish the

fire, plant officials decided to try water.

It was thought that plutonium, mixed with water, would not be dangerous. It could reach a critical mass, leading to a nuclear chain reaction known as criticality.

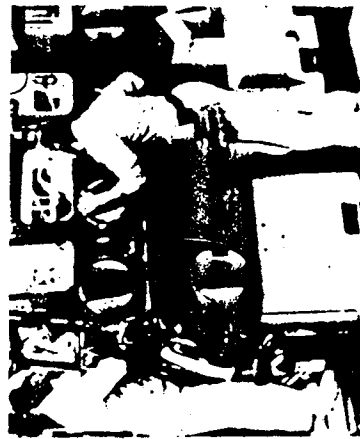
Though greatly dangerous, the use of water did eventually extinguish the fire some thirteen hours later. During the crisis, workers were ordered to wear protective clothing, including gloves, boots, and respirators. No emergency actions were taken to protect the public.

Officials did not investigate smokestack emissions until seven days after the accident. They found that the plant had released 16,000 times acceptable radiation standards.

Production resumed three days after the fire, although the damaged filters had not yet been replaced.

Workers were ordered to wear protective clothing, including gloves, boots, and respirators. No emergency actions were taken to protect the public.

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Glove boxes in which the workers are manipulating plutonium. The inside of the boxes are normally at a lower pressure than the room outside to prevent contamination of the room in case of a leak.

exposure of a worker's fingers just the thumb and second finger had to be amputated."

In 1969, twenty plutonium fires broke out in the plant. The fires were caused by a chain reaction known as criticality.

Heavily contaminated plutonium in the plant was one of control, because workers had inadvertently inhaled the particles from the fire in which the fire started.

The fire was caused by a chain reaction known as criticality. The fire was caused by a chain reaction known as criticality.

After the 1969 fire, scientists monitoring the soil around Rocky Flats found radioactive cesium-137 in samples up to 3.1 miles from the plant. The cesium is a byproduct of a fission product, indicating that the use of water on one of the two fires may have resulted in a nuclear chain reaction.

Cesium might also have been released if nuclear fuel rods stored at the plant had been damaged.

The 1969 fire was the impetus for DOE to begin the most expensive U.S. industrial accident of the time, costing taxpayers \$45 million. The hundreds of workers needed to clean up the mess may be paying an even higher price.

DOE has been cleaning up the mess for months. Cleaning up after the fire, workers wiped off contaminated floors, ceilings, walls, and paper with rags. When one pair of pants was found, it was found that it had been contaminated.

How many of David Sule's co-workers from the 1969 fire cleanup have also been exposed to radiation? Only DOE can say. No other agency. Only DOE can say.

Form a statistical study of cancer incidence in those workers. The DOE has plenty of data from this type of study since a high correlation could lead to a greater number of workers' lawsuits and a big in reputation for DOE.

Such a study and has no plan for one in the future.



Waste drums containing radioactive hazardous chemicals piled haphazardly at Rocky Flats. For more than ten years, waste drums leaked onto the soil and into the air. Drums were removed in 1986.

Contamination

When plutonium burns or corrodes, it combines with oxygen to form plutonium dioxide, or PuO₂. Particles of this compound are small enough to be carried by wind currents. The majority of this PuO₂ particles released by the fires of 1957 and 1969 are so small they can be inhaled easily. Since plutonium dioxide particles are highly radioactive, they do not percolate into the soil with rain, but remain on the surface for many years, where wind can again whisk them up.

According to scientist Edward Merrell of the National Center for Atmospheric Research (NCAR), "the resuspension of deposited PuO₂ by the action of winds, vehicular traffic, and human activity gives rise to an inhalation hazard to occupants of the contaminated and downwind areas."

Resuspended particles, along with the plutonium dioxide, are a major source of contamination. DOE has been cleaning up the mess for months. Cleaning up after the fire, workers wiped off contaminated floors, ceilings, walls, and paper with rags. When one pair of pants was found, it was found that it had been contaminated.

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New Onsite Contamination Studies

The DOE began a Rocky Flats cleanup project in 1984, known as the Comprehensive Environmental Assessment and Remediation Project (CEAR). For some time, DOE has been cleaning up the mess for months. Cleaning up after the fire, workers wiped off contaminated floors, ceilings, walls, and paper with rags. When one pair of pants was found, it was found that it had been contaminated.

How many of David Sule's co-workers from the 1969 fire cleanup have also been exposed to radiation? Only DOE can say. No other agency. Only DOE can say.

Form a statistical study of cancer incidence in those workers. The DOE has plenty of data from this type of study since a high correlation could lead to a greater number of workers' lawsuits and a big in reputation for DOE.

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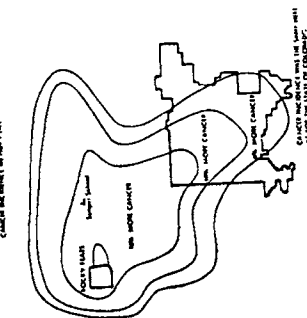
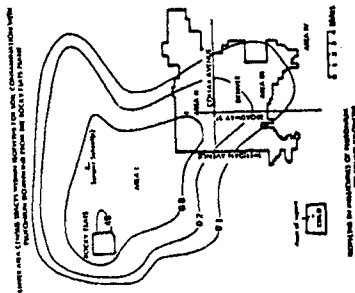
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The 903 Lip Area

After the barrels were removed from the 903 Drum Storage Area, the plutonium-laden soil that had leaked into underlying soil was exposed to open air. Wind redoubled contamination in the area. What is now known as the 903 Lip Area was created by the asphalt pad and the Rocky Flats boundary. Almost five million pounds of contaminated soil had to be shipped away from this area for disposal in 1978.

But plutonium particles do not stop at fences. When two NCAR scientists studied on-site soil samples in 1971, they discovered plutonium concentrations ranging from "250 times the level of background" in the east of the plant to "100 times the level" in the west. Winds carried the contamination off-site to several times farther in the eastern suburbs of Denver.¹⁴

Subsequent investigations showed the plutonium had not been deposited by the two major fires, as originally assumed. Winds had carried the contamination off-site between 1967, when the oil drums were



Map of the Rocky Flats site showing the main facility, the plutonium processing area, and the waste water treatment area.

Because of the plutonium release, a task force appointed by Governor Richard Lamm and then Representative Tim Wirth in 1975 recommended that "Island and Island" be shut down. The task force also recommended that the plutonium processing area be shut down. The task force also recommended that the plutonium processing area be shut down.

A secondary water source now exists for Broomfield, but the Great Western Reservoir still serves as the primary source. Meanwhile, the Walnut Creek drainage area has carried top ranking on the list of high-risk areas at Rocky Flats.

The Walnut Creek Drainage
The Walnut Creek drainage area, through Rocky Flats and the Standley Lake, is also in danger of plutonium contamination. Just west of the plutonium processing area, Standley Lake supplies part of the water for Broomfield, Northglenn, and Thornton. Hillside 881, located in the Walnut Creek drainage area, is contaminated with plutonium and other radioactive substances. In high rainfall seasons, pollutants from Hillside 881 could spill into Walnut Creek, eventually reaching the Great Western Reservoir and Standley Lake. This risk, Rocky Flats has been studying since the first cleanup phase in 1975.

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Health Effects of Rocky Flats

Despite over the safety of the Rocky Flats facility and the health of the surrounding community has been raising for many years. Scientists have conducted two kinds of health studies pertaining to Rocky Flats: one that examines the health of workers at the plant and another that examines the health of the surrounding community. Both studies are ongoing and will provide more information about the health effects of the facility.

Plutonium Effects on the Human Body
Plutonium emits alpha particles, energetic particles that travel about five centimeters in tissue. Skin effectively blocks alpha radiation from plutonium sources outside the body. But plutonium can enter the body by inhalation or ingestion. Once inside the body, plutonium can cause damage to the lungs and other organs.

Plutonium can also enter the body through open wounds, the continuous emission of alpha particles can do great injury. Even though alpha particles only penetrate a small amount of tissue, they carry enough energy to kill the cells they encounter or to cause mutations that can result in cancer.

The amount of radiation given off by Rocky Flats plutonium does not remain constant, but increases with time. This is because plutonium spontaneously decays into other radioactive isotopes, which in turn decay into still other isotopes. The radiation level will have increased by about 50 percent.

It is difficult for the human system to flush out plutonium. In fact, half of the original mass will still remain in the body a century after its entry.

When inhaled, plutonium particles are deposited in the lung. From there, they slowly migrate via the lymphatic system to the endochondral lymph nodes. Over many months, plutonium migrates to the bone, where it can cause damage to the bone tissue. Plutonium also migrates to the liver and other organs.

When ingested, plutonium particles are deposited in the stomach. From there, they slowly migrate via the lymphatic system to the endochondral lymph nodes. Over many months, plutonium migrates to the bone, where it can cause damage to the bone tissue. Plutonium also migrates to the liver and other organs.

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that plutonium is ten times more effective in causing chromosome aberrations than in causing lung cancer.¹² And a study of 343 plutonium workers at Rocky Flats shows that those with plutonium deposits in body organs had a 10 percent higher rate of chromosome aberrations than those without. The study also found that those with plutonium deposits in body organs had a 10 percent higher rate of chromosome aberrations than those without.

Public Health Studies
A controversial 1981 report by Dr. Carl Johnson, then director of the Jefferson County Health Department, brought much public attention to Rocky Flats' health impacts on the Denver area.¹³ Johnson divided the region around Rocky Flats into areas of decreasing contamination, determined by previous soil studies (see figure on page 6). He then estimated cancer incidence from 1969 through 1971 for these areas. He found that the cancer incidence in the most contaminated area was 1.5 percent higher than in the least contaminated area.

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results were closely reproduced. New data from 1979 through 1981 showed the same trend, except that the highest cancer rate now occurred in Area 11. This could be explained by the large number of new residents moving into Area 11, diluting the contaminated population by 50 percent.²³

This DOE study also showed a relationship between proximity to the site and an increase in cancer incidence, known as "urban effect." This finding did not suggest a correlation between cancer incidence and plutonium contamination in the soil. Nauck found no evidence of a relationship between the location of the Rocky Flats Plant and cancer incidence in the Denver area. This conclusion is not supported by the study's data.

Infant Deaths

Dr. Johnson also studied the health effects of Rocky Flats on children. He concluded that the infant mortality rate in Jefferson County, which had been lower than the national average, began to rise after the Rocky Flats began operations in 1972. In 1973, infant deaths rose to 15.7 per 1,000 live births, compared with 14.2 per 1,000 live births in 1972. This increase was statistically significant.

Worker Mortality Studies

In 1980, DOE conducted a large study of worker health by a group of scientists from the Los Alamos National Laboratory, a DOE research facility. Their data confirmed a high number of brain tumors when only 1.5 were expected based on incidence in the general U.S. population.²⁴

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time in public drinking water changes the chemical state of plutonium, making it about 100 times more easily absorbed into the human body. The consequence of this change is that the present values for the maximum permissible concentration of plutonium in drinking water appear to be too high by several orders of magnitude.²⁵ Ten years later, the standards remain the same.

An even more serious hazard involves the dangers posed by low levels of radiation, such as those encountered by workers at a weapons plant or people in the air. These hazards have been largely ignored by high-level radiation protection models of Hiroshima and Nagasaki. The inadequacy of this kind of modeling is amply demonstrated in the above-mentioned studies of Rocky Flats workers. While the maximum permissible body burden of plutonium is forty microcuries, excess cancer was evident in workers exposed to only two microcuries, one twentieth of the standard. Excess chromosome aberrations were evident at a fifth the standard.

A recent DOE report on health research involving low-level radiation states that "the scientific community, in general, has been slow to accept the fact that low-level radiation is a health hazard."²⁶

The political difficulties of using radiation standards result largely from a conflict of interest within the DOE. The primary mission of the department is to produce nuclear weapons and promote nuclear energy. In this role, the DOE routinely releases plutonium for nuclear weapons and for people living near nuclear power plants. Nevertheless, DOE funded over 60 percent of all research on the health effects of radiation and helps set radiation standards.

Some independent observers have noticed this conflict of interest and tried to correct it. President Carter formed an Interagency Task Force on Ionizing Radiation in 1979, which recommended that DOE's research program on the health effects of radiation be placed under the Federal Public Health Agency.²⁷ Similarly, Governor Richard Lamm's Health Assessment Group of 1984 recommended that workers should involve funding independent of the Department of Energy, and "... the fact that [cancer] research will be funded by DOE will constitute a conflict of interest."²⁸

For those who worry about the potential for conflict of interest.

Accidents of all sorts are a distinct possibility at Rocky Flats. Any of these could result in a substantial release of plutonium or other toxic materials into the environment. These include operational accidents, such as those encountered by workers at a weapons plant or people in the air. These hazards have been largely ignored by high-level radiation protection models of Hiroshima and Nagasaki. The inadequacy of this kind of modeling is amply demonstrated in the above-mentioned studies of Rocky Flats workers. While the maximum permissible body burden of plutonium is forty microcuries, excess cancer was evident in workers exposed to only two microcuries, one twentieth of the standard. Excess chromosome aberrations were evident at a fifth the standard.

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Rows of drums containing plutonium fumes and parts are stored in the yard at Rocky Flats. The walls are ten inches thick. A computer controlled retrieval system handles traffic.

offers a false sense of security by minimizing the risk of an accident. While it is true that a single accident can be easily corrected, a single release of plutonium into the environment is not. The risk of an accident is not zero, and the risk of a release is not small. The risk of an accident is not zero, and the risk of a release is not small.

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cluded that many DOE studies of nuclear facilities "in no way do not estimate all potential risks."

The DOE's primary objective is to propose, operate and regulate the nuclear bomb industry. So long as the Department also sponsors these studies, one can expect risk estimates to be minimized, due to an obvious conflict of interest.

When the GAO reviewed a number of safety-related DOE reports in 1987, it concluded that "all safety analysis reports were written, reviewed and approved internally within the DOE, which does not represent an independent review process. GAO recommended 'an arrangement whereby DOE's safety analysis reports receive outside, independent reviews.' DOE disagreed with this recommendation."

Advice to Homeowners

By no means do the realtors and developers of the Denver metro area share a unified position on Rocky Flats. Some developers have moral scruples about building on tracts near the plant, but others object to waiting prospective homeowners about the soil contamination around Rocky Flats.

In 1978 the EPA suggested that the Department of Housing and Urban Development (HUD) review potential risks to an about the possibility of an accidental release of plutonium from Rocky Flats. HUD initially rejected the suggestion, stating that Rocky Flats operations "present no more hazard than many ordinary occurrences in daily life." In March of 1979, however, HUD issued the Rocky Flats Advisory Notice, advising prospective homebuyers of the existence of "radioactive materials" in the environment of the site. The advisory notice mentioned an "Emergency Response Plan" which specified protective actions in case of an accidental release of radioactivity from the plant. Anyone applying for federal mortgage insurance for land within ten miles of Rocky Flats was required to read this notice.²⁹

In January of 1981, under the new Reagan administration, the advisory notice was discontinued in favor of a Colorado state law that informed prospective Rocky Flats residents of the Emergency Response Plan. "A year later, the Emergency Response Plan was abandoned. Today prospective homebuyers receive no advice or warning regarding the dangers of living near Rocky Flats."

This kind of risk assessment relies on an estimate of probability that has no historical basis. The study also ignores other possible hazards, such as the dangers of transporting plutonium to and from Rocky Flats or health hazards other than cancer. This is typical of DOE risk assessment studies, according to a 1981 General Accounting Office (GAO) report, which con-

Accident Possibilities

Risk Analysis and DOE Conflict of Interest

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Nuclear Liability

The Price-Anderson Act, which limits the compensation for nuclear accidents, has been expanded to cover nuclear weapons facilities like Rocky Flats.

Congress renewed the Price-Anderson Act in 1977. When it expired in 1981, some legislators and the nuclear industry wanted to let the contractor responsible for safety pay for such a disaster.

Not the nuclear contractor, Rocky Flats would not have to pay, even if such an accident resulted from gross negligence.

Taxpayers would have to pick up most of the tab, because the DOE is responsible for up to \$7 billion for nuclear accidents. But it is quite likely that damage would greatly exceed this amount, which can be paid only by the federal government.

When the committee passed on a compromise to fine contractors \$50 million for willful safety violations, it was an accident, DOE thought. Back in 1981, DOE had sent letters to the contractors threatening to stop operating their plants unless they agreed to the new provisions.

Rocky Flats was the only contractor to stand up to the threat. The committee's amendments and provisions, which cover nuclear accidents, could have been a key factor in a public liability that could arise from a nuclear accident, has been a key factor in a public liability that could arise from a nuclear accident, has been a key factor in a public liability that could arise from a nuclear accident.

Worker Safety

In the private sector, the Nuclear Regulatory Commission (NRC) has authority over radiological matters, and the Occupational Safety and Health Administration (OSHA) regulates worker safety. But in nuclear weapons facilities, the DOE must both clear weapons factories and hear worker complaints. The conflict between these two tasks has resulted in an ambivalent attitude on the part of DOE in enforcing safety regulations on the contractors. Some examples include:

—June 9, 1980: A Rocky Flats employee reported an improperly installed glove box filter to his supervisor. Three days later, DOE officials were exposed to radiation. On June 12, the area around the glove box was checked and found to be contaminated. The glove box was shut down, and respirator protection prescribed. Three weeks later, the worker who had filed the complaint was told that DOE could not substantiate the alleged delay and that safety was the responsibility of Rocky Flats, not DOE.

—August 5, 1980: DOE received results of another complaint, alleging that workers in a glove box operation were routinely exposed to contaminated air. DOE had received a similar complaint in 1979, but received no response from Rocky Flats.

DOE's investigation of the 1980 case found that workers were exposed to contaminated air in that specific area. Nevertheless, DOE informed the contractor that, although there were some deficiencies, the containment system and procedures were adequate to ensure the safety and health of employees.

Philly Kelly, a spokesman for the Rocky Flats plant, says that DOE's investigation of the 1980 case found that workers were exposed to contaminated air in that specific area. Nevertheless, DOE informed the contractor that, although there were some deficiencies, the containment system and procedures were adequate to ensure the safety and health of employees.

One of the most common types of exposure results when plutonium particles are in the air. Workers are exposed to the rubber gloves, worn by workers while handling the metal, cutting and exposing fingers.

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The Compliance Agreement

Litigation in 1984 ended the Department of Energy's self-regulation over mixed waste, transferring this authority to the Environmental Protection Agency (EPA). Mixed waste includes hazardous substances contaminated with small amounts of radioactive substances. Purely radioactive waste remains under the jurisdiction of DOE.

In Colorado, the EPA agreed to work in conjunction with the Colorado Department of Health (CDH) to investigate mixed waste at Rocky Flats. Together, the two agencies would attempt to bring transportation, storage, and disposal practices at the plant into compliance with the law.

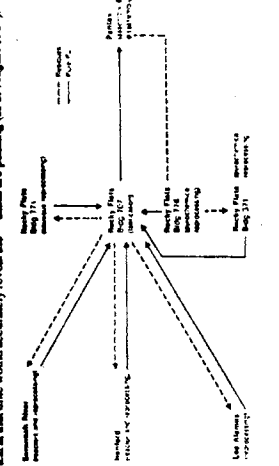
DOE and Rocky Flats used the new laws, refusing to recognize the jurisdiction of the EPA or the health department. In November 1985, Rocky Flats operators notified CDH that they had not received any information about the new laws, claiming that the health department had no jurisdiction over them.

State health officials called the bluff. A month later CDH issued a notice of intent to deny Rocky Flats a permit application, effectively threatening to close Rocky Flats waste management operations. If the plant could not process waste, it could not function. This was a precedent-setting move, taken by a state health agency towards federal nuclear waste facility.

The dispute seemed destined to turn into a major court battle. But DOE proved eager to settle out of court. An internal memo, intended to brief the DOE official who was negotiating an agreement with CDH and EPA, clarifies DOE's willingness to compromise.

This memo states: "The compliance pressure of Rocky Flats is a very real factor in our decision-making. We have been basically on RCRA ground-water monitoring wells, our permit applications are grossly deficient (some of the waste facilities there are patently 'illegal'). We have serious contamination, and we have extremely limited environmental and waste characterization data for a site of this complexity." Fearing that court proceedings might publicize the appalling conditions at the site, DOE decided to negotiate.

By signing the Compliance Agreement, DOE accepted the jurisdiction of both EPA and CDH over mixed waste at Rocky Flats. In return, the two monitoring agencies agreed to waive all civil penalties



against DOE or Rockwell for any mixed waste violations that had taken place prior to July 31, 1986, when the agreement was signed.

DOE officials apparently decided that maintaining a positive public image was more important than the right to self-regulation. The memo points out that "failure to follow the Compliance Agreement to fruition would back up DOE's position on the credibility of the Secretary of Energy's environmental program." Additionally, the agreement provided a "sufficient degree of vagueness and ambiguity" to ensure that EPA would not be able to issue "orders" to the Rocky Flats facility, according to the memo.

Both the EPA and CDH maintain the right to sue DOE for violations after the agreement takes effect. Private citizens can sue the agreement as well for suit.

The agreement is a 10-page document. "From the legal side there are the risk associated with the theoretical increase of a citizens suit based on the agreement."

This fear turned out to be well founded. Within a year, The Sarns Club and the Citizens Against Rocky Flats Contamination had filed a suit against DOE and Rockwell International because of a proposal to incinerate radioactive mixed waste at the plant.

Incineration at Rocky Flats

While the lawsuit over the mixed waste incinerator brings a new twist into the debate over Rocky Flats, incineration at the plant has a long history. It began in the 1950's when the plant burned depleted uranium chips in open pits. Since then incineration has served two purposes: to recover reusable plutonium, and to dispose of non-reusable wastes.

The recovery incinerator, located in building 771, is permitted to burn as much as 168 tons of mixed waste per year. The incinerator, located in building 776, is being used currently, but according to a new proposal it could start burning 200 tons of liquid and solid waste per year. Built in 1978, it was operated for three years, shut down, and then used again in 1985. Rockwell initially claimed the incinerator had never been used but later admitted it had been working for a three-year period.³⁹

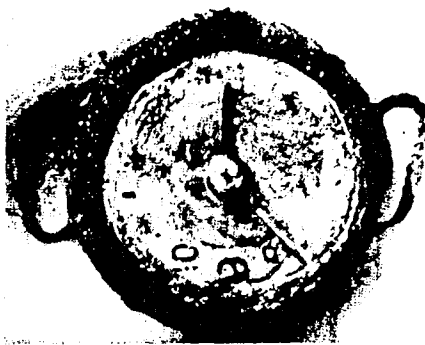
In 1986, because of the Compliance Agreement, the type of waste to be burned in the new incinerator fell under the regulation of CDH. The health department voluntarily held public hearings as part of the

near Idaho Falls. Liquid mixed wastes were solidified and shipped to the Nevada Test Site near Las Vegas. Due to new incineration of disposal laws, low-level wastes must now be separated from the more radioactive, or transuranic wastes. Transuranics are being sent to a repository in INEL for eventual disposal in New Mexico, but there are no facilities to dispose of low-level mixed wastes. The Nevada Test Site does not have a permit to receive them, and the DOE's incineration unit has no authorized consumer to take them out of form. For these reasons, Rocky Flats has chosen onsite incineration as the preferred method of disposal.

Burning the wastes would reduce the volume by about 95% while eliminating the chemical toxicity by oxidation. Converting them to ash and cementing them into blocks would make them easier to handle.

The Mixed Waste Incinerator for Rocky Flats is a 100-ton-per-day unit and two recovery incinerators. The plant has two chambers, stored of oxygen, burners, chlorine and sulfur compounds, while the oxygen-rich afterburner burns organic and hydrogenated compounds. The temperature of the chambers is about 1000°F. A low enough that combustion is flameless. A catalyst in the combustion chamber neutralizes hydrochloric acid. Temperature and

Time stopped by Atom Bomb. The Hiroshima explosion recorded at 8:15 on the 6, 1945 on the remains of a wrist watch found in ruins in this 1945 United Nations photo. The shadow of the small hand on the 8 of the watch was burned in from the blast, making it impossible to do the big hand.



is chosen, a lively stream of government money will flow. The GAO has studied more than fifty reports on various safety aspects of DOE's nuclear weapons facilities — seven of which were specifically related to Rocky Flats.

Options for the future include:

Business as usual
The continuation of Rocky Flats operations will probably augment the current risks. Plans to expand the history of disposing of wastes in the absence of accidents. This, along with a series of accidents, has resulted in considerable off-site contamination. Groundwater pollution, though currently confined to the site, also presents a serious environmental hazard that will be difficult and expensive to remedy. Although DOE and Rockwell face growing pressure to clean up the site, their past denial of contamination and its denial portend little confidence.

There are also questions whether programs to upgrade design, engineering, and financial efficiency. The history of building 371, designed to modernize plutonium processing at Rocky Flats, is illustrative. It was expanded to cost \$113 million and be done in four years, but took twice as long and cost twice as much. It has operated at only 75 percent capacity since it came on line in 1978. A new DOE plant to spend another \$300 million in a seven-year campaign to bring the building up to 45 percent operating capacity!

Relocation
In 1975 the Lamm-Wirth Task Force recommended that Congress and the President consider "... phasing out [Rocky Flats] present operation... decommissioning and converting the plant's facilities to a less hazardous energy-related industry...." The Lamm-Wirth Task Force, and the surrounding community, and the surrounding community.

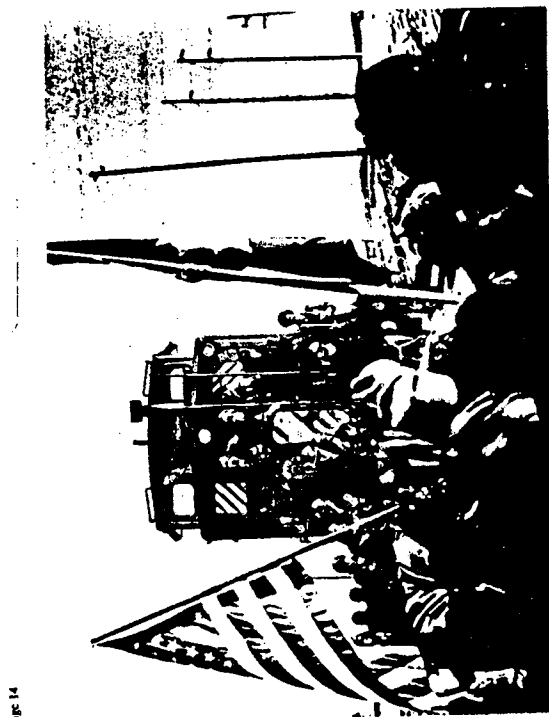
Without a nuclear trigger factory, the arms race cannot continue. But even a trigger factory would not eliminate the need for Rocky Flats. The aging, unreliable bombs would need to be replaced, and the end to the operations that now take place at the plant.

Disarmament is not only a way to stop Rocky Flats from poisoning the Denver area, but also an important goal in its own right. The plutonium triggers produced at the plant are far more threatening than the plant itself. If they are ever used, the destruction will not be limited to the area around Rocky Flats. The fate of the world is now in the hands of the survival of the entire planet may depend on it.



The Future of Rocky Flats

Many people now agree that it was a mistake to locate Rocky Flats near such a large metropolitan community in the first place. But as aging plant buildings deteriorate, officials must now decide on the plant's future. Should they spend money to upgrade the facility as it is or invest in relocation alternatives instead? Whenever path



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Police jump from a train carrying radioactive materials into Rocky Flats to arrest demonstrators sitting on the track. (Robert Godfrey)

Protest at Rocky Flats

For the first twenty years of its history, Rocky Flats operated in relative obscurity, with the surrounding community taking little notice. Most people living near Rocky Flats knew very little about the plant or the hazards associated with it. In fact, Denver residents did not learn that Rocky Flats was manufacturing nuclear weapons until three years ago.

Opposition to the plant began to grow in the early seventies. Citizens Concerned about Radiation Pollution (CCARP), a group that had been protesting underground nuclear testing in Colorado, took soil samples from the Rocky Flats perimeter in 1970, which they presented to local political candidates for analysis. Other groups took up the cause, and within five years the Denver community was becoming familiar with the Rocky Flats issue.

Local religious groups, such as the American Friends Service Committee and

the Catholic Peace and Justice Office, joined the campaign in the mid-seventies, holding vigils and demonstrations. In 1974 a coalition of these and other groups formed the Rocky Flats Action Group. This coalition educated area residents by sponsoring community meetings and publishing a newsletter. It also organized a "Global Hazardous Waste Threat," an educational pamphlet.

Opposition to Rocky Flats intensified dramatically in 1978. The "year of disobedience," as it was later called, began with a demonstration of 5000 in April. A symbolic blockade at the end of the demonstration developed into a campaign of civil disobedience that lasted a full year. Protesters set up a camp on the railroad tracks leading into Rocky Flats, blocking the traffic. Within a year, over 1000 people had joined the demonstration. When the costs of plant incarceration and prosecution rose to more than \$150,000, Jefferson County officials attempted to collect \$5

million in property taxes from Rocky Flats to cover expenses. Rocky Flats refused to pay. Demonstrations against nuclear weapons became a familiar sight in front of the plant. In 1982, a group of 200 people gathered for a demonstration. Locally, this high-profile event was part of a larger movement coordinated on June 9, 1982, when 30,000 people turned out at the state Capitol to rally for nuclear disarmament with singers Jimmy Buffet, Judy Collins and John Denver.

The largest on-site demonstration in Rocky Flats history occurred on October 15, 1983, as protesters gathered in an attempt to encircle the entire facility with human arms. About 2000 people gathered in the perimeter of Rocky Flats, holding human chains. Not all Rocky Flats demonstrators have been anti-nuclear. Supporters of nuclear weapons and nuclear power gathered in large numbers in August 1979 to wave U.S. flags and cheer patriotic speakers. Some Rocky Flats workers joined with the

into the environment.

The Rocky Flats Citizens Against Nuclear Plant Commission have charged that plant officials have not examined alternatives to onsite incarceration, and that an adequate assessment of the environmental consequences of the plant has not been done. Both of these are required, according to their suit, under the National Environmental Policy Act.

This suit could set an important precedent. Such cases pressure DOE and its contractors to take hazardous environmental concerns seriously. The opportunity to sue could yield valuable information about the plant, which might not otherwise be obtainable.

For example, most of the information now known about the 1977 fire was revealed in the course of a suit brought by workers against Rocky Flats operators. Claiming the fire had severely contaminated their property, the plaintiffs were able to subpoena documents and records that DOE had not wanted to release. At the end of the DOE suit to retrieve all documents related to the fire for declassifying, some documents escaped this fate.

Oversight at DOE's Nuclear Facilities

Everybody knows what happens when a teacher tells students to grade their own papers. The same is true for government agencies. The position of DOE as a self-regulator has resulted in a very grave situation that by no means meets Rocky Flats. A 1981 report from the General Accounting Office (GAO) asked and answered the following questions about DOE's nuclear weapons facilities:

Is DOE's program adequate to assure the employees at DOE's nuclear facilities are provided with safe and healthful working conditions?

— The short answer is "No."

Is DOE providing adequate emergency preparedness, assuring that DOE facilities are prepared to respond to nuclear accidents?

— The short answer is "No."

How does DOE assure itself that information concerning radiological releases from DOE's nuclear facilities is accurate and reliable?

— GAO's answer is that DOE has little assurance.

The report concluded that a separate high-level office was needed within DOE to oversee safety and health. Although DOE disagreed with this recommendation, such an office was established in 1985, but its budget is controlled by the weapons production office.

Believing internal oversight to be inherently inadequate, the GAO also recommended outside, independent reviews, to which DOE responded: "...we would say that independent reviews are not needed."

The DOE's reluctance has prompted some legislators to propose direct oversight of various DOE activities. One important area of study has been health research on the effects of radiation. In 1981, then Representative Tim Wirth introduced a bill to transfer authority to conduct such research from DOE to the Department of Health and Human Services. Wirth said that the federal government has a responsibility for the health of its citizens. It is a responsibility which has been neglected for years. The bill would transfer authority for operating and promoting nuclear weapons facilities. This conflict of interest casts doubt on the objectivity of the Department's research and on its interest in worker safety and health.

In 1988 Senator Glenn introduced a much broader oversight bill, S 1085. This bill would:

— establish an independent Nuclear Safety Board. This board would be charged with reviewing DOE's safety as well as its findings and recommendations;

— give the EPA regulatory authority over mixed wastes (both hazardous and radioactive);

— apply the standards of the Occupational Safety and Health Administration (OSHA) to workers at DOE plants. DOE is currently exempt from regulation by both OSHA and the Nuclear Regulatory Commission, which is an independent research mission, and

— board to review all research on the effects of radiation on the human body.

The third provision has been most actively contested by the DOE but finds strong support among local workers' Union members. If enacted, it would grant OSHA officials the specific "right of entry" for unannounced inspections without probable cause and the authority to receive complaints from individuals. This stipulation would protect workers filing complaints from retribution.

At this time (Feb 1988) S 1085 has not yet come before the Senate.

Glossary

alpha particles - energetic particles, composed of two protons and two neutrons, given off by some radioactive substances as they decay. Plutonium-239 gives off alpha particles.

americium - a radioactive chemical element, Americium-241, a decay product of plutonium, is 50 times as radioactive as plutonium-239. Nearly all the americium used in the United States is manufactured at Rocky Flats.

beta particles - less energetic than alpha particles, these are actually electrons emitted from a nucleus. Plutonium-241 emits beta particles.

CDR - Colorado Department of Health, Agency with jurisdiction over the mixed waste generated at Rocky Flats.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601). The "Superfund" cleanup for abandoned or uncontrolled waste sites. EPA implements CERCLA and may not delegate its jurisdiction to the states (as it can with RCRA).

curie - a unit of radioactivity; the quantity of any radioactive substance that undergoes 37 billion disintegrations per second. For Plutonium-239, one curie is 15.6 grams. Successive divisions of the curie by factors of 1000 are:

kilocurie - 1000 curies. The 1957 fire burned about a kilocurie of Pu.

curie - about 5 curies of Pu have been found on public and private land since Rocky Flats began operations.

millicurie - one thousandth of a curie. The contamination of the soil near the state capitol building is about one millicurie per square mile.

microcurie - one millionth of a curie. The plutonium release from Rocky Flats is about one microcurie per month.

nanocurie - one billionth of a curie. Current radiation standards set the total lifetime permissible body accumulation of plutonium at 40 nanocuries.

becquerel - one millionth of a millionth of a curie. One becquerel provides 2.2 disintegrations per minute (dpm).

DOE - U.S. Department of Energy. A cabinet department of the executive branch that owns and oversees the Rocky Flats plant and seventeen other facilities around the nation that produce nuclear weapons and fuel for naval vessels. The DOE succeeded the Energy Research and Development Agency in 1977, which succeeded a branch of the Atomic Energy Commission in 1974.

EPA - Environmental Protection Agency. Implements federal legislation to protect the environment, such as the Clean Air Act, the Clean Water Act, RCRA, CERCLA, and NEPA.

Chronology of Events at Rocky Flats

- 1945 World's first nuclear war submarine with the explosion of the first plutonium bomb over Nagasaki, August 9.
- 1951 Rocky Flats established by the Atomic Energy Commission to build plutonium "triggers" for nuclear bombs.
- 1953 Bomb production begins at Rocky Flats under contract with Dow Chemical Company.
- 1957 Fire and explosion in building 771 burns more than 100 curies (35 lbs) of plutonium and all protective filters. No one knows where the plutonium went.
- 1958 Waste drums leak radioactive waste onto open field for the next twelve years. Leaking discovered in 1959 and admitted in 1970. Wind redistributes contaminated soil particles throughout the Denver metro area.
- 1964 Employee's fingers amputated because of exposure to plutonium chips.
- 1966 Drums which leaked radioactive waste and contaminated soil particles throughout the Denver metro area are finally removed.
- 1969 Plutonium fire in building 776 causes \$4.5 million damage.
- 1973 About 1000 curies of uranium released to the Broomfield water supply.
- 1975 Rockwell replaces Dow as operator of Rocky Flats. James W. Ford task force report suggests relocating Rocky Flats operations.
- 1975 Landowners sue Rocky Flats for property contamination; suit settled in 1984 for \$9 million.
- 1978 Civil disobedience campaign blocks trains into Rocky Flats. 500 arrested.
- 1979 Johnson's study finds excess cancer in Denver area residents related to Rocky Flats.
- 1981 Yocetz mortality study finds healthy work force at Rocky Flats. Johnson's mortality study suggests otherwise.
- 1986 Crump study of cancer in Denver area resident corroborates Johnson's 1979 data but concludes that Rocky Flats is not the cause.
- 1986 Compliance agreement between DOE, EPA, and CDH requires cleanup of mixed hazardous and radioactive wastes. Phase I of DOE cleanup program begins.
- 1987 Wilkinson's mortality study finds excess cancers among Rocky Flats workers exposed to only 5% of the radiation protection standard.
- 1987 Incineration of radioactive mixed waste delayed more than a year by combination of public protest, equipment problems, and lack of department vigilance, legislative concern, and efficient suit.

ROCKY MOUNTAIN PEACE CENTER
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Created in a spirit of unconditional nonviolence, the Rocky Mountain Peace Center is dedicated to research, education, and action in nonviolence as a means of personal and social change and to the achievement of justice by nonviolent means.

Location and Setting

The Rocky Flats Plant is in northern Jefferson County, in miles northwest of Denver and 9 to 12 miles from Boulder, Golden, and Arvada. Nearly 10,000 people live within 5 miles of the site, over 300,000 live within ten miles. Several new housing developments are being built within a mile of the plant.

The Stanley Lake park and recreation area is about 5 miles from the Rocky Flats. Golden Gate Canyon State Park is 15 miles to the southwest, providing 8,400 acres of camping and other outdoor recreation.

The Sierra Elementary School is 6 miles southwest of the plant. The various industrial facilities are located within 5 miles of the plant. Sand, clay and gravel mines have operated near the site. A uranium mine 4 miles southwest of the Rocky Flats Plant is the sixth largest commercial producer of uranium ore in the U.S.

The front range of the Rocky Mountains is immediately west of the site. Elevation is 6,000 feet.

The winds at Rocky Flats are variable, and sometimes intense, with velocities reaching 50 miles per hour. Winds as high as 125 miles per hour have been recorded. Winds are predominantly westerly, but do occasionally blow south-easterly towards Denver, as well as north-westerly towards Boulder.

Geology and Hydrology

The Rocky Flats Plant is located on a mesa-like surface of Rocky Flats alluvium. A thin gravel topsoil lies over 20 to 50 feet of this alluvium. Under this gravel is a highly permeable bedrock. The bedrock is generally west to east, beginning at the Front Range Mountains. Water retention

is poor; vegetation sparse. Groundwater surfaces at streams and seeps within the site. The major groundwater system is in the alluvium; recharge from stream flow is rapid. Discharge from the alluvium into surface water and mountain ponds takes place off-site. Small areas around springs and seeps on-site appear to qualify as wetlands.

Five streams occur near the site. Three of them drain the area into water supplies of neighboring communities. Water runoff is from west to east.

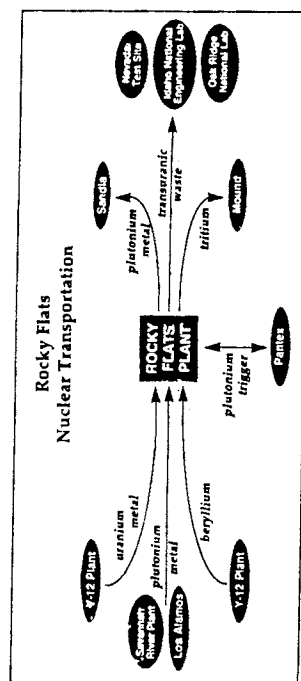
Average annual precipitation is a little over 15 inches. Estimates of potential seismic activity at Rocky Flats vary. A 1980 environmental impact statement predicted an earthquake of 5.6 every 33 years at a distance of 16 miles from the site.

Function

The Rocky Flats Plant produces components for nuclear weapons, notably plutonium "triggers." The plant also recycles plutonium from outdated weapons. Various specific functions include:

- fabrication and assembly of plutonium, beryllium, uranium and stainless steel into weapons components
- plutonium and americium recovery
- americium separation
- production-related research and development.

With the cessation of plutonium production at the N reactor in Hanford, Washington, and the reduction in power levels at the Savannah River reactors since the Chernobyl accident, recycling of nuclear warheads has become the major means of providing plutonium for new warheads. Thus, the Rocky Flats Plant has assumed major importance in the Energy Department's weapons program. Simultaneously, citizen opposition to a



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proposed radioactive waste incinerator has focused new attention on Rocky Flats operations. Test burns involving plutonium have been postponed a year due to citizen opposition, and because of two fires during non-radioactive testing. As a byproduct of plutonium recycling, americium-241 (from the decay of plutonium-241) has been recovered for sale by Oak Ridge.

Radioactive Waste

Types of Waste Produced

Most of the activities at the plant involve plutonium, and as a consequence, so does most of the waste.

Currently all radioactive wastes are processed and shipped off-site. However, as mentioned, the facility plans to use a new incinerator for much of its plutonium waste.

Waste Management

Airborne wastes, principally plutonium and tritium, come from plutonium oxide powder formed during machining or incinerating, and from chemical recovery processes. Filters are used to trap the effluents. Nonetheless, due to accidents and normal operations, radioactive materials are released to the air.

The liquid wastes at Rocky Flats are collected, neutralized or made basic, processed using precipitations, sometimes run through evaporators, sometimes acidified, and then shipped off to other Department of Energy sites (primarily Idaho National Engineering Lab) for storage. In the past, asphalt-lined solar evaporation ponds were used for some of the wastes. Also, wastes with lower activity levels (below 1.7 picocuries per liter of alpha radiation) were released into unlined storage ponds. As a result of these practices there has been both ground and groundwater contamination.

Solid radioactive waste collection at Rocky Flats is a major undertaking. In 1986, the Department of Energy estimated that 130,000 cubic feet of transuranic waste were being generated annually. This and other waste is shipped to Hanford and the Idaho lab for storage. In the past, some wastes were stored in drums (which leaked) or buried in trenches, while contaminated oil was burned.

What Is Buried on Site

There are many areas with contaminated soil at and around the Rocky Flats site. A recent environmental assessment identified five sites that qualify for the Superfund priority list, another 31 sites requiring further evaluation, and another 21 sites where past cleanup needs verification. Interviews with employees have revealed that most buildings that contain radioactive elements probably have contamination beneath them, and many may have contamination in the floor drains as well.

Perhaps the most contaminated area is one created by leakage from steel drums that had been stored outside.

The drums contained cutting oil contaminated with plutonium and other radionuclides. The Department of Energy estimates that 11 curies of plutonium leaked from the drums in the period from 1959 to 1969, with an off-site release of about 3 curies. Contaminated soil on-site contains over 8 curies. The highest levels of contamination from the leakage are just inside the eastern security fence, approximately 1.5 miles from the plant boundary. Part of the contaminated area has been covered with asphalt, creating a pad to prevent resuspension. About 1.7 curies of plutonium are underneath the pad. Soil under and adjoining the pad, and soil extending southeast of the pad, have plutonium contamination readings at or above 230 picocuries per gram of soil. Of course, the asphalt pad will crack and require repair thousands of times during plutonium's 24,000-year half-life.

Another area with similar or higher contamination readings is a former waste storage site at the northeast corner of the plant security area. This area contains a number of trenches:

- Trench 1 contains 125 drums of depleted uranium and oil;
- Trench 2 (50 by 300 feet) contains flattened drums of uranium and plutonium as well as sewage sludge;
- Trench 3 (50 by 300 feet);
- Trenches 4 to 11 (30 by 300 feet) used for flattened drums of uranium and plutonium (activity is 560 to 3600 picocuries/gram), also contain some uranium-plutonium contaminated asphalt planking.

Three cooling water ponds, which have been covered with fill, were used to bury depleted uranium as well as lithium metal. The amount of contaminant is unknown. The Mound area located at the eastern part of the plant contains contaminated soil from another buried storage spill.

Other contaminated areas with elevated levels of plutonium are the sediments in the bottom of two holding ponds. In 1980, the ponds contained several curies of plutonium as well as other radionuclides.

The Solar Evaporation Ponds are also contaminated. These asphalt-lined ponds have leaked into groundwater. Other contaminated sites include:

- plutonium-contaminated soil from around several buildings, resulting from past leaks, contamination incidents and burial
- the original waste line piping system that was left in place when abandoned in the late 1970's, may contain various radionuclides as well as hazardous wastes
- pits on the eastern edge of the plant that were used to burn uranium contaminated oil, as well as an incinerator to the west which burned uranium chips
- the original landfill located on-site south of the security fence area contains 44 pounds of depleted uranium ash and may be the site of an old graphic dump, with a volume of 2,000,000 cubic feet
- the present sanitary landfill located 1000 feet north of the

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plant, alpha activity sludge was dumped into the site from 1968 to 1970; other isotopes have also been detected according to the 1980 Final Environmental Impact Statement. "There are certain places on the plant site that have been used as disposal sites, covered by two to three feet of soil. . . which may contain low levels of plutonium. . . These sites contain an estimated 6.4 million cubic feet of contaminated soil. The soil is mostly contaminated with uranium, and has an average plutonium concentration of 0.01 nanocuries per gram.

There are many other radioactively contaminated sites at Rocky Flats: contaminated process tanks, subsoil contamination from various liquid tank waste overflows, and leaks from valve vault overflows, sewer line leakage, from spills, from severed discharge lines, etc. There are numerous other sites contaminated with hazardous wastes, as well.

Pathways By Which Radioactivity Is Escaping

Releases of plutonium and americium in the air from the plutonium facilities ranged in the late 1950s and early 1960s from 16,000 microcuries in 1957 to 5,000 microcuries in 1961. These releases into the atmosphere were from "normal" operations. It is important to contrast these releases with the dose likely to produce lung cancer: 0.014 microcuries for smokers, and 200 times greater for non-smokers.

Since 1965 the releases have been substantially reduced, but not eliminated.

There have also been numerous fires at Rocky Flats. During these fires, radioactive airborne contaminants, sometimes in massive quantities, have been released. Independent environmental groups have claimed still higher releases than those given by the Energy Department.

In addition to these releases of plutonium and americium, there have been, and continue to be, other radioactive releases. Uranium-235, uranium-238 and other uranium isotopes are released into the air. There have also been airborne releases of tritium. In 1968, several hundred curies of tritium were mistakenly released. And in 1973, several hundred (perhaps over a thousand) curies were released, again as a result of an error.

In the past, the ponds on the site held radioactive effluent, and contained process and laundry waste, blowdown, acid steam condensate, and filter backwash water.

"Blowdown" and "backwash" are waste streams obtained by reverse cycling and thereby cleaning the cooling ponds and streams. The ponds discharge into South and North Walnut Creek and into Woman Creek, Walnut Creek, turn of the road, and into the city of Broomfield, while the South Creek empties into Standley Lake. Great Western Reservoir supplies water to the city of Broomfield, and Standley Lake to Westminster.

Plutonium-239 and americium have accumulated in the Great Western Reservoir's sediments; there are also measurable amounts of americium in the reservoir. Ek-

water levels of plutonium and americium-241 have also been found in Standley Lake. Stream sediments have also been contaminated. According to a 1980 report, " . . . radionuclides in Rocky Flats waterborne effluents may be present in community drinking water obtained from these two reservoirs."

Monitoring of groundwater from 35 test wells at the site has shown some radioactive contamination. One plutonium concentration was 2.7 picocuries per liter. Background is 0.02 to 0.1 picocuries per liter.

A recent study by the General Accounting Office cites elevated levels of plutonium both on and off the site. Elevated levels were found around the facility's boundary, on land adjacent to the plant, and in sediments from the nearby reservoirs. The General Accounting Office suggests that levels in some cases are more than 50 times background level.

Volatile organic compounds, elevated nitrate levels, and elevated total dissolved solids have also been found in the shallow aquifer. Further, plutonium has been found in the groundwater in low concentrations.

Buildups of plutonium in sediments in Walnut Creek at Indiana Street were above 10 picocuries per gram as early as 1972. Americium above background also has been detected. One well test showed uranium levels at 156 picocuries per liter (average in the area is 5 to 15 picocuries per liter). Uranium readings were generally higher east of the solar ponds, although water from a well on the southern border had some of the highest figures.

Another area of radioactive contamination is a sanitary landfill located 1000 feet north of the plant. As already mentioned, over a ton of sanitary sludge containing alpha emitters was buried in the landfill. Measurements at two seepage ponds by the landfill show elevated levels of tritium as well as long-lived alpha radiation. Seepage from the landfill is collected in one pond, and then sometimes empties onto the ground north. The other pond collects water during high precipitation. This pond in turn empties into the North Walnut Creek.

Cracks have been detected in the asphalt lining of one of the evaporation ponds. Significant contamination took place as the result of the seepage of high-nitrate solutions to the groundwater. Such cracks also contribute to soil and groundwater radioactive contamination.

There are also high plutonium levels from drums that leaked contaminated oil in the 1959-69 period. Some of the soil has been covered with asphalt, in part to prevent resuspension of the plutonium. Another 43,000 cubic feet of the soil have been dug up, packaged, and sent off-site for storage. An estimated 86 grams of plutonium were lost from the leakage.

It is estimated that there are some 1000 acres outside the Rocky Flats Plant boundary that have radioactivity levels above the state guideline of about 1 picocurie per gram, and another 2000 acres at the plant itself. Cesium contamination has also been reported 2 miles east of the plant.

The 1986 Environmental Monitoring Report lists two

perimeter monitoring samples with higher than normal plutonium concentrations. The report attributes one to "agricultural plowing activities performed just east of the sample." Another elevated level in September 1986 is attributed to road construction. Both are clear evidence of the extent to which soil disruption leads to resuspension. These samples also raise questions as to whether or not there were proper warnings given to those doing the plowing and the roadwork.

In 1986, 69 new wells were drilled for groundwater monitoring. It is interesting to note that the 1986 environmental monitoring report states that many of the previous wells were deemed unacceptable. This calls into question previous monitoring data. Data from the new wells show contamination in both bedrock and surficial groundwater. One reading was 32 picocuries per liter for plutonium and 4.4 picocuries per liter for americium.

The 1986 monitoring also shows elevated levels of total strontium in some wells. The 1986 monitoring report indicates that future sampling will show strontium-90 concentrations.

Dangers

Who Is at Risk

The Rocky Flats Plant is located only a few miles from Denver, Boulder, and other large population centers. Half the population of Colorado (1.7 million people) lives within 30 miles of the plant. One of the greatest dangers to the inhabitants of these areas is the possibility plutonium now sitting in the soils at and around the site might be airborne.

The winds in the area around the plant occasionally reach speeds above 100 mph. A definite possibility exists that these winds will resuspend plutonium in the soil, exposing the general population to the possibility of breathing particles into their lungs. The problem is compounded by construction activities at the plant which stir up considerable dust.

The area in general is growing. There is a proposed beltway to the east of the plant where there is extensive contamination. There is also new development to the northeast. Disturbance of plutonium is a real possibility.

Another major risk comes from possible wind damage to buildings, such damage leading to the release of plutonium and other contaminants.

Still another possibility of plutonium being suspended in the air comes from the risk of earthquakes. According to a recent General Accounting Office report, revised Department of Energy safety analyses show that of all potential risks to the public, seismic risks dominate. Several of the buildings are now considered at risk, and the department is working on upgrading some of the structures.

Another risk exists for those populations using the water from the Great Western Reservoir (Broomfield) and Standley Lake (Westminster). Storms and other occur-

rences could stir up the radioactive sediments and expose the population using these water sources to increased radioactivity. Those using the nearby reservoirs for recreation, like fishing and swimming, are also subject to such risks. In the event of major storms it is also likely that more radioactivity will wash from the contaminated creek sediments, from the contaminated landfill, and from other areas, into the reservoirs.

Another threat is fire. There have already been major fires at the site, and others would similarly release radioactivity into the atmosphere. The possibility of an explosion, for example at the proposed fluid bed incinerator, also exists. Either fire or explosion could cause significant loss of life at either Denver or Boulder, depending on wind conditions and radioactive release.

As noted in the Geology and Hydrology section above, winds in the area sometimes blow in the direction of Denver. Thus a statement in the recent environmental report that "a release to the atmosphere under 'worst case' dispersion conditions would not be expected to move directly over Denver" is misleading and incorrect.

Major Accidents

There have been over 200 fires at Rocky Flats since its start-up.

In 1957, there was a major fire in the plutonium production building, releasing, according to the Department of Energy, 26,000 millicuries of alpha radiation into the atmosphere.

In 1962, the prefilters were installed backwards in Building 71, releasing plutonium and other radionuclides. The prefilters were also destroyed by the once in September and twice in December.

In 1964, a chemical explosion in a glove-box, an enclosed unit containing special gloves installed in wall sockets, released 10 microcuries.

In 1965, a glove-box drain plug fire released 1200 microcuries of plutonium.

In 1969, a plutonium glove-box and building fire released 860 microcuries.

Other types of serious accidents have taken place as well.

From 1959 to 1969, an estimated 11 or more curies of plutonium were released as a result of leaking oil drums. In 1970, there was a spill from cleaning a plugged drain.

In 1971, there was a reduction furnace explosion. The same year there was also a plutonium can explosion and another spill from a barrel leak.

In 1972, there was an incinerator glove-box explosion and fire as well as contamination from an incinerator fire. In 1974, there was a control valve failure that released over 900 microcuries of plutonium.

Fortunately, during 1975-77 there were no recorded releases to the air due to accidents.

In 1987, three fires at the proposed fluid bed incinerator lead to a postponement of further testing.

16-Jun-89; EX-00541, PAGE 6 OF 6

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WIPP testimony, 16 June 89, Santa Fe, N.M.

My name is Vernon Kerr and I represent no one other than myself.

For sixteen years I represented Los Alamos County in the legislature and also in the later years a part of Sandoval County. During my tenure I sponsored the bulk of the WIPP related legislation. I have been employed by Los Alamos National Laboratory since 1954. For 26 years I was with the health research group and for over 6 years I worked as a supervisor in the plutonium recovery group. Two years ago I retired but have stayed on as a casual employee to train an emergency response team. I have both a bachelors and a masters degree in chemistry from Highlands University.

My purpose in coming before this group is to urge approval for operation of the Waste Isolation Pilot Project. For too long this project has been an embattled proposal, held hostage by an army of negative Luddites. These negativists have worked to poison the public mind against reason. Their orientation is political not scientific.

It is politically very important to put WIPP into operation to demonstrate the viability of the concept. We know the disposal chambers are in an extremely stable geological stratum which is millions of years old. Logic supports this site as a place to put hazardous materials. The alpha particle emitting transuranic elements with a greater than 20,000 year half-life should decay comfortably in a million year old environment.

There are some WIPP opponents who singularly equate long half-lives with danger and they cite plutonium's 24,000 year half-life as a

[1]

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dangerous property. These people should note that potassium-40 has a billion year half-life and that this naturally occurring isotope is concentrated in the muscle mass of a human body. The more muscular a person is the more radioactive they are. Persons who are really concerned about radiation dose should move out of New Mexico since our annual cosmic ray dose is about twice that at sea level. These levels of dose are higher than those expected from WIPP operations.

Another bit of misinformation which I saw recently in an anti-nuclear letter to the editor cites the myth that a teaspoonful of plutonium would kill everyone on earth. If this were true we would all be long gone. I once calculated that there were several tons of plutonium distributed to the northern hemisphere as a result of early weapons tests. That material is still here.

I would note that a cohort of pioneer plutonium workers who worked without the protection afforded by today's technology have been followed closely in their health history and no significant health problems have been found due to their earlier work. Most of these people are in their late sixties and show only the effects of aging. I can testify to the health of several of them who are friends.

Having said this I must say that I do share the concern for exposures to the general public; however I believe that the issue is being dealt with appropriately. The transportation issue is the only issue that should be of valid concern to the people who are not directly connected with the project. In regard to that issue the multiple containment strategy which is used in moving the material is already a proven measure. In the event of an accident there would

[2]

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7.3.1.1-19

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have to be a penetration through many barriers before anything could escape. The WIPP transportation containers have been tested and modified. It is highly unlikely that an accident would produce contamination.

As of now all material packages destined for WIPP must pass stringent quality assurance tests and be certified as having passed those tests.

I am quite familiar with the materials that are going into WIPP since I probably produced some of them. The trash is metal cans, rubber gloves, plastic bags and sheeting, metal pieces, tools, leached ash, filter media, glass and cement plus a few coveralls and odds and ends of material used in processing. These are encased in sealed heavy plastic bags within heavy sealed plastic bags within sealed steel drums - multiple containment. The drums are transported in overpacks within the transport vehicle. Those wastes which cannot be contained such as liquids and pyrophoric material will not be certified for WIPP disposal.

The Waste Isolation Pilot Project can be "what if'd" to death in search of some abstract perfect and absolute standard for safety. The obtainable at reasonable cost should be the rational goal. There is no wisdom in an asymptotic approach to safety. The "no action" alternative in the SCIS is unacceptable. Let us get on with the project for the sake of national defense and the viability of nuclear technology.

The recent observations on salt bed movement should be recorded and adjustments made to take this into account. Nothing has fundamentally

[3]

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changed in the concept of the project. I am exceedingly disappointed in the actions of the Environmental Evaluation Group. These people should be more practical and rational and not attempt at every turn to prevent the project from going forward. The person who worried over the salt plasticity and cracks making retrievability more difficult gave no degree of difficulty for a benchmark and thus presented a gratuitous negative remark without reason.

This project is a very necessary undertaking, it is safe, lets get on with it!

[4]

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A young Luddite from Old Santa Fe
In the WIPP game decided to play
He said "Wipp's a sin
And we'll never give in.
Just let hot waste stay where it lay."

WIPP.DOC 6/15/89

1-1

WING

16-Jun-89: EX-00543, PAGE 1 OF 7

My name is Elaine Wing
 Live at 539 Hillside Ave, Santa Fe N.M.
 I am an artist
 I am a member of the State Steering Committee
 of the Rain Bow Coalition -
 I wish to state my appreciation to the wapp
 project and to implese each DOE Representative
 to listen with the heart as well as the ear.
 You must understand that there are who
 stand in opposition to so because of our
 deep concern and love for the planet
 and all of its people and for the planet
 earth, which so far has taken a terrible
 beating in return for the countless
 blivings it bestows on mankind.
 by Vincent Ferrini of the spiritual
 This poem expresses the spiritual
 dilemma we are in - Please take
 Confucy - Thank you
 Elaine Wing

539A Hillside Ave. • Santa Fe, NM 87501 • (505) 983-1136

Presented by: 7:45 PM - 6/16/89
 ELAINE WING
 539A HILLSIDE AVE
 SANTA FE, N.M. 87501
 1-505-983-1136
 FOR: DEAR SUPPLEMENT TO THE
 ENVIRONMENT IMPACT STATEMENT
 FOR THE WASH. ISOLATION PLANT
 & NEIGHBORHOOD
KNOW FISH

The Poem!
A Preface to the Art of Fishing

Book IV & V

the community of self

by

Vincent Ferrini

The University of Connecticut Library
 Storrs, Connecticut

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16-Jun-89: EX-00543, PAGE 3 OF 7

A PREFACE TO THE ART OF FISHING

We are all fishermen and fisherwoman.

Christ was one of the biggest and most famous, because He is still a great mind-cleaver, and He lived and lives where it counts, in His flesh. He speaks in parables and tall stories, and He died because He upset human fixturs.

Daniel Barrigan is another deep-sea fisherman, a Jesuit priest and a shaker of routines, he and his committed fisher people, who spilled mortal blood on the cone of an atomic warhead are in the docket for Judgment for their act.

Olson is another fisherman, on the lonely ocean and under the deep waters, hard driven by his quest and obsessions.

Then there are the fisherpeople who go out daily for a week or two and come back loaded with a good catch or a poor one, some ahead some behind.

9-1

We eat bread and fishes, so do we eat words and ideas that reflect every drop of sea-water.

The issues still are how do words and actions, fishes and bread, reason and emotion, dovetail, making something vital that moves us into areas we'd never dream of.

Like democracy isn't given, it is dealt with daily, fishing for the correct solution, each one receiving what is proffered, more or less, and less brings all the abuses of bought power.

How do we throw our lines out for what is missing, and we have to, since we are fishing, and this is our real occupation.

More so, it is our art.

As a plumber fishing for himself, or the carpenter, the lumber, the teacher, the pot hole filler, the executive, the streethopper, the banker, the parent, the city employee, the child in school, the politician, all fishing for life and more life.

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9-1

like the person wanting to be seen, felt, heard, understood, recognized, eating the heart out because of the lack when there's plenty for each one on his and her own terms.

What is interfering with this fishing?

Stinginess of self or non-participation, sticking your neck out because giving is equal to receiving and the risk is the reward.

The examples are the real fishes.

But what has that to do with earning a living, being unemployed, stuck in unsolvable problems, when so much of this heady stuff flies over our hair in words, words so far out we can't measure them without a dictionary strapped to our elbow?

The whole shebang. Because it is all connected, even the dictionary as part of the arm that goes fishing for the meaning of whatever is said, how it is spoken, when and for what and where does it go, can't you say what you have to in simple words?

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Too easy, in one ear and out the other, if you don't hook in or engage, your line has no bait, there's nothing to catch, either of the Other or yourself, it is so common under-evaluating whatever is ongoing and thereby losing the senses of the game.

It's the pitch at which you have your life, that counts, unless someone else has it, for when you get it, you pass it on.

So you dive deep into the ocean for the treasury of the personal unknown, or clutch the ground of being and sway as a limb does, happy as the treestunk singing with all the leaves.

The words you use are you, and you experience the creative and the destructive by who you speak to, don't speak, listening to the Other, learning who says what and why and what for till you defuse projections, disarming the opposition in the Other and yourself, establishing a love for openness, as I am

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improving the language, risking the old for the new.

Knowing where the two weathers are,
and why the fisherman are exercising the
voices of their seas.

Delving for words and the techniques
for synthesizing experience, discovering sounds
as a short cut and the exhilarating ways to get
said what anyone is low or high in, most akin to
the music in the bloodstream, using the Facts
that are full of the poems never on paper.

The ocean belongs to everybody, no one
owns it. We know what the fish is we eat. And
where the light comes from.

In the face of the inexplicable, words
sometimes are the only means of capturing or
revealing the Mystery momentarily, somehow it is
caught, mostly it slips away, and then it
swallows the fisher on a special date for
looking with the Dark.

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16-Jun-89; EX-00544, PAGE 1 OF 2

Betty Platts (Mrs. Frank M. Platts)
5 Torneo court, Eldorado
Santa Fe, N.M. 87505

Statement for DOE - SEIS Hearings

While not officially representing any specific organization, I am a resident of the Eldorado subdivision in Santa Fe County, and believe I speak on behalf of many other residents there as well as myself.

As a rapidly growing community of more than 750 homes at the present time, plus an elementary school only a short distance from highway 285, there has been wide spread concern regarding the safety factors relating to the transport of transuranic wastes to the WIPP site in Carlsbad.

Thus my comments will focus on the safety issue of the nuclear wastes en route and leave the many other issues and questions for others to address.

Despite the fact that highway 285, the only access road for several thousand people who live between I-25 and the Galisteo turn off, has not been designated as the official truck route for these wastes, it has been made clear that this is the expected and preferred route. If this proves to be the case, regardless of where these transuranic wastes come from across the country, the major portion of them are expected to travel down Interstate 25 from the north to turn off at Exit 290 onto highway 285, with its direct route to Carlsbad.

Eldorado's two entrances will be the first roads on the north side of this highway from the turn-off. Because of our growing community, combined with many construction vehicles, there is constant traffic in and out of the subdivision, but with no turn lanes for acceleration or deceleration. The same is true of the more than 20 drives and roads currently existing between I-25 and the Galisteo turn-off just beyond Lamy, and more are due to be added in the near future.

The present two lane road is sorely in need of widening and upgrading, not only in this immediate area but all the way to Clines Corners, before it could possibly be considered safe for the large trucks needed to carry the TRUPACT containers.

7.3.3-4
7.3.31-2

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EX00545

The other day I was returning to New Mexico from a vacation. Since moving here in 1981, it was the 3rd time I've driven across the state line, and the first time I've fully seen the astounding beauty of this state. The rest of other Americans, the psychological I experienced as a child in me to the winds of this quiescent ground upon which we walk. Unlike a woman who spoke earlier, I didn't worry about nuclear war ~~was~~ when I was a child. I was already living outside of my body because that was the support system to be given. I've lived here now for 8 years, and one of the gifts of this special place has been a slow and painful unearthing of my own illusions and denial so that now I do fear nuclear disaster and I do fear a catastrophe at WIPP and the dismantling of this enchanted land.

The other day, when I winged up Hwy 285 to Santa Fe, I was tired, ready to hurry home. I wondered if the chains of the trucks would feel the same way. I passed a yellow coded sign that said - "hey, that place in the road is poisonous in summer, much less winter. I wonder how long it would be before the disaster occurred. I

3.1-8

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EX00544

Whether or not the wastes from Los Alamos eventually travel this road or whether some of the wastes will travel by rail car, there will be a major impact on this portion of Santa Fe County and should be addressed and remedied before the WIPP site opens.

In conjunction with this problem there is always the possibility of accidents involving these trucks, whether or not any radiation might be released. For this reason, it should be considered vital for public safety to provide good on-going training for all local emergency responders, as well as proper clothing and equipment, even if they are not expected to be faced with an emergency involving it is quite possible for them to be faced with an emergency involving injuries before experts could arrive on the scene. It is also essential for health care facilities to be prepared to treat accident victims where radiation contamination might be a factor. Judging from recent newspaper reports there appears to be little awareness of this need on the part of the medical community.

Therefore it seems extremely important that not only the site itself be safe and fully tested; the TRUPACT containers be fully tested and approved; and the trucks and drivers prepared for any contingency; but that these additional factors be included as part of the whole before any final approval is given.

Retty Meltz

June 15, 1989

For the record I wish to protest the fact that I was never notified of when and where I was to speak, despite that assurance in the letter received with my packet. I also protest the use of extra rooms for parallel hearings and believe planning should have included adequate time for all to be heard in one place.

7.3.4
7.3.1-2

7.12.1
7.12.2
7.12.5
7.12.7

1-3

8-6
8-7

laughter - you to look not your own denial, illusion,
and pain, not take mother had look not,
why you want to sacrifice we not
yourselves for mother's sake has not
been thought from a seen for what it
only is.

Thank you.

Ex 00 546

My name is Matt Haggala

I have had a home in Santa Fe since 1984.

About 15 years ago I became very interested in the effects of natural and man-made radiation concurrent with this I also became concerned about the possibility of nuclear powerplants having environmental consequences about the pursuit of these interests led to my professional concerns of its use. Some time later I was employed as a systems engineering and an MBA manager then I have been employed as a systems engineering and an MBA manager. I am now involved in detection and measurement instrumentation and radiation monitoring instrumentation for the development of new technology for the last eight months I have been involved in the development of new technology for the detection and measurement of radon gas.

I mention this because I think that to few people take time to assess the analytical comparisons of the risks we are all exposed to and are to quick to condemn and mistrust the people who have taken the time to become experts in this type of analysis. My experience has been that all of the few hundreds of people I know of the few hundred thousand who routinely work in nuclear plant and other radiation environments are acutely aware of radiation risks and would do nothing to jeopardize the public safety.

[illegible]

The people in and associated with DOE have done an excellent job in designing the WIPP. Even if it is less than perfect it is far better to go ahead with storage at the WIPP site than to leave the waste in its present locations.

M. H. H. H. H.

Exhibit 00547

Robert Durkee

Framed poetry and sketches submitted as exhibit. The poem reads as follows:

O' Great Spirit,
Whose voice I hear in the winds
And whose breath gives life to all the world,
Hear me! I am small and weak, I need your
strength and wisdom.

Let me walk in beauty
and make my eyes ever behold
the red and purple sunset.

Make my hands respect
the things you have made
and my ears sharp
to hear your voice.

Make me wise
so that I may understand
the things you have taught
my people.

Let me learn the lessons
you have hidden in every
leaf and rock.

I seek strength, not to be greater than
my brother, but to fight my greatest
enemy-myself.

Make me always ready
to come to you with clean
hands and sought eyes.

So when the ladies, as the ladies
sunset, my spirit may come to
you without shame.

9-1

DOE SEIS Project
P. O. Box 5400

Albuquerque, NM 87115

I am a registered and active voter in Galisteo, NM, located between Highway 285, the major truck route for WIPP, and the ATSF rail line which will be used for the shipment of wastes from Rocky Flats. There should be no waste placed in WIPP until it meets federal health and safety regulations.

There should be no waste transported until the cask has been certified by the NRC. I am understandably concerned that although you state in the SEIS report that these regulations will be met, you cannot now meet them and insist on adhering to a startup date in September regardless of whether you can meet these requirements or are under indictment for falsifying reports and illegally disposing of wastes in other areas.

SEIS states that the TRUPACT-II container is undergoing "rigorous tests and analyses in order to be certified by the NRC. The tests require the package to withstand being dropped on an unyielding surface (concrete) from a height of 30 feet; punctured by a blunt spike six inches in diameter after being dropped from a height of three feet; and burned at a minimum temperature of 1475 degrees for at least 30 minutes."

These requirements seem to be geared toward accidents in loading, whereby a container would be dropped onto a flat concrete surface or punched by a forklift. The concern of the general public is accidents during transportation of the containers. How many times have you seen a blunt spike travelling down the highway? Why not simulate an actual accident? \$770 million has been spent on WIPP; another one to two hundred thousand would be a pittance and would do much to allay our fears. Automobile manufacturers meet safety requirements by subjecting vehicles to crash tests at realistic speeds. Why not load up a truck with TRUPACTS filled with a traceable liquid and run it off a bridge? I know of one bridge, at the intersection of Highway 285, State Highway 41, and the railroad, which has no shoulders and upon which a transport driver could easily encounter a drunk driver in the middle of the road. What would happen? If he ran off or even just into the side of the bridge, the containers could flip onto the rails below.

Steel rails are not a flat concrete surface, and could present a more "rigorous" test. Another example nearby is the hill into the Galisteo Basin, or Lamy Hill, which is curved throughout its entire length and becomes a sheet of ice at times in the winter. What testing have you done that could prove that these

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3.1-3
3.1-10
4.1-3
7.3.1-27.3.4-2
7.3.4.1-1

containers could withstand tumbling over boulders at high speeds off the side of that hill? We are not convinced that a blunt spike from three feet away, at possibly ten mph, would duplicate that scenario.

As the draft SEIS states, the DOE admits that "...extremely small airborne releases (from TRUPACT) will be experienced during routine operations (such as transportation)." Just how small is "extremely small"? If you are transporting plutonium, microgram quantities are sufficient to cause lung cancer. Additionally, the potential for human error is not a factor in any of the models used to calculate accident and exposure risks. Human error has been at the root of many of our most devastating disasters, such as Chernobyl, Three Mile Island, the recent ELIXON oil spill, and the gasoline explosion in the Soviet Union. Consideration of an equipment failure only is entirely inadequate and misleading. For Chernobyl it was predicted that there would be 1 accident in 10,000,000 reactor hours; the Chernobyl accident happened after 300 reactor hours. For Three Mile Island it was predicted that there would be 1 accident in 3,000,000 reactor hours; the accident at TMI occurred after 500 reactor hours. The maximum credible accident predicted for the Valdez involved the loss of 10,000 gallons of oil; the recent spill involved 11,000,000 gallons of oil. Without factoring in human error we have accidents that in reality are 1,000-100,000 times more probable or more severe. The SEIS assessment of the health risks and environmental hazards posed by potential accidents is underestimated and completely invalid due to this glaring omission.

On Feb. 21, Troy Wade, then-acting assistant secretary for the DOE's defense programs, told a Congressional committee that DOE is considering relocating its plutonium processing facility from Rocky Flats, CO to the WIPP Site. Is this the reason for the push to open WIPP?

SEIS states "In summary, no environmental reasons have been found why TRU waste could not be left at the Idaho National Engineering Laboratory stored as it is for several decades or even a century." Please take some more time to demonstrate to all of us that your concern for our health and safety has lead you to do everything you can to insure them.

Sincerely,

Rebecca Saxon Scharf

Rebecca Saxon Scharf
Star Rt, Box 44
Galisteo, NM 87540

7.3.4.2
7.3.4.1-1

7.3.5.1
7.3.5.2-4

3.1.2
3.1-6

EXISTING LLW TREATMENT AND DISPOSAL TECHNOLOGY OFFERS 17-TO-1 VOLUME REDUCTION AND ADVANCED DISPOSAL AT LOW COST(a)

G. Ross Darnell and Milo M. Larsen
Idaho National Engineering Laboratory
EG&G Idaho, Inc.
Idaho Falls, Idaho 83415

ABSTRACT

Existing technology was used to develop a conceptual design for a Waste Treatment and Disposal Complex (WADC). The designed facility would treat nearly 100% of all solid low-level radioactive waste (LLW), regardless of waste classification. Approximately 95 vol% of all LLW would be delivered in reusable shipment containers to the WADC, where treatment would produce a liquid-free, densely-compacted, 98 vol% inorganic waste. The treated waste would be packed with contaminated grout in uniform, smooth-sided, thin-walled, steel boxes. The boxes are stacked tightly in above-grade, earth-mounded, concrete, disposal vaults, where they will be protected from water after vault closure. The 210-pound-per-cubic-foot waste prevents subsidence. Engineered earthen covers are placed over the vaults at the final closure and should keep water out of the waste long after vault degradation. A volume reduction factor of 17-to-1 is achieved through sorting, incineration, metal sizing operations, intense compaction, and grouting. The total cost for design, construction, testing, 30 years of treatment and disposal, administration, decontamination & decommissioning, site closure, and postclosure monitoring and maintenance will cost \$13 per cubic foot in 1988 dollars for an annual incoming-waste volume of 450,000 cubic feet. In comparison, estimates of present disposal costs range from around \$20 to \$113 per cubic foot.

BACKGROUND

Increasingly stringent requirements for treatment and disposal of low-level radioactive waste (LLW) set forth by the Nuclear Regulatory Commission (NRC), Department of Energy (DOE), Environmental Protection Agency (EPA), and various agencies of state governments are largely a result of shallow-land burial of untreated LLW and resultant instances of groundwater, soil, and atmospheric contamination.

New direction in environmental regulations concerning acid rain, the ozone layer, hazardous waste, etc. is making nuclear energy more environmentally acceptable, if not preferable. However, we must solve the problems associated with disposal of nuclear waste if we are to establish public acceptance of nuclear power.

a. Work supported by U.S. Department of Energy, Idaho Operations Office, Under DOE Contract No. DE-AC07-76ID01570

We have sufficient data from successful and unsuccessful experimentation in both waste treatment and waste disposal techniques to act now.

DECISION TO STUDY

The Defense Low-Level Waste Management Program decided to draw from the best of the free world's waste treatment and disposal technologies and create a conceptual design for a waste treatment and disposal complex that would achieve a 1700% volume reduction and high-quality disposal. The design would be for "anywhere USA". This study would confirm the belief that the nuclear industry could put all of its assets together and produce a top-of-the-line disposal program at an economical price. Development of the design and cost estimate would not require an in-depth study of all the complex waste scenarios found in the USA. Rather, a decision was made to develop the design for processing solid LLW only, a waste that is typical of the national average. Volume-reduction factors were to be based strictly on known data that could be substantiated by operational LLW volume-reduction programs. If the concept were proven realistic, the conceptual design could be used by any site in the USA as the genesis for Title I and Title II design of a treatment and disposal center for the specific waste to be processed.

The design would meet or exceed the requirements of 10 CFR 61 and Chapter III of DOE Order 5620-2A, the regulations of state governments, and the perceived desires of the public. In general, the treatment and disposal concept to be developed would significantly reduce the chance of contaminating the environment, reduce future liability, and improve public perception of the nuclear industry.

COMPLETED STUDY

The study has been completed and published as an Informal EG&G Idaho, Inc. report, "Application of Existing Low-Level Waste Technology Offers 17-To-1 Volume Reduction and Enhanced Disposal At Low Cost", EG&G-LLW-8054, October 1988. The report is available upon request from the Defense Low-Level Waste Management Program, EG&G Idaho, Inc., from Ross Darnall, (208) 226-0516 [FTS 680-0516], or from Milo Larsen (208) 526-4225 [FTS 583-1225]. This paper summarizes that report, and references that might be listed in this paper are found in that report.

EXCLUSIONS

The conceptual design was kept simple by virtue of exclusions. The WTCF was designed to process LLW only; although, the incinerator chosen and costed for the Waste Treatment Facility (WTF) will accommodate mixed waste. The WTF was not designed to accommodate combustible liquids, but could be modified to do so at very little additional cost. Pyrophoric waste and waste emitting >500 mEq/h were excluded from the treatment process and had to be stabilized in high-integrity containers (HICs) or in casks and were to be generators and disposed of in the Waste Disposal Facility (WDF). Those two types of waste constituted less than 0.3 vol% of the waste analyzed for the design. Melting is a viable option, but the waste analyzed for this study did not warrant melting.

IMPORTANT DETAILS OF DESIGN AND OPERATION

Collocation of the WTF and the WDF is one of the economizing features of the WTCF. It allows a single team under a one manager to handle both waste treatment and waste disposal. Transportation of treated waste to the disposal vault is a highly automated function on a dedicated transfer system. The WTCF is in reality a one facility, one operation.

The WTF will fully treat all waste using exactly the same processes, regardless of DOE or MRC waste classification. Sorting makes it possible to incinerate nearly all organic material and to compact the inorganic material. The result of those processes is that no free liquids will leave the WTF for disposal. An estimated 98 vol% of the waste leaving the WTF will be inorganic, which minimizes the probability of rotting waste, gas generation, and subsidence after disposal.

Fig. 1 shows the first-floor layout of the WTF, and will assist in understanding the treatment processes. Most current LLW operations treat a portion of the waste, and when all the available waste is considered, an overall volume reduction of 50% may be achieved. Sorting is the key to 1700% volume reduction achieved in the WTF. To achieve 1700% volume reduction, it is essential that nearly 100% of generated solid LLW to be routed through the WTF.

Unsorted Waste

Some 65 vol% of the overall waste generated will be transported to the WTF in standard-sized reusable bins. Waste in those bins will be transferred by a double-lid transfer system to a lazy-susan sorting table, which is similar to baggage claim systems found in airports. At the sorting table, approximately 25 vol% of the total generated waste consists of organic waste such as plastic bags, wipes, shoe covers, and rags that can be separated from inorganic waste and routed to the organics shredder via conveyor. After shredding, those organics are routed to the incinerator.

The remaining waste is inorganic and is routed by conveyors for plasma-arc torch sizing, shear sizing, shredder sizing, or is routed directly to the fines separator. The fines separator routes fines to the grout mixer and routes sized large-fraction waste to a puck box. Once filled, the puck box is automatically routed to the 5000-ton compactor, where it is reduced to a rectangular "puck."

Prepackaged Incinerable Waste

Approximately 30 vol% of the waste is incinerable waste packaged in cardboard boxes by the generators and is delivered to the WTF in reusable international cargo containers. That boxed waste is then routed directly to the WTF incinerator without sorting. Altogether, about 55 vol% of the total generated waste is incinerated and the ash is blended into a grout mixture for an overall volume reduction of 124-to-1.

Waste Unsuitable For The WTF

Three tenths of one percent of the waste analyzed in the development of the report was above the 500 mB/h limit established for the WTF. This waste does not enter the WTF, but is instead concreted in place in the vault's waste stack.

Waste for Sizing

The remaining 9% of the generated waste consists of large items that require sizing before incineration or compaction. That waste is delivered directly to the sizing area and is not processed through the sorting area.

Jigs, fixtures, and other cumbersome, contaminated, metal waste items too large for delivery in reusable bins are delivered directly to the sizing area through a large airlock. Once sized by torch and/or shear, those metal items can be placed in the shredder for further sizing, or in the fines separator for direct delivery to the compactor.

Railroad ties, pallets, and such are also delivered through the sizing area airlock and are then routed through the WTF to the organics shredder, whether they are in reusable bins or are specially packaged. Reusable bins filled with inorganics such as dirt, rock, pavement (usually from decontamination and decommissioning efforts) would also be delivered in this manner to bypass the sorting table and go directly to the inorganics shredder.

Grouting is the final treatment and follows compaction. A layer of grout is placed in a standard-sized 12-gauge carbon-steel box and a puck is lowered into the box. Since the puck has a smaller cross section than the box, grout oozes up around the puck. Another layer of grout is placed on top of the puck and another puck is lowered into the box and so forth, until the box is full. When the grout is screed level with the top of the box, a lid is secured and the box is placed in storage until the grout has cured. It is extremely important that the boxes be exactly the same size for void-free stacking. Therefore, a mold-form is fastened around each thin-walled box to prevent bulging. See Fig. 2 for details on this important concept.

Once the grout is cured, the mold-form is removed and the box goes through the normal package-identification procedures (weighing, contamination check, radiation analysis, classification, inventory control, and so forth). The box is then routed to the WTF vault on a small, covered railcar via a dedicated narrow-gauge rail system. The waste-box delivery zone and the entire vault are covered by a metal roof to protect the waste. See Figure 3.

It is the use of reusable containers that provides a major cost savings in the 30-yr life of the WTF; the WTF will be disposing of approximately 17 times fewer containers, each of which is expensive. In contrast, the onetime procurement cost for 1600 reusable containers is small.

When a specified quantity of waste boxes has been stacked to the top of the vault (see Fig. 4), the metal roof covering that section is removed and a water-shedding concrete roof is poured directly on the waste stack (see Fig. 5). The waste placed in the vaults will be grouted and compacted to an average density of approximately 210 pounds per cubic foot, capable of withstanding the weight of the concrete roof and overburden with a roof subsidence of less than 0.1 in.

Upon closure, the vaults will be covered with the best combination of materials, which will be determined by the latest engineered vault-cover tests as of that date. Fig. 6 shows the vault and details a cover engineered in France that only allows 0.1% penetration by the 1-meter annual rainfall in the area. Whatever the climate, the engineered cover would be designed to prevent erosion, and biotic and water intrusion. An important feature is that the vaults will be built above grade and above the probable maximum flood plain. Properly designed, the cover should require no maintenance after final closure.

Even after degradation of the concrete vault and the grout, the combination of very dense, inorganic waste and essentially no voids in the waste stack ensures that subsidence will be practically nonexistent. With subsidence eliminated, the earthen cover should continue indefinitely to function as a shield, shedding water away from the waste.

RADIATION PROTECTION

For maximum protection against intrusion, the waste packages with the highest waste classifications (first priority) and the highest radiation levels (second priority) will be placed along the center line of the vault on the bottom layer; the least hazardous waste packages will be placed along the walls and on the top (sixth) layer. That will ensure only background radiation levels at the external surface of the concrete disposal vault, and of course, only background levels at the surface of the earthen cover, thus exceeding the requirements of applicable regulations.

VERSATILITY OF THE WTF

As designed, the WTF could accommodate extreme variations in waste composition, with no adverse impact on operations. The WTF is designed to treat waste at a rate of 450,000 cubic feet per year (the average annual volume of waste disposed of at DOE LLW disposal sites); however, it will accommodate six or seven times as much waste by increasing the operations crew and implementing a three-shift, 7-days-per-week, work schedule. As waste throughput increases, the cost of treatment and disposal decreases and of course, the opposite is true. The designed complex allows one area to close for maintenance with minimum impact on operations in other areas.

VOLUME REDUCTION POTENTIAL

Over a 30-yr period, the WTF would treat 13,500,000 cubic feet of incoming LLW and produce 790,000 cubic feet for disposal in the WTF. The technical volume reduction achieved by treatment alone is 17-to-1. The actual

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volume reduction for disposal is 19-to-1, which is achieved by using smooth-walled, standard-sized, rectangular parallelepiped overpacks, with no appendages. This ensures that extremely dense packing in the vaults can be achieved. See Fig. 4 and 6. (Cylindrical containers and containers with forklift cleats or lifting lugs create a lot of voids in today's waste stacks.)

Note: Volume reduction ratios of 17:1 and 19:1 are impressive, but these will increase and decrease as the waste composition changes. What is important is that, short of melting, the density for any given waste will be near the maximum achievable.

SAFETY

Streamlined treatment processes, waste stability, standard-sized disposal containers, a dedicated transportation and stacking system for disposal facilities, and collocation of waste treatment and waste disposal facilities, all permit a reduction in handling and transportation. In turn, those factors improve safety and minimize radiation exposure of the technicians. Some specific examples follow. Only a portion of one technician's time will be required daily to place the two LLW overpacks in the disposal vault with remotely operated stacking equipment. Standardized disposal boxes that are relatively small lend themselves to the effective use of both permanent and temporary shielding during filling, curing, and transport to the vaults. Tremendous reduction in disposal volume and the self-shielding waste form also reduce the overall radiation exposure of workers. By virtue of the entire WDC concept, future intruders are less likely to encounter radiation.

COST

Based on the waste treatment and disposal concept developed, the total cost of treatment and disposal over a 30-yr period will be approximately \$13 per cubic foot--considerably lower than present average disposal costs.

CONCLUSION

Even though shallow-land burial may meet existing regulations, complete treatment and enhanced disposal of LLW will surely be perceived by the public as a positive change and may well be a factor in leading the way toward public acceptance of nuclear power as a pollution-free source of energy for the nation. When all this can be achieved at a lower cost than current practices, why not do it?

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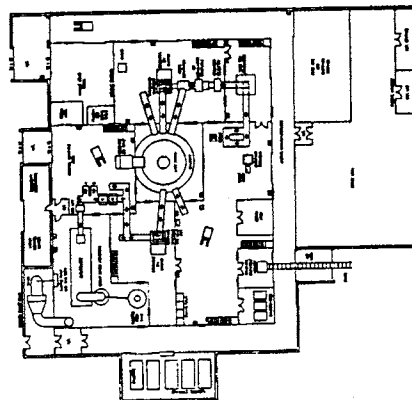
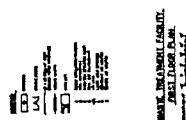


Figure 1. WTR, ground floor



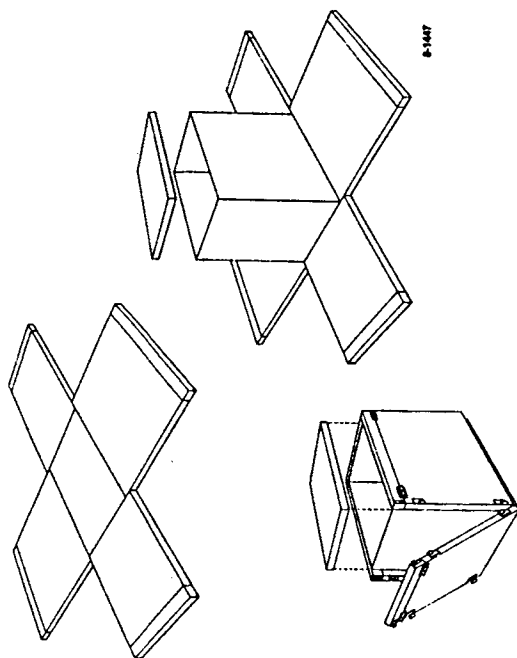


Figure 2. Mold-form and puck box interface

View A: A mold-form is shown laid out in the horizontal position ready for a new empty overpack box. It is constructed of 1-in. steel plate. All four side walls are joined to the central floor plate by hinges. The entire mold-form will be coated with mold release to ensure that grout does not cause the mold-form to adhere to the overpack box, and to ensure that splattered grout can be easily removed by washdown.

View B: An empty overpack box will be properly centered before the sides of the mold-form are raised to their vertical positions. The overpack lid is shown suspended above the overpack box.

View C: The heavy sides of the mold-form will be raised mechanically and locked together at the corners. The corners will overlap as shown to assure maximum radiating shielding is provided by the mold-form. Note that the top edges of the sides are hinged and can be lowered for placement of the overpack lid after the grout is in place. With the lid in place, the top edges will be raised and locked in place again for grout curing.

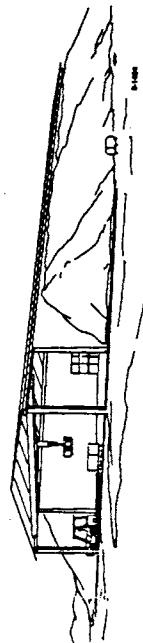


Figure 3. MDE vault configuration

A narrow-gauge railroad track that continues at the aft will run over the top of the vault. A bridge crane rail will be installed along the top of the vault. A removable metal roof will be installed on the exterior of that rail to keep rain and snow off the vault. The bridge crane and rail will be lifted by the bridge crane. The overpack boxes are shown in the vault, and the bridge crane will be used to move them.

reflector and placed on the track in the vault. A bridge crane rail will be installed along the top of the vault. A removable metal roof will be installed on the exterior of that rail to keep rain and snow off the vault. The bridge crane and rail will be lifted by the bridge crane. The overpack boxes are shown in the vault, and the bridge crane will be used to move them.

A narrow-gauge railroad track that continues at the aft will run over the top of the vault. A bridge crane rail will be installed along the top of the vault. A removable metal roof will be installed on the exterior of that rail to keep rain and snow off the vault. The bridge crane and rail will be lifted by the bridge crane. The overpack boxes are shown in the vault, and the bridge crane will be used to move them.

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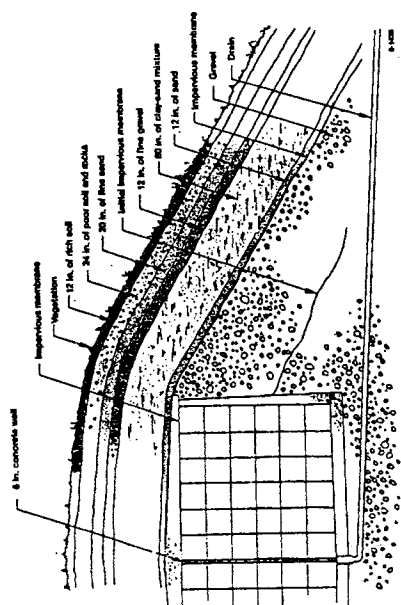


Figure 6. MRF vault cover materials

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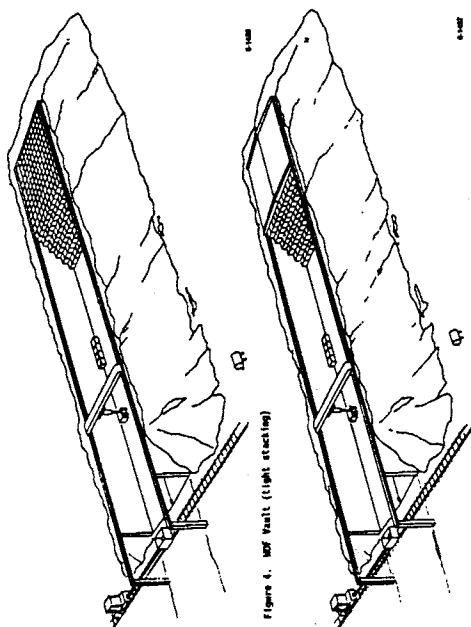


Figure 4. MRF vault (light stocking)

Figure 1. MRF vault (concrete roof)

//////////FIGURE TITLES AND WORDS FOR FIGURES//////////

Figure 1. WTF, ground floor

Figure 2. Mold-form and puck box interface

//////////words for Figure 2//////////

View A: A mold-form is shown laid out in the horizontal position ready for a new, empty overpack box. It is constructed of 1-in. steel plate. All four side walls are joined to the central floor plate by hinges. The entire mold-form will be coated with mold release to ensure that grout does not cause the mold-form to adhere to the overpack box, and to ensure that splattered grout can be easily removed by washdown.

View B: An empty overpack box will be properly centered before the sides of the mold-form are raised to their vertical positions. The overpack lid is shown suspended above the overpack box.

View C: The heavy sides of the mold-form will be raised mechanically and locked together at the corners. The corners will overlap as shown to ensure mechanical stability. The overpack lid is provided by the mold-form. Note that the top edges of the sides are hinged and can be lowered for placement of the overpack lid after the grout is in place. With the lid in place, the top edges will be raised and locked in place again for grout curing.

Figure 3. MDF vault configuration

//////////words for Figure 3//////////

A narrow-gauge railroad track that originates at the WTF will end here at the front of the vault. A bridge crane rail will be installed along the top of the vault walls, and a removable metal roof will be attached to the exterior of that rail to keep rain and snow out of the vault, off the bridge crane and rails, and off the railroad track at the overpack unloading site. Each overpack box will be lifted by the bridge crane from the

railcar and placed on the stack in the vault, or stored along the wall for future permanent placement. All free liquids will have been removed from the waste during treatment. If deemed necessary, the exposed end of the vault could be closed off to further prevent water from entering the vault. The goal is to keep the overpack boxes dry during transport to the vault, during the stacking operation, and through vault closure.

Figure 4. MDF Vault (tight stacking)

Figure 5. MDF Vault (concrete roof)

Figure 6. MDF vault cover materials

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KAY CARLSON P. O. BOX 6430 SANTA FE, NEW MEXICO
87502

BUSINESS AGAINST WIPP NEW MEXICO 6 YEARS

FIRST REGISTER OBJECTION TO THE DOE SPLITTING THE
HEARINGS INTO THREE SEPARATE ROOMS. THIS PROCESS IS
DENYING MY RIGHT TO BE HEARD AND THE RIGHTS OF ALL
CONCERNED TO HEAR ALL THE TESTIMONY BEING PRESENTED TO
THE DOE AT THESE HEARINGS. THIS IS A BLATANT ABUSE OF
DUE PROCESS.

NEXT I MUST INSIST ON NO LAND WITHDRAWAL BILL BEING
PASSED. ALL UNRESOLVED ISSUES MUST BE DEALT WITH FIRST.

AND, MOST ESSENTIALLY, THE DOE MUST NOT OPEN WIPP
WITHOUT FIRST MEETING THE NEW EPA SAFETY STANDARDS.
HOW MANY MILLIONS OF DOLLARS MUST BE SPENT TO SAVE THE
BILLIONS OF DOLLARS AND UNCOUNTED LIVES THAT WOULD BE
LOST SHOULD THERE BE ANY KIND OF ACCIDENT. BOTH IN THE
TRANSPORTING OF THE RADIOACTIVE WASTE AND IN THE
STORAGE OF THE WASTE.

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5-2-2

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THE LOSS OF JOBS, MONEY, AND LIVES IS NOTHING COMPARED
TO THE DESTRUCTION OF OUR MOTHER, EARTH.

BECAUSE I AM HERE BEFORE YOU TONIGHT, I'M SURE YOU KNOW
MY FEELINGS ABOUT WHAT THE REAL SOLUTION TO THE
RADIOACTIVE WASTE PROBLEM IS:

STOP CREATING IT

BUT I'M PRACTICAL AND SAY, ALL RIGHT, IT'S HERE, AND
UNFORTUNATELY HERE TO STAY, AND UNFORTUNATELY HERE TO
STAY FOR A LONG TIME, AND SO STEPS MUST BE TAKEN -- NOW

-- PLEASE DON'T ENDANGER ANY MORE LIVES BY TRANSPORTING
THIS WASTE THOUSANDS OF MILES ACROSS OUR MOTHER EARTH.

CLEANING UP, DEACTIVATING, AND PROPERLY AND SAFELY
STORING RADIOACTIVE WASTE NEEDS TO BE IMMEDIATELY
ADDRESSED BY THE GREATEST MINDS AND SCIENTISTS ON THIS
EARTH.

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I LIKEN USING NEW MEXICO AS A DUMPING GROUND FOR RADIOACTIVE WASTE TO THE SINS OF DEVELOPED COUNTRIES DUMPING THEIR TOXIC WASTE AND GARBAGE ONTO THIRD WORLD COUNTRIES.

WE THE PEOPLE OF NEW MEXICO WANT A VOICE IN OUR DESTINY. WE INSIST ON IT AND WE DEMAND THE RIGHT TO BE LISTENED TO. MY FERVENT HOPE IS THAT SOMEONE WILL ACTUALLY LISTEN TO WHAT WE SAY HERE THIS WEEK AND WHAT HAS BEEN SAID ALL OVER THE COUNTRY.

RADIOACTIVE WASTE IS NOT JUST A SANTA FE ISSUE. IT IS NOT JUST A NEW MEXICO ISSUE. IT IS NOT JUST A UNITED STATES ISSUE. IT IS A WORLDWIDE ISSUE.

WE DO NOT WANT ANOTHER FERNALD, SAVANNAH RIVER OR ROCKY FLATS HERE IN NEW MEXICO.

JUST BECAUSE WE HAVE WIDE OPEN SPACES THAT LOOK EMPTY AND USELESS DOESN'T MEAN THAT YOU OR ANYONE ELSE HAS THE RIGHT TO COME AND ABUSE THESE SPACES

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16-Jun-89, EX-00550, PAGE 4 OF 4

I AM HERE TO TELL YOU THAT UNLESS ALL SAFETY STANDARDS ARE MET, AND UNLESS YOU CAN PROVE THAT THERE IS NO ALTERNATIVE TO TRANSPORTING THIS WASTE AND THAT IT CANNOT POSSIBLY BE SAFELY STORED WHERE IT NOW IS, I WILL DO EVERYTHING IN MY POWER TO STOP THIS PROJECT. AND I CAN ASSURE YOU THAT I AM NOT ALONE.

USED THINK GOOD GUYS
LOVE SANTA FE LOVE NEW MEXICO LOVE UNITED STATES
LOVE MY COUNTRY

I AM A PATRIOT AND I LOVE MY COUNTRY BECAUSE MY COUNTRY IS ALL I KNOW

BUT MOST OF ALL I LOVE MOTHER EARTH AND WE HAVE TO STOP ABUSING HER.

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3.1-8

Gabriele Said

Although I am not a US-citizen I am a human being of the earth. And this planet belongs to all of us.

Everybody should be responsible for the earth and its belongings.

I am from Germany and I can recall myself as one of the victims of the Technological accident when this happened we heard for weeks the same horrible messages over the radio. They said: "don't go out when it is raining!" "don't let your children play at the playgrounds!" "Clean your shoes when you come from outside!" "don't eat these and those vegetables" - etc.

It seemed like war and left a horrible impression on me and all of us who were involved. I don't know to what degree I am contaminated.

So I want to speak out against nuclear technology in its unsafe condition and who stop W.T.P.

Thank you



WASTE ISOLATION PILOT PLANT

A Research and Development Facility of the U.S. Department of Energy



HIGHWAY ROUTE SELECTION

Traditionally, the choice of the highway routes used for the transportation of hazardous materials has been the prerogative of the carrier. The choice was determined by the routes authorized in the carrier's Interstate Commerce Commission (ICC) Certificate or subsequent carrier's certificate.

Due to the perceived risks associated with the transport of radioactive materials, various local governmental units began a random process of banning or limiting the movement of radioactive materials through their jurisdictions. Since there are many such local units, the nation was faced with a potential breakdown of the transport system.

To forestall such an occurrence, the U.S. Department of Transportation (DOT), which is the cognate federal agency, undertook a rule making action to examine the relative roles of federal, state, and local agencies in establishing the routes to be used in transporting placarded shipments of radioactive materials. An Advance Notice of Proposed Rule Making was published on August 17, 1978. The final rule was published on January 19, 1981. The content of the final rule can be summarized as:

1. The primary safety mechanism imposed on the transport of radioactive materials is the strict demands on packaging requirements. Properly packaged radioactive materials can be moved around the country with the same degree of safety (as in perfect safety) as other hazardous materials, liquid propane, explosives, chlorine, gasoline, etc.
2. Recognizing the increased safety features inherent in the Federal Interstate Highway System, movement of radioactive materials should be routed on Interstate Highways, including Interstate bypasses around population centers, as the reference choice.
3. If a different route choice provides a demonstrated added degree of safety, the individual state may make that determination and enforce the use of the designated preferred route. The DOT has chosen the state government for this role because it results in a reasonably small number of government units (there are some 23,000 county and local government units) and because the state is sufficiently large to achieve an overall approach to routing determinations.
4. However, the DOT recognizes that highway safety considerations can be and are highly local concerns. Therefore, the DOT specifically requires that the process of designating preferred routes be designed to involve

participation by local government representatives and members of the general public.

5. Finally, reflecting the position expressed in Item 1, state and local governments must not interfere with the movements of radioactive material shipments from points of origin along direct access to Interstate Highways, or from the Interstates to specific destinations. Similarly, normal use of non-Interstate roads for purposes of refueling, rest stops, repairs, etc. may not be denied.

As a result of the above stated DOT policies, the WIPP transportation routes have been chosen to make maximum use of the Interstate Highway System.

Transportation within the state of New Mexico has been routed using unique considerations. The routes have been identified explicitly in the Supplemental Stipulated Agreement between the DOE and the state of New Mexico. The Agreement recognized that movements between incoming Interstate Highways and the somewhat remote WIPP facility site would realistically involve significant stretches of conventional highways. A corollary consideration was that, as best state, these highways would see relatively concentrated service. Therefore, the DOE agreed to support the state in efforts to obtain from Congress the funds necessary to repair and upgrade the routes designated in the Agreement. In the face of stiff national economy measures, limited Congressional representation, and high inflation, the projected funding has finally been obtained.

In summary, the WIPP Project has planned the use of transportation routing in strict accordance with U.S. DOT regulations and the legally binding Supplemental Stipulated Agreement. In addition, the Project operates an Institutional Program which is tasked to maintain continuing effective contacts with affected state and tribal governments. Should any state legitimately designate preferred routes that would affect our present route choices, the Project would be aware of such actions and would adjust our route choices to comply with the state action.

NO HEARINGS HAVE BEEN HELD
WITH THE PEOPLE ON 285
OFF EXIT 290 KM 200

Additional information can be obtained by contacting:

U.S. Department of Energy	Westinghouse Waste Isolation Division
Office of Public Affairs	Public Affairs
WIPP Project Office	WIPP Project
P.O. Box 5090	P.O. Box 5078
Carlsbad, N.M. 88221	Carlsbad, N.M. 88221
Telephone (505) 887-8117	Telephone (505) 885-5883

E.W.Markus

June 16, 1989

Mr. W. John Arthur
SEIS Project Manager
Department of Energy
Albuquerque Operations Office
PO Box 5400
Albuquerque, NM 87115

From the reports I've read concerning the recent events surrounding the investigation of the Department of Energy activities at Rocky Flats would indicate that they are untrustworthy and certainly their advice on the safety of the WIPP site is to be questioned.

Of course if the people in charge at the Department of Energy who are making the decision concerning the site's safety feel strongly about their assurance that "everything is OK" then they should "put their life where their mouth is" and should physically move with their families and loved ones to the site for a period of at least two years. Then and only then should this method of nuclear disposal be proceeded with.

Of course I'm aware that nuclear waste has to be disposed of ... however we as a nation created the problem and therefore a solution must be found.

It should be the government's number one priority to put our scientists to work to find a better solution than burying this waste in the bowels of the earth.

Having the brilliance to discover nuclear power in the first place that given enough monies and facilities at their disposal these same said scientists surely should bring about a safe disposal way to ultimately save our planet from an absolute destruction.

Please, please for the sake of our children's lives and our own stop these proceedings now ... until it

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E.W. Markus

-2-

is proven unconditionally that the WIPP situation at Carlsbad is 100% safe or until our scientists find an unequivocally safe manner to dispose of this dangerous waste.

Yours Respectfully,



E.W. Markus

128 N. Guadalupe
Santa Fe, NM 87501

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WIPP HEARING -
SANTA FE, NM
JUNE 17, 1989

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KAREN ROBERTSON

107 TEMPLON ST.
SANTA FE, NM 87501

Thank you for the opportunity to speak today. I am disappointed that I am unable to be heard by and to hear everyone that has taken a step forward in voicing and today these past two days and today. The fact that the hearings are split into 3 locations is a reflection by the DOE's lack of concern and respect for our concerns and opinions. I hope all that is said and felt at these hearings is looked at closely by the DOE. Nuclear waste is a problem. WIPP is not the solution. The waste should be kept where it is and money and research should be focused on dealing with the waste where it is. Transporting the waste would only make the situation more dangerous. We need to do everything possible to avoid polluting our air, our land. We are educated and creative human beings. Our focus needs to be constructive instead of destructive.

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We need to come together and respect each other and work with compassion and trust for each other. If you go inside yourself and ask yourself what would be for the highest good of all mankind, an incredible shift could take place and we could come to a healthy solution not only for WIPP but also for Mother Earth and our existence with it.

The answer I get is to STOP the production of nuclear wastes altogether.

One of the hardest things for a human being to do is to admit that you have made a mistake. The more invested you are, the harder it is. There is a lot invested in the WIPP project. A lot of time, years, a lot of money, a lot of hopes and possible solutions. Out of sight, out of mind is not a solution. The most powerful thing that can come out of a mistake is admitting that you are wrong and ~~do~~ do what you know is right. There are many people here that think WIPP is wrong. If you

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look inside yourself you too can see that WIPP is not the answer. The driver of the truck with the trucker, she can make mistakes, you have a chance to learn from your mistakes. If WIPP goes through your mistake will affect who knows how many people.

We are giving you the chance to learn from your mistake so that we have the chance to drink clean water, breathe clean air and to grow food in fertile soil. We are one with this planet and we should treat it as we would treat ourselves.

Thankyou.

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17-JUN-89, EX-00601, PAGE 1 OF 2

I am Lisa Denis, professional artist, and have a children's fine-grained children. 15 of my immediate family live in Colorado. There is no doubt that we have not continued to produce nuclear waste. We have had the question of what to do with nuclear waste since we started to produce large amounts of it over 45 years ago. We are dealing with the 200,000 year long active life of plutonium, along with some 10,000 year time scales of less active waste. I am absolutely horrified that we would be rushed into opening the WIPP site before it has met all the EPA safety standards. As we have magnify an already hazardous undertaking by accepting nuclear waste before we have sound evidence that this site is totally acceptable — safe for an infinite period of time. It would not be acceptable to a break into the groundwater, soil and atmosphere surrounding it? Mentel has let the Genes out of the bottle — let's not continue with our lack of foresight and put the genie back into a leaking, potentially corrosive, unproven and very uncertain bottle for the sake of immediate pressure to dispose of the nuclear stockpiles. This is a bandaid approach if I've ever seen it. There are over 10 major problems that have not been answered nor do we feel have been scientifically addressed. There are important bodies of hydrological and geological research that have been entirely omitted from the SEIS report. Give us some confidence in the Genes' bottle or let us work on the problem forever. Don't bamboozle New Mexicans with 1/2 truths or omissions.

over—

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4.1.3

Like the man who went to confession
do say he'd stolen a piece of rope
and neglected to say there was
a cow tied to it/

TO: DOE
FROM: Fran Cole
RE: WIPP
DATE: 6/17/89 Hearing at The Eldorado Hotel

My name is Fran Cole. I live at 1343 Aesquia Borrada, Santa Fe, NM, 87505.

I make my living as an environmentalist working for non profit conservation organization based in Santa Fe called Lighthawk. You heard our group testimony on Thursday at the Sweeney Center.

Lighthawk not only adamantly opposes WIPP but opposes the further building of nuclear weapons in the United States today.

I am here today to voice my personal opposition to WIPP.

Simple common sense tells me that nuclear waste should not be dragged up and down America's highways, through our cities and towns and then dumped into a facility that has not been proven safe or in compliance with federal law.

Would it be so bad for the DOE to admit that WIPP is not ready to open? Would it be so bad for the DOE to announce that they are delaying the WIPP opening until all the flaws have been fixed? Would it be so bad for the DOE to tell the truth, the absolute truth and nothing but the truth.. to the American people?

Everyone familiar with WIPP, especially the DOE, knows the horrible danger WIPP will bring if allowed to open in September. Our air, our water, our land, and our lives are at risk.

Gentlemen, unless we quickly and profoundly change the course of civilization, we face an immediate and grave danger of destroying the worldwide ecological system that sustains life as we know it.

I know I speak for many when I say that the American people will not tolerate self-destructive behavior and environmental vandalism any more.

Thank you.

The Russians are coming, the Russians are coming! used to be the future cry that Santa Fe old folks up the spine of impressionable Americans. Now, as a direct result of that hysteria, the ~~DOE~~ private spinning thing, phrase, ~~DOE~~ "little" In the DOE, it's coming, the DOE is coming! So to say, this really is not an overstatement in light of the environmental mess that our country now finds itself in, with DOE policy blunders poisoning the earth in the areas surrounding virtually all of our nuclear weapons processing facilities. "Little" "Leak" "Spill" a little leakage, a little midnight dumping over here, have all added up to the nightmare proportions for this country to where there really is no value to be found in our once protected country to escape the madness. Now Mexico has been very valuable for the past years. But redefining my priorities, I am afraid I shall have been able to build

more meaningful life here, living in the backwoods of the foothills of Northern N. Mexico, building my dream by hand, living in a ^{comfortable} electricity, running water, for 9 of those years living above the land and really feeling blessed for the opportunity. Well, just as the living population and so many other transplants have done, for so long, because in the land of enchantment, we live enchanted lives, truly living to the best of our own dreams.

And now, after long years of commitment to a life like ~~that~~ the air is clean and my well water pure, I am shaken from my dream to be told that platinum contaminated water is going to be rolling within 2 1/2 miles of my dream, with the potential that human error of turning our little bit of heaven into a living hell.

Much has been made of the 700+ million dollars spent on the W.I.P.P. project to date. To some, that seems an incredible amount

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of money, but I say that this is obviously just the beginning. If we can spend 70 billion dollars on Strategic Bombers, those big black elephants that have not even proved their worth to justify the expense, if we can send billions of dollars in aid to other countries with re-payment being doubtful, surely we can spend 10 or 20 billion dollars to make sure that everything humanly possible has been done to insure the safety of this repository. For example, let us build 3 lane roads of railroad lines from the weapons facilities directly to W.I.P.P. for the exclusive use of transport vehicles only. Get technicians to then consider sending these vehicles thru high population centers w/ great potential for accidents on the highway. Get the caverns in lead to keep the wastes from migrating outward, and to supplying from migrating inward. In short, let us stay

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throwing money at this ^{Point} thing until we find absolutely that it will be just as safe as it can be. We can make lots more money, but we can't make more clean air, water, or Earth, the basics to our planetary survival.

In my opinion, too many speakers, so far, in addressing you members of the D.O.E. panel I have been pathologizing to you, asking you to not take personally these comments about the D.O.E. and addressing the D.O.E. and its shortcomings. I am addressing you personally, because you men are the backbone of the D.O.E., and in my estimation I would sold your souls and conscience to be the front line pawns on the D.O.E.'s callous assault on our planet, in their, mostly acting to just get the job done, whether or not it is the best solution or in the best interest of the public. I am afraid for your pathetic salaries, you will shake hands with your families in the event of catastrophic Biko Americans, you have more choices available to you

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7.3.3-8

3.2-1

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than anyone in the world. There are endless opportunities to make money and help your fellow man, at the same time. If you are at a loss, contact me afterwards, we can discuss some of those possibilities.

For the record, I would like to enter my protest against those suggested, 13 room hearings, as I feel that this has been the overall impact of our citizenry response. I would also like to protest the inadequacy of the S.E.I.S., as it chose to overlook too many sensitive issues such as fine infiltration and the dangers associated with that, and the tremendous ~~to~~ build up that could result, but in short, is a job that could result in the D.O.E. in an area where a guess is hardly sufficient.

7.8.5.2
7.8.6-1

N M-108 18 yrs
 AS CNA have said 100's of babies, 100's of un. citizens
 AS well as telling you how feel, would like to be a
 policeman for those babies, children, transfers
 that were received, and for the children they
 will eventually have to have

delivering babies always makes me very aware of
 their connectedness, their genetic heritage. I think
 into me of these grandparents & great grandparents reaching
 back into the past, and of the children & grandchildren
 they will some day have - that unfolded line that
 reaches back into the past, & forward into the future.
 The choices & decisions we make in this time about
 the nuclear waste disposal, the waste, in this time about
 the nuclear waste disposal, the waste, in this time about
 to affect the lungs, health, parts of these children.
 clearly these decisions have to be made & the most
 information possible taken into account, and must
 not be made hastily.

we have heard from numerous expert witnesses that
 if, there are many serious unanswered questions about
 the safety & feasibility of the waste site relating
 to salt brine, proximity of water, gas production,
 cracking etc.

we have heard from these spokespeople some
 very unassuming responses about how these
 things probably won't cause problems, but that
 they can't be sure, it should be given limited
 quantities of radioactive waste to experiment c.
 we have also seen that even the fed govt no
 longer can sidestep the DOE to be trustworthy

enough to be poisoning themselves, and the reactions
 about early flats have destroyed any credibility
 the DOE might have had in our eyes.
 we have heard how inaccurate and incomplete
 the Seis report is. And how there is nothing to
 ahead & a sept opening as a one step to
 even if there were no questions about the safety
 of the site, the issues about transport
 safety have not been adequately addressed.
 Even if the promised bypass around our
 town had been built, there would still be many
 problems about container safety, accident plans,
 training, medicine & equipment for health care
 providers. But the bypass we were promised
 hasn't been built. And the proposal to truck
 these toxic materials eight down the crowded &
 accident-prone main streets of our town is
 preposterous.

The possibilities of accidents in route, and
 the long-term possibilities of leakage or disaster
 at the site bring up for me the fact not only
 for our generation, what are people expected to
 be making these choices but that our own
 unborn children, and for theirs. As a parent
 I am thinking of my children and the children of my children.
 I fear for the health effects that could result
 from what we didn't take into account and the effects on
 from for the long term health of the new generation.
 mother, the earth is not safe for our children and the children of our children.
 many severe problems are being caused by the radioactive

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I strongly support the idea of involving the private sector in the development of nuclear waste management. While further research is being done by independent scientists, and the administration of the Federal group of scientists study all the possible solutions to nuclear waste disposal.

detoxification + storage
and I don't believe we should be allowed to
cost to generate these wastes at increasing
rates until these problems are solved.

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let the office who do
get the so-called benefits
of increased employment
to

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17-JUN-89: EX-00607, PAGE 1 OF 7

as we are all aware of, the Department of Energy's

"preferred alternative" is to open WIPP as soon as

possible without meeting EPA safety standards.

The entire SEIS report refers to old EPA

safety standards that were thrown out by the first

Court Court of Appeals in 1987 because they were

not even stringent enough to comply with the Safe-

Drinking Water Act, in addition to other measures. The

DOE proposes to accept nuclear waste at WIPP

before the new safety standards are written and

approved. The EPA standards were mandated

by the federal government to protect the health and

safety of all Americans in the disposal of nuclear waste.

New Mexico, like all Americans, are entitled to this

protection, and the DOE must comply with federal law before

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via Cohen

WIPP begins,

along the same line of reasoning, the SRS does not justify the proposed administrative land withdrawal, equivalent for this, instead of a legislative land withdrawal is an attempt to circumvent Congress and to avoid making health and safety requirements at WIPP. I want that there be no land withdrawal - administrative or legislative until safety documentation is complete. If the DOE could prove WIPP was safer, they would do it now, rather than encounter all this uncertainty and alarm. The fact that all this sidestepping is going on - seeking exemptions and answers from the law - just shows us that DOE can't, at this time, prove safety at WIPP. As a citizen, I have to ask "Why do we have laws if the government doesn't comply with them. As a

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6.1-1

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via Cohen

taxpayer, I feel violated. My money is being spent to pay legislators to write laws, and more of my money is being spent to pay members of the DOE and EPA to disregard my health and safety in not adhering to the laws. I am outraged for Gov. Conant's, and helped at his attempt to block and New Mexicans into accepting something so threatening to their well being. This threat back to McCutcheon is as great a threat to us as WIPP is. For some reason Conant's thinks that turning New Mexico into a nuclear waste dump for the nation is the only chance for economic development. This can't be the solution to our state's economic woes, just as WIPP is not the solution to America's nuclear waste problems. The waste now stored in 55 gallon drums and barrel for WIPP is only 19% of the nation's plutonium-contaminated waste. This waste is stored above ground in makeshift, unsuitable

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storage, not posing immediate threats to human health or the environment. What is imposing an immediate threat to public health and safety in the remaining 212 of hazardous waste which has been improperly disposed of underground and is now leaching into surrounding areas, creating a great threat to water, land and air. Opening WIPP now, will not solve this pressing problem, but will add to it, by enabling the continued production of nuclear waste. WIPP offers no solution to the problem of the existing backlog of waste.

During the past two days, I have listened to eloquent and substantive testimony regarding the dangers related to the WIPP site: cancer; birth defects; environmental contamination; catastrophic accidents; inevitability of human error; violation of personnel; psychological stress; loss of human; decrease in land values; transportation accidents in a state with the light

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22:2

7353-1
7361-2
7361-3

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incidence of traffic accidents and DUI offenses. I listened to DOE representatives say "an accident that bad will never happen." Any accident will be catastrophic. What statistics did the DOE use to calculate potential accidents? The state of New Mexico has four times as many accidents as the national average. Was that factored in?

I also listened with dismay to claims of cost-benefit, that in disregard of the aforementioned information, are willing to sell the well-being and safety of their families and future generations down the river in anticipation of a quick buck.

I have listened to many of the preceding speakers thank you for giving them the opportunity to speak, but I will not. I am a taxpayer, and like all other taxpayers in this state and in this country, I am your employer. You work for me and are accountable to me; and as my employee you have to listen

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11-11-81

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 to what I say. I have also listened to many speeches

apologize to you DOE representatives for having to take the
 brunt of the criticism aimed at your department, but I will not

As the employer of every DOE and EPA employee, I hold you
 all responsible and accountable for every decision that

agencies make and every result of that decision. Should
 the WIPP site open before it is safe according to EPA

standards, as your employer I would direct all of you to
 move your families to live along the WIPP route, and I

would further direct each and every DOE and EPA employee,
 as well as every government official who voted for it, to be

directed into five years of service as the first on-site emergency
 care givers to arrive on the scene of an accident. But I'm

a humanitarian. I don't really want to see you or your families die
 of radiation poisoning or cancer, and I don't want your children

31-8
31-8

11-11-81

7. 17-JUN-89, EX-00607, PAGE 7 OF 7
 and grandchildren to be born with birth defects. I'd like to
 give you another chance. Up to now, you've been irresponsible

employees. You have done a terrible job safeguarding me,
 as well as your other employees around the country, against

the hazards of nuclear energy. You all deserve to be fired,
 but I'll put you on probation. But the WIPP wastes

remain on-site where they can be safely monitored, and
 explore and develop alternative ways to store, treat and

neutralize waste that won't endanger our lives or our environment
 just because, at this point, there's no better solution, doesn't

mean we should accept an inadequate one.

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S.E. Logan and Associates, Inc.

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for UPS, add La Tierra 88



STATEMENT AT PUBLIC HEARINGS ON THE SUPPLEMENT TO THE
ENVIRONMENTAL IMPACT STATEMENT ON THE WASTE ISOLATION
PILOT PLANT PROJECT

Santa Fe, NM June 15-17, 1989

I am Stanley E. Logan; my address is 1054 Buckman Road, Santa Fe, New Mexico 87501. I have a Ph.D. in Nuclear Engineering, am a Professional Engineer in the state of New Mexico, and am a consultant in risk assessment, environmental impact, and radioactive waste management. This has been my area of specialization for the past 17 years. I directed the development of the first integrated performance assessment methodology for nuclear waste repositories, under a contract with the Environmental Protection Agency. This methodology, known as AMBAW, with results obtained by its use in application to the Los Medanos or WIPP site, ultimately led to the development of the EPA standards for nuclear waste repositories, 40CFR191. I served as a member of the Independent Review Committee for Defense TRU Waste for five years, including Chairman for four years. I support WIPP as part of the solution for handling TRU wastes, and I support increases in nuclear power as the safest and most environmentally rewarding path to follow in meeting our energy needs.

I have provided detailed written comments on the SEIS through another channel (to the New Mexico Environmental Evaluation Group), and won't repeat them here. Before going to the main points of my oral testimony, I want to point out a fundamental error made in the SEIS concerning WIPP capacity. The WIPP capacity of 6.2 million cubic feet, based upon total container volume, not the "actual waste volume," which leads to an exaggerated 80 percent of drums, instead of the actual 850,000 drum equivalent capacity of WIPP. Therefore, the SEIS overstates the number of shipments and consequent projected number of transportation accidents by 25 percent. (See attached details).

With the shortage of time, I want to jump directly to the "NO ACTION ALTERNATIVE" and point out that should this alternative be implemented, it would represent a severe institutional failure, with arms forbidding for the nation and the world. We face immense problems that require innovative solutions. There are the problems of global warming due largely to burning of fossil fuels and depletion of forests, acid rain, loss of the protective high-altitude ozone layer, municipal garbage overflowing available landfills, and hazardous chemical wastes to be detoxified. Part of the solution to each of these major problems lies in increased use of nuclear power, and/or development of safe incineration systems having high efficiency filters and off-gas treatment. But, we have a sub-culture in the United States that contradicts its stated

Nuclear Engineering—Risk and Safety Analysis—Environmental Studies—Engineering Consultants

environmental concerns, is out of touch with reality, and shouts "spilt wood-not atoms", "STOP WIPP", and fights the solutions to our problems with misinformation and emotional waving of wopie slogans. Many in this sub-culture have hidden agendas that would tear down our national defense shield, technology in general, and deny to the majority of citizens the advantages of safe nuclear power. The fight against WIPP is just one step in an attack on anything nuclear. Looking at the local Santa Fe scene, letters to the editor and editorials in news items indicate that some persons are attempting to terrorize our citizens, and frighten our school children with grossly exaggerated and alarming misinformation about the monster called "WIPP." One retired major (he should know better) wrote advising the public to visit Carlsbad Caverns soon, because they are filled with nuclear waste. The fact is, the Carlsbad Caverns are natural features in limestone and are some 50 miles away from the mined WIPP facility in bedded salt. The image is conveyed that the instant corrosion penetrates a drum of transuranic waste, that some magic evil process will almost instantly convey horrendous quantities of radioactivity into the Pecos River. This is, of course, utter nonsense. Plutonium is toxic, primarily if inhaled in sub-micron sized particles, but some of our "saviors" proclaim that it is "the most toxic substance to man," conveniently overlooking far more toxic substances existing in nature, such as botulin toxin. In the 4th century so of the nuclear industry, I don't know of a single death attributed to intake of plutonium. The same can't be said for ASPIRIN. A so-called "WIPP FACT SHEET," published and distributed by the Concerned Citizens for Nuclear Safety, includes the outrageous phrase: "including remote, standard, and with skillful working surface dose rate of 1000 mR/hour," and with skillful working suggests that a Santa Fe person can expect to suffer radiation sickness from a 5 to 10 mile exposure to such a shipment going through Santa Fe. The truth is that the maximum exposure that can occur from such a shipment, even to a person riding piggy back and hugging the "WIPP" tank, is a factor of 5,000 less than the "Concerned Citizens" would have us believe. One wonders how many fallible statements alone. The ridiculous image is conveyed by this one false statement that WIPP is a "business's Against WIPP" were roped in by a fender bender WIPP vehicle accident in or near Santa Fe means the city must be evacuated and that tourists will forever shun our city.

The total program related to WIPP represents the most studied, the most documented, and most exposed-to-public-hearings and comment federal action ever taken. While there are some remaining questions and inter-agency documentation to complete, there does not appear to be any reason why compliance with all standards and regulations cannot be obtained. If WIPP cannot proceed to an implementary alternative, it may mean that no waste disposal system can be implemented. It would mean that irresponsible misrepresentation campaigns in the public arena, including WIPP unfounded fears, coupled with complex inter-agency regulations and a complex legal system, have advanced our institutions to the position that NO program to meet vital national needs in the future is safe from being hopelessly bound up in an impossible maze!

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7.3.5.1-11
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Attachment to statement by Dr. Stanley E. Logan

Analysis of WIPP Capacity for CH Wastes, revealing error in SEIS that permeates the entire document.

Waste volumes given in the Integrated Data Base (DOE/RM-0006) are totals for volumes of the various containers. The SEIS erroneously interprets the 6,286 ft³ waste capacity of WIPP to be the volume of settled contents of containers instead of "fullness" of the containers themselves. Using an average "fullness" of 80% of the containers, the SEIS total increases the actual capacity of 843,624 drums to 1.25 million drums. The SEIS uses the actual capacity of 843,624 drums (equivalent to 3 tiers SWB component) to a fictitious 1.05 million drums. The SEIS uses 1.10 million, obtained by also rounding drum volume down from 0.208 m³ to 0.2 m³:

$$6.2 \times 10^6 / (0.2 \times 0.8 \times 35.31) = 1.097 \times 10^6,$$

rounded to 1.1×10^6 , where 35.31 is ft³/m³. There simply is no space for the more than 250,000 "extra" drums, nor are the "extra" drums needed to accommodate projected waste volumes. The overstated number of drums overstates the number of shipments required, the corresponding projected number of vehicle accidents, and understates the waste content per shipment with corresponding exposure per shipment.

CALCULATION OF WIPP CAPACITY

Reference volumes used in calculations are as follows:

	m ³	ft ³	drum equivalents
55 gal. drum	0.708	61.35	A
Standard Waste Box	1.728	61.35	B
RM canister	0.850	30.02	C
WIPP "capacity":			
CH TRU		6.2E5	
RH TRU		2.5E5	

The capacity of a room is generally stated to be 6,000 drums. A review by Logan, shows that 6,750 drums can ideally be accommodated in a room if the slip sheet alignment tabs are oriented lengthwise in the room, with alternate 7-packs staggered for close packing. This is essentially 15 drums wide, 150 drums long, and 3 tiers high. Allowing for some overpacked drums and replacement anomalies, the 6,000 value appears to be a reasonable average.

If an array of Standard Waste Boxes (SWB) has 7 boxes placed with the small dimension across the room, by 50 boxes long, 1,050 boxes can be placed in a room, using 3 tiers (700 boxes with 2 tiers).

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The capacity of a room becomes:

	drums	boxes	Drum Equivalents
Drums, max.	6,750		
SWB, nominal	6,000		6,000
SWB, 3 tiers		1,050	9,072
SWB, 2 tiers		700	6,048

The CH waste storage areas were calculated by Logan to be as follows:

	m ²
One room	920
One panel	11,864
Total, 8 panels	93,308
Central zone	19,782 (allowing 600 m ² for isolation plugs dividing zone in half)
Total	113,090

These areas include the effect of area loss to isolation plugs, including isolation plugs for division of the central zone into two halves as indicated in the SEIS.

The multiplier for total capacity as compared to the capacity of one room is

$$113,090/920 = 122.9$$

This assumes that the areal efficiency is the same throughout the CH storage area, although it has not been shown that drifts as narrow as 14 ft can accommodate 7-packs and SWB's with the same packing efficiency as in the 33 ft-wide rooms. Using the above multiplier, the WIPP capacity becomes:

	Number	Drum Equiv.	ft ³
All as drums	737,400	737,400	5.42E6
All as SWB, 2 tiers	86,030	743,239	5.48E6
All as SWB, 3 tiers	129,045	1,114,949	8.18E6

The draft source term document (DOE/WIPP 88-005) indicates that the projected division by volume between drums and the SWB is 65% in drums and 35% in the SWB (number of containers 94.2% and 5.8%, respectively).

Some calculations are needed at this point.

Let	D = number of drums	
	Dt = total no. of all drums	(737,400)
	B = number of boxes	
	Bt = total no. of all boxes	(129,045 in 3 tiers)
	Vd = volume of drum, ft ³	(7.35)
	Vb = volume of box, ft ³	(63.51)
	C = total waste volume capacity of WIPP, ft ³	

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Then, for 65% by volume in drums, and 35% by volume in boxes,

$$\begin{aligned} DV &= 0.65 \text{ C} & (1) \\ BV &= 0.35 \text{ C} & (2) \\ DV + BV &= C & (3) \\ D/B + B/B &= 1 & (4) \end{aligned}$$

Solving Eqs. 1 - 4 simultaneously for D, B, and C, the following results are obtained for numbers of drums and boxes, and WIPP waste volume capacity:

	Numbers	Drum Equiv. ft ³
Drums	543,817	3,997E6
3 Tiers of boxes	33,877	2,151E6
Total	577,694	6,148E6

Note that here, waste volume is taken to be container volume. On this basis, the WIPP has a capacity approximately equal to the generally stated 6.2E6 ft³, providing at least 5.8% of the containers (35% of the volume) is replaced in SWB's, and that all SWB's are placed 3 tiers high. If we adjust the total waste volume slightly, from 6.148 x 10⁶ ft³ to the "design" 6.2 x 10⁶ ft³ (a factor of 1.0085), it corresponds to adjusting the calculation basis of 6,000 drums/room up to 6,050 drums/room. The adjusted WIPP capacity with this slightly higher nominal room capacity becomes 1,0085 x 836,514 = 833,621 drum equivalents.

7.9.1-1

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WIPP SPEECH

MIRIAM POOL

I would like to make an emotional appeal to the congress of the United States, especially the congressional representatives from our state. PLEASE do not allow yourselves to be pressured or coerced into any action that would allow the WIPP to open before it has met all of the NEW EPA standards. The old standards were thrown out in 1987 by the 1st Circuit Court of Appeals because they were not stringent enough. The DOE does not have the right to place itself above the law by accepting waste at the WIPP until the new EPA standards are written and approved. Federal law mandates that our health and safety be protected by these standards. We must demand it!

My name is Miriam Pool. I was born and raised in Carlsbad, New Mexico. I live in Tesque now. When I was growing up in Carlsbad, the basis of the economy was potash mining and ranching. I don't believe the communities around the site have been adequately informed of the potential danger that threatens them and future generations. I can't help but feel that the DOE chose Carlsbad because they knew there would be little if any opposition from a people so economically depressed. In their gratefulness for the employment opportunity, they may be trading off their health, and that of their children, and their unborn children. If they have only the information contained in the SEIS, there doesn't appear to be much to worry about. However, the report omits, or totally ignores the real possibilities and dangers. The possible accident scenario in the SEIS minimizes the dangers to both the workers and the environment. It does not consider or calculate the exposure a worker might receive if he is disabled in an accident and unable to leave the accident area. In one test, the noise arose from the air monitors was so loud that workers could not hear the emergency instructions over the P.A. system and some workers entered the accident areas with no protective devices whatsoever.

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7.13.3-2
7.13.4-2

3.1-3

The DOE doesn't know yet how to seal the tunnel and shaft to isolate radioactivity from the environment. They say they will study it some more and sometime in the future make a decision. Does that frighten you? It certainly does me!

The repository was supposed to remain bone dry for thousands of years and there is already water seepage. The steam formed from the meeting of plutonium and water creates the potential for an environmental disaster that would make the Russian oil spill look like child's play. There is also a condition of interlocking channels which greatly speeds groundwater progress time. It has a name, "karst." It is never mentioned, alluded to, or explained. Yet, the site is located in one of the most predominant karstlands in the United States. The Scientists Review Panel at the University of New Mexico says that radioactive slurry could reach the Pecos River in less than 100 years - a long way from the EPA-mandated 10,000 year control period.

Related to the WIPP is the glaring fact that the DOE has deserted waste dumps that pose spreading threats to the environment. Exposure of the outcrops at Rocky Flats points a dark picture of the DOE as an uncaring, irresponsible department that has operated unchecked for far too long. If they didn't care about sites abandoned in the past, what makes you think that they will care any more about the WIPP and its impact on this state and the environment?

My home in Santa Fe is also on the WIPP route. I am amazed that they intend to go ahead and transport waste in the TRUPACT-II container that has not yet been certified, and worse, they haven't even designed the container that will carry remote handled wastes! The effects of constant exposure to low level radiation have been minimized like everything else in the SEIS. Nowhere does it mention the research done in Canada, for the Canadian Atomic Energy Commission, in 1972 by Dr. Petkau. It is my understanding that the results of this research establish that serious damage to the immune system is possible, leading to a variety of immuno-deficiency diseases. The SEIS does not address the results of this research, nor does it mention new studies corroborating the results.

7.12.11-2

7.14-1
7.14-37.7-3
7.8.5-1
7.14-9

3.2-1

7.3.1-2
7.3.1.3-27.3.5.4-3
7.3.1-7
7.14-10

The SEIS states that these trucks will emit low level radiation as they move. They will be moving on our highways for the next 20 years if the WIPP is opened. There are other dangers, even more obvious. Highway 285 is already strained to capacity with traffic during morning and evening rush hours, and even during job so called off hours. It's not unusual to have accidents that close the highway and divert traffic through Tesuque. It seems inevitable that at some point one of these accidents will involve a WIPP truck. There is no comfort in the fact that NM has an unusually high rate of DUI related accidents. When someone drives a vehicle in a drunken condition, he is not thinking of the consequences of having an accident, let alone an accident with a truck carrying radio-active waste. What precautionary steps have been taken to assure this doesn't happen? What kind of emergency plans are in place to assure treatment by qualified, trained medical personnel? Exactly who has been trained, and by whom, to administer this aid? If isn't St. Vincent's Hosp., they will readily admit that they are not equipped for this type of emergency. The Draft Supplement Environmental Impact Statement states, and I quote:

"Communities along the approved transportation routes have been offered assistance in developing emergency plans. The DOE has answered questions and provided educational materials to communities that have requested assistance."

To my knowledge, there are only 2 hospitals in the state equipped to handle this kind of emergency - and they are both in the southern part of the state. What if the spill involves waste in barrels so old the waste cannot be identified?

The impact of trucks driving through Northern New Mexico, loaded with radio-active waste, in containers that haven't even been designed yet, through an area routinely plagued by drunken driving and accidents is going to scare the tourism industry right out of the state. If there's a spill, there won't be a tourist left who will come closer than Louisiana! The land of enchantment, clean air and blue skies will be nothing but part of the past, and our future will be one of fear for our safety and our health.

7.3.5.2-4

7.3.3.1-2
7.12.9-1

7.2-1

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I am saddened, because I won't be able to take my little girl to Carlsbad and share with her the precious places and memories of my childhood.

7.2-1
7.2-31

TESTIMONY 17-Jun-89: EX-00610, PAGE 1 OF 3

Martha Callanan
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Galisteo, N.M. 87540

SEIS/WIPP HEARINGS

June 17, 1989
SANTA FE, NEW MEXICO

Before I begin I would like to voice my objection and dissatisfaction with regard to the form these hearings have taken. I was hoping to be able to listen to and support all my fellow concerned citizens and address them myself in one meeting place. Instead, the process you have instituted here has diffused the impact of the citizen voices by breaking our testimonies apart. This has not been an empowering situation and I am strongly opposed to these tactics.

I am deeply concerned about the discrepancies, omissions and lack of verification of the information that the SEIS document supports the identification of WIPP. It is obvious to me that the DOE would prefer to open WIPP as soon as possible without meeting new EPA standards for safety. It is an attitude I equate with an ostrich: i.e., if we stick our heads in the earth, better still, stick the problem we have created in the earth, and hurry up about it, the problem will just go away. Out of sight, out of mind. Well, I've got news. We concerned citizens are not ostriches, and we refuse to allow this transuranic waste to be swept across 28 states of this country for 25 years to be deposited under our earth's carpet here in New Mexico.

Given the facts about the proposed WIPP site, transportation, environmental and socio-economic impacts, not to mention the health risks involved, WIPP is very clearly not designed to solve any of our radioactive waste problems.

Taking a look at the site problems first, it is apparent that many questions remain unresolved as to the suitability of the selected WIPP site to effectively isolate radioactive materials from the biosphere for even a fraction of their lifetimes. Much is still unknown about the hydrology of the region and the pages of the SEIS document addressing this issue are peppered with phrases such as "not yet fully characterized", "remains to be verified", "not yet interpreted", "not considered", and "further investigation that is needed". Uncertainties still exist and assumptions have been made about the following with regard to the WIPP site: brine inflow, gas generation, permeability and gas dissipation potential, variability in porosity, far-field qualities, brine compositions, flow rates, flow directions, boundaries of differing transmissivity zones, extent of fracture zones, potential for future fracturing, and the list goes on and on. New findings and interpretations are nearly all unfavorable to the effectiveness of the site and the SEIS analysis of this new data is inadequate, suppressing unfavorable data and relying on undocumented assumptions to justify the proposed action of opening WIPP without demonstrated EPA compliance.

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3-1-10
4.1-33.1-10
7.1-5

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Moving on to transportation issues... numerous problems which crucially affect the safe movement of hazardous /nuclear waste to WIPP remain unresolved. The testing process used for the TRUPACT-II container does not require a "crush test" acknowledged by the DOE to be "the most dominant... accident effect", implying both the likelihood and the magnitude of resultant hazards. The DOE does not factor in human error. It only took one drunk captain to dump oil enough to waste 500 square miles of ocean for many years to come. But that disaster pales in comparison to the potential of one overtired, stressed-out truck driver carrying a TRUPACT-II through the center of Santa Fe during rush hour traffic past the intersection of St. Francis and Cerillos Rd., known as the site of more traffic accidents than any other intersection in the entire state of New Mexico. We are looking at untold death and disaster, contamination of our city and some 14,000 years, the half-life of plutonium, the most toxic material known to man, the half-life of tritium, the most toxic human being on this planet. The transportation of radioactive waste to WIPP is just an accident waiting to happen. But even looking beyond the accident potential the DOE admits there will be radiation exposure to the public through the TRUPACT-II container, and these exposures are only estimated, not calculated. And the DOE states that there will be "extremely small airborne releases" from the TRUPACTS. There will be an average of 3 WIPP trucks passing through Santa Fe each day for the next 25 years. Well, I follow the WIPP route from my home into Santa Fe with MY 54-yr. old son seven days a week, and I calculated that on the average, in one year I will be exposing myself to these "extremely small airborne releases" directly by driving my work and my son's school route some 16,600 miles. Figuring miles per hour on the average, that comes to almost 400 hours per year of exposure to the radioactivity that the DOE has admitted will leak through the brand new undamaged TRUPACTS. What are we looking at when they aren't so new, and when there are the hundreds of thousands of miles logged. And that is without even the accident factor taken into consideration.

Environmentally, the impact of WIPP cannot be accurately calculated by the DOE. Given the material that has been compiled to date on the site, the DOE's proposed use of "permanent monuments" on the surface of the WIPP site warning of the dangers below will provide no long-term (meaning hundreds of thousands of years) assurance that the repository will not be breached by future generations searching for minerals or water, because there simply are no existing metals or materials available to us that can withstand the ravages of weather for those periods of time. Stories of mutated livestock, plants suffering from gigantism and human babies born with numerous malformations and handicaps have been documented and verified in conjunction with exposure to radioactivity at sites of power plants and research facilities across the nation. The effects of contaminated land, water and air are just beginning to surface in the consciousness of the citizens of this country, despite the efforts of the DOE to hide the facts from us. Rocky Flats is just one more example of the blatant and illegal attempts of the DOE to bury and burn the problem of radioactive/hazardous waste that we have all created. Are we to trust the assurances and statements put forth by the DOE given their track record? I say no.

(3) 17-Jun-89: EX-00610, PAGE 3 OF 3

So what are we to do? What are the alternatives? to WIPP? The SEIS prematurely rejects the "no action" alternative, which is in essence to leave the wastes at the production sites. However, no adverse impacts are identified at any site as a result of the no action plan. The SEIS contains no explanation of why this alternative is summarily dismissed since its impacts to public health and safety are calculated as being far lower than proceeding with WIPP. First, we must undertake a major effort to clean up the existing wastes which are currently polluting the environment and the environment. These wastes are best left on site, sealed, and then creates unnecessary risks. Secondly, we must undertake a new project to figure out how to safely and permanently dispose of them. We must stop producing plutonium and tritium for nuclear weapons now. We must stop producing plutonium and tritium for weapons on this planet. We need to create an independent regulatory body outside the DOE that has the power and authority to enforce health, safety and environmental standards at nuclear weapons facilities. And we must press immediately and tirelessly for agreements with the Soviet Union that would eliminate the need to generate new plutonium and tritium/ We need to generate PEACE on earth, NOT MORE BOMBS!

We have the wealth and the potential for these changes. We have already spent 770 million dollars on the WIPP, and so many billions on defense, so we know the money is there. It just needs to be reapportioned to fix the damage already done, not create more damage for the many thousands of generations of beings on this planet to contend with. We are looking at the long term now, and we cannot take an ostrich stance. The problem is there, and the institution of a long-term withdrawal bill through Congress is not going to solve the problem. We MUST stop WIPP now, or forever hold America's Nuclear WASTE.

I say NO TO WIPP

THANK YOU VERY MUCH!

Marta Callahan

7.3.1.1-9
7.3.4.27.3.5.1
7.3.5.1-12
7.3.5.2.4

7.12.11-1

3.2-1

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5.2.1
5.2.21-2
3.1.6
3.6.1
5.2.1
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17-JUN-89; EX-00611, PAGE 1 OF 3

PUBLIC TESTIMONY ON SEIS: Dept. of
Energy Hearings, Santa Fe, N.M. June 16, 1989

I would like to open my public testimony on SEIS with the following quote from a book by Norman Cousins, entitled The Pathology of Power, 1987, p. 29:

"There is danger in allowing the military to have an unreasonably large part in decision-making in matters concerning the life of the nation, all the way from domestic economic policy to foreign policy."

When the DOE formally released the draft copies of SEIS, they said the following, and I quote:

"...The filling of available storage capacity for radioactive waste at certain sites may hamper defense production operations vital to national security."

(54 Federal Register 16350, April 21, 1989)

The DOE does not mention in SEIS precisely what national security issues would be involved, and though this is also not covered in any other public documents, the DOE has used this argument in urging the governors of Idaho, Colorado, and New Mexico to comply with their plans to open WIPP in Sept. '89. So eager is our own Governor Carruthers to comply with the wishes of the DOE, despite the DOE's failure to meet even ^{current} minimum EPA safety standards, that he has spoken of WIPP almost as a duty "the state is charged with carrying out." (The New Mexican, Sun., June 11, 1989, p. 1)

What needs to be addressed is the issue of what is going unsaid regarding

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9-8

17-JUN-89; EX-00611; PAGE 2 OF 3

-2-

the Governor's insistence that he "carry out what he has been charged to do." The media has not often made the connection that the DOE and its WIPP contractor, Westinghouse Corp. have an extremely cozy relationship, as indeed the DOE has with all its contractors. Westinghouse and the DOE are the primary source of references in SEIS, and they have the most to gain financially, especially Westinghouse. Westinghouse operates nuclear weapons plants in Idaho (the Idaho National Engineering Lab), Washington state (the Hanford site), Fernald, Ohio (Feed Materials Production Center), and Aiken, South Carolina (the Savannah River Plant). There have already been serious mismanagement problems and accidents in all of these plants. Indeed, Westinghouse has a very poor track record for industrial safety in general. In the case of nuclear weapons they profit when they build and operate such a plant, and they profit when there are wastes to be cleaned up and disposed of. In a decidedly unusual arrangement only attributable to extreme influence peddling and outrageous oversight, Westinghouse is contractually not liable for any accidents at any of its nuclear waste or weapons sites. In fact, they profit by such eventualities, because they receive further hefty fees to manage a clean-up of a nuclear accident, which does have a good chance of happening, given the current safety standards that the DOE proposes in SEIS for not only transportation but the actual depositing of the hazardous and transuranic wastes at the WIPP site in Carlsbad. This gives Westinghouse added incentive to create messes and accidents so they can receive a financial reward for cleaning them up. In SEIS, the DOE rejects a "no action" plan, as well as a plan that would comply with minimum EPA standards. There is no substantial reason for this, although given all the current known risks, a "no action" plan

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-3- 17-Jun-89: EX-00611, PAGE 3 OF 3

would seem the most prudent. The wastes are safer where they are than being transported to a site that independent teams of scientists deem unacceptable, with danger of a major accident along the way.

What can be the reason for the DOE's great hurry? They have already invested \$770 million in WIPP and are anxious to prove their investment good. They are also anxious to transfer the land, if not through congressional action, then through other means. But based on the faulty and incomplete information in the SEIS report, there is no adequate technical or legal basis to justify an administrative land withdrawal. This is part of the DOE's "quick fix ploy" that belies the larger motive. Let's be very clear about this: WIPP is not a solution to our nuclear waste problem. There is a huge and urgent global nuclear waste problem which can only be solved by discontinuing to make the highly dangerous nuclear weapons that produce the highly dangerous nuclear waste.

By agreeing to WIPP, we are agreeing very specifically to the proliferation of nuclear weapons, as WIPP would definitely clear the way for the thousands of additional sites that would be needed to store further nuclear wastes from the manufacture of nuclear weapons. The massive irony is that the pollution to our air, water, and land from such hazardous wastes and radioactivity would kill us far sooner than any supposed international threat of military use of nuclear weapons. We as citizens must not be duped by government and corporate bureaucrats who make their colossal profits from nuclear weapons manufacturing while simultaneously draining our economy and educational system and polluting our environment. How can they pollute our land, water and air and also claim to be defending us in the name of national security? It's one of the greatest hypocrisies perpetrated on the people of this country since the war in Viet Nam.

Edith Hatheway
P.O. Box 9609
Santa Fe, N.M. 87504

12
52-1
52-2

61-1

31-8

12
32-1
36-1
36-2

17-Jun-89: EX-00612, PAGE 1 OF 9

I wish to speak about :

CREATING A CULTURE FO ENVIRONMENTAL AND WORKPLACE SAFETY
AT THE WIPP SITE.

I am Charles Cambron. My address is PO Box 163 Cerrillos, NM
zip code 87010 + I SPEAK FOR THE PUBLIC RECORD

I represent the Resolutions Committee of the Santa Fe Democratic
Party and the Rainbow Coalition

Ladies and gentlemen and representatives of the Department
of Energy.....Many of the citizens of New Mexico do not
want a WIPP project shoved down ~~the~~ ^{the} collective throats, even if
that throat is 2150 feet deep in the ground,.....But I do not
wish to speak today in the spirit of opposition. I ~~wish~~ ^{WISH TO SPEAK} to speak
~~today~~ in the spirit of fellow human beings who have a mutual
and heartfelt interest in a planet which remains safe for
all living beings.

lets think together about the ~~accidents and~~ ^{FACTORS OF} potential for

HUMAN ERROR in a MUTUAL effort to avoid disaster at a future
WIPP site.

7128-1

17-Jun-89; EX-00612, PAGE 2 OF 9

CREATING A CULTURE OF ENVIRONMENTAL AND WORKPLACE SAFETY

AT THE WIPP SITE

I am Charles Cambron. I represent the Resolutions

Committee of the Santa Fe County Democratic Party.

I would like to think together with you for a few minutes

about the sources of, and potential causes for, human error in our effort to reduce the risk of disaster at a future WIPP site.

These potential causes for human error fall into the following categories: psychological, ~~societal~~ or cultural, bureaucratic, economic, military, political, geological and technological. The complexity of these many factors guarantees that complete safety at any future WIPP site will be elusive at best.

Later we will see how these many variables led to recent shutdowns in the nuclear arms industry. I will talk especially about worker safety because I have been a health and safety activist and trade union representative in the auto, steel and construction industries since before passage of the OSHA law, and I am ~~only too~~ aware of the tendencies of government and industry to underestimate health risks in the workplace.

Since the invention of firemaking ~~technology~~ man has tried to minimize the destructive potential of his technology. Key to our many failures in this regard is our tendency to avoid thinking about disaster, a process which is negatively reinforcing. With regard to waste management, our earliest conditioning reinforces a tendency to avoid thoughts about

-1-

7.12.8-1

17-Jun-89; EX-00612, PAGE 3 OF 9

human waste, leading to a "flush and forget" mentality with respect to all biological or technological waste.

Cultural factors overlay our inherent wish to avoid thoughts of health risk. For instance, in the workplace, safety ~~thoughts~~ ^{thoughts} have to fight the "macho" attitude that ~~inspector~~ ^{inspectors} have to fight the "macho" attitude that ~~the use of~~ ^{the use of} ~~interlocking~~ ^{interlocking} prescribed safety equipment is not being sufficiently manly.

These psychological and cultural tendencies to downplay health risk manifest at the level of bureaucratic management in industry, the military and government. Given the most enlightened policy, we nevertheless encounter limitations in human competence and concern when it comes to implementation.

At the economic, military and political levels we see wide disparities between stated intent and actual performance of policy because of vicissitudes in efficiency potential; but especially because of conflicting interests within these social organizations.

Technological and geological unknowns introduce further ~~serious~~ ^{serious} risk which we must find ways to contain.

Are these concerns the ~~wringing-of-hands and~~ ^{only the} ~~knashing~~ ^{knashing} of teeth of overly emotional fringe groups within our society?

Let's look at the record of the nuclear arms industry, the ~~industry~~ ^{industry} which spawned the need for a radioactive waste repository. This is the best basis for prediction of safety management efficiency at any future Waste Isolation Pilot Project.

-2-

17-Jun-89; EX-00612, PAGE 4 OF 9

i would like to cite an article from the New York Times of November 7, 1988 which appeared under the caption "FLAWS IN SAFETY PROCEDURE IGNORED AT NUCLEAR PLANTS". The article states that recent closures and partial closures of nuclear arms plants and laboratories were due to disclosure of "management turmoil, accidents, equipment failure, procedural error, contamination incidents and other mishaps." The Reagan Administration had been forewarned of the potential for these developments as early as 1981 in a 14 volume study by a committee of engineers and nuclear scientists referred to as the Crawford Report. The representatives from the DOE will recall that then Secretary of Energy Dr. James B. Edwards ignored the report because he felt that the concerns were overblown.

I have adequately illustrated the tendency of government and industry to underestimate environmental and health risk. I shall now illustrate the conflicting interests and priorities which exist in these bureaucracies. I quote William A Vaughn describing his own Environmental Protection Agency during the early Reagan years.

"There was a military culture throughout the agency, a bunker mentality. People saw their role as meeting the requirements for defence. Other things, of necessity, came secondary, including environmental, safety and health programs." "Every penny stat went to safety programs was a penny taken from manufacturing nuclear warheads, etc."

This, folks, was our environmental protection program.

PAUSE

7.128-1

17-Jun-89; EX-00612, PAGE 5 OF 9

How then to protect the public from these many sources for human error in environmental management? Obviously government cant, or wont, do it alone.

Most essential is the need to correct for conflicts of interest between government and the public good.

This would be best accomplished by provision for ongoing public and employee surveillance of safety maintenance at the WIPP site AFTER the placement of radioactive wastes. I do not find provision for such mechanisms in the DOE's Environmental Impact Statement.

7.128-1

17-Jun-89; EX-00612, PAGE 6 OF 9

I would like to cite an article from the New York Times of November 7, 1988 which appeared under the caption "FLAWS IN SAFETY PROCEDURE IGNORED AT NUCLEAR PLANTS". The article states that recent closures and partial closures of nuclear arms plants and laboratories were due to disclosure of "management turmoil, accidents, equipment failure, procedural error, contamination incidents and other mishaps." The Reagan Administration had been forewarned of the potential for these developments as early as 1981 in a 14 volume study by a committee of engineers and nuclear scientists referred to as the Crawford Report. The representatives from the DOE will recall that then Secretary of Energy Dr. James B. Edwards ignored the report because he felt that the concerns were overblown.

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PAUSE

7.12.8-1

17-Jun-89; EX-00612, PAGE 7 OF 9

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I do not find provision for such mechanisms in the DOE'S Environmental Impact Statement.

7.12.8-1

17-Jun-89; EX-00612, PAGE 8 OF 9

Unless ongoing public and employee scrutiny of safety conditions at WIPP are guaranteed in law, the public can never feel protected.

Let me mention ^{PUBLICLY} my experience in organizing a worker safety committee at a large job site just west of Grants, New Mexico. I was a Carpenter's Union steward employed by a company that builds nuclear power plants around the world, Combustion Engineering. It took months of patient effort to convince the company that the work force and the company would both benefit if workers were allowed an administrative role in the safety program. Management was deeply sceptical of the idea but ~~the~~ ^{they} credits, finally relented. Everyone was pleased with the result. Accidents virtually ceased, Word disruptions and wildcat strikes no longer occurred. ^{IN A DAY AND AGE} ~~AT A MOMENT IN HISTORY~~ when Soviets are allowed to make unannounced visits to Arms production facilities would it be too much to expect that the Dept of Energy might allow unannounced visits by independent scientists and workplace safety advocates?

Institutionalized scrutiny by independent scientific groupings, independent worker safety committees, and the public at large would contribute immeasurably to a safe experimental procedure at the WIPP site.

Gentlemen and ladies of the DOE, our government has chosen to invest our tax dollars in a highly dangerous experiment. We the public would be happy to invest more of our dollars if we were assured that the experiment would be less dangerous.

7:12:8-1

17-Jun-89; EX-00612, PAGE 9 OF 9

We work an honest day and we want an honest deal. We expect safety in return for our money.

In closing, I am a builder and we have a vachword in our industry which is sprogo

LETS TAKE THE TIME TO DO IT RIGHT.

Please keep OUR options open people for the continued successful adaption of this human race to OUR planet earth.

Thank you.

7:12:8-1

Kathleen Morris 17-Jun-89, EX-00613, PAGE 1 OF 1
P.O. BOX 1231
Santa Fe, N.M. 87504
ollano Quemado, Truchas 1-505-689-2294

To Whom it May Concern:
Department of Energy.

I could speak as an artist, for beauty, or better as an expectant grandmother and mother, for our children, children. If I was a hotel owner for the threat of tourism, or landowner along the woff trail, for land values.

But for me this is a moral issue and the question isn't even where to put our nuclear waste. But why are we producing it. If I murdered my best friend and then asked you where can I bury this body - The question isn't where to put a body, but why in the world would I murder my best friend.

Thank you
Sincerely, Kathleen Morris

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722

17-Jun-89, EX-00614, PAGE 1 OF 3

My name is Holly Dean
My address is PO Box 1231
Santa Fe, NM 87504

UNDER THE GUISE OF NATIONAL DEFENSE, RICHARD THE GOVERNMENT, MY GOVERNMENT, HAS USED PARANOIA TO MAKE A FEW VERY RICH & POWERFUL MEN RICHER & MORE POWERFUL - ALL AT THE EXPENSE OF THE HUMAN FACE.

UNDER THE GUISE OF NATIONAL DEFENSE THE GOVERNMENT, IS RISING THE GIVES OF ITS OWN PEOPLE AND KILLING AND MURDERING MANY OF ITS OWN PEOPLE. THE GOVERNMENT SAYS "TRUST US!! - I CAN'T TRUST PEOPLE WHO DON'T CARE WHO THEY DESTROY AS LONG AS IT BRINGS THEM MORE PERSONAL GAIN."

THE DOE ADMITS THERE WILL BE RADIATION EXPOSURE TO THE PUBLIC THROUGH THE TRUMPET CONTAINERS AS WELL AS EXTREMELY SMALL AIRBORNE RELEASES FROM THE TRUMPETS. "THIS IS UNACCEPTABLE."

THE DOE WANTS TO OPEN WIND AGAIN A COUPLE OF YEARS DON'T WANT TO GET EMERGENCY BECAUSE THEY HAVE SPENT TOO MUCH MONEY. THIS IS UNACCEPTABLE.

32-1

17-JUN-89: EX-00614, PAGE 2 OF 3

THE EXPERIMENT ^{WHICH} ITSELF REALLY SEEMS TO BE A SHAM TO GET THIS ALL OVER WITH AS QUICKLY AS POSSIBLE. IS AGAIN AT THE RISK OF PEOPLE -- HUNTING BEINGS. AMERICAN IN CHILDREN -- UNBORN BODIES AMERICAN'S -- ALL TO SAVE FACE??

IN ONE MONTH I PLAN TO BE A MOTHER FOR THE FIRST TIME. I AM SCARED FOR MY BABY, AND BIDDEN W/ GUILT FOR HAVING BROUGHT A CHILD INTO THIS WORLD OF DEATH AND DECEIT. I TRY TO EAT ALL THE RIGHT FOODS AND LIVE RIGHT FOR THIS CHILD -- FOR IT IS DEPENDENT ON ME -- YET -- I STILL HAVE TO DRINK THE WATER AND BREATHE THE AIR.

I DON'T WANT TO WATCH MY CHILD DIE.

HOW DO YOU EXPECT ME TO TRUST A GOVERNMENT THAT CAN'T EVEN PLAY BY ITS OWN RULES. HOW DO YOU EXPECT ME TO TRUST AN AGENCY OF THAT GOVERNMENT THAT HAS LIED, CHEATED AND SWICK ARROUND AT THE EXPENSE OF ITS OWN PEOPLE? .

17-JUN-89: EX-00614, PAGE 3 OF 3

③ YOU SIT UP THERE w/ your Nipples white hair and think you have the RIGHT to decide who lives & dies? WELL, you have not the right to carry on. Shame on you.

17-JUN-89: EX-00615, PAGE 1 OF 6

[My name is Steve Chen, my address is P.O. 1234 Santa Fe, N.M. 87504. I am a recent immigrant to U.S. I have lived most of my life all over Texas. I am a staunch supporter of Texas and its beauty. I have never lived anywhere that I found to compare to its variety and rich heritage. Now Mexico I am finding very difficult this. Here there is still a love for the land and its history of its people. I am in wonder when I visit San Blaise (Tampai) and other places in this area and see the remains of habitation thousands of years ago. I am beginning to feel in love with New Mex. And what do I tell myself in defense of my life long love Texas I tell myself this is the most beautiful land that Texas ever gave away. It is the most beautiful spot Texas could have given to show their appreciation for the help they received in this ~~country~~ ^{country}. Something they wanted everyone to share and experience. ~~But~~ ^{But} think we should stop tampering with nature all together. That people here are trying to get the DOE to meet EPA standards to make it safe to live among nuclear wastes.

Myself I'm just a country boy who doesn't want any nuclear wastes at all. I wish it wasn't even in our vocabulary. If it was up to me I would say stop all nuclear wastes and get to work on clean industry. When you have these ~~toxic~~ ^{toxic} around you all the time things are bound to happen no matter how safe it might seem. My wife had asked me to speak because she is afraid for our health & she thinks I'll drag her back to Texas if I see too much to bitch about here. She doesn't want nuclear waste in her beloved state & she is afraid this is the source I could use to claim it isn't worth living here. So when she asked me to speak I started watching the papers. The first day I see a toxic spill in El Paso

17-JUN-89: EX-00615, PAGE 2 OF 6

and they had to evacuate 1000 people. Of course this was buried in small print in back of news paper. At least they had evacuation plans, from my understanding there are no such plans for routes along the Will trail as well as no trained personnel to help. Even the hospitals aren't equipped for such disasters. This just doesn't work. It only makes sense that if we are to be force fed these wastes all in the name of national defense then DOE must comply with the few standards that we need for safety.

Come on lets clean up our acts, already the pesticide industry has polluted most all our food. I want an apple grown from God's green earth the way I planned it. Not full of alien substances I not know to ~~kill~~ ^{kill} Adam in the garden of eden. I'm sick of being poisoned. I know on a health note ~~very~~ ^{very} ~~survival~~ ^{survival}. Remember I grew up when Red Dye #2 was safe, X-Rays were the new source of medicine, baby formula was supposedly better than mom's milk (well we know now that ~~many~~ ^{many} formulas caused birth defects). even Cigarettes were being pushed by a former President as safe & relaxing and it is one of our biggest killers. Well just yesterday Alar is causing cancer from being in our apples. And we just love well enough alone. There are killers & yet now the most toxic and dangerous chemical known to man (powdered plutonium) wants to be placed in our backyard & driven through our towns. Is this really safe. Well so was some baby formula, Red Dye #2, Cigarettes, Alar & so many other things we know look back at.

- Quality of life, an important issue to my friends back in Austin. They only are chasing clean industry to town and now for years have been trying to get out of their involvement with the nuclear plant they share w/ Gen. Clinton & Houston. The projected costs have skyrocketed ~~with safety~~ coupled with safety problems it has been delayed time & time again. Clinton is ready to chuck millions of dollars just to get out.

Five nuclear plants are now closed because of these problems. Hanford, Bldg, Bldg Engineering, Ohio Fuel Process, Savannah River & of course Rocky Flats. Even Elliot Ness & the FBI are on to Rocky Flats. Imagine Rocky Flats is the 80's Oil Co. The FBI files an affidavit on R. Flats not only from illegal releases but also filed against them for an alleged cover up. If that isn't an 80's word. How can we trust you (Doc) lets see what develops in Colorado before we trust you in N. Mex. Law ups seem to be so prevalent ~~as our street crime are drug abuse.~~

There are just too many unresolved problems; Timpac being uncertified, leaking salt ~~gas~~ beds, lack of trained personnel along WIPP trail etc.

And what about promised road by passers. Follow up on these promises before promising again. Also I ~~think~~ read that initial plans were that 15% of waste were to be by rail for because it is safer. What happened another broken promise. Improved road conditions were promised. Again broken?

17-JUN-89: EX-00615, PAGE 3 OF 6

7.3.2-4
7.15.4-2

3.2-1

I noticed also in paper that one man was arguing that Timpac was safe compared to other trucking going on already. He argued "have you ever compared the risk from the Timpac pack with that from tank trucks that pass through Santa Fe almost hourly, loaded with liquified gases, gasoline or chemical reagents." For me this is wrong also + 2 wrong don't make it right. Lets clean up these trucks and slap some stringent new policy on them as well or better yet lets run these guys off our roads as well.

Many people here in Santa Fe depend on the Tourist to make their livings. And many are worried this issue can scare off Tourism & certainly an accident could cause irreparable damage to tourism. I think this has been proved in Alaska. Why else is Alaska buying multi-million dollars ads saying it is safe & beautiful despite the oil spill there. Tourism is hurting and they are trying to reconfigure it with their new ads. I would think that most tourists come here for the beauty & quality of life (a big word in Austin) but when is this quality of life if we are burning nuclear wastes in Los Alamos and it settles on us here in Santa Fe. People will move their summer homes to Hawaii, they will invest in Caribbean homes for retirement. People want to get away from dirt & pollution. Why else are major NE cities dividing in size & sun belt never less polluted cities are thriving. They are running from pollution & its dangers seeking quality of life elsewhere.

17-JUN-89: EX-00615, PAGE 4 OF 6

7.2-1
7.2-25
7.2-31

7.3.3-4

#1 And now they are trying to buy the world's most dangerous truck here. I feel like I should go back to Texas + tell the legislature we should take it back - just turn it into a national park!

#2 And ~~they~~ by the way why are we people being divided up into separate groups to speak. I want to hear everyone. What they have to say + so should you. Its like an old John Wayne military tactic, to divide + conquer. ~~How~~ How can I trust you when you ~~can~~ use such tactics.

8-7

Here the government has been breaking promises since the establishment of this nation. I can't believe that in this state where the Indian's ~~presence~~ presence is everywhere that the government wants to break another promise to the ones who have been lied to the most.

While studying my new Amis history I came upon something quite appropo, I feel. Someone was speaking of a book written in 1881, they said "Helen Hunt Jackson's 'A Century of Dishonor' did for the Indian cause what 'Uncle Tom's Cabin' did for the emancipation of blacks; it dramatized the issue to the extent that neither the public nor politicians and officials could dismiss it." Ms. Jackson said "the U.S. Gov. breaks promises more as deftly as they and with an added ingenuity ~~from long practice.~~"

Sounds like things haven't changed and another 100 years of practice should add to your ingenuity. Too many broken promises! I don't trust you + I don't see doot trust the worlds most dangerous toxic wastes.

32-1

Mr. W. John Aetner
 Attn: SEIS Comments
 U.S. Department of Energy
 Albuquerque Operations Office
 P.O. Box 5400
 Albuquerque, NM 87105

I would like my comments to go on record:

- 1) No to burying nuclear waste in the earth; at this point another installation has only to pollute the air, soil and ground water
- 2) No to WIPP until it is proven safe in all areas
- 3) Yes to public meetings/hearings where the wisdom of many can make decisions more balanced and solutions more effective
- 4) No to ~~more~~ more money being invested in WIPP - almost from this plan that some do narrow in focus & design

Thank you,
 Sister Judith
 Justice League
 1449 Zepher Rd #307
 Santa Fe, NM 87505
 6/14/89

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 3.1-8

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2.5-1
 3.1-8
 8.6
 8.7

To DOE,

June 89

Don't mess up Earth
 with that nuclear stuff -
 this is our only home we
 have so keep it clean
 for the Future People -

Abba is my father
 Earth is my mother

Submanga aka
 P.O. Box 517

Springer NM 87044

Barbara Bielech
1030 Alito St.
Santa Fe - NM - 87501

17-Jun-89; EX-00617, PAGE 1 OF 3

Before I give my testimony I want it on the record my disagreement and anger of the splitting these hearings into two separate rooms.

I feel this act has taken some of the impact out of the people's testimony and put us in a place of opposition to you rather than the neutral open hearing beside I was let to expect. What is being spoken here is not only important for Santa Fe, and New Mexico, but the entire country as a democratic process, and the world as a forum to discuss global safety.

I have decided to speak after hearing some of the testimonies in these last few days here. I have known of WIPP since it was first started some ten years ago and have written letters and made phone calls, but in all honesty it seemed pretty far off. Well, now it's here and I need to speak out directly.

I do not want my waste brought here. I want it to stay where it is made until entirely safe long-term disposal is found. If no more can be made because there is no room for the waste on-site, then so be it. The real problem is at the beginning anyway - the manufacturing.

I am against opening the Waste Isolation Pilot Plan for all the safety reasons you have already heard. I won't go into more of the same information of lacking EPA standards and good roads. You have heard it all and I pray it's making an impact.

1-2

2.5-1
8-7

17-Jun-89; EX-00617, PAGE 2 OF 3

What I came here for today is my even more immediate concerns.

Whenever the desires of the people are disregarded and they are forced to accept something they cannot live with, you will find many who are willing to go to jail, suffer punishment or even to die for their beliefs and the welfare of their families. It has happened repeatedly around the world: Gandhi in India, Black Africans in South Africa, Chinese Students in China.

I know that New Mexico has exhibited a degree of apathy over the years and that it's been called a trait of our people. I believe this is a large reason for why New Mexico was chosen for the WIPP site. But, you are very mistaken if you think that this apathy will continue when we are directly threatened by the actual trucks. Many people have spoken here. It is quite obvious you do not have the support of the majority of the people of this land.

I am afraid of the consequences of going against the wishes of the people of New Mexico and forcing radioactive waste laden trucks onto our highways. I have heard of testimony being given here of people willing to lay down their lives to stop these trucks. I know of my community, my larger New Mexican community, and I know many people who will practice civil disobedience to keep their homes and their families safe.

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I am a mother of three children and I am willing to be counted among those willing to go to jail, willing \$\$/###/\$\$/##\$ to stand up non-violently for the safety of my family and my state.

[i/444/44444](#) to speak to you directly to beg you to take all the
[f444/44444](#)/you have heard here and in Albuquerque back to the
[4444/444/44](#)/validate us.

I hope that none of this will be necessary. I hope that these hearings will be heard and changes will be made now.

Thankyou/ for your patience in time here.

Some months ago, I had someone say something that stuck in my mind. I wish I knew the name, then I could credit him with the feat of turning insight into words. What he said was that he did not fear for his children's and grandchildren's lives, instead he feared for the quality of their lives. He feared they would not experience the wonder of the planet, sent for a few years commercialized and overrated national parks, but even these places would be losing the effects of pollution and mismanagement. I knew the fear of pollution and mismanagement. I knew the fear of a child not afraid that my children, my friend's children or my family's children will not live to see their 40th, 50th or 60th birthday. I'm afraid that they will see it with cancer, a leukemia or birth defects or past mismanagement or tumors in their bodies. I'm afraid they will live in a planet with drinking water that is not drinkable, air that is not breathable, a polluted area that one can't fish in or swim in, farmland that is not suitable for farming and food that is not edible. They will live in a planet with dump, a massive dump, created by greed, ailing economy, but a planet not as young as the universe that I don't think the DOE has considered. SHUT UP for that I will see the scenario of Earth as Dumping Ground. So, to put it bluntly, I do not trust the DOE. I do not trust the DOE like the people of Pondera, or of Rocky Flats or of Savannah River trust their officials. How can I trust you, when you will not live for updated EPA standards. I'm known as well as a doer of course, that the SEIS report alone to old EPA standards thrown out of court in 1981's standards that were not even 5% strict enough to comply with the Safe Drinking Water Act. How can the DOE pretend to be concerned with the safety of the citizens of this planet when they will not live for the updated EPA standards from which to base the SEIS report on.

The reason is that the radioactive waste must be buried now; that it cannot wait. Yet the DOE has given me serious considerations to alternatives. In a report compiling over 1,000 pages, only 21 pages are given to the alternatives. The "no-action" alternative is simply dismissed in the 285 report with no explanation as to why. Yet the alternative is calculated as having the least impact on public health and

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safety. I don't have to have 20/20 vision to see that as it is: an attempt to lead the people of the planet into believing that WIPP is the final solution. A final solution that opens the flood gates of more nuclear waste, more nuclear arms and even greater profit for Westinghouse.

WIPP is not a solution, it is simply another stage for disaster. Why wasn't that 100 million dollars invested in the clean-up of nuclear waste that is already buried and already polluting our land and water? I think the answer to that is simple -- no profit. ~~WIPP will take waste that sits safely (as safely as radioactive waste can sit) and turn it into another potential ecological disaster for our home planet.~~ ~~WIPP will take waste that sits safely (as safely as radioactive waste can sit) and turn it into another potential ecological disaster for our home planet.~~ I object to it happening here in New Mexico. I object to it happening in my former home of Southwest Virginia (which was then considered as a radioactive waste dumping site), I object to it anywhere.

The insanity, driven by fear and greed, that leads to the creation of this waste, has had to stop because if it does not stop, then we may find ourselves, and the generations that follow us will most certainly find themselves in a bleak, hopeless world. This is action invidious worthy of anyone.

Thank you,
Michael Kirkland

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17-Jun-89, EX-00620, PAGE 1 OF 3

Robert Shaw, D.M.

215 Delgado

Santa Fe, N.M. 87501

We all know about Rocky Flats, mismanaged by the Department of Energy, whose actions are disturbing and whose actions are even alleged by some to be criminal. That citizens concerned about the safety of the WIPP should have to plead their case before such a body, instead of the reverse, is worse than ironical. It is perhaps tragic.

Nonetheless, we must start with the situation as it is, and given that, I would like to address an issue which, to my mind, is just as disturbing as those news accounts we have grieved over. There are issues of terrorism and civil liberties at stake that concern me just as much, and perhaps even more.

It is not unlikely that nuclear shipments through our land will be added to the list of possible targets for terrorists of all persuasions. Given such dangers, it is likely that to protect nuclear waste shipments, trucks and the site itself will have to be heavily armed by military or para-military forces. The cost of such protection, of course, would be the injured civil liberties of our state's citizens as law enforcement agencies turn increasingly suspicious eyes on the activities of its own populace.

Thus, the people are not only threatened by acts of possible terrorism against nuclear transport systems, but in order to

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"protect" those systems, the protection of the average citizen and her rights are diminished, as the behavior of individual citizens and groups are monitored for social or political "deviance" and possible danger to nuclear shipments.

It is therefore of no little concern to many of us that widespread shipments of radioactive waste through New Mexico—whether demonstrated "safe" or not—could conceivably turn our land into a virtual police state at the worst, or at best, aggravate a situation in which our economy is already over-stimulated by an obscene military-industrial complex and is thus deeply compromised in its health and tranquility. Particularly given that our future as Man already survives under shadows of want due to overcrowding and a painfully wounded environment, it is doubly tragic that radioactive shipments could become the terrorists' bargaining chips, and that the further militarization of New Mexico would be inevitable, along with the diminution of freedoms that follow.

For these and all the other reasons we have heard at these hearings, I am deeply opposed to the WIPP. We have already witnessed an alarming lack of democratic process in the instigation of the WIPP project, insofar as what veto right the state was once promised was quickly withdrawn; and, alas, the erosion of that democratic process has been as great during the last years of the WIPP's construction as has been the blind

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determination to make that project work, regardless of consequences to earth or to life. It is not just that our Governor has illegally (according to the state Attorney General) brought influence to bear on who might receive state business, depending on their views of the WIPP—no, the infringement on democratic process only begins there, but ends with an entire populace being forced to risk its lives for the sake of wastes created far from their homes, and for the convenience of a complex whose activities have proven to be as dangerous to its own citizens as to the enemies it claims threaten them with extinction. One can only guess that the true force of the determination to implement the WIPP, if pursued to its unhappy conclusion, will destroy not only New Mexican land and lives, but will further degrade the democratic process so that what we are supposedly defending by the manufacture of nuclear weapons is in the end destroyed by those weapons' creation.

And yet I continue to believe that such a scenario is not inevitable, and that our land might prevail, and the people who have been entrusted with its safekeeping. The day will come when, as we had to plead ours, the DOE will plead its case, and the people will have hearings, and will judge.

Thank you.

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People.

I invite to you at the heart
 Because it is time
 It is time for action
 The voice of the people must be heard
 It is crucial and imminent that change
 Will come to pass

Right action is timely
 Listen to our hearts and hear the voice
 As one thought
 One invincible force

IT IS OUR RIGHT TO LIVE WELL
 Together we will change with
 Conscience and Awareness

With open hearts
 We are change

Activated
 We are Participants

We are not victims
 We are responsible for our actions

We choose our PATH
 WITH PRECISE INTENT

WE FORCE THE FUTURE
 AND I PRAY THAT

OUR CRAFTSMANSHIP REEVALUATES THE TEST
 OF TIME ~~~~~ STRAIGHT

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17-Jun-89: EX-00622, PAGE 1 OF 2

June 16, 1989
 224A Maynard Street
 Santa Fe, NM 87501

Mr. V. John Arthur
 ATTN: SEIS Comments (WIPP)
 U.S. Department of Energy
 P.O. Box 3400
 Albuquerque, NM 87115

When I decided to speak, I gathered papers and technical information and labored over how any of the facts I could digest, in order to help convince you of something - then the realization came that I must only speak from my heart.

In sight of those mistakes and accidents that have already happened, here and abroad, mistakes and accidents that we could do so very forsee - why allow the slightest chance that one more time we and the Earth will have to suffer because we have so little knowledge, so little remembrance of what it is to be in pain, so little empathy for the pain that the Earth now experiences.

Is this a projection of the non-acknowledgement of our own pain as individuals? We mask it with one thing or another, or act like it just isn't happening. Our Earth is not so sophisticated, she must suffer openly, in screaming silence, every time a child is ripped from her womb, every time the hair is torn from her head, every time she's force-fed more poison, every time the flesh is burned from her bones - much of it in the guise of preventing our annihilation as a country. If your child came to you and said, "Daddy, Mommy, I'm going to carry a gun from now on because there are so many out there with guns," what would you say? How can we fail to recognize ourselves as little children carrying big guns, shooting down the flowers on our way to a battle that we carry inside of ourselves every step of the way. Have we become so numb and so blind?

What's the next scenario? Let's go into the deep and magnificent cavities of the Great Mother and turn them into one great and dangerous outhouse? I think not! I can't condone it.

We who pride ourselves as the caretakers of the Earth, like the caretakers of a dysfunctional family, hide our garbage under smiles of rationality and coerce her to contain our dismal secrets. What are the rationalities? It'll be safer here than there? That's the ultimate rationality. I think that in our hearts we know that it's NOT safe. It's not safe ANYWHERE. It will create more jobs? Or, we've already spent so much money? Oh yes, my child, you must go on with these lessons regardless of what you or I feel - I've already spent so much money. I'm sure that there's not one of us here who hasn't at some time or another in our lives put our principles aside because it was easier. Haven't we learned anything?

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I don't choose to single out any one person or organization, even though many of us may feel there are twoarring camps here. This may sound too esoteric for some, not rational enough for others, but I feel deeply that the battleground is only within each one of us.

Some of you/us/me may say, "But I've never pillaged the Earth. I've always loved her." But how many of us here truly and in every moment love ourselves. I can't say I do. How can I love for the Earth or anyone else pour out of a heart where love is lacking? And where does the blame lie? It lies with me. I'm a minute cell in every hand that rapes the Earth, and I'm a minute cell at the end of the longest strand of hair on the Great Mother's head -

and so are you!

Thank you.


Nonie

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It is absolutely necessary that the Congress immediately withhold funds if need be, and withdraw the right for:

- 1) The D.O.E.'s nuclear operations
- 2) The WIPP
- 3) The Defense Department of Nuclear Operations
- 4) The generation of new nuclear waste of any kind
- 5) The shipment or transfer of as yet unassembled nuclear parts for the purposes of new nuclear weapons
- 6) The commercial production of new nuclear waste

Until the general voting public can review broad legislation which virtually grants the D.O.E., the Department of Defense, the U.S. Federal Government, and in some cases its legal contractors, immunity in the event of a hazardous nuclear accident; and gives the State virtually no powers of veto in matters regarding the safety of its citizens or the safety of its environment.

This is unacceptable.

I am a registered voter: Yes No X

Name Wanda Luba Mailing Address 8 Rancho Circle
Santa Fe, NM 87501

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D.O.E. SEIS Project
P.O. Box 5400
Albuquerque, NM 87115

For the D.O.E. Hearing June 16, 1989

I am profoundly appreciative to be able to have my expression of love of life as part of the public record of this hearing. For the past 40 years I have wondered why any country would want to continue to build defense systems. It seems that we created the ultimate weapon, we realized the ultimate devastation, and now we are stuck with the ultimate residue--radioactive air, land and water.

As those before us taught us by their example, we have continued to teach our children by our example to be afraid, untrusting, destructive, disrespectful, greedy and manipulative. We build defense systems to protect ourselves from people that we are taught to be afraid of. At the same time we are developing more travel, more trade and more friendships with these same people. We are sharing more of our common bonds on every level of the arts, business, medicine and science.

With friendship and trade developing all over the globe, can we recognize that the problem we have is the same problem of every nation now. Some of us do still die directly from war, but many more of us are dying from the effects of preparing for war. Preparing for war is killing us. All of the ingredients that go into the building of nuclear weapons create problems for us and our earth. The entire nuclear cycle continues to be a hazard to our health and wellbeing. The contamination of our earth home is clearly the common bond of the people on the planet at this time. It is not just New Mexico's problem. It is not just Wipp that is a problem. The problem is our

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Mary Schultz
Page 2

attitude to think that we should continue to produce anything that harms life now or any time in the future. It is our attitude, it is how we think about things that not only we but our children get to live with. We are here today because of the thinking that was taking place 45 years ago. We are dealing with the effects created by the attitudes of our parents. The causes of these problems have to be faced before the effects can be cured.

Many of us were the children 40 years ago. We are now the decision makers. Will we decide to protect and restore the planet so that our children and their children will have a healthy place to live? With our wisdom what choices are we making to benefit future generations?

That is the beauty of this hearing. I have an opportunity to say that I ask that we decide to seek trust, co-operation, more dialogue, more friendships, more relationships with all of the people of this earth home.

I ask that the D.O.E. in co-operation with the E.P.A. create a project of the intensity and urgency of the Manhattan Project in Los Alamos 45 years ago. Perhaps called Manhattan II, it would do three things:

- A. develop non-toxic materials for everyday life.
- B. develop methods to detoxify land, water and air.
- C. develop methods to detoxify or transmute radioactive waste.

I ask that all waste now in storage be kept where it is--not moved around.

I ask President Bush to call an International Environmental

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Mary Schultz
Page 3

Summit. Calling the scientists, educators, business leaders and politicians from all of the countries together to face truthfully and without blame our common problem. We are just a group of people on a very small planet. And since it is the only place that we know of to live, it is time that we repair, restore and regenerate its life providing capacity.

This earth was designed for life!

This is the Garden and we are the caretakers!

What the world longs for is a spiritual awakening which is not religious.

What the world longs for is a feeling of fulfillment beyond personal gain.

What the world longs for is peace which has nothing to do with preparing for war.

What the world longs for is the opportunity to live life joyfully, free of fear, in harmony.

I ask that we decide politically now to turn every program, every agency, toward the health and well-being of the planet and all of its inhabitants.

Love the Earth and each other.

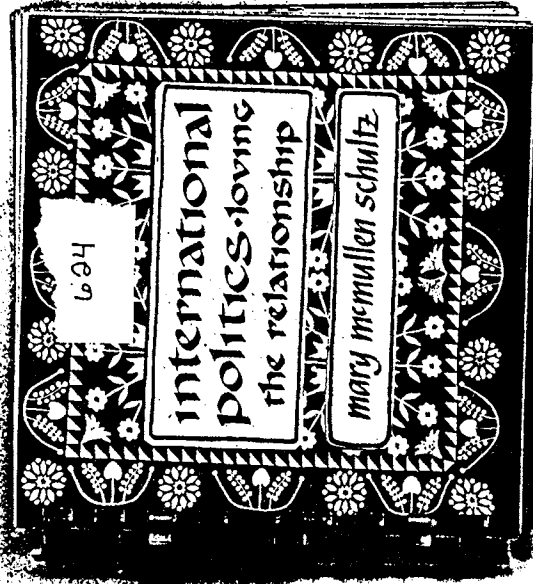
Thank you.

Mary Schultz
172 Galisteo Lane
Santa Fe, NM 87501

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I am Erik Darling, and I'm a ~~resident~~ of Santa Fe.

some of what I'm about to say, will have ~~been~~ heard before.

Some of what I'm about to say, will have been heard before.
I apologize for that. Some of it, perhaps, not.

Regarding the self report:

considered,

all of the issues along with many future issues, // sit in a certain context, for all of the issues, the DOX included. And this context points to an issue of far greater importance, than any of those issues.

That context, as I see it, consists of two parts.

Reliance on nuclear energy for anything, produces
significant toxic waste that is a danger to life;

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"Government", as such,---fallible human beings--- have proven themselves, beyond a shadow of a doubt, to be unable to handle the best of intentions in relation to nuclear energy. -- We don't need to blame anybody. It isn't a share fault. -- I see it as if with the nature of people. I am pretty sure that nuclear energy cannot be successfully handled by our species because of our nature, and the nature of nuclear energy. *Solar energy, for example, can be figured out and handled.*

and as important as that, in this context, is the idea of: 'an individual's right to his or her life, over what the majority wishes; or over what the people who claim to represent the majority wish'. Let us say that person is a woman. This is what our constitution is all about. The constitution is supposed to protect the minority from the majority; and it is THAT precise issue that's troubling us. The Dragon and the Bear are clucking at each other. The Dragon is saying, 'The Bear are clucking at stones they will never be able to get out of their throat.'

So, let us join with those people, people like the Tibetans, and the students of China fighting for their freedom and go along with Chicago, New York, 300 other

17-Jun-89: EX-00626, PAGE 1 OF 3

I AM DAVID RECCONCI
 I LIVE AT 400 COMINO DON MILVOT
 SANTA FE LN
 I AM HERE AS A CONCEALED CITIZEN
 A FATHER
 A MAN WHO CARES ABOUT
 THE EARTH - AND THE LIFE-
 IT SUPPORTS
 I FEEL THE BEST APPROACH
 AT THIS TIME IS TO TAKE-
 OUR TIME.

TO FIND WAYS TO TREAT THE WASTE
 ON SITE
 AND TO DETERMINE IF THE WASTE
 SITE IS A MISTAKE

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IF IT IS A MISTAKE ~~IT IS~~ LETS NOT COMBAND
 THE MISTAKE BY USING THE MISTAKE
 THE SITE MAY WELL PROVE TO
 BE A TOURIST ATTRACTION TO
 FUTURE GENERATIONS IF LEFT
 EMPTY.
 AND A TESTIMONY TO MAN'S
 ABILITY TO FACE HIMSELF
 AND THIS ISSUE NOW -
 RATHER THAN TO BURY IT.

~~LET'S NOT COMBAND THE MISTAKE~~
 IF WE ARE GOING TO MAKE
 MISTAKES - LETS NOT BE IN A HURRY
 TO MAKE THEM

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17-JUN-89: EX-00626, PAGE 3 OF 3

WE ARE RESPONSIBLE ~~FOR~~ ^{TO OURSELVES} ~~OUR~~
~~TO~~ OUR CHILDREN - AND THIS PRICELESS
 EARTH THAT GIVES US ALL LIFE
 THANK YOU

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3.1-8

Sharon Louise
 551 Armita Street
 SF 87621

onboard - I protest that I was denied a chance
 to speak. These comments simply because I was not
 here to register before 10am - 17 June 1989. This is a
 denial of my 15th Amendment Right and a further
 demonstration of DOE's rushing at these hearings.

17-JUN-89: EX-00627, PAGE 1 OF 2

As a Therapist and healer, working with people from all
 walks of life and from many areas of this country and world,
 I find a recurring theme in the psyches of all people: Themes
 of fear, Themes of power, Themes of Love. This is what it
 means to be human. No one is exempt. No one. Not those
 clients, not a village in Africa. Not you. Not I.

Einstein's discovery of The Power of The Atom and The subse-
 quent work to unleash that power has for The Theme of
 human power. In The name of power we have created a
 monster. In The name of power we have generated fear.
 And in The name of Power and Fear we have lost sight of Love.

Nuclear Energy. Nuclear waste. What may have once held
 hope for limitless energy resources and a position of power --
 World power and personal power -- has become and entry of such
 dire consequences, that we now face The poisoning of our Earth
 to such a degree that annihilation is a real outcome. This is
 not fiction -- not yet anyway -- but it is a possibility. What are
 we to do?

I have heard speakers, in the past two days, who have made
 wonderful comments -- pro and con -- for The opening of The WIPP,
 addressing The hazards, The moral, social and economic issues,
 The fears and even The glory of opening The WIPP and continuing
 with The production of Nuclear Energy and War Heads. Some
 people state that Nuclear Power is here to stay. If that is so, then
 we have no other choice but to put The brilliant minds of this
 nation and this world to work in creating safe permanent disposal
 methods for The waste created. If this is not a possible solution
 then we have no business creating across we cannot clean up.
 We must stop this madness and reverence to The planet and
 eco-system that sustains us. We must become pro-life at a

quality that is our human right.

17-JUN-89: EX-00627, PAGE 2 OF 2

When I read data about WIPP and SES's, storage is talked about in terms of 240,000 years, 10,000 years, even 180 years. It sounds so absurd. Where will you be in 240,000 years? Will you homestead still be standing? Why if your family lineage, will be here? It's hard to credibly imagine, isn't it. It is ~~hard~~ so far beyond us that it is really real. Yet in just a few decades we have managed in the name of Power - to create such a mess that we have to think in terms of hundreds of thousands of years for storing our waste. Waste that future generations may have had nothing to do with and yet are left "holding the bag" so to speak. You call this responsible? All you are doing is denying your responsibility. And denial will destroy us. That doesn't mean the Communists or the Hionians or me agency vs. another will be destroyed. That means you and me and our children and our parents.

Power is not who has more bombs or what certain group has more control or who has more money. Real power is subtle and more refined and is based on Love, not fear. Power is solidarity and we have precious few years to join together in creating solutions to the problems we have been handed.

You Mr. — and you Mr. — when you take off your suit that says I am a DOE representative and you dare to allow yourself to go to the most secret part of yourself, what do you really feel about the poisoning of our earth — her water, her soil, her air, her children. This is genocide for greater than what took place in Germany or is taking place in Tibet or on our own lands with the Native American Peoples. This is genocide of the Human Race and all living species. And the DOE, the federal government and you are not exempt. We must stop it now.

As a citizen of NM, Texas and the planet, I demand that we implement the 3rd alternative of SES — of No Action. And in those next years of "No Action" act by putting the \$1.5 Billion designated for the WIPP towards the research of neutralizing nuclear waste. Towards the clean-up of our personal earth and towards developing alternatives to nuclear energy — alternatives that work with our planet. Not against.

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~~This will be quick.~~ I just want to be counted as one who opposes WIPP, so I had to speak. There are many more people in this state who are not comfortable speaking + who are busy this week so I know that the ~~the~~ percentage of speakers does not even come close to the real 90% of citizens opposed to WIPP. Unfortunately this 90% will not be recorded, it will be covered up. I moved to Santa Fe 4 months ago from out of state. I moved here because of New Mexico's clean air, if WIPP is opened my fiancé + I will move away. This will affect New Mexico's economy greatly because I know that I am not the only one that we consider relocating. I want to have a healthy baby — not a child whose life is threatened daily by cancer/leukemia and genetic mutation. I live in Santa Fe + work in Galisteo. I too will be exposed to at least small quantities of WIPP's radiation. The small quantity is all that is needed to kill me.

We are not yet prepared to make a sound decision about what to do with America's nuclear waste so we need to stop + research. We cannot hide the problem underground. WIPP is not ready. The sight + the transportation is not safe. Please stop your calculating ORS + instead make a long-term, healthy + protective decision. We can already blow up the world, what more

power do we need? We don't want to kill the world so let's regroup. Let's stop Nuclear Plants before they stop us.

Let's instead develop a sound new alternative. Let's make peace profitable so the capitalists democratic economy can continue. It is known to the citizens of this nation that the corporations are buying + controlling our government.

I am familiar w/ a lady who is trying to sell her house in Galested. It was almost sold but when the out-of-state buyer found out about WIPP he backed out + decided not to move to New Mexico. It is going to affect our economy + our lives greatly. New Mexico has a magical earthy spirit, + which draws thousands of health seeking individuals. WIPP will elude their needs + desires + they will leave. Help keep America beautiful. The only ones we will eventually kill is ourselves. Let America - the land of the free - be run by the people + not by corporations. Corporations are presently thinking in one way + that is for profit + by ego. Let your hearts open up. Let the love of the people here be heard + acknowledged. Let us remain a democracy with human rights. Let the new American here come through as one of a group of the people integrating all possibilities

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who make sound decision from a wholistic view not just from profit + power. We can make the world a better + cleaner + more functional place to live in.

We have been given a beautiful world country to live in. How can our minds become so destroyed that we destroy our land + ourselves. Let's bring our minds, our hands + our hearts together. Drop our weapon + live + grow in the beautiful harmony potential which we do have. Let's be one in peace + forget the

US vs. them

God bless your souls - please listen to your heart in making this decision.

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17-Jun-89: EX-00629, PAGE 1 OF 1

It is absolutely necessary that the Congress immediately withhold funds if need be, and withdraw the right for:

- 1) The D.O.E.'s nuclear operations
- 2) The WIPP
- 3) The Defense Department's Nuclear Operations
- 4) The generation of new nuclear waste of any kind
- 5) The shipment or transfer of as yet unassembled nuclear parts for the purposes of new nuclear weapons
- 6) The commercial production of new nuclear waste

Until the general voting public can review broad legislation which virtually grants the D.O.E., the Department of Defense, the U.S. Federal Government, and in some cases its legal contractors, immunity in the event of a hazardous nuclear accident, and gives the State virtually no powers of veto in matters regarding the safety of its citizens or the safety of its environment.

This is unacceptable.

I am a registered voter: Yes ☐ No ☒

Name Therese Brainerd Mailing Address PO Box 1231
Santa Fe NM 87504

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17-Jun-89: EX-00630, PAGE 1 OF 1

It is absolutely necessary that the Congress immediately withhold funds if need be, and withdraw the right for:

- 1) The D.O.E.'s nuclear operations
- 2) The WIPP
- 3) The Defense Department's Nuclear Operations
- 4) The generation of new nuclear waste of any kind
- 5) The shipment or transfer of as yet unassembled nuclear parts for the purposes of new nuclear weapons
- 6) The commercial production of new nuclear waste

Until the general voting public can review broad legislation which virtually grants the D.O.E., the Department of Defense, the U.S. Federal Government, and in some cases its legal contractors, immunity in the event of a hazardous nuclear accident, and gives the State virtually no powers of veto in matters regarding the safety of its citizens or the safety of its environment.

This is unacceptable.

I am a registered voter: Yes ☒ No ☐

Name BETTY DUNN Mailing Address 509 CALLE LUCERO
SANTA FE, NM 87501

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6/17/89 Billie Royal, 109 Tomlinson, Santa Fe, NM
 87111

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I am a former Carlisle resident with family still living there. The philosophy of expediency was the guiding light behind the search for a labor supply & a later source of the money. Changes - savings & clearing - happened at this crucial time of global crisis such as acid rain, forest depletion, agricultural & forestry, chemical pollution & waste. I am quick today of much less, radioactive wastes, that paper, ungodly long lived lives, we are again facing this and epidemic throughout.

Carlisle had short memory of working for only short term goals & short answers to unemployment & job, anything is at the time again. As admitted by the former industrial officials & business persons of which one, has that said that they took company out a radiation dose & riding on them will surely guarantee a steady life again. This is not the time to make short term promises to Carlisle residents, many of whom are in short supply of money. WIPP will offer some jobs at their money money wages for a short time as the Patrick implies did. The positions & authority will offer out of doors & not polluted residents who are paying the price.

This would our death, which is all of our life support system is only going to continue together with all qualities working through, interconnectedness, planning together to save our earth, will

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produce jobs & money for all communities, states & countries.

That said, we money in your pocket when this is no more uncollected land to live on, no more uncollected water to drink & no more uncollected air to breathe.

The value of backing down & admitting error in buildings with decent means appears on D.O.E. face. It means this organization is made up of people who have no idea that subject goes, career advancement & monetary gain. Besides, to listen to that paid staff, maybe each of you in the quiet of each night that says, "Cure for the future: Demolition & Care for the Earth." Like Support System: NO THERE! EARTH!

Will you please me do know the TAD they concerning this subject. I can read it on each of your faces.

17-Jun-89: EX-00631, PAGE 2 OF 2

It is absolutely necessary that the Congress immediately withhold funds if need be, and withdraw the right for:

- 1) The D.O.E.'s nuclear operations
- 2) The WIPP
- 3) The Defense Department of Nuclear Operations
- 4) The generation of new nuclear waste of any kind
- 5) The shipment or transfer of as yet unassembled nuclear parts for the purposes of new nuclear weapons
- 6) The commercial production of new nuclear waste

Until the general voting public can review broad legislation which virtually grants the D.O.E., the Department of Defense, the U.S. Federal Government, and in some cases its legal contractors, immunity in the event of a hazardous nuclear accident; and gives the State virtually no powers of veto in matters regarding the safety of its citizens or the safety of its environment.

This is unacceptable.

I am a registered voter:

Yes ☒ No ☐

Name Michael T. Collins Mailing Address 128 W. Booth
Michael T. Collins Santa Fe, NM
87501

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This is unacceptable.

I am a registered voter:

Yes ☒ No ☐

Name John Peter Mailing Address 101 C Country Club Rd
Santa Fe, NM 87501

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A PROPOSAL FOR EARTH REPAIR ACTION

TO THE: United Nations General Assembly and the UN Environment Programme
 FROM: Earth Repair Foundation and UNAA Environment Program (Australia)
 SUBJECT: Adoption of this Draft Resolution proclaiming a world-wide ERA
 (Earth Repair Action) Decade to begin with FIERY, the First International Earth Repair Year, starting on World Environment Day, June 5, 1990

The General Assembly,

- Recognizing that our total global environment is rapidly deteriorating;
- Alarmed that important natural resources vital to human life and livelihood such as ozone, trees and soil, and the purity of air and water, are being depleted at an increasingly dangerous rate;
- Recalling that the United Nations has adopted the following Declarations, Statements, Charters and Plans of Action for the World Environment: The Declaration of Stockholm 1972, The Mar Del Plata Declaration 1977, The World Charter for Forests 1982, The World Conservation Strategy 1980, The Declaration of Nairobi 1982, The World Charter for Nature 1983, The World Conservation Strategy 1985, The Protection of the Global Environment Declaration, 1982;
- Convinced that there is an urgent need for wide-spread public education in conserving skills and the responsible use of vital resources and that practical earth repair action initiatives are imperative;
- Believing that Earth Repair Action will unite people, communities, religions and nations in the common, productive, peaceful purpose of repairing and greening the Earth for a safer future;
- 1. Proposes the First International Earth Repair Year (FIERY) as the beginning of a 10 year plan to launch a world-wide campaign for the repair and greening of the Earth by establishing: hygienic composting and recycling programs; permanent, self-sustaining and non-polluting organic agriculture; the end to world hunger; and that this ERA Decade be proclaimed to begin in 1990;
- 2. Recommends that all Member States:
 - (a) Reallocate annually 10% of all military expenditures to environmental programs within each nation, to fund and support the ERA Decade;
 - (b) Seek further funding for earth repair programs from private and public corporations, foundations, governments and individuals;
 - (c) Create national committees to co-ordinate earth repair action projects and educational programs at all levels;
 - (d) Develop hygienic composting programs and ensure that all presently-wasted biodegradable materials, including sewage by-products, are recycled into natural rock-dust fertilizer, into human-rich soil;
- 3. Requests the Governing Council of the United Nations Environment Programme to continue to organize the ERA Decade;
- 4. Invites all governments, specialized agencies and other organizations of the United Nations system, as well as other inter-governmental and non-governmental organizations concerned, to co-operate in achieving the objectives of the FIERY Year and ERA Decade;
- 5. Requests the Secretary General to report to the General Assembly as soon as possible, through the Governing Council, on the implementation of this Resolution.



WHEN ENOUGH PEOPLE LEAD THE LEADERS WILL FOLLOW
 Show your support for this campaign by signing and sending this Draft Resolution to:
 Mr. J. Kees de Quiller, Secretary-General of the United Nations, New York, NY, 10011, U.S.A.
 and Dr. M. R. Tolbe, Executive Director, UNEP, PO Box 30552, Nairobi, Kenya, Africa.

NAME	
ADDRESS	
CITY	
COUNTRY	

It is absolutely necessary that the Congress immediately withhold funds if need be, and withdraw the right for:

- 1) The D.O.E.'s nuclear operations
- 2) The MPP
- 3) The Defense Department's Nuclear Operations
- 4) The generation of new nuclear waste of any kind
- 5) The shipment or transfer of as yet unassembled nuclear parts for the purposes of new nuclear weapons
- 6) The commercial production of new nuclear waste

Until the general voting public can review broad legislation which virtually grants the D.O.E., the Department of Defense, the U.S. Postal Government, and in some cases its legal contractors, the authority to cause a hazardous nuclear accident; and giving the State virtually no powers of veto in matters regarding the safety of its citizens or the safety of its environment.

This is unacceptable.

I am a registered voter: Yes ☐ NO ☒

Name Benny Zable

Mailing Address 434 N. Sierra Ave

Solana Beach, CA 92088

②

weapons. Let us
make the world a
safe place to live
in for all life
on Earth. By
no longer making
nuclear weapons, we
will have no more
defense related nuclear
waste to dispose of
which will help solve
the problem of where
to put that waste.
We all ready have
enough nuclear weapons
to destroy the planet
a 100 times over. do
we need more? NO,

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we do not. I wish
we would dismantle
all the nuclear
weapons we now
have.

I really feel
that WIPP will jeopardize
the health + safety
of the citizens ^{and children of tomorrow}
new Mexico. The
Salt Beds of Carlsbad,
NM, are now a safe
place to deposit nuclear
toxic waste. In many
my many readings +
discussions with geologists
who have studied the
area, it has been stated

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(4)

repeatedly that WIPP is dangerous & very probable that leaks will occur.

I do not understand how the DOE would even consider opening an hazardous nuclear waste site. The DOE war created to help people; not promulgate unhealthy practices.

I am also deeply worried & distressed about the transuranic waste being transported through Santa Fe, NM. As a Native, I am sad to

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say that we have one of the highest rates of driving accidents and drunk driving in the U.S. Just yesterday, June 16, 1989, I was almost hit by a car who ran a red light on ~~Pattee Ave~~ ^{W. San Francisco St.} Sandoval St. Our streets also have pot holes as big as elephants—very large ones ~~to~~ ^{over 200} ~~many~~ ^{big} elephants. In addition the majority of streets have no median lines painted on them, including St. Francis Drive.

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Until the WIPP waste roads are repaired, the waste should not be transported down them. Better yet, the waste should be routed on trains or outside of Santa Fe entirely. It is very unfortunate that DOE split the hearings 3-ways. What a ~~that~~ Machiavellian tactic to use.

Let us think of the earth and all the life on it and protect that life. I wish WIPP would never open in Carlsbad, NM. But if it does it must not be opened until

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it is safe to do so. I sympathize with the residents of Carlsbad & their high unemployment rate but they can create new jobs which will not endanger their lives & other fellow New Mexicans. Using an idea of John Maynard Keynes, it would be better to ~~build~~ build pyramids in Carlsbad to create jobs than winning an unsafe nuclear waste site. The pyramids could also be an additional tourist attraction for Carlsbad. (over,

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Thank you,

Jim Murre

DOE HEARINGS, SANTA FE, NM June 17, 1989
 Testimony of Barbara Conroy, Santa Fe

I appreciate these hearings being held here in Santa Fe and my opportunity to speak freely before the DOE about my concerns. I have listened to others speak and am grateful and proud that citizens care so much for the health and well being of people, of the community and of the planet.

My alarm and skepticism grow daily as I read about the WIPP issue, ask and listen to people who are government officials, neighbors, business associates and friends. My concern grows daily about the seriousness of problems raised by this answer to handling nuclear wastes.

For me this concern is a personal one as well as a community and societal one. In Santa Fe I live less than one block from St. Francis Drive, the proposed route for transporting nuclear wastes to the WIPP site. I have concerns for the health and safety of myself, my neighbors and my community for I know that is high risk traffic. I want to go through populated areas with the risks and implications of accidents. I have concerns for my investment in a business and have entered in an area where values can be eroded overnight or destroyed recovery in a matter of minutes. And, what is the community level impact of the economic issue?

During the 60's I lived for 7 years in Lakewood, CO. Now, with the revelations from the Rocky Flats investigations, I have some real concerns about the health implications for me personally and for my family. At the time I lived there I had few reservations but basically believed the governmental assertions of the security and safety of that installation -- comforted by the thought that the government would certainly have the protection of citizens as its primary concern. That trust was obviously misplaced.

Santa Fe is in the shadow of Los Alamos National Laboratory just as the Denver area is imperiled by Rocky Flats. Here I have more of an opportunity and attention to seek information behind the official pronouncements and know that there are serious questions (and investigations) about security and disposal and release of contaminants. And I have no trust left.

In addition to the blatant and intentional deception of the public, safety precautions -- both operational and through regulations and legislation -- have been eroded through national leadership, through ill-informed public officials and through those who have a financial self interest at stake. Credibility of the DOE has been seriously compromised and if WIPP or its equivalent proceeds without serious consideration of the

questions raised in your series of hearings, serious implications are likely.

The opposition and questioning of this first "nuclear waste emplacement" draws the essential questions that cannot be bypassed or ignored. We are indeed endangering our planet by not pursuing methods to re-process and neutralize nuclear wastes with equivalent investment and commitment as we put into creating the weapons (and waste) in the first place.

The purpose of the weapons is to defend the country -- but to what end if we destroy it from within? The threat of long-term contamination of the ground, water and air is real! Shoving the waste quickly out of sight with little consideration for alternative solutions does not answer the problem but rather assures that it will be a more complex problem in the future -- and then perhaps impossible to solve.

In view of this, why seek to bypass the EPA standards and the provisions of NEPA and NDA -- the reason they have been developed is to protect the people and the planet. Why subvert or be impatient with the public process -- key information and questions can be essential to your doing the job you are charged with. Or has your job now evolved into one of "hide the waste" rather than "develop the best solution?"

In short, I strongly oppose the activation of the WIPP site here in New Mexico -- or anywhere -- as an effort to address and resolve the central issue: devising a responsible and realistic means to de-activate (rather than to contain) the wastes that we continue to generate in our defense efforts.

I urge your continued work for strong consideration of alternatives to land, sea or space disposal of these products that require thousands of years to become "safe" through the natural process. Once buried or dispersed, many individuals and agencies will assume that the matter has been dealt with. However, inevitable unforeseen problems will pose even greater and more complex problems for succeeding generations. This is an important and lasting issue.

More and more my alarm grows as I think of how important it is to oppose this first "nuclear waste emplacement" as a way to address the larger issue of how we are endangering our planet by not pursuing methods to re-process and neutralize nuclear wastes and by not questioning further production.

Testimony of

Arthur L. Kanegis

President of

Future Wave, Inc

A Nonprofit Educational Organization

to

The Department of Energy

Public Hearings

on the

Supplement to the Environmental Impact Statement

on the

Waste Isolation Pilot Plant

June 17, 1989

17-Jun-89, EX-00703, PAGE 2 OF 4
 In our new information society, the time orientation is to the future. We must learn from the future the way we have been learning from the past.

-- John Malsbitt, Megatrends

Future Wave Inc. is an organization designed to help the public learn from the future.

Our organization is producing futuristic movies that depict more advanced ways of dealing with conflict than war, and more advanced ways of living on this planet than destroying the ecology on which we depend for our very existence.

Let's imagine that you and I are in the year 2020, looking back at this era -- back at these hearings.

We are living in an ecologically sound and peaceful world, and we learn about 1989 in history class. We scratch our heads. Puzzled. "Why wasn't it so obvious to people back then what was happening. They had all the pieces of the puzzle. Why couldn't they see the big picture?"

There are 2 primary sources of the bulk of the waste proposed to be buried in WIPP. Nuclear power and nuclear weapons.

Let's start with nuclear power, and look at the pieces of the puzzle and see if we, today, can see the big picture, that will be so obvious tomorrow.

Puzzle Piece number 1:

Civil and military expenditure on nuclear fission reactors for power, not counting weapons production, has totaled 1 trillion dollars. Yet we have created a technology that once you build it is cheaper to close down and write off than to operate. Nuclear power plants are currently delivering little more than half as much energy as wood. Never before has so much been spent by so many on so little.

The operating cost of nuclear power plants alone, not counting the trillion dollar investment, is 4 to 8 times as much as the cost of building and giving away currently-existing energy saving devices such as insulation and super-efficient lights, motors, building components and appliances. Henry Lovins of the Rocky Mountain Institute has calculated that for 1/8 the cost of just running nuclear power plants, you could buy energy saving devices which would yield 4 times more electricity than those plants can generate.

Puzzle piece number 2 is the fact that these plants are generating dangerous waste that must be carefully contained for thousands of years or they will poison the earth.

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17-Jun-89, EX-00703, PAGE 3 OF 4
 The third piece of the puzzle is that the incredible genius of human kind is generating many effective, cheaper, safer, energy-saving and energy-generating alternatives.

The people of the future might say that we appeared to be living in the age of stupidity. "Couldn't they see that the obvious solution was not to find a way to bury the stuff but to stop making it?"

These observers from the future would be cheering the concerned citizens here today who are saying no to WIPP. "How. wasn't it fantastic? Everyone, everywhere, said no the waste until it piled up so high they finally had to wake up and stop making it!"

The big picture in energy is that by saying no to nuclear waste burial, we are saying yes to wider use and distribution of currently existing, safe, renewable energy saving and energy generating alternatives. And we are saying yes to putting more resources into the creation of new alternatives.

Now lets look at the big picture in nuclear weapons -- the second major source of the waste proposed to be buried at WIPP.

Puzzle piece # 1. Nuclear weapons facilities are obsolete, outdated, and dangerous. The FBI recently descended on Rocky Flats which produces the plutonium triggers for nuclear weapons, to investigate their many violations of safety.

Puzzle piece # 2. One estimate is that it will take \$1 Billion dollars to clean up these plants -- and billions more to build new weapons plants at a time when we can't afford greater deficits.

Puzzle piece # 3. The more than 20,000 nuclear weapons that we already have can never be used without committing global suicide. Even if we were willing to use them, these weapons don't have the physical capability to defend our country. There only function is psychological -- what we call deterrence. We've spent over 3 trillion dollars since World War II for one purpose -- to effect the psychological state of mind of a handful of leaders in the Kremlin. We wanted to enhance our own security by creating in their minds a state of fear -- fear that if they attacked us they would be destroyed. But there are other states of mind we could work to foster in the Kremlin leadership that would leave us much safer -- at a far lower price. Namely, the same state of mind that protects us from British nuclear weapons. That state of mind is called friendship.

The fourth piece of the Nuclear Weapons puzzle is that we are now in the incredible situation of having a Soviet Leader who is unilaterally withdrawing some missiles from Europe, cutting the military budget, and moving toward democratization. We could join him in freeing up resources from military waste to peaceful pursuits, we could open up sensitive trade with the Soviets, and we could, by cooperating, help reinforce the changes he is making,

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or we could drag our feet, fear peace, rebuff his overtures and help destabilize him.

From the vantage point of the year 2020, when the Soviets and the U.S. are allies in the global democratic commonwealth, helping to preserve the peace with techniques more advanced than war, we will look back and say:

"Couldn't they see the writing on the wall? Couldn't they see that the nuclear weapons game was over? That nuclear weapons were 'impotent and obsolete,' to use the words of former President Reagan?"

The big picture in nuclear weapons is that by refusing to accept the waste we are bringing closer the day when we decide to stop making them: They are too damned expensive, we can't contain the waste, they threaten global extinction, and they are totally impotent when it comes to providing us with real security.

You on this panel, and in the public, and in the press are part of one of the greatest dramas in human history.

This drama will have ramifications far beyond the actual WIPP site -- it is part of our growing up as a society and as a planet -- part of creating a future that is survivable and secure from the threats of ecological destruction and suicidal warfare.

The fact is that both nuclear weapons and nuclear power plants are impotent and obsolete. By saying no to WIPP, we are not only saving yes to the safety of new Mexico, we are saying yes to the safety, the security, and the prosperity of the planet.

Thank you for this opportunity to testify.

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DS Coming From
Sandra R. Hill 5/25/89

Hello, My name is Anne Rogers. I am 14 years old. Although I am not an adult yet, I hope you will listen to what I have to say, since I will be around to witness the results of this waste, and my generation will be the ones left to deal with the problem which will inevitably arise.

I think that the D.O.E. should take a closer look at nuclear energy in general. Not only are there the dangers of the waste, but the problems of how to deal with it. The waste is something known to be so dangerous near them. It's not only New Mexico, but every other state in America which will oppose the dumping of such waste in their areas, and they have every right to do so. No one should be forced to live under these conditions as to leave.

With the amount of money spent creating nuclear weapons, to cleanup the waste, and cleaning up the not-so-rare accidents which occur, the DOE could be focusing on developing and utilizing already existent forms of alternative energy. New solar cells have been invented which can supposedly create electricity for less than 2¢ a kilowatt hour. If more money were put into testing these cells and researching other sources of energy - cheap, renewable energy sources, not only would their jobs be easier, they would also save money.

As far as the nuclear weapons aspect goes, I have been to the WIPP and also to Central America - talked extensively with the people there. Believe me, you have absolutely nothing but ultimate to fear. It's time to start a new towards unity, for the sake of my generation and the one to follow.

I think I speak on behalf of all the young people in the world by saying that we have a right to inherit a world filled with peace and safety. If we can't find a place to put it now, think about what kind of problem that will be if we continue to create more. Thank you.

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Deborah Dennison
201 Sunny Slope
Santa Fe, NM 87501

June 17, 1989

Testimony before the DOE Hearings

Good morning gentlemen. My name is Deborah Dennison. I am a citizen born, a voter and a tax payer. And, as one of your 250-odd million employers, I greet you. For indeed, gentlemen, I am sure I need not remind you that you work for us, the citizens of these United States and, yes even for us, the citizens of the State of New Mexico.. Your mandate is to protect our needs as a people and a nation - not the needs of the Dept of Defense, not the needs of Dept of Energy, but OUR needs which not only include the safe development of energy resources, but the safe, and I stress safe, disposal of the refuse created from such development and production. It may well be in the best interests of the DOE to open the WIPP site as soon as possible. But it cannot possibly be said to be in the interests of us, the residents of the state of New Mexico, or indeed the residents of neighboring West Texas.

Time and time again, your conclusions in this document, the "Supplement Environmental Impact Statement" are based on assumptions draw from incomplete data. Occasionally, you have made significant re-evaluations of your previous conclusions in the "Final Environmental Impact Statement", previously issued by you, due to the discovery of conditions differing from your earlier findings and

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subsequent assumptions. How can we be assured that discoveries you may make a year or two from now may not totally conflict with your present conclusions and prove that the entire plan and utilization of the WIPP site was a horrendous mistake? Particularly in the light of the recent Justice Department investigation and FBI raid on your Rocky Flats facility. The blatant abuses recently discovered at that facility show a reckless disregard for health and safety which can only be a reflection of attitude and policy from the DOE itself. We must never forget that we are dealing with waste material which will remain toxic for 240 thousand years and which without doubt is a deathly carcinogen in any element in the environment which gives it exposure to living organisms. Should your experiment go drastically wrong, it could present nothing less than a holocaust for the Southwest.

To cite only three of the many issues which raise serious doubts in the SEIS, I would draw your attention to the issues of the geology and hydrology of the WIPP site.

In section 4, page 5, paragraph 4.2.1 you state of the geological formation of the site that "The third and present phase... has experienced... relatively stable tectonic conditions..." As any student of geology knows, the seismic activity within the earth's tectonic plates is hardly predictable. The buckling, folding, outcropping and faults of the earth's crust in the Southwest are relatively new in geological terms. You simply cannot assure us that, given a drastic change in the earth's climate - a cooling or heating of the surface, or any of the presently inexplicable

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geological disturbances which have occurred in living memory, this "relatively" stable condition could change presenting a nightmare of possibilities for the entrance of this toxic material into our surface environment. After all were the geology of the earth's crust totally understood and predictable, everyone in Los Angeles would know when the earthquake is coming and every oil man would be rich.

As to the hydrology, you describe in section 4, page 13, paragraph 4.3.1.1. the Ball Canyon Formation as the "first regionally continuous water-bearing unit beneath WIPP" and state that the Castile Formation above it "provides a hydraulic barrier" but you add:

" it may contain pressurized brine deposits." If some fracture, crack or fault in the Castile Formation allows seepage of the brine deposits, can you assure us that this now contaminate brine will not make its way to the aquifer, and on in the general flow pattern, to the Pecos River?

The hydrology and fluid geochemistry of the Culebra Dolomite of the Rustler Formation, by your own admission (4-14.4.3.1.1.), "are very complex". "The Culebra Dolomite provides the most direct pathway between the WIPP facility and the accessible environment." You further state (4-36.4.3.3.1.) that "the Culebra potentiometric surface (water-pressure levels) at the WIPP site is and has been affected by a small continuous discharge into the WIPP shafts (Haug et al, 1987). Thus, delineation of a potentiometric surface undisturbed by WIPP activities is difficult." You go on to state that "flow directions... are difficult to define reliably."

Finally, you tell us that an earlier site for WIPP, only six

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miles from the present site, was rejected because of the presence of pressurized brine in the Castile Formation and strong deformation in overlying Salado Formation (FEIS 2.2.3). Yet you concede (4

-60.4.3.4.2.) that the findings of a geological survey conducted by Earth Technology of the present WIPP site indicate a continuous deep conducting zone which "may be due to the presence of Castile brine", contradicting your conclusions in both FEIS and SEIS that pressurized brine deposits were unlikely.

New Mexico is beautiful state with a highly fragile desert environment. It has been the home of highly cultured civilizations for thousands of years. Despite the obtuseness of some of our political leaders, we will not let you, or them, make us the nations dumping ground for nuclear waste in a dangerous and desperate experiment. WIPP is not the solution to your problem, but it does present a potential horror beyond imagining to yourselves, our children and our children's children.

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STATEMENT OF CONCERNED CITIZENS IN OPPOSITION TO WIPP
(Additional Signatories):

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7.12.9-1
7.12.9-5

7.3.1.1-2

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The earth is our mother.

The earth is our mother.

The sacred ground we walk upon,
With every step we take."

(Signed):

Robert Gould

Robert D. Smith

Chenox Cunningham

27

W. Lloyd Garrison

[illegible]

Adm. Van Ameringen
Adm. Van Ameringen

602:107/1471

Wm. Eastham

Conrad

W. H. Z. Z. Z.

Dennis Levin

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Grand Control

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Reorg's Sam

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Mr. J. D. Dwyer

f

W. L. L. L.

Testimony of

Molly Post

to

The Department of Energy
Public Hearings

on the

Supplement to the Environmental Impact Statement

on the

Waste Isolation Pilot Plant

June 17, 1989

1

My name is Molly (legally, Mary L.) Post. My mailing address is 105 Camino Teresa, Santa Fe.

I'm not sure why I'm up here. I have comments and opinions to submit, but as I've watched these hearings, I get the impression that all the comments, all the facts, all the opinions, all the logic, all the pleas and all the concerns are falling on deaf ears. I watched the DOE panel as they "listen" to one testimony after another, never changing expression, never letting on that they've heard or that they understand. I watched the DOE replacement panel come in and "listen" to one testimony after another, never changing expression, never letting on that they've heard or that they understand. I can't imagine that these DOE listeners are going to individually or collectively report what they saw and heard. It feels like the high emotion and outpouring of concern for the safety of our citizens, our state, our nation and our planet are going to end up only words bound in a book that few people are going to read. It feels like the testimonies of the last few days are falling on deaf ears and closed minds.

Just in case that isn't true and what I have to say may have some impact, I'd like to ask all of us to look at this situation as an opportunity -- an opportunity to become leaders, an opportunity to make a difference, an opportunity to make the world a better place to live. We have an opportunity to begin the process of stopping the use of nuclear power, stopping the development and building of nuclear weapons, stopping the creation of nuclear waste. We have the opportunity to turn our incredible resources of intelligence, people power, energy and money toward the development of alternative power sources. We can use those same resources to find alternative solutions to nuclear waste.

There are people who believe that they can actually transmute or neutralize nuclear waste. Even if their theories or solutions don't work or aren't practical, can't we learn something from them? Couldn't one of their solutions possibly lead to other solutions? Isn't the problem of nuclear waste disposal serious enough to put our best minds on? I think it's time we stop holding on to solutions that don't work and open ourselves to the creation of solutions that do work -- solutions that work for the entire planet.

I believe that we can have it all -- clean air, pure water, rain forests, an ozone layer, an abundance of safe power, peace, love, joy and beauty. I believe we deserve nothing less. Let's create it.

Thank you.

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U.S. Nuclear Regulatory Commission
Docketing and Service
Washington, D.C. 20555

Dear Sirs,

I strongly oppose your recent proposal for cutting the public out of the decision-making process in the case of radioactive-waste storage permits.

As it is now, federal officials who regulate the nuclear-power industry routinely ignore public opposition to the industry. Instead of just covering your ears, you now want to simply silence the opposition.

We have seen that those who merely regulate themselves without any independent oversight do not place health and safety issues on the top of their priority lists. As a result, thousands of people have had their health and safety placed in jeopardy.

We need to do more, rather than less, to insure that the nuclear power industry is forced to take every possible precaution to avoid poisoning our land, air and water. By eliminating the public from the licensing process you would be making the statement that you don't give a damn about the health and safety of the nuclear workers and the citizens of this country. The Nuclear Regulatory Commission must not become the Nuclear Rubber-stamp Commission and give nuclear-reactor operators blanket permission to store waste without seeking a permit from the NRC.

This foolish idea of yours must never become law.

Thank You,

Sincerely,

P.S. I hope that you will extend the time beyond June 19 to receive public comment. I have many friends who need to know of this attempt of yours to short circuit and kill the basis of democracy, an informed, active and empowered citizenry.

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Gentlemen, first I want to go on record as objecting to the proceedings of the hearings, with the division of three rooms and three simultaneous speakers. It has attempted to divide and separate and not give full attention to each speaker.

I, too, am a concerned citizen and I ask that we STOP THE ADDRESS NOW! We, as a nation, have ^{all} suffered (either directly or indirectly) the consequences and pain of the deceptive statements and actions of the DOE. Believing in our country, as I have my whole life, it makes me sad when I realize how many people myself included, have lost trust and faith in our government.

As I review the SEIS report and consider all the hundreds of aspects of a project of this magnitude, my thoughts focus on five points I want to share with you this morning.

8-7

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3.2-1

The first is priorities. It seems clear to me that with the nuclear wastes and WIPP issues, we have come to a situation based on politics, putting politics as the #1 priority. I believe the DOE is prioritizing politics over SAFETY; prioritizing politics over HEALTH; prioritizing politics over the need for NEW EPA STANDARDS; prioritizing politics over the VALUE OF THE (time to study waste to neutralize radioactive wastes, time to let science and technology catch up with the monster we have created); prioritizing politics over HONESTY; prioritizing politics over RESEARCHING IN DEPTH THE VIABLE ALTERNATIVES (such as monitored Retrievable Storage and the No Action Alternative); and prioritizing politics over SAFETY.

But, just because you have erred and Chavon grossly misplaced priorities, misplacced to the point of being dangerous, we in New Mexico will not be

your sacrificial lamb. It's ok, real ok, and not too late for you to rethink and change your priorities.

Second is COMMON SENSE; I believe in the simple common sense approach. Common sense - I learned as a child "don't play with fire or you'll get hurt". We are playing with the "big bad fire" known as this planet; already many people have been hurt and if we continue (without time to create new and safe EPA standards) we will get hurt. Common sense.

Common sense - the kind where everyone I talk with about the DOE's plans and proposals look at me truly in disbelief and say "they're going to do what?" Common sense.

Common sense tells me you don't solve a supposed "National Security" problem by shipping hazardous wastes, packed in cardboard, to

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be approved or certified by the NRC; over thousands of miles of our country; through dozens of towns and cities of all sizes; past lanes, schools, churches, places of work; through busy intersections, on unimproved and inadequate roadways; some on two-lane roads; some in winter during icy and unpredictable weather; driven by a fucking firm, who make the poorest bidder and is inexperienced to hanggart radioactive wastes; to a site that has many questions, problems, and unknowns all of these done against the will of the people. Common sense.

Some of the speakers over the past two days have told you gentlemen they hope you don't take these comments and statements personally — I feel differently. I am speaking directly to you, Mr. and I hold you personally responsible and accountable

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You are the DOE and you choose to be the DOE. Someone commented to me — "those poor guys sitting up there; they're puffed during their job; to get their paycheck." I feel differently. You have made your choice. There are hundreds of ways to "get your paycheck" and be helping, not hurting, the supporting life and not draining life.

I ask that we look at the error in priorities and change it. I ask that we utilize the common sense approach, and I ask that we STOP THE MADNESS NOW!

Thank you
Kristin Ryan

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to be solved. It is within this context the Roy Process has to be understood.

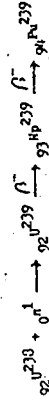
THE ROY PROCESS

The Roy Process does not depend upon the storage of nuclear waste. Long half-life radioactive elements in the waste present grave problems. The basic idea of the Roy Process is to transform long-lived nuclear waste products such as Cs^{137} and Sr^{90} into short-lived isotopes of these elements. The short-lived isotopes are then allowed to decay into stable forms. Actinide elements such as Pu^{239} can also be treated in the same way as above to obtain short-lived isotopes.

The following table gives some of the long half-life radioactive isotopes produced in a reactor:

Element	Half-life
^{90}Sr	28.8 years
^{106}Ru	1 year
^{125}Sb	2.7 years
^{137}Cs	30.17 years
^{167}Re	2.62 years

The actinide elements such as Pu^{239} on the other hand are formed by the capture of neutrons (n) by U^{238} present in the fuel elements followed by successive beta decay (β^-) as in the following:



The $^{94}\text{Pu}^{239}$ which is bomb grade material can be chemically separated from the waste and this process of separation is well-known as is the separation of other products such as Cs^{137} .

A study of these radioactive elements including actinide elements indicate a common property, i.e. they have too many neutrons for them to be stable.

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THE ROY PROCESS FOR NUCLEAR WASTE TREATMENT

R. R. Roy

PROBLEMS WITH STORAGE OF NUCLEAR WASTE

Among the problems associated with the use of nuclear reactors for power generation, one of the most crucial is the safe disposal of long-lived radioactive waste products and actinide elements produced in a reactor. Efforts are being made to find a satisfactory solution to this nuclear waste disposal problem.

Several decades ago, nuclear waste was containerized and dumped into the ocean. This practice was abandoned after it was discovered that the containers corroded and the waste leaked into the sea water. Containers whether housed above or below ground presented similar serious problems. Continued efforts to find permanent storage sites free from hazards have been unsuccessful, although unfounded speculative discussions of solutions abound. Speculative discussions are often presented as scientific facts.

In recent years, the practice of interbedding long-lived nuclear waste in a glass or ceramic medium for underground storage (particularly in France) has met with serious objections from many reputed scientists (see for example "Interactions Between Nuclear Waste and Surrounding Rock," C. J. McCarthy, V. B. White, Ruston Roy, R. E. Sheets, S. Kowarman, D. K. Smith, and D. M. Roy, *Nature*, Vol. 277, p. 216, 1978). Moreover, the expenses involved in storing nuclear waste under properly controlled temperature and security conditions for an almost unlimited period of time are astronomical. In addition, it is hard to imagine any metal or material which can last this period of time with the nuclear waste contained in it. Fanciful suggestions such as sending nuclear waste aboard a satellite to be burned up in the sun have also been made. The problem of finding a satisfactory means of nuclear waste disposal remains

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The Roy Process consists of removing a neutron from each of these long-lived radioactive nuclei by bringing the required amount of external energy inside these radioactive elements. When a neutron is removed, a long-lived radioactive element becomes an isotope having a considerably shorter half-life. This isotope is then allowed to decay to a stable form, and in the case of Pu-239 into short-lived isotopes. Some typical examples are given below:

Element	Half-Life	Transformed into Element	Half-Life
Cs-137	30.17 years	Cs-136	13 days
Sr-90	28.8 years	Sr-89	50.4 days
Pu-239	24,300 years	Pu-238	89 years
Pu-238	89 years	Pu-237	45.6 days

The nuclear machines needed to effect this transformation, the supporting technology and equipment are already available commercially.

The Roy Process has to be developed in three distinct phases. Phase I will consist in the theoretical feasibility study. Phase II will involve the construction of a prototype machine and supporting facilities for actual demonstration of the process. The parameters needed for the development of Phase II will be obtained from the Phase I study. Finally, Phase III will be the construction and operation of large scale commercial plants based on the data obtained from Phase II. In this report, the discussion and financial need will be confined to Phase I.

PHASE I

Phase I will consist of the theoretical feasibility study of the Roy Process to obtain parameters which are needed for the construction of a prototype machine and supporting facilities. This study will involve aspects such as optimization of the parameters in the theory, the desired form and size of nuclear waste, the power requirement, analysis of heat removal, by-product re-

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covery systems, aging of the nuclear waste, the specification of preliminary engineering on the necessary hardware, automated systems to handle the nuclear waste by remote control, environmental impact analysis, and many other factors. It is believed that the Phase I study will require two years. Estimated costs needed for Phase I are enclosed.

A Brief Resume

Nationality: U.S. Citizen

Highest Degree: Ph.D. University of London; M.S. University of Calcutta.

Memberships: Fellow American Physical Society

Present and Past Employment Records: Professor of Physics, Arizona State University. Professor and Director of Nuclear Physics Laboratory, Pennsylvania State University. Professor and Director of Nuclear Physics Laboratory, University of Brussels, Belgium. Visiting Professor University of Strasbourg, France.

Consulting Experience: Nuclear and Semiconductor Industries I Industrial Metallurgy. Writing and Evaluation of Proposals. Evaluation of Manuscripts.

Specialty: Experimental nuclear physics with emphasis on ionization of electron and positron, scattering of protons with nuclei, producing photoelectric effect, pair, triplet, and antineutrino production. Nuclear reactions and energy levels of nuclei. Fission of uranium and Californium. Nuclear instrumentation.

Books: Published three graduate level textbooks, one of which has been translated in a foreign language. A manuscript of another book has been completed. Nuclear Physics: Theory and Experiment. (John Wiley and Sons, Inc.) Translated in Japanese. Interactions of Photons and Leptons with Matter. (Academic Press). Statistical Physics. (Intext Educational Publishers) Physics: The Basic Science. Manuscript has been completed.

Encyclopedia: Contributed a series of invited articles for an encyclopedia.

Research Publications: Published numerous original research papers in various aspects of nuclear physics in refereed professional journals.

Thesis: Supervised thesis of twenty-eight Ph.D. students, 20 M.S. students.

Courses Taught: Special topic courses, Graduate and Undergraduate nuclear Physics; Modern Physics, Physics for non-Science major, and others.

Foreign Language: Speak and write several foreign languages including French.

Referee: Canadian Journal of Physics

Cited in: America Men and Women of Science; Who's Who in America; Who's Who in the World; International Biographical Centre, England; and half a dozen others.

A List of Publications

Radha R. Roy

Research Activities: Low Energy Experimental Nuclear Physics

Specialties: Nuclear Reactions, Energy Levels of Nuclei, Decay Scheme, Scattering of Light Particles, Fission, Interaction of Gamma Rays with Matter.

Technical Knowledge: Constructed and worked with (1) Wilson Chamber, (2) Diffusion Chamber, (3) Fission Chamber, (4) Double Lens Beta Spectrograph, (5) Nuclear Emulsion Technique, and (6) Solid State Detector.

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My name is Roy Sellers. I'm here as a private citizen. I have two points.

The first concerns the issue of contamination. Here I am paraphrasing an article that appeared in SCIENCE, the journal of the American Association for the Advancement of Science. Government agencies are often charged with the responsibility for setting standards for maximum acceptable amounts of poisonous substances contaminating the environment. In some cases, there is a naturally occurring background of a particular poison, for example, radon gas. It would be illogical to set a contamination standard which is below the natural background.

In other cases, the natural background for a particular poison is zero. This is the case, for example, for dioxin, or plutonium. However, maximum contamination standards are never actually set at zero, for a very good reason. This reason is that it is impossible to measure so accurately as to say that zero atoms of a certain substance is present. I support the reasoning that says if you cannot measure contamination below a certain level it is bad policy to set the standard below that level.

Thus, standards for contaminants whose natural background is zero AND which are considered so poisonous that no detectable amount is to be legally tolerated in the

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Beta Decay	3	229
Conversion Electron	5	223
Critical Mass	4	269
Cross-Section	5	361
Gamma Radiation	16	61
Klein-Gordon Effect	13	605
Nuclear Energy	14	278
Nuclear Fission	8	129
Nuclear Fusion	8	381
Scintillation	17	143
Thermonuclear Reaction	8	381

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Low Energy Nuclear Physics, AEC, Contract No. AT(30-1-2399) \$225,000, 1961-62

Low Energy Nuclear Physics, AEC, Contract No. AT(30-1-2399) \$250,000, 1962-63

A High Powered Electron Linear Accelerator. 1960-61

A High Powered Electron Linear Accelerator. 1961-62

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environment, are often set just at the minimum detectable level for that poison. That is, at the minimum detectable level at THE TIME THE STANDARD WAS SET.

The point is, that inevitably science marches on, and analytical procedures are always developed to detect even smaller quantities of the substance. But WHEN THESE NEW ANALYTICAL TECHNIQUES ARE SUBSEQUENTLY DEVELOPED, regulatory bodies rarely, if ever, go back and readjust the standard downward to the newly detectable level, in keeping with the original intent that NO DETECTABLE LEVEL of that poison is to be officially sanctioned.

Thus we so often have the absurd situation of claiming that one of these poisons is indeed known to be contaminating some part of our environment, but at a level below so-called "allowable limits." This is ridiculous, careless, and dangerous, and I urge government leaders to correct such situations whenever and wherever they occur.

*Before, I intended to the opening of hell
based on the grounds of inadequate regulation, industry of the*
My second point does not represent anybody else's thinking, but of
except my own. I state as a scientist, trained in physics, biology,
that I am not opposed to all research and development of
tools utilizing radiochemistry, i.e. radioactive materials.
Indeed, I have studied such techniques at Argonne National
Laboratory. There are many examples of such work which has
been of tremendous benefit. These range from medical

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diagnosis and treatment to the possible development of clean energy sources capable of improving the lives of all peoples. Usually, however, such development results in the generation of radioactive wastes. To the extent that clean disposal of such wastes is possible, the research and techniques producing the waste is aided. Since I support the kind of work mentioned above, I also support the development of clean disposal techniques, even if a site for such safe disposal turned out to be in my beloved home state of New Mexico.

However, there are certain types of research and developments in areas involving radioactive materials to which I am strongly opposed, on moral, political and humanitarian grounds. I am speaking chiefly about the development of nuclear weapons. The development of safe techniques to dispose of wastes generated in the building of nuclear weapons aids in such development. I am therefore adamantly opposed to the use of WIPP, or any other site, as a repository of weapons development wastes, no matter how safe it may be.

Now, of course, I rationally understand, and indeed pray, that eventually all such waste MUST be disposed of in a safe manner. But I say, within the law, LET'S MAKE IT AS DIFFICULT AS POSSIBLE, if by making it difficult we in any

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away, no matter how slight, retard the development of nuclear weapons on this planet. Thus, on the moral, political &

, on these moral, political & humanitarian grounds / am opposed to the opening of WSP.

Finally, I would like to address a brief comment to our honorable governor of New Mexico. Sir, with due respect, I was shocked to read your recent comments regarding your view of citizens and business who oppose the state in its support of the opening of WIPP. Please remember, sir, that ^{any} ~~the~~ ^{State} ~~of~~ of the opening of WIPP. Particularly the great state of New Mexico, is nothing more or less than its citizens, its businesses, and indeed all aspects of its society. We ARE the state -- there is no separation. I feel that this one statement by you is more egregious than all the other divisive rhetoric that has surrounded the opening of WIPP, and is symptomatic of the problems caused by the lack of forethought on the part of the original developers of WIPP. As a private citizen and an active member of the business community of this state, I urge you to apologize to all people and business in this state for your intemperate remarks, if you have not, indeed, already done so. *See notes on this page. The on the Social group*

Thank you.

interdependence Thus, the social organism
of its impact on the fragile
human ecology of the state of New
Mexico, I am opposed to the
opening of WSP.

I WOULD LIKE TO ADDRESS MY COMMENTS TO OUR ELEGITED REPRESENTATIVES IN WASHINGTON. YOU HAVE THE POWER TO STOP THE WIPP FROM OPENING UNTIL IT IS SAFE, AND IN COMPLIANCE WITH THE NEW FEDERAL STANDARDS. IF THE FIRST CIRCUIT COURT OF APPEALS SAW FIT TO THROW OUT THE OLD STANDARDS, ~~60404X~~ BECAUSE THEY DIDN'T ASK ANYONE, THEN I WOULD INSIST THAT WE WAIT UNTIL THE NEW ONES ARE WRITTEN, IN PLACE AND APPLIED BEFORE THE WIPP IS ALLOWED TO OPEN. THE DEPT. OF THE INTERIOR, WHICH OWNS THE LAND THE WIPP SITE IS ON, HAS THE POWER TO GIVE THE EMERGENCY DEPT. TEMPORARY AUTHORITY OVER THE PROJECT. SO, MY APPEAL IS ALSO DIRECTED TO NOW VICE PRES. ~~XXXXXXXXXXXX~~ NATIVE SON, AND HEAD OF THE DEPT. OF THE INTERIOR, ~~XXXXXXXXXXXX~~ PLEASE KEEP THE HEALTH AND SAFETY OF THE CITIZENS OF NEW MEXICO FOREMOST IN YOUR MIND WHEN ASKED TO MAKE DECISIONS THAT COULD AFFECT US FOR GENERATIONS TO COME.

[illegible]

I AM PERSONALLY CONCERNED ABOUT THE FOLLOWING QUESTIONS: WHAT KIND OF TRUCKS ARE GOING TO BE USED TO TRANSPORT RADIOACTIVE WASTE? WHO AND HOW WILL THEY BE MAINTAINED? WHAT ABOUT THE DRIVERS? WILL THEY HAVE SPECIAL TRAINING TO COPE WITH RADIO ACTIVE WASTE? EMERGENCY TRAINING TO COPE WITH ACCIDENTS AND SPILLS? WILL THEY HAVE REGULAR DRUG TESTS? WILL THEY RESPOND DIFFERENTLY TO A POTENTIAL ACCIDENT SITUATION TELL YOU OR I I LEFT NEXT TO THE HIGHWAY DESIGNATED AS THE HOT ROUTE. THE SENS SAYS THAT THIS TRANSPORTATION WILL RESULT IN EXPOSURE TO ~~THE~~ ^{OF} RADIATION TO PEOPLE LIVING NEAR THE ROUTES. IT GOES ON TO MINIMIZE THIS EXPOSURE BY SAYING IT WOULD BE THE EQUIVALENT OF ABOUT 1.6% OF THE DOSE RECEIVED FROM NATURAL BACKGROUND RADIATION. I THINK THE KEY WORD HERE IS "ABOUT." THIS TELLS ME THAT THEY ARE ~~CHANGING~~ ^{UNDERESTIMATING} THE ~~LOW-LEVEL~~ ^{LOW-LEVEL} RADIATION EXPOSURE. IT DOESN'T MENTION THE PETAUD EFFECT ASSOCIATED WITH LONG TERM LOW-LEVEL RADIATION EXPOSURE: DAMAGE AND DEATH TO CERTAIN CELLS, RESULTING IN A WEAKENING OF THE IMMUNE SYSTEM, LEAVING THE BODY VULNERABLE TO IMMUNE-DEFICIENCY DISEASES. I CAN'T HELP BUT THINK OF ALICE VICTIMS WHO DIED SLOW PAINFUL DEATHS FROM DISEASES THAT HAVE OVERCOME SUPPRESSED IMMUNE SYSTEMS.

COMMENTS, S.F. WIPP DRAFT SEIS PUBLIC HEARINGS, 6/11/89Page Two

This, in turn, adds a new dimension to yet another acknowledged problem -- that of decomposing wastes generating gases which could build up pressures sufficient to increase the already exhibited fracturing tendencies of the surrounding strata and serve as a driving mechanism for contaminated brine to leave the site. The SEIS mentions several pathways by which contaminated brine could escape.

The foregoing is but a brief exposure to some of the hydrologic and geologic problems that are known to exist at the proposed WIPP site. The more they are studied, the greater they seem to grow in magnitude. The SEIS does not define the true extent of, or safe solution to, these and other problems not even mentioned above.

Thus, not only is this project not ready to start receiving experimental quantities of hazardous waste for storage this fall, there is no valid reason why it should. In unfavorable reviews of DOE's test plans by the National Academy of Sciences and others, it was proposed that the gas generation tests could best be performed in laboratories and that shipments of actual transuranic wastes are neither necessary nor desirable to test drum handling and placement procedures. Furthermore, the SEIS states there are no environmental reasons why waste slated for WIPP cannot remain stored where it now is for several decades or even a century.

Given all the foregoing, why should we needlessly risk contaminating the air, ground, and water of yet another large area thereby possibly condemning present and untold future generations to sickness, suffering, and death?

Let's make certain that federal laws mandating health and safety standards are fully complied with before waste emplacement begins. To do this requires much more information, data, and documentation.

Thank you.

772-1
786-1
714-9

1-3

STATEMENT FOR DEPARTMENT OF ENERGY WIPP HEARINGS

I appreciate the opportunity to partake in the public commentary process, to exercise my right and satisfy my need to speak up. I add my voice to the criticism of the DOE because I am appalled by its plan to railroad us New Mexicans into submerging the whole nation's deadly nuclear waste 2150 feet deep into the bowels of our precious earth.

I give thanks for the effort of Concerned Citizens for Nuclear Safety. This young grassroots organization performs the monumental task of educating us garden-variety Santa Fe inhabitants and widely disseminates information accurately, clearly and simply: facts, figures, methods of nonviolent confrontation and citizenry participation in problem-solving of deadly issues.

For the past week all day, every day we -- you on the panel and I -- have heard hundreds of scientists, health providers, and other citizens opposed to rushing the opening of WIPP as a national dumping ground. Host speakers have done their homework on these complex issues, and made their points over and over accurately, forcefully and eloquently. I fervently hope you have been listening and that you will go back to your lair and honestly report the majority's anguish and outcry as well as the pro-WIPP affirmations. The DOE should now go back to the drawing board or admit to being inadequate for the Herculean job of nuclear waste disposal.

31-8
32-1
41-3

32-1
41-3

Dorothy Perron

The literature disseminated by the federal government touts the Waste Isolation Pilot Plant as a Research and Development facility. That sounds innocuous enough. Your position papers even use surface scientific jargon. But you haven't met E.P.A. standards. Nor have you listened to your own advisors, like Earth Technology Corp. of Golden, Colorado and their geophysical site study, who confirm existence of a highly pressurized brine reservoir below the disposal area at the site. The DOE, in its Supplement to the Environmental Impact Statement (SEIS), does not satisfactorily demonstrate to us how Westinghouse, as plant manager, might have the expertise and the trust to do an adequate job of operating such a plant. They, as you, have no track record in such serious matters.

I may be a 70 year old woman but I expect to live productively for another twenty years. I certainly want my grandchildren and their grandchildren to be able to live in a safe environment until their nineties. None of us will realize that future if it is left up to your agency.

I have witnessed many wars and disasters, where no one could foretell the outcome. None of what I witnessed in recent history can compare to the probable global disaster toward which you race pell-mell through callous, shortsighted mismanagement and miscalculations.

True, you've already wasted \$770 million dollars on the WIPP site. But that doesn't justify being hell-bent on a premature opening of the faulty site in September, 1989 and

Dorothy Perron

disregarding poorly calculated risks and irretrievable consequences. I ask that we not be presented with a fait accompli.

The primary consideration should be making certain that transportation of nuclear waste along our roads, and burial of that waste at WIPP near Carlsbad, comply with EPA standards according to the best available technology; and be absolutely safe for our highways, communities, state and planet. At this point, the Department of Energy doesn't even come close. Ease your conscience and reverse yourselves.

Thank you.

Dorothy Perron
209-a eastberger st.
santa fe, new mexico 87501

dorothy perron

Santa Fe, N.M., Sunday, June 17, 1989 THE NEW MEXICAN, A5

DOE vows to begin era of truthfulness

DENVER — An investigation sought evidence of illegal waste dumping at the Rocky Flats nuclear weapons plant, the Department of Energy's new era of truthfulness and honesty.

The program is part of a new effort to restore public confidence in the agency, which has been plagued by a series of scandals, including the discovery of illegal waste dumping at the Rocky Flats nuclear weapons plant, the discovery of a massive cover-up of the extent of contamination at the site, and the discovery of a massive cover-up of the extent of contamination at the site.

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NAME	ADDRESS	CITY	STATE	ZIP
JOHN DOE	12345	DENVER	CO	80202
JANE DOE	12345	DENVER	CO	80202
JOHN DOE	12345	DENVER	CO	80202
JANE DOE	12345	DENVER	CO	80202
JOHN DOE	12345	DENVER	CO	80202
JANE DOE	12345	DENVER	CO	80202
JOHN DOE	12345	DENVER	CO	80202
JANE DOE	12345	DENVER	CO	80202
JOHN DOE	12345	DENVER	CO	80202
JANE DOE	12345	DENVER	CO	80202

WE WANT WORK

my name is dominique mazaead and i leave at 343 east palace avenue, santa fe, nm 87501.

it's only this morning when i woke up that i felt deeply in my heart that i had to come and testify at these hearings. until today, my contribution had been spending as much time as possible at the hearings to support my friends and add one more body to the hundreds and hundreds from our community who are opposing WIPP.

like many i protest the separation imposed on these hearings! perhaps it was due to logistics, perhaps it was a tactic from the DOE? i will leave you the benefit of the doubt.

you might very well say that the complaints expressed by the testifiers were tactics on our part to show "how bad you are..." all i know is that it has proven the incredible bonding of this community and that santa fe will never be the same, which shows you never where the "gifts" come from.

i was born in france and have been a resident of this country for 22 years. france is not such a bad country to come from! that is why i never considered becoming a citizen... however, last summer something happened. the community started to come together in small and larger groups to talk about the Waste Isolation Pilot Project and the much larger question of the nuclear waste.

i was touched to the core of my being and decided to become a citizen. i symbolically sent my application in on november 8, 1988 and will be going to albuquerque next week, on summer solstice, for my interview with the US Department of Justice's Immigration and Naturalization Service.

i have always deeply loved this country because i know in my heart that the United States has a destiny to fulfill in the world. at the time of the bicentennial of our constitution many of us are reconnecting with the high purpose of our founding fathers.

in the world the united states is still a young country, let's say it's like a wild ambitious adolescent, who in its young enthusiasm wants to tell everyone how much better he knows... but everyone grows up... including a country. often life shows that we are forced to grow up when disasters and crisis befall our shoulders. i feel this is what's happening to all of us, including you. it's not too late to say we have made a mistake... we have rushed too much for whatever reason...

we are all human beings. many people who testified these last three days have gone through change. i could not have spoken like this not so long ago. it does not take much to see that our country like our world is in deep crisis. it is the time when one by one we are being touched and we are making the steps to change our lives, to change the way we relate with each other. for the first time we are listening to each other with opened hearts.

i don't want WIPP as it is. i am not going to go through all the technicalities that you have heard five hundred times and more. i just want to beg you to look at the human factor first and foremost. i want to beg you to realize that we are that great country that could truly make a difference in the world, that could be finally living out the destiny in which i believe so strongly.

i know that santa fe is showing more and more that it is going to lead the way in making that difference. it's the microcosm of the macrocosm and the world is going to hear us more and more.

1

i am an artist, a writer, teacher and museum curator. currently i am working on a national exhibition which will originate out of the Center for Contemporary Arts of Santa Fe, called Revered Earth. You have heard many of us talk of the Earth as our Mother in the last two days. it's the greatest truth: once experienced with our beings, it changes our lives.

artists are often looked upon as egoistic, fame and money craving. today is june 17th and every month since september 17, 1987 i have been doing an art performance which i entitled "the great cleansing of the rio grande river." and for me performance is not theater. it is literally picking up hundreds and hundreds of bags of trash and communing with the Earth. my work is part of this phenomenon in art where the artists want nothing less than the transformation of the culture. they are still concerned with aesthetics but do not abstract it for its own sake. their work is often "useful" and experiential. what's the point of making art in a world that might not be around for much longer. they are deeply concerned with life, with the earth and often call their work art as life/ life as art.

9-1

7.14-9

5.3-1

1-9

by having had this chance to look at each other face to face and listen to each other like never before, let's live out our destiny that we are all brothers and sisters living as children on our mother the Earth.

3.2-1

7.3.5-1
7.3.5.1-11
7.3.5.1-12
7.13.3-1
7.14-2

3.2-1

As an artist, I am here to tell you that some fundamental beliefs and emotions transcend descriptions by language. The feelings that these nations have for this and this country are real and profound, and they are inseparable from the feelings they have for each other. I am here to indicate that despite the fact that this is one of the great frontiers of our time that those who would restrict the rights of those of this country unborn to live in health and happiness and land, and regions that make a decisive and negative minority of the population, those who take the short-sighted goals of corporate profit can stand on the porch of the whitehouse, or shred papers in the offices of the basement of the whitehouse, and invoke the name of god and democracy, the flag. They do not realize that by using the system of democracy for their own agenda they are the greatest threat this country faces.

And finally, I would ask you to remember what John Ruskin, the philosopher said : There do not build for present delight a child, but think, upon what lay stone upon stone, that one day your children's children will look upon upon your works with pride, and say, look, this our forefathers did for us. Thank you.

Money must be spent on the clean-up and improvement while ~~otherwise~~ this research is

going on. In a society, are reaping the bitter harvest of 40 years of a bomb-making economy. Had all this been put to good use to protect the industry and economy of war, but instead to the pursuit of wealth, that earthly environment that gives us life we would be a better country today. We have made a mistake, and hiding that mistake will not make it go away. We must have the fortitude and courage to admit our mistakes and our weakness. We must learn from our mistakes and our weakness. We must learn from the suffering of the words stewardship and posterity, and we must embrace them.

1-3
3.6-1
3.6-2
5.3-1
9.2

June 14, 1989

Dear Maqil:

Thank you for contacting my office regarding the WIPP Land Withdrawal legislation. I appreciate you sharing your concerns with me on this important issue.

I regret that the delegation could not reach consensus and see enactment of WPPP legislation last year. I am convinced that a legislative withdrawal of the land at WPPP is the only way we can make sure that the legislation included such safeguards. I have enclosed a list of the significant health and safety provisions we included in the legislation. Additionally, the legislation mandated a comprehensive set of requirements be met by DOZ before any waste could be placed at WPPP. These requirements further protected citizen health and safety.

In the absence of a legislative withdrawal, DOE has recommended that the land use WIPPs be administratively withdrawn. I am very much opposed to proceeding with this type of withdrawal, and I will vigorously oppose any effort by DOE to do so. An administrative withdrawal could allow waste to be sequestered without any of the health and safety provisions contained in the legislation and without compensation to state or local governments. Last year's bill provided for \$200 million for roads in the state and \$50 million to offset revenues lost by the state. The bill also provided for a \$50 million fund to be established. I have authorized the Secretary of Energy to make impact assistance payments to those communities of New Mexico affected by the WIPPs. Direct.

I am pleased that one of my legislative initiatives creating an independent group (ZEG) to monitor and review DOE action at WTPP - did become law last Congress. I offered the ZEG amendment as part of the DOE authorization bill which passed the Congress and was signed by the President.

The statutory creation of EPG assures that we will have an independent and unbiased review of activities related to WIPP. We have assembled a widely respected group of scientists at EPG, and my legislation will allow them to continue their important work. It was my goal to assure New Mexicans that there would be

ALBANY, N.Y. (AP) — Albany Mayor David D. Granger has been elected to a second term, defeating Republican challenger James J. ...

LAS CRUCES
NEW MEXICO

WEEK END FROM
THURSDAY

SANTA FE

June 14, 1989
Page 2

effective oversight of the operation at WIPP. I believe my legislation accomplished that goal.

Once again, I appreciate you letting me know your views and look forward to future correspondence with you.

Sincerely,


Jeff Bingaman
United States Senator

JB/drg
Enclosure

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Alternative Directions In Energy And

ECONOMICS

Is economics an art, a science--or a "soft science"? Opinions vary, according to a person's mood, and his field of activity. "Practitioners of this art, or science, try to trace and understand the flow of resources, steel, automobiles, dollar notes, stocks, bonds and credit cards. A few even try, on this basis, to improve and adjust the jigsaw puzzle so it may serve us rather than haunt us and assail our striving for a satisfying, busy and "upwardly mobile" life. (The latter term is borrowed from a civil service pamphlet written to enthrone the nether ranks). Our "economy"--potentially that is, or if it works right--then is viewed as a means to educate, advance and spiritualize us during a busy and happy life.

Among economists leaning to the above concept are: Yale's Dr. John H.G. Pierson, former Science and Economic Advisor to the United Nations, who for forty years has worked for insured full employment, and who says, "Involuntary Unemployment is Destructive of Personality." Paralleling our former Governor of the Federal Reserve System, Dr. Arthur Burns, who in a recent interview with Newsweek said, "We should work toward zero involuntary unemployment." Columbia economist Dr. Emil Gencolt shares this view. MIT's Nobel laureate economist, Dr. Paul A. Samuelson, has featured the same thought in several of his books, and when approached, favored the undersized with an inspiring response.

"Would not full employment increase inflation, in line with the Phillips curve?" Dr. Phillips, an able Australian economist, never drew that curve. At a recent symposium of economists, a remark "Nobody takes this curve seriously any longer" was not protested by anyone. Similar to it alone would surmount that feeding and housing people who do not take part in production must be inflationary. ~~UNEMPLOYMENT IS INFLATIONARY~~. This is the opinion of economists who have thoroughly studied this matter, especially Dr. John H.G. Pierson and Harvard's Dr. John Philip Kermette, who in 1945 published "FINANCING FULL EMPLOYMENT" at Harvard University Press.

V. 2. Economics

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What is "Full Employment"? Do we need a certain number of "functionally" unemployed? This territory, including people who are changing jobs, is usually not included in the "unemployment" records. The goal of a full employment policy must be that any one who wants a job can have one, if he will take what is offered. To leave a single person unemployed against his will is an economic blunder--also in view of the nation's need. So poor is our imagination that many of us do not see that to meet future needs, let alone future desires, the full working time of every single able-bodied person will be required, for at least the next fifty years.

Dr. Pierson's elegant, free-and-easy manner of achieving full employment is through insurance of performance. Through flexible and continuous fiscal and monetary adjustments Congress will guarantee upper and lower limits of total consumer spending matching full employment. Periodic adjustments will make this insurance stick. This "insurance" applies to the total economy, not to any individual. Individuals will be free from the present slavery to "trends" and may spend or save as they want to, within a total economy adjusted to the limit of our potential.

A different path toward more ample employment along with reduced inflation is the clearing system practiced among clients of Banque Bonnard in France. Customers granted a cash-less loan could buy what they wanted from other customers of the bank and pay the bank by their own products. In a sense the bank served as a book-keeping central for their customers. There was no interest to pay except a one percent cut on all transactions. For example: A dentist would buy his equipment from the bank's customers and offer his dental services as payment. This procedure has a salutary effect on the nation's money. Inflation is reduced. When a business fails, no one loses cash. The group of bank customers suffer a loss which, however, is not felt in the same manner as a cash loss. In the Scandinavian countries we ran a clearing system on the same basis in the nineteen thirties and forties. The under-primed ran the branch in Norway. He was stricken by the Nazi invasion. In a sense, the system reminds one of the old Scandinavian and early American tradition that when a farmer needed a new barn, he did not borrow cash to build it, but his neighbors came together and built it for him. He, in his turn, would join other farmers to build a barn for his neighbor when needed. The Banque Bonnard and the Scandinavian clearing ventures did the same through a central book-keeping office.

During the Jack Kennedy administration we planned to make a survey of the nation's potentials, our resources, manpower and technical

V. 3. Economics

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competitions, as a basis for complete utilization of our national resources, including full employment. This would have been a useful though not strictly necessary preliminary to full employment. It would have shown everybody the essential and possibilities of this nation, thus providing a basis for fruitful discussion and action.

Dr. Pierson's insured full employment would curb inflation. 1) by eliminating demand-pull inflation because of the ceiling on consumer spending and 2) by also limiting cost-push inflation in the following ways: a) it would reduce labor's need to push for higher wages merely to offset spiraling consumer prices; b) it would lower unit production costs by maintaining high-volume production and spreading the overhead; c) it would lower costs still further by eliminating the need which is felt by both business and labor to set up "cushions" against cyclical bad times ahead; and d) it would give both business and labor an incentive to show "statesmanship" and responsibility and practice moderation just because of the Government's unprecedented assumption of its due responsibility. As to this final point, Dr. Pierson maintains that at least an honest try at voluntary cooperation should be undertaken before instituting tougher measures.

Additional measures are required in an inflationary period such as we have now, especially with no real full-employment program in sight. The economic activity of both Govt. and private enterprise must be carefully monitored. Priority must be given to essential services such as energy, food production, water supply. Efforts to supply them cheaper and with better environmental impact must be encouraged. With the skyrocketing of oil prices in the '70's, the National Science Foundation requested studies of new energy systems--solar, on land and an Ocean Thermal Energy Conversion, wind, waves, and other systems. This effort was undertaken not merely in view of the rising oil prices but also because oil and gas resources were running out. This highly commendable act is continuing, and increasing, though not nearly on the scale required in view of the vast possibilities of these new energy sources. A strategically placed person in our Govt. recently admitted that a "lot of people" in the Govt. are trying their best to prevent the advance of these new energy systems.

Such difficulties as expanding our wilderness areas, building art centers and theaters and cleaner up parks are also respectable achievements but in our present inflationary period it would be advisable to attend to essentials first and have our "desserts" later.

To round out the subject of inflation and its reduction it would be necessary to delve into our handling of money, credit and international trade on the one hand and wage and salary increases on the other. These matters, though essential, are complex and require more space and more dispassionate discussion than is available or possible in this brief presentation. Bryan Pearce

The policy I advocate is aimed first of all at securing guaranteed full employment in the United States; that is, at assuring that everyone who is able and seeking to work will always have that opportunity. This, however, is not something that should or can happen in isolation. The policy must put an end to deflation generally, and the business cycle, must minimize price inflation, and must really favor individual initiative and private enterprise, not just pay them lip service.

What I am proposing is the imposition of control over the level of operation of the economy as a whole, not over the individual producer. Except as necessary to avoid price or wage distortion in special cases. The new element here is the concept of "economic performance insurance." This would involve guaranteeing bottom and top limits to employment and consumer spending. Once the President and Congress had aligned those two targets for the year ahead, final adjustments of the actual aggregates would be brought about without further Congressional debate if and as current statistics showed them to be required.

The guaranteed minimum of consumer spending would be calculated from estimates of necessary over-all demand and its other GNP components, and so it would essentially solve the Achilles-heel problem of our kind of economic system - the problem of markets. Industry would always be assured of an adequate market for which to compete. Policy makers in government would feel economically safe in making the right decisions on issues like foreign trade and the environment, because the needed totals of demand and jobs would be protected in any case.

At the same time the inflation spiral would be checked by the pre-arranged top limit on consumer spending, taken in conjunction with whatever action was called for to control the "cost push." The substantial savings in production costs inherent in assured full employment should be reflected in the final prices. Given the favorable new conditions, this could probably be arranged through voluntary cooperation.

J.M.P.

John M. G. Platon
April 21, 1978

Why Solar Energy Faces An Uncertain Future

Bureaucrats Surveyed

24 Sun Mountain Quarterly ***

Tues, Nov. 13, 1977

Despite Secretary of Energy James Schlesinger's public pronouncements in favor of developing solar energy, dozens of private bureaucrats in the Department of Energy have been surveyed to find out what they really think. In reality, the Department's administration is bogged down by solar price support bill.

A growing band of solar proponents in Congress contend that the Department's administration is too slow to act. They say the Department's administration is too slow to act. They say the Department's administration is too slow to act.

All Energy Department officials say their department is working to speed up solar research. They say their department is working to speed up solar research. They say their department is working to speed up solar research.

Solar equipment manufacturers and several independent federal agencies say they "have" to speed up solar research. They say they "have" to speed up solar research. They say they "have" to speed up solar research.

The situation and the Department's response are serious. They say the situation and the Department's response are serious. They say the situation and the Department's response are serious.

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"These don't see my name," many laughed.

Among those requesting anonymity was an Energy Department official who said he had furnished information to the administration's survey.

"Strongly against," he said, "all sorts of people have been silent about something that has become quite obvious, the administration has just not supported the solar program."

He said some federal employees who had been interviewed have been instructed by their superiors not to have contact with congressional members and staff.

"That's to keep them from letting Congress know how across the board is for additional staff" in the Department.

REUTERS/CPA

Photovoltaic cells have an average life of 20 years, and, like all solar devices, they are already out there and are not going to pollute the environment.

The technology of the cell has been around for about three decades. They are currently made of silicon, a material that is cheap and in abundant supply.

The problem, though, is that they are very inefficient. They are made by hand like micro-circuits.

However, a small number of American companies are already producing them for civilian use, and the military is interested in them. The military is interested in them because their costs can be reduced enough to become competitive with conventional electricity.

The military is interested in them because they are portable and they are not subject to electromagnetic interference.

To do that it is necessary to establish mass production technology. Since mass production technology is not available, the military is interested in them.

The federal government, many in Congress believe, can provide such a market by purchasing the cells for use in remote facilities. The military is interested in them because they are portable and they are not subject to electromagnetic interference.

Congress, in fact, recently authorized \$125 million for such purchases this fiscal year.

That we had to force it down the administration's throat, given the fact that the House and Senate of the House Service and

From Page 1
solar work. The top official in the Energy Department, however, said that the solar program is not going to be a big success.

In addition, he said, the Energy Department is not going to be a big success. The solar program is not going to be a big success.

Despite these remarks on one hand, the solar program is not going to be a big success. The solar program is not going to be a big success.

The administration, however, is not going to be a big success. The solar program is not going to be a big success.

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That we had to force it down the administration's throat, given the fact that the House and Senate of the House Service and

then chose to devote up the solar budget in such a way as to reduce the solar program to a mere shadow of what it once was.

The cell covers sunlight directly and electricity and has already been used in space satellites.

increase in the demand for solar energy.

Programs of solar energy are being developed in many parts of the world. The solar program is not going to be a big success.

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"It's hard to say how many we do have," he said. "I don't know how many we have."

One solar researcher at a California university said, "I don't know how many we have."

The people at Sandia," said one solar researcher at a California university, "are not going to be a big success."

One solar researcher at a California university said, "I don't know how many we have."

The federal government, many in Congress believe, can provide such a market by purchasing the cells for use in remote facilities.

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OTEC HISTORY

(OTEC means Ocean Thermal Energy Conversion)

Ocean Thermal Difference, the difference between surface and deeper layers, as a source of power, has been recognized for more than a century. In 1921 an American engineer, Campbell, two Italians, Durand and Boggia and a French physicist, D'Arsonval proposed a closed cycle Ocean Thermal device. The warm surface water would heat and cause evaporation of a "working fluid" (alternative fluids were suggested) which would pass through a turbine, thereafter being condensed by cold water pumped up from deep layers and again fed into the evaporator. The first to build practical plants was a pupil of D'Arsonval, the French engineer George Claude, member of l'Académie des Sciences, of the French Society of Civil Engineers. He won the fiftieth anniversary medal of the American Society of Mechanical Engineers. He chose the "open cycle system" in which the ocean surface water itself evaporates and drives the turbine, and rejected the "closed cycle", of which he said in a talk to American engineers 22 October 1950(1):

"Manifestly, such a solution is burdened by a number of inconveniences, one of them being the extra equipment for and cost of the working fluid and another the necessity of transmitting enormous quantities of heat through the inevitably dirty walls of immense boilers... The sea water itself contains all that is needed for the direct utilization of such small temperature differences."

Claude ran a small experimental device before fellow-members of l'Académie des Sciences in Paris, then built a larger plant at Ouessant in Belgium, which, in his words, "Made my virulent opponents hold their tongues." His one-meter diameter turbine generated 60 Kilowatt at 9000 rounds per minute with a total ocean thermal difference of 20°C. This proved the thermodynamic viability. "It remained to be seen how the plant would function in the ocean, how pumping cold water from deeper layers would influence neighboring layers and whether flooding would

Ocean Thermal Power

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drastically decrease efficiency or break the turbine."

Claude moved his Belgian plant to Cuba. A two feet diameter pipeline would have been sufficient to supply his turbine with the proper amount of steam, but would have caused the cold water to be warmed before arriving at the condenser as would have incurred intolerable friction losses. A pipe line of two meter diameter was built -- and lost in a storm. A second pipeline was also lost.

A third pipeline was built and successfully laid. The plant ran for eleven days, producing 22 KW on a turbine much too small for the other components of the plant, but Claude was operating on his own money and that of a few friends, and could not afford a new turbine. The basic function was nevertheless proven and, in the opinion of these resourceful enterprisers, should have been followed by prototypes and commercial plants.

In 1951 a French Maritime company built a pilot plant for shipboard use at Le Havre, described by E. Brillie in OCEAN CIVIL for 21 June 1951 (2). This plant, using ship engine waste water as warm water source and ocean surface water as cold water source produced fresh water with as little as 1-2 parts per million salt and a power expenditure of only a fraction of conventional plants, according to the report. Considerable claim the plant was killed by people who wanted to sell more fuels to ships.

In 1961 the French Government became involved and in 1962 ENERGIE DES MERS was formed, a semi-official company for researching and building OTEC plants (3,4). In French laboratories and on a chosen site at Abidjan in West Africa research was conducted, for example on the effect on neighboring layers when huge amounts of cold water was removed by pumping. Only the closest layers were found to be involved. Minimal that Claude had lost two pipelines, the manufacturing and laying of the cold water pipeline were carefully planned and carried out. This pipeline was considered the only new and improved component in the plant and therefore given major attention. The line was left in place for six months for study of corrosion/bio fouling. The area between low and high tide was found particularly

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vulnerable, for current OTEC ships, with the cold water pipeline entirely under water, this would be irrelevant. In laboratories in Bihar and in France proper research was conducted on general evaporator and condenser problems, including air-and-gas removal from sea water under evaporation. An entire plant was designed but never built.

In 1947 and 1948 the undersigned studied the French work, returned to the States and became involved with the University of California and its newly established Sea Water Conversion Laboratory. In 1951 Professor Everett D. Ross, founder and first director of the Sea Water Conversion Laboratory, obtained State funds, later Federal funds, from the "Saline Water Offices" that had been established when Dr. James Hottel of the National Bureau of Standards demonstrated in Congress two small thermal machines built in my presence on the pattern of the French.

The University of California built and tested three plants, all open cycle, since the University wanted desalination, primarily. In the open cycle, desalination is achieved with no additional cost. A laboratory plant was built and tested by Dr. Lev Abramson. Its main feature was a two-quart Pyrex glass bottle. This vessel is kept in a stove at constant temperature, to avoid losses by condensation on the glass wall. Tests were made with a) batch distillation with constant temperature and pressure, b) batch distillation with constant temperature and pressure, c) flow-distillation with constant temperature and pressure, d) flow-distillation with constant temperature and varying pressure. This laboratory-sized plant was built and tested in the Reese Hall of the Berkeley campus. At the Sea Water Conversion Laboratory of the Richmond Field Station was simultaneously built the so-called "first low-temperature difference plant" consisting of an already available 4 1/2 feet long and 30 inches diameter cylindrical evaporator plus condenser, pumps etc. It was scheduled to produce 2,000 gallons desalted water per day and no power. After this plant had been tested for a variety of possible conditions, our "second low temperature difference plant" was designed and built. Funds had now been made available for suitable hardware. This plant was scheduled to produce 11,000 gallons per day desalted water plus as much power as our available General Electric

Ocean Thermal Power

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turbine would seem willing to offer. This turbine had been used in an aircraft air conditioning unit. The evaporator had been supplied with three windows and inside lights, so that the flash evaporation procedure could be observed. The sea water was seen to explode in a myriad of drops the moment it entered the evaporator. The prior idea of a myriad of drops the moment it entered the in sheet-like formations, was proven invalid. This again may be one reason why our yields often were higher than formulae predicted.

Dr. Abramson and Mr. Boone conducted independent studies of evaporation rates related to then existing formulae. Yields in the University plants varied from 2 to 10% of predicted values. Dr. Langmuir, co-author of the Langmuir-Kutsumoto formula, saw the reason for this in that essential factors had not been included in the formulae, during a discussion with Mr. Boone in 1955. Tables, showing yields of desalted water and power produced at the University plants, are available at the University and/or Sea Water Conversion Laboratory. One table, showing cost, estimated & confirmed, of various desalting methods, indicates that desalting cost for a Low Thermal Difference Plant is lower than for all other methods and lower than the then-goal for municipal water (85 dollars versus 125 dollar per acre foot) but higher than the irrigation goal (40 dollars).

Commercial Design

On the basis of this testing of three plants, the University designed a desalting plant for the canyon near La Jolla and the Scripps Oceanographic Institution. It was scheduled to produce five million gallons fresh water per day.

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This plant would have no turbine. The total temperature difference in the winter was 16° , not enough for power production but enough to desalt water at a lower cost than any other or later developed system, since this small thermal difference provided distillation under vacuum. Additional energy for pumping etc. would come to 24 cents per 1000 gallons while fuel-fired plants require from three to four times as much energy. With the addition of maintenance and interest, which changes 28 cents per 100 gallons, not including amortization and interest, which changes from site to site. A smaller plant would mean a greater relative cost for the cold water pipeline and for maintenance, so the total cost would be higher. Firm bids were obtained for all components, including two million dollars for manufacturing and laying the cold water pipeline. This one job was upped to three million in our estimate. We tried to be equally conservative for other components. The estimated cost of the entire plant was six million dollars. People not familiar with our research and estimate preferred a one and half billion dollar Feather River project — valid, in a sense, at least, while water supply in Northern California was ample. It isn't any more. The subject plants may still be built, all over Southern California.

The University of California and Energie des Mers

Following Mr. Boorse's study at Energie des Mers in France in the late forties, the General Director of Energie des Mers, Andre Misery, visited the University of California and gave a seminar at the Berkeley Campus in March 1954.(22) Andre Misery was also deputy Director of the huge semi-public corporation "Electricite de France" which supplies the French with electricity and other forms of power. Professor Everett D. Howe of the University, along with David Jenkins, then director of the Saline Water Office of the US Department of the Interior visited Energie des Mers in Paris and Abidjan. Mr. Boorse again visited

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Energie des Mers in 1957, 1959, 1963 and 1973, this last time on occasion of the passing of M. Christian Beau, who had been General Director of Energie des Mers after Andre Misery's death. M. Beau had also been head of France's public works.

All personnel of Energie des Mers were convinced that they had the obvious solution to the world's energy problem. Their research had confirmed their brightest hopes. The winds of politics in France favored nuclear energy.

Throughout the years until today the University of California continued specific research on heat transfer, heat exchangers, de-aeration, evaporator characteristics, preventing carry-over of water droplets into the steam flow, scaling, corrosion, biofouling. In June 1957 Professor L.B. Ems reported to ASCE (11)

From 1960 Hilbert and James Anderson, a father-son engineering team, took up a serious study of a closed cycle plant and actually built a small sample. In the seventies, with the soaring oil prices, the National Science Foundation took up the matter, asked for studies, and received voluminous reports, first from the University of Massachusetts at Amherst, Principal Investigator Professor William F. Hermann, a former Navy Captain who had been charge of vast ship-building efforts. In rapid succession followed the John Hopkins University's Applied Physics Laboratory, the Carnegie-Mellon University, the Universities of Texas, Hawaii, New Orleans, Florida — and substantial industrial firms, Lockheed, General, etc., and of course the Andersons' Sea Solar Power, Hydronautics, Batella, Allied Chemical Corporation — thousands upon thousands of pages promising a multitude of types and all of them emphasizing the immediate readiness of this technology and the wholly benign ecological effects. Cost estimates vary from \$100 and up per kilowatt built and of course the fuel is free. If only two percent of the power available in the Ocean Thermal difference were utilized we would have many times as much energy as the world now needs.

Boorse " -0-

Boorse, University of California 17 September 1977

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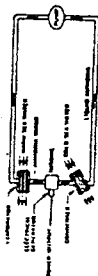
The above references are limited to work done before 1960. Subsequent publications are well known and easily available, from the National Institute of Technical Information, from FEMA, Washington DC 20545 and from the Armed Universities under contract to FEMA, such as Hilbert Anderson, Lockheed, Dushul, T22, Westinghouse, Hydraulics and the Universities of Massachusetts (Amherst), John Hopkins (Applied Physics Laboratory), Carnegie-Mellon, Hawaii, Texas, California and many other OTEC participants.

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A Power Source for the Nation

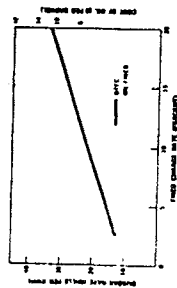
OTEC

The Principle is Well Known



Oceans collect large amounts of solar radiation and store it as heat energy. A heat engine that uses the warm surface water as the heat source and the cold sub-surface water as a heat sink is capable of converting significant quantities of this thermal energy to electrical energy. This was first demonstrated in 1926. Recent government studies have shown that OTEC is technically feasible and that, when put into commercial use, it can supply significant amounts of power at competitive prices.

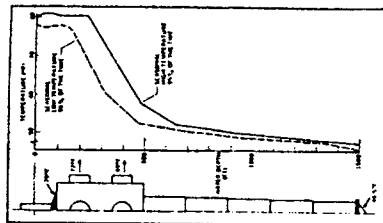
The estimated multi-unit production cost of a 100 MWe (net) OTEC power plant is estimated at \$232 million or \$1350/kWh. Unit costs in mill/kWh are shown below.



Favorable Net Energy Balance

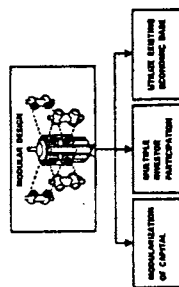
Electric Power System	Nonrenewable Energy Required to Generate 1,000 Btu		Net Balance (Btu)
	Indirect Value (Btu)	Consumption in Construction and Fuel Acquisition (Btu)	
OTEC	0	125	+ 875
Coal	3,498	566	- 3,064
Oil	3,123	413	- 2,530

Compatible With Environment

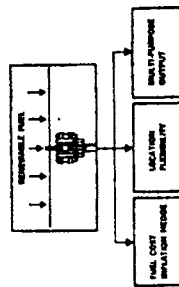


- Does not add to the heat load of the atmosphere
- Little or no polluted sea water
- Chosen sites are not harmful to sea life
- Discharged slightly cooled surface sea water is heated by the sun
- Discharged deep-water sinks and returns to thermocline

Commercial Features



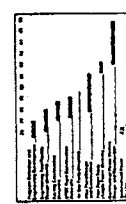
Modular design permits risk reduction by multiple investor participation and modularization of capital. For example, the owner/operator can acquire the core platform and then long-term lease the power modules from another investor group. Shipbuilding and offshore companies can provide the necessary industrial base for OTECS production.



Aside from location flexibility and multiple product output (electricity, hydrogen, ammonia, etc.), the most important feature is that the fuel is renewable. This provides a hedge against fuel cost escalation and reduces the owner/operator risk in terms of long-term investment.

Power On Line by 1986

A two-year program can be implemented that will put the first OTECS power on line by 1986.



Potential U.S. Market Applications

- Direct transmission of electricity by submarine cable to Gulf Coast, Florida, Hawaii, and Puerto Rico
- On-site production of hydrogen for use as fuel, for chemical stock, and by NASA
- On-site production of ammonia for use in the fertilizer industry
- On-site use for processing energy-intensive products such as aluminum

Potential International Market Applications

- Export of OTECS energy to foreign countries for exchange of goods
- Export of OTECS hardware systems for balance-of-trade benefits

The Lockheed, Bechtel Corp., and T.Y. Lin International Team

An ocean engineering leader since 1964, Lockheed Missiles & Space Company's Ocean Systems has developed its own submarine DEEP QUEST, the Navy's Deep Submergence Rescue Vehicle (DSRV-1 and DSRV-2), a deep-ocean mining system, deep-sea mooring systems, and many other marine-related products and research. These capabilities have been augmented by Bechtel Corporation's power system experience and T.Y. Lin's knowledge of concrete structures to develop this practical OTECS concept. Work has been accomplished and is continuing under contract to the nation's Energy Research and Development Administration.

This article is from a report to the National Science Foundation by Professor William S. Harmanus of the University of Massachusetts, March, 1975.

The most modern solar energy systems which the existing broad industrial base of this country can support at a mobilization level of effort is the proper choice for the United States of America in 1975. Any competent man with a broad-gauge industrial sense of what can be achieved by 1975 U.S. industry using the materials, energy and financial base, available for the next 3 decades, will agree that OTECS is that which could be done best.

The results of this study can be summarized as follows:

- Enough has been done now by many to guarantee that OTECS is technically feasible.
- There are clear-cut pathways to make OTECS economically preferable, not just feasible or competitive.
- Large-scale development, Acquisition, and deployment of OTECS would be almost identical to the World War II Shipbuilding Effort.

The World has never seen another industrial effort so easy to get started and so capable of producing prodigious numbers of high-class products. This economy could flood the world with OTECS if there were simply a desire to do so, and the effort would spread from the waterfront back into every portion of the industrialized hinterland like the wildfire of prosperity, if we so desire.

The OTECS Program Plan which follows is a summary of what could and should be done. Supporting detail can be found in the numerous Technical Reports and Progress Reports produced to date by J. Wilbart Anderson, the University of Massachusetts team, the Carnegie Mellon University team, the TRU-Global Marine-United Constructors & Engineers team and the Lockheed-Bechtel team. All of their reports are available in the public domain.

THE OCEANS' GIFTS: POWER AND DRINKING WATER NOW.

In March, 1955, an "unflying saucer" connected to pipes and pumps on the grounds of the University of California's Sea Water Laboratory was set to produce power and drinking water from ocean conditions. It was merely a repetition of what George Claude had done in the twenties, in Cuba. Running the plant, measuring the power, the water volume-and-speed, the temperatures and pressures at all points--would give us the efficiency of the plant, the economy.

Among the doubting audience was a top physicist who assured us nothing would be generated with these low pressures and temperatures. He frowned and even paled when the gadget produced as predicted. "Are all his precious theories caput? True, talked of power from the ocean for decades, but were they not just dreamers' pain, broke loose, penetrated the protective planking and zoomed past the physicist's ear. He turned and walked away, his head bowed.

Engineers and poets have for centuries been used by the ocean, its vastness, virility, the power of its waves, tides, currents--and of its tiniest components. This all may warm and please us--some day. Another ocean power, that derived from the temperature difference between surface and the deep--is ready to serve us now. Today. The warm surface waters in tropical areas may be evaporated under vacuum. This vapor runs through a power-producing turbine and is then condensed through cold water pumped up from the deep. This condensed water is fresh, ready for drinking. This is called the Open Cycle system. Or the warm surface water may be used for warming and cause evaporation of a "working fluid," ammonia for example, and the ammonia vapor drives the power turbine after which the vapor is condensed by cold water pumped from the deep and then returned to the evaporator.

Open or closed cycle plants will suit different sites and conditions. No general comparison in regard to efficiency or viability can be made at this time.

Fig. 1 shows the landbased open cycle plant built and tested at the University of California. Fig. 2 shows a landbased open-cycle plant designed by Dr. Frank Mathews, Arthur D. Watt, and Robt. Hathaway for the fourth OTEC workshop in New Orleans in 1977. Hydronautics Inc. designed an ocean-based open cycle plant for the third OTEC workshop in Houston in 1975. The Westinghouse Corp. is presently designing another open cycle plant.

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THE OPTIMISMS

Page 2

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"A Power Source for the Nation", a Lockheed booklet of April 1976, provides a comparison of net energy balance for various power plant types. To produce 1000 BTU required an expenditure of 3,128 BTU for a typical coal-fired plant, 3,123 for an average oil-fired plant and 125 BTU for an OTEC plant. In other words, the net energy balance was minus 3,003 for the coal plant, minus 2,536 for the oil plant and plus 875 for the OTEC plant. A nuclear breeder reactor might be comparable to an OTEC plant, but at what cost in money, safety and health?

A measure of efficiency may also be derived from construction cost. OTEC designs vary from \$150 to \$170 per kilowatt built. Nuclear plants now cost more than \$1500 per KW and nuclear fuel rises in cost every day. The ocean "fuel" is free. The latter fact is why the so-called "efficiency factor" has no bearing on OTEC. A 3-5% thermodynamic efficiency has no impact on cost. It only means that safety and ecology fare better and that simple materials can be used, with less danger of breakdowns.

"T. John T. Judge, Editor of CURRENT FUTURE, writes in a recent issue: 'OTEC WAS ONE OF THE FIRST RESTRICTIONS THAT WENT INTO SOLAR TECHNOLOGIES. How long before the 'how much does it cost' question turns into 'CAN WE AFFORD NOT TO BUILD?'"

Sign the book

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THE OCEANS' GIFTS: POWER AND DRINKING WATER NOW.

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Engineers and poets have for centuries been awed by the ocean, its vastness, virility, the power of its waves, tides, currents--and of its tiniest components. This all may warm and please us--long day. Another ocean power, that derived from the temperature difference between surface and the deep--is ready to serve us now, today. The warm surface waters in tropical areas may be evaporated under vacuum. This vapor runs through a power-producing turbine and is then condensed through cold water pumped up from the deep. This condensed water is fresh, ready for drinking. This is called the Open Cycle system. Or the warm surface water may be used for warming and cause evaporation of a "working fluid," ammonia for example, and the ammonia vapor drives the power turbine after which the vapor is condensed by cold water pumped from the deep and then returned to the evaporator.

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from my account, I am not a person of
if not important, to you
please
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Book 4, volume 2
THE FUTURE IS OURS

As far as essential work is concerned, we could keep
all hands busy for a thousand years.

In ancient Babylon, according to *"Hammurabi's Code"*,
Plautius and recent excavations, there are
needed aid by side with private banking houses large
goods and services and with the state of the world
needed and the business men from whom they bought
used the same credits to buy supplies for their stores.
By the procedure the farmers or business men had
money or goods. The government had simply never
had the farmer's products as he could use their value
for exchange of goods before they had been finally
sold. Consequently, there were no regular interest
and the "bank" was the banking house of the government.
The "bank" of the country was the banking house of the government.
and the "bank" was paid as goods were sold. This
method, known as "barter," has been used later by
many banks and other institutions, and was often used
in the early days of the money, because the market was
so primitive that the operators wanted to keep it to
themselves.

Finland's former ambassador to France, Erik Ek-
strom, was a good friend of the owner and president
which was the "Comptoir Central de Credit,"
which received its capital from the French government,
entirely to derive transactions when it was founded,
under the name of "Banque Roumaine," in 1849, by
the grandfather of the present owner. Mr. Rouman
the bank was founded in 1924 with the purpose of estab-
lishing similar institutions throughout the Roumanian

in countries. He, and the cause, were introduced to
the writer by an enthusiastic New York business man-
ager, who took time out as a very active participant
in the Roumanian cause. He was a Frenchman, and
such an American as a Roumanian owner. The
New Yorker wanted to remain anonymous. Mr. Ek-
strom writes about "Banque Roumaine".

"The first clearing bank, from which our present
bank and the Roumanian bank developed, greatly needed
security of deposits. A number of institutions have,
however, gone still further. They have allowed their
means partly as the security of value in the form of
goods and services available, without the assigned
value of the goods and services.

"A typical example is the *Banque Roumaine*, opened
after the depression in France in 1849, with headquar-
ters in Marseilles and branch offices in Paris and Lyon.
This bank served as a kind of exchange or center of
banking for the Roumanian people. It was the only
wage earners of every description could meet for the
direct exchange of goods and services. The bank
issued "credit notes" by means of which the interested
parties were able to exchange their goods and services
for the bank's "credit notes" and then use them to
that time through ordinary commercial channels. The
bank enjoyed such great confidence that, on the eve-
ning, it refused daily five times as much business as it
was able to undertake. During its first three years of
operation, it issued a total of 127 million francs of
notes worth 127 million francs (an equivalent of 635
million francs in 1935) practically without the use of
currency and without issuing a single line. A cen-
tury from 1857 of the present owner, except for
daily four pages. It seems to be generally accepted

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THE HISTORY OF THE

banker; and the writer. The organization started with about a hundred members, growing slowly to a few thousand in a couple of years. Among the original members were some of the largest Ohio firms as well as 10 smaller firms and a number of aviators in the business field, who left the ranks of the unemployed to become employers themselves.

Each member supplied for and was granted a certain "credit" on the books of the clearing association. This credit that they were allowed to buy the products or services of other members up to the amount of the credit—and were likewise obliged to sell up to that amount. The credits could not be cashed, only used for buying from other members by means of a special checkbook. The "check" was nothing more than an order to the bookkeeping office to transfer a given amount from the buyer's account to the seller's account.

One day, for example, a dentist came to the clearing centre, saying that he had out-of-town patients he could reach if he had a car, but that he could not afford to buy a car and have it financed in the usual way, nor could he say for sure that he would be able to meet strict monthly payments.

After investigating his record the clearing board granted him a "clearing credit" for the amount of the price of the car, and as security held a claim against his dental equipment until such time as he should have paid for the car by installment method.

The dentist paid Colberg and Caspar, car dealers, with a clearing check for the whole amount. Thereby he was cleared with the dealer and had no further business with him. On the same day the dealer bought paint and hardware from two other member firms for more than the amount received from the dentist. The

... 00-000000 PAGE 24 OF 24

YOUR PICTURE IS OURS

[illegible][illegible]

THE FUTURE IS OURS

that this bank actually did promote new trade, and did not attempt merely to deprive its orthodox competitors of a certain portion of their business. Financial periodicals and other publications refer to this special bank with great sympathy and goodwill. The firm was still in existence at a visit to Paris by the author in 1935 and was managed by the founder's grandson. Apart from its banking activities, the bank was then dealing with insurance business."

In 1918 a "Nordic Gaming Association" was formed, with the purpose of establishing dining halls similar to Blaque Blomst in the four Scandinavian countries. The association had representatives from Finland, Sweden, Denmark and Norway, and Erik Elvén was elected president. By the end of 1916 the association has been in first place, "Nord-Gambric" (Norwegian Gambric association) which was formed in 1915, and had headquarters in Oslo, and of which the writer was the first general secretary.

The Norwegian venture was stopped by the Naxos. The Norwegian was thus to be considered as arrested. The Naxos had a very important purpose, as it can hardly be called successful. During the first years it went through other hardships, but I describe this last venture because I know it well, and because we may be able to handle as much by its weakness as by its strong points. After a discussion of the undertaking, we shall explain how a similar organization could be formed in the United States for financing the proposed work plan.

THE HISTORY OF THE

hardware store and the paint store likewise bought and sold in greater amounts than the cost of the car, without even knowing that a car had been sold to a customer in the matter.

decide. They had no financial worries and had lost his money, there was no question of interest or repayment. There was no When his partner paid him his monthly pay, they paid in clearing checks which he transferred to his account. He paid as he saved, and for two years the car was paid for. But in the meantime nobody had given up any money or taken the car for him. In a way he owed a debt to the whole clearing association for the balance of giving up his money? But nobody had taken the decision not to fail his money? It was a harvest, although he enjoyed the advantages of one.

[illegible]

THE FUTURE IS OURS

[illegible]

opportunities of earning transactions proceeds. If the United States would consider the use of clearing banks for financing employment of supplies like in a work plan, the project would scarcely have to be a non-market different. It would have to be put into cooperation with the assistance of the federal authorities, for example, through the Federal Reserve Banks. Clearing banks would have to be made legal tender. Clearing banks would form an additional volume of clearing currency power and should therefore be under federal supervision. This would exclude such initial difficulties in the viability of clearing banks as were encountered in the Norwegian venture. Indeed, a national clearing bank would be a very important element in the work plan, without affecting any state, would be a very important element in the work plan.

THE FUTURE IS OURS

erated in the economies. They are clearly the reason why the Nizam's Government has been able to carry out its policy of development of the country. They are clearly the reason why the Nizam's Government has been able to carry out its policy of development of the country. They are clearly the reason why the Nizam's Government has been able to carry out its policy of development of the country.

The Nazis recommended that this and all other smooth-forehead men be taken into custody. They forbade the Oslo merchants to go ahead with their plan and issued an edict that no newspapers to write nothing more about it. The Germans were obvious. The Nazis were not interested.

THE FUTURE IS OURS

[illegible]

[illegible]

VIII

IMPORTER AND EXPORTER

"International trade should be a bond of union between nations" is the pious suggestion of the London Chamber of Commerce in a recent publication. Why does it so often turn out to be the knife that cuts such bonds of union?

The difference between domestic and international trade is that the former functions in an established community, while the latter tries to operate in what is partly a jungle. This jungle has its friendships and its goodwill which, however, are not all-permeating. There are brave though feeble efforts at international law. But we have no international government, police or currency.

Norwalk, in the Nineteenth and early part of the Twentieth Century, international trade seemed to flourish. Its volume, though less than now in town, was greater in proportion to total trade at the time. Above all, it appeared to be running more smoothly than elsewhere. Exporters or importers with experience from "those good old days" met wonder if present conditions are not caused by ignorance or simply spite. Certainly, both ignorance and spite are involved, but not necessarily with those who invested and suffered the restrictions. The melody goes a bit deeper. What are we hearing?

This author believes it can and that we may have a freer and richer trade than we ever had before, in the not too distant future. Individual traders all over the

LOCKHEED OCEAN THERMAL ENERGY CONVERSION PLANT (OTEC)

WHAT IS OTEC?

OTEC means Ocean Thermal Energy Conversion. OTEC is a method for harnessing a power plant that takes advantage of the temperature difference in temperatures between the surface and depths of tropical oceans. This heat is used in a power cycle that is far in principle to the more common power plants that burn coal or oil to generate heat.

HOW DOES OTEC WORK?

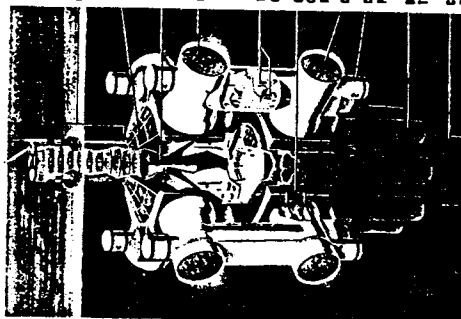
In OTEC, a working fluid, such as ammonia or propylene, is heated and vapor in the evaporator supplied to the vapor turbine where it produces electricity. The vapor is then condensed in liquid form in the condenser by exposure to the cool deep-sea water, and the fluid components is returned to the evaporator to begin the cycle again.

WHAT CAN OTEC DO FOR US?

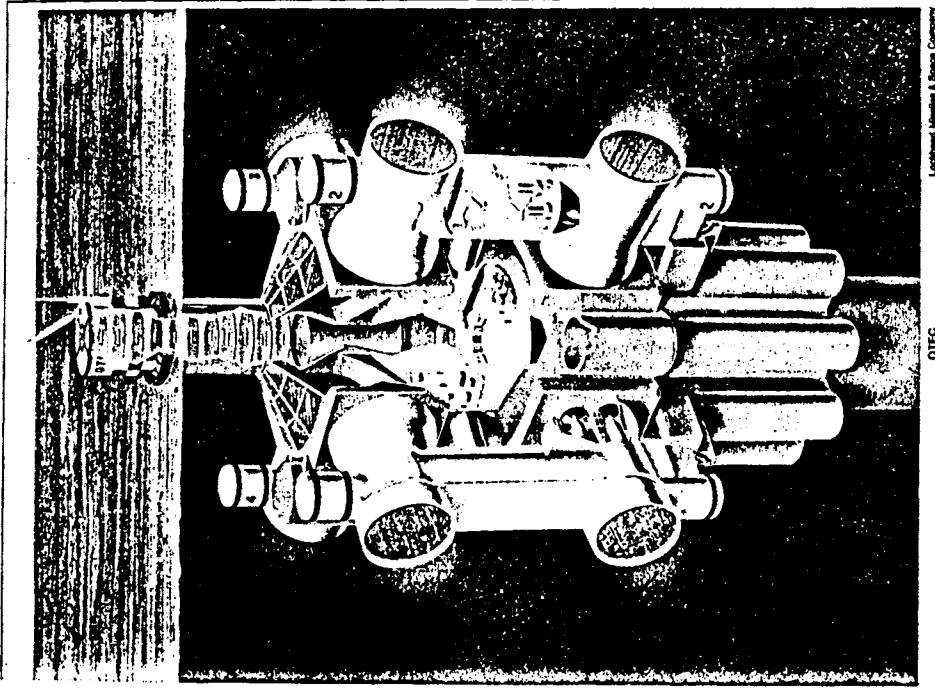
One OTEC power plant can supply enough electricity for a city of 100,000 people. And it can do so with virtually no pollution, without the costs, uncertainties, perils, and other dangers that it uses in replenished resources.

The U. S. Government supports OTEC design and development through the Energy Research and Development Administration. Lockheed Missiles & Space Company, Inc., Sunnyvale, California 94089

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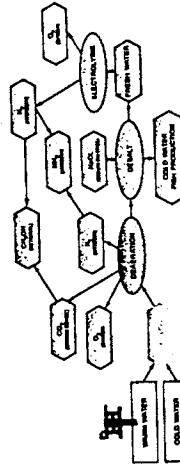
The potential of ion thermal power is practically irreducible because many of the by-products of the process can be obtained with very little consumption of power. These include both water, food fish and nitrogen, to be used as fertilizer and feedstock. METHANOL, a product of hydrogen and carbon dioxide, may be used to replace or mix with gasoline. **FOOD FISH** will be raised on nutrient rich cold water pumped from the depths.

The annual worth of these products might be	
Propane	\$1,000,000
Carbon Dioxide (CO ₂)	25,000,000
Oxygen (O ₂)	15,000,000
Nitrogen (N ₂)	5,000,000

Frank White	11,800,000
Paid Cash	6,000,000 to 75,000,000
Hydramax (4%)	34,000,000

The value of the secondary products will probably overtake that of the electricity as an thermal power becomes widely utilized.

San thermal plants can make FRESH WATER, a by-product of electricity, available for irrigation. The plants produce HYDROGEN and OXYGEN products of electrolysis, which can be used as raw materials in the manufacture of other products. Hydrogen can be used as a synthetic fuel. HYDROGEN and CARBON DIOXIDE, by-products of the electrolysis process, can be used to produce the air treated part of the feedwater for hydrogen plants.



the fact that the company has been able to maintain its position as a leading manufacturer of high-quality products. The company's success is due to its commitment to innovation and quality, and its ability to adapt to changing market conditions. The company's products are sold in over 100 countries, and it has a strong reputation for reliability and performance. The company's success is a testament to its commitment to excellence and its ability to deliver on its promises to its customers.

[illegible]

the same job as being awarded a contract to build a bridge. The contractor would be paid for additional claims after the claims period.

60. *Chlamydomonas reinhardtii* is a unicellular organism that is used to study the effects of environmental factors on the growth of algae. It is a photosynthetic organism that can grow in the presence of light and carbon dioxide. It is a model organism for studying the effects of environmental factors on the growth of algae.

the first time that the company has been able to do so. The company's first public offering was in 1997, when it raised \$10 million. The company's second public offering was in 2000, when it raised \$20 million. The company's third public offering was in 2003, when it raised \$30 million. The company's fourth public offering was in 2006, when it raised \$40 million. The company's fifth public offering was in 2009, when it raised \$50 million. The company's sixth public offering was in 2012, when it raised \$60 million. The company's seventh public offering was in 2015, when it raised \$70 million. The company's eighth public offering was in 2018, when it raised \$80 million. The company's ninth public offering was in 2021, when it raised \$90 million. The company's tenth public offering was in 2024, when it raised \$100 million.

Building trust
The study found that trust in managers is important for the success of the project. The study found that trust in managers is important for the success of the project. The study found that trust in managers is important for the success of the project.

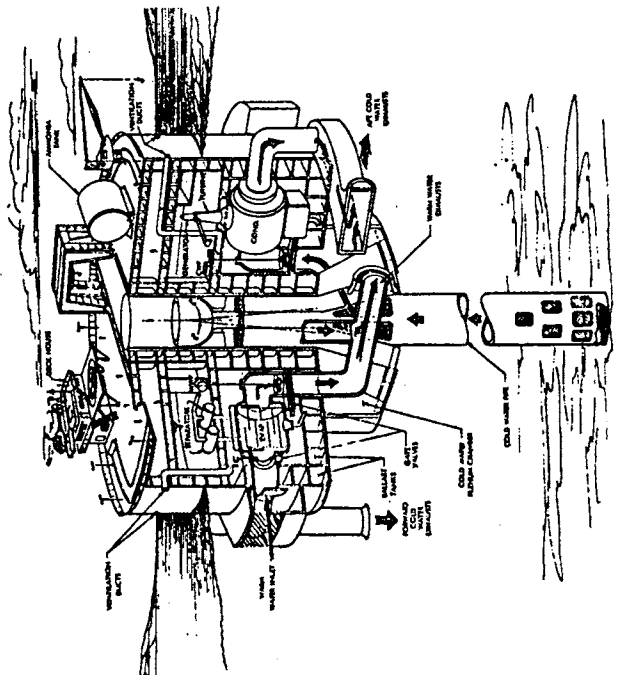


GLOBAL MARINE DEVELOPMENT INC.

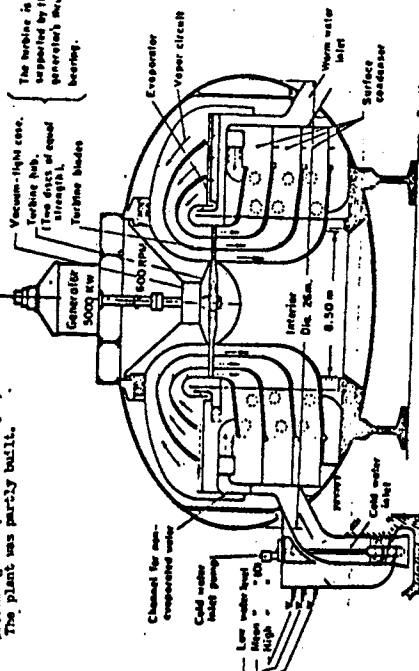


PSI united engineers & constructors inc.

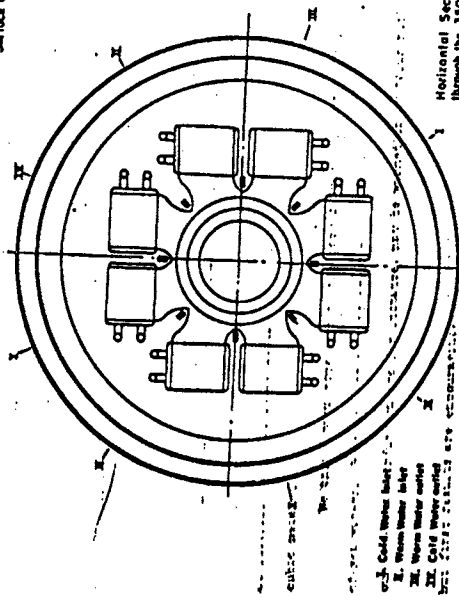
UNITED STATES ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION (ERDA)
OCEAN THERMAL ENERGY CONVERSION (OTEC)
CONCEPTUAL BASELINE DESIGN



...is
...by the
...about
....



Section through the Surface Condenser Plant.



**Horizontal Section
through the 3500 KW
Surface Condenser Plant.**

FIG. 14 SURFACE CONDENSER PLANT

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Prison Layout

are determined. Based on these data, representative figures for the various parameters are determined. It is found, for example, that there are certain physical limitations on the class of functions which can be chemically constructed at this time. There are other factors, such as multiple unit cost, that are not so easily quantifiable. The cost of a system with greater complexity is not necessarily higher than that of a less complex system, for example. As a result, a single large unit can be very expensive.

Structure time and material requirements for the evaporator, turbine/generator system, and condenser are estimated and cost figures determined for each of the components of the system. A computer program was developed to make the performance characteristics of each of the components are related in a system model. A comparison of subject subsystem characteristics and costs is developed as the various input and operating parameters are varied. The results of the model are presented in the following pages. The work was done by the staff of the Westinghouse Electric Corporation in the areas of heat transfer and turbine design.

The general system layout for an open cycle OTC plant is shown in Figure 1. This simplified diagram shows the system divided into 3 principal parts;

- (1) the warm water loop,
- (2) the turbine/generator, and
- (3) the cold water loop.

[illegible]

Schematic Open Cycle STEC Plant, Colorado School of Mines:
Dr. Frank Matsums, Arthur Watt, Robert Hathaway 1977.

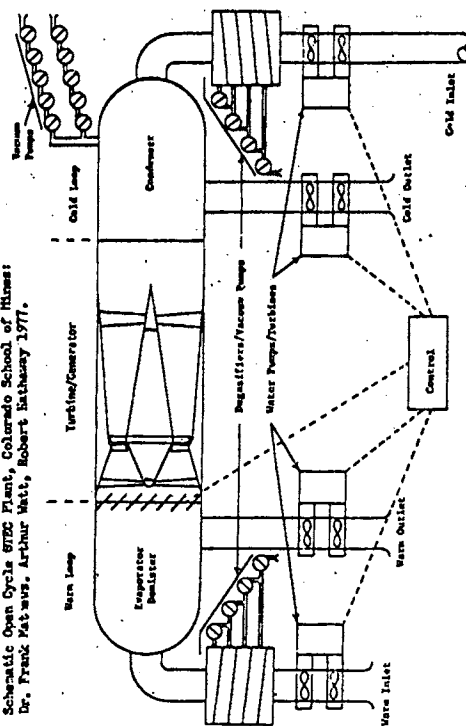


Fig. 2. General System Layout of an Open Cycle GTH Plant.

General Open Cycle OTCC plant designed by the Colorado School of Mines 1977-78.

DOE HEARING
ARTESIA, N.M.
June 22, 1989

My name is Jim Thompson of Roswell, New Mexico. I represent the Southeastern Compadres For Safe WIPP -- a group of concerned Roswell citizens who collected over 1200 signatures on a petition to the Department of Energy requesting that the Department hold a hearing in Roswell for public comment on the Supplementary Environmental Impact Statement. The hearing today is the result of our efforts. Although we maintain that Roswell should have been the location for a hearing in this part of the state since we asked for one and the other communities did not, we do accept the compromise site of Artesia and thank our good neighbors in Artesia here for hosting this event. Our criticism of the DOE for not scheduling a hearing in southeastern New Mexico in the first place is not diminished by this compromise, however. Because truck shipments to the waste site impact more numerically on this part of the WIPP Trail than anywhere else in the United States. We, the communities of southeast New Mexico, should have received first consideration to be included on the list for hearings and certainly should be of first consideration in validity of concerns. Our remarks must carry additional weight because of our geographical location.

As it did with the other communities in nearest proximity to the WIPP site, the DOE conducted a formal, and highly proceduralized, question and answer session in Roswell last Monday night. At that meeting we submitted 1200 signed statements from the citizens of Roswell to the DOE. As part of our official comment today, and to assist the DOE in preparing its final statement, we submit a videotape of that session for inclusion in the

Transcript of the DOE Hearing on the WIPP Site, Artesia, N.M., June 22, 1989. (The transcript is available in Spanish and English.)

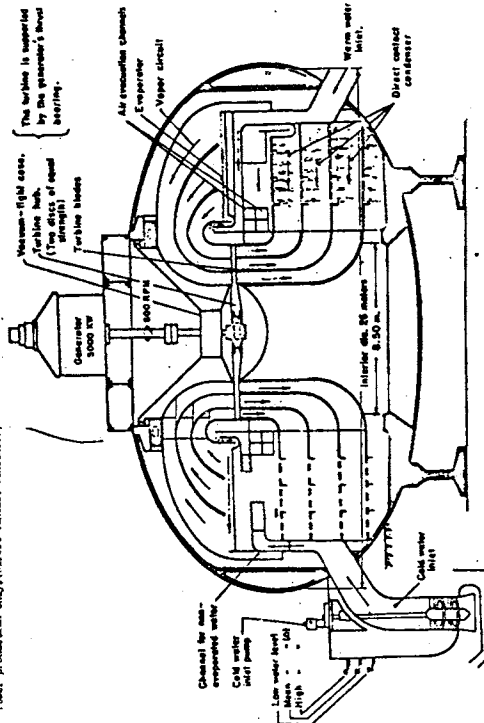


FIG. 8 SECTION THROUGH THE DIRECT CONTACT CONDENSER PLANT

official record of these proceedings along with about 100 individually written statements by Roswellites not able to attend today's hearing in Artesia.

In addition, we offer a few notes on certain sections of this report. In general we view the SEIS document as uneven in its content. It is excessively detailed -- in some instances to the point of incomprehension -- and severely lacking in pertinent information in other areas.

Here is a brief list of some omissions which we feel must be included in a final statement:

1. A complete baseline medical survey of the incidence of various forms of cancer and diseases known to be associated with high levels of radioactivity must be done in and around the city of Carlsbad and published in the report. It is essential to have comparison figures for measuring the effects, if any, of WIPP on the nearby population centers.

2. The report is lacking in clearly delineating retrievable procedures for test material in the event that the in-site test requested by the DOE prove the site to be unsatisfactory.

3. Details relative to the proposed NUPAC must be extended to include such statements as to the number of NUPAC allowed per truck load. The anticipated uses of NUPAC beyond handling RH TRU. This container could easily be modified to carry plutonium rods--spent fuel--from nuclear reactors.

2.5-1

2.3.1-2

7.12.10-1

7.12.6-4

7.3.1.3-2

4. Closer to home, SEIS is lacking in noting hazardous road conditions on Highway 285 -- the main "final" corridor for TRU shipments. This highway is frequently, at least once every winter, closed to traffic due to heavy snow and blizzard conditions. At times as many as 200 or 300 trucks and automobiles are stalled at Vaughan or Clines Corners.

5. SEIS notes the Santa Fe bypass, but does not mention proposed bypasses for the cities of Hobbs, Artesia, Carlsbad and Roswell. These must be included.

6. The SEIS is totally lacking in presenting ~~negative~~ economic impact the project may have on New Mexico in general and the most directly affected southeastern part of the state in particular. While it presents glowing economic forecasts for the vicinity of Carlsbad, common sense tells us that it will have some negative effect, however minor that might be, possibly in such areas as reduced tourism, reduced retiree influx, additional road maintenance costs (see above), etc. An asset and liability statement would lend credibility to the report.

7. The description of alternatives as proposed by this report are in my opinion, the most lacking in comprehensive treatment. I wish to center the remainder of my remarks on a discussion of these alternatives.

Leaving technical concerns aside for the moment, I wish you to consider some underlying philosophic premises of this WIPP project in a effort to rectify the misdirection inherent in this project from its inception and to devise new and broader means of dealing with the real problem of cleaning up the nuclear waste in our nation and the world.

7.3.1-2
7.3.1-14
7.13.4-17.2-1
7.2-9
7.2-11
7.2-15

5.3-1

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One of the major weaknesses in approaching this problem as evidenced by the WIPP project itself, and reflected in the limited alternatives posited in the SEIS, is that private enterprise and flexibility of solutions are excluded.

Instead of incorporating these very American ways of doing things, the WIPP project was placed in the hand of the old, ineffectual, military/industrial complex -- for want of a better phrase -- that President Eisenhower warned the nation about at about the same time the trash generated by this same complex began to pile up at sites all over the country.

Whatever else Eisenhower may have had in mind about the dangers of this military/ industrial relationship, one thing seems currently self-evident. The elimination of open competition and the profit motive brought about by this incestuous complex in awarding cost-plus contracts, in interchangeable roles between consumer and provider, in condoning favoritism, kickbacks and other legal and ethical violations has left many American corporations fat and inefficient, unable to compete in world markets. They are not the lean, hard corporations formed by free market economic forces and competition. As Eisenhower would have said, they have lost a real fine cutting edge.

No better example could be presented of the deterioration of American know-how and industriousness resulting from this military/ industrial complex (MIC) than that of the WIPP project itself -- a MIC which exhibits all of the symptoms accumulated through 30 years of easy living in a

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22-Jun-89: EX-00719, PAGE 5 OF 93

government market place where the buyer will buy whatever the seller is selling and the seller will sell whatever the buyer is buying.

Congress, itself culpable in perpetuating governmental excesses, authorized the WIPP project under Public Law 96-164 as a research and development project and excluded it from regulation by the Nuclear Regulatory Commission or other regulatory agencies. Deregulation of private enterprise in free market economy has some validity, but a lack of regulation of a government entity can be disastrous -- witness Iran-Contra affair. WIPP, with an apparently unlimited credit card, with no licensing requirements, is made up of two government departments -- the Department of Defense and the Department of Energy -- coupled with a giant American corporation, Westinghouse, attended by Sandia National Laboratories. This MIC was given the task of figuring out how best to empty the radioactive wastebaskets from two sites -- Rocky Flats in Colorado and the Idaho National Engineering Laboratory.

Since man has been on the face of the earth, he has accumulated garbage. He has either burned it, buried it, or moved away from it. The WIPP researchers contemplated these methods and seized on them. They looked, but not far, for a place to dig a hole. Nearby New Mexico with its sparse population presented an ideal national back yard for dumping waste and it happened to have just the right kind of mineral, salt -- unless the chore is to bury high-level spent fuel from nuclear reactors, then the ideal material is volcanic tufa or granite in Nevada. New Mexico had public land which could be acquired easily by a simple land transfer deed handled in the top office, if necessary. Too, New Mexico, with a large

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3.2-1
4.1-1

22-Jun-89: EX-00719, PAGE 6 OF 93

portion of its economy dependent upon federal largess already, could be blackmailed into accepting this trash by threats of withdrawal of DOE and DOD supported laboratories and industries. And some New Mexicans with an eye on a quick buck -- or should I say "doe" -- were glad to invite the project in.

But as the chore of digging a hole and moving garbage began, it started to grow -- as government projects are wont to do -- to include emptying the wastebaskets from other rooms of the house: 10 sites in all, scattered throughout the nation. This added chore posed something of a problem, but nothing the MIC could not solve as readily as it had handled the first chore. Simply take the first idea that presented itself. Put the trash in trucks and haul it through twenty states to the dumpsite.

This procedure had the added advantage of using that major American identity symbol, its dominant cultural artifact, the automobile or truck to the project.

MIC saw that it was good -- even if the problems and solutions were growing as fast as the trash itself. This research and development technique would keep MIC in business for years and solve only a part -- less than one tenth of one percent of the problem of nuclear waste disposal, if at all -- and would keep perpetuating itself for years.

To convince the public -- particularly the citizens of New Mexico -- that it was indeed good, MIC -- again choosing the most immediate and accessible and also very American means -- included a public relations

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4.1-1
4.1-3

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campaign. Slide shows, graphics, guided tours filled in where hard fact was lacking. Expensive, but money is no deterrent to the MIC.

My point, I hope, is made.

Gentlemen, I suggest to you that the direction you have taken in eliminating all other proposed actions except the one you are taking will eventually lead to the absurdity presented in my remarks. I suggest that the real and effective American invention which could help solve the problem of nuclear waste disposal will be found in using the free enterprise system where individual initiative, motivated by clean and honestly earned profits made from offering a superior service or product will do the job efficiently. And note that most American industries, including oil and gas and mining have had to clean up after themselves and know how to do it. The defense and energy departments seem to have very little skill in that exercise

WIPP as a "pilot" project could serve as a opportunity to sharpen our inventiveness rather than to continue to dull it. If a fraction of the money spent on WIPP could go to providing incentives for private enterprise, then research and development would open up; and we, the United States, could clean up our nuclear mess with this more inclusive approach.

President Bush has already begun to use government agencies effectively in consort with private enterprise to address some of our environmental and social problems. Indicative that a new direction is in place are the announcement by President Bush of a comprehensive clean air program, to include -- as EPA chief William Reilly has stated --

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9-2

22-Jun-89: EX-00719, PAGE 8 OF 93

private incentive and flexibility in compliance and the appointment of men of integrity who will seek to utilize the tremendous resources of this country: Rear Admiral James Watkins as Secretary of Energy and New Mexico's own Manuel Lujan as Secretary of Interior. These actions show that there is indeed dawning a new day and a new way of dealing with our environmental problems other than burying them, and our heads, in the ground or in the salt of past times.

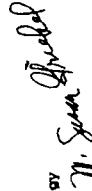
My question for you today, gentlemen, is this: If you were on the board of a corporation investigating means of developing a commercially profitable method of disposing of radioactive waste, what alternatives, other than the WIPP, would you fund for promising research possibilities? While you are pondering that question, I request that you consider placing a hold on further developments of the WIPP project while the global problem of nuclear waste disposal can be addressed more fully and comprehensively, or at least until our current administration and the men noted above can set policy on their departments and get a secure handle on their jobs. And the very least you can do to comply with EPA standards before you transport a single barrel of garbage to the WIPP site.

To support this request I point out that the General Accounting Office has stated that WIPP can wait with no ill effects, that INEL can take waste for another three years before capacity. I note too that Senator Pete Domenici has concurred with this statement by the GAO.

Thank you.


James F. Thompson
111 W. Matthews
Roswell, N.M. 88201

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TO: Department of Energy
From: Susan Grabele 
Re.: Testing of Hazardous Waste
Date: June 21, 1989

During the special question and answer session held on the 19th of June in Roswell, Dr. Wendell Worth explained that the tests and experiments that the D.O.E. plan to conduct in the 5-year experimental phase of the WIPP project could in fact be done in a lab rather than at the newly-prepared Carlsbad site. The implication was, however, that the lab would be difficult to prepare and would be costly to construct.

It seems to us that conducting experiments in a lab, however, has undeniable advantages:

- 1) In case tests prove that it is indeed risky to dispose of waste that may very well contaminate ground-water in Carlsbad, there would be no need to recover wastes that will have been piling up for five years.
- 2) Conditions can be created in a lab-test situation that may even better simulate wastes that have been exposed to three or four hundred years of aging. On the other hand, tests made at the actual site will supply information that will be limited by the actual time allowed for the tests. A two or three year test period will not give experts enough

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information to project the behavior of waste material that, we all must hope, will remain safe for 240,000.

3) A lab test will not endanger the hundreds of people living along the highways that will be used by the transporters of plutonium waste material, the many Carlisbad plant workers, and the thousands of yet-unborn people whose safety and protection remains in our hands.

4) And as to cost, what could be more costly than the poisoning of the land and water in this beautiful part of our country. As tragic and damaging as this year's Alaskan oil spill was, it is a mishap that--given the generous and unlikely supposition that no more such incidents occur--can at least be repaired by nature and by the efforts of men within perhaps twenty to fifty years. We may not be so fortunate in this case. A nuclear accident, everyone will concede, has the potential of ruining our environment for good. The history of our nuclear experience proves that the good intentions of human beings is not enough to insure our safety. We have it within our power to do things right for ourselves and future generations. Let's not betray them or ourselves.

3.1-2
7.11-1

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TO: DEPARTMENT OF ENERGY

FROM: GARITT S. GRIEBEL

CONCERNING: TRANSPORTATION OF WASTE MATERIAL TO WIPP SITE

OCCASION: PUBLIC HEARING, JUNE 21, ARTESIA, NM

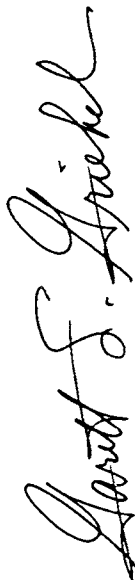
On a recent vacation to Colorado I met--in the course of my 500 mile drive to Colorado Springs--vehicles bearing the warning "Wide Load." In each case the wide-load shipments were escorted, front and rear, by vehicles that prevented motorists from getting too close to the oversized loads.

In this case we have situations that present a clear danger to highway travelers. And were the drivers not warned of the approaching perils, it is conceivable that a number of motorists would be involved in accidents. And however tragic these accidents would be to the families involved, the insuing loss of life would not spread beyond the given wreck. There would not be the potential--as there is in the case of a truck holding a shipment of TRU-PAX containers--for contaminating earth and water or of exposing hundreds of people to life-threatening radiation.

My point is, I hope, obvious: Why can we not have each shipment bound for the WIPP site properly escorted, with potentially endangered drivers kept at a safe distance from the tons of hazardous waste that, we must grant, present a danger to so many people.

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At least some of the criticism that the D.O.E. is now facing might be lessened if we, the citizens of New Mexico, could see that simple and relatively inexpensive safety measures could be followed when plutonium waste begins in a very few months to move across the highways of New Mexico--and all the other states involved in this project--at speeds at or exceeding 65 mph.



7.32.1-3

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Statement for
Department of Energy on
Supplemental Environmental Impact Statement
Roswell, N. M., June 19, 1989
By N. B. Hadsell, Roswell, N. M., as a Private Citizen

Before addressing the problems of WIPP as I see them, I want to say that I think the Department of Energy and others who may have been involved in the decision were very short sighted and irresponsible in deciding that the only way to dispose of nuclear waste was by underground burial. If we had spent as much money on research to neutralize or at least speed up the aging of nuclear waste as we have on WIPP and it related activities we would be much closer to solving the problem at the source rather than now treating the symptoms which have become monstrous. For those who say it cannot be done, it was not many years ago that the same was said about nuclear fission.

The most pressing concern of residents in Roswell is that of transportation of the waste to the WIPP site. At the present, an estimated 80 percent of all waste deposited in WIPP will go through the heart of the city of Roswell. Despite promises and agreements that bypasses would be built around cities on the routes leading to Carlsbad, none have yet been funded and certainly none have been built even though WIPP is scheduled to open in September. In fact as far as I know only one bypass is even mentioned in the State of New Mexico; that is Santa Fe. NO waste should be transported through any city until such time as the necessary bypasses are available for use.

One type of container for transporting waste has been partially tested; one has not yet been developed to the testing stage. The types of tests that apparently will be conducted on the prototype available now do not begin to exhaust the potential for varying conditions of the waste transported and for the potential of accidents that may occur along the highways as waste is transported. In view of the damage that can result from any spill during transportation and the fact that this damage can essentially be permanent is persuasive enough to require exhaustive tests of actual equipment so that it will exceed all conceivable worst case situations in the transport of waste.

The nagging question is why was truck transportation chosen over rail transportation when rail safety is better and, if used, would provide less chance for accidental spills. The assumption by the Department of Energy that 34,000 truck shipments will occur in the 25 years of WIPP operation with no deaths from radioactivity is highly suspect. With highway safety such as it is today, the aging of the transport equipment, no escorts of any kind on the highways and the somewhat perfunctory testing of the equipment initially, it is beyond reasonable belief that this can be factual.

The Department of Energy agreed to provide training and equipment for emergency response preparedness. While some training has been undertaken, it is not yet complete and, from the description by WIPP staff, that that has been given is quite perfunctory. The necessary monitoring equipment has not yet been supplied. Full-scale emergency

32-1
36-1
53-1

7.15.4-1

7.31.2
7.34.1-1

7.32-4

7.12.9-1
7.12.9-5

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response for any spills in and around Roswell would come from the WIPP site itself. With the extensive winds that are prevalent in this area, serious damage could occur over a large area before any personnel from WIPP could possibly arrive at the scene of a spill. This whole area of emergency response has been given short shrift and certainly leaves much to be desired in assuring that the Department of Energy has any real concern for the safety of residents in this or any other area in New Mexico.

The City of Roswell has recognized some of the potential dangers of waste transportation through the city and as a result has passed an ordinance that would limit movement of waste shipments through Roswell to hours immediately after midnight to minimize traffic through town. The Department of Energy has not indicated whether this rule will be honored, but if the Department insists on shipping waste ahead of completion of bypasses then by all means the Department should honor this rule. If for some compelling reason this ordinance cannot be honored, then no waste should be transported through the City of Roswell until a bypass can be built. The same should apply elsewhere too.

With respect to the WIPP site itself I have several concerns.

One is the cavalier reaction to the existence of brine in the storage incinerators. Early on there was assurance that no brine existed at all--these were dry salt beds. Now that it is found that brine does exist and in quantities not expected, it is said there is nothing to worry about as this was expected. When the storage area is sealed up, the brine will have severe corrosive action on the steel storage drums and pressure of the encompassing salt will crush the steel storage drums and pressure of the encompassing salt will crush the steel storage drums. In the new bypass, brine will mix with the contaminated waste. Caustic brine of long residence time in the storage level which also ignores the high pressure brine in the storage level which has been drilled and proven to be there. How can the Department so short sighted as to not do further exploration and research on this problem when we are talking about possible storage and attendant liabilities over thousands of years?

A related problem is that of mixed wastes. Much of the waste to be stored at WIPP is apparently a combination of nuclear waste and other toxic wastes. Although the Secretary of Energy has agreed to delay the storage of mixed wastes, there has not been the same kind of control over toxic wastes so that the effect within the WIPP storage area cannot even be estimated. WIPP staff says that x-ray of each drum to be stored will be able to determine its content, but I submit that this is not possible. There needs to be some control of non-nuclear, toxic waste either before shipment to WIPP or sorting of the contents of each drum at WIPP with a determination of whether such waste can legally be stored at WIPP before such storage is in fact accomplished. As I understand, the Department of Energy is silent on this subject.

I also understand that this unknown mixture of wastes also has other implications, for it will affect the type and amount of gases formed. Once the WIPP storage area is sealed and these gases form, what happens over a period of time? It seems only reasonable to me, as a layman,

31-2
7.35.1-13
7.12.9.77.33.7
7.15.4.17.72.6
7.82.1
7.85.2
7.12.6.5
7.14.97.93.1
7.93.37.72.1
7.86.1
7.14.9

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that once the pressure builds from these gases, they will seek an outlet. With the extensive cracks in the walls, floors and ceilings already in evidence and the different types of layers of strata above and below the salt in the storage area, it seems highly likely that those contaminating gases may well escape to contaminate the atmosphere.

WIPP has already been exempt from Nuclear Regulatory Agency standards (which was a major mistake) and now is not willing to comply with the old Environmental Protection Agency regulations which have already been determined to be inadequate. Drum 1 should not be stored in WIPP until all EPCRA regulations have been met and this can be demonstrated to the public community. This is also important than otherwise when you consider the proximity of the Department of Energy at the Hanford, Rocky Flats and Savannah River projects where there are apparently little or no supervision, standards or control with respect to waste handling and storage. This has resulted in an horrendous cleanup problem, if it can be cleaned up at all. New Mexico should not become still another state with a similar facility problem because of the lack of adequate safety precautions and safeguards from the Department of Energy. In repeat, if WIPP cannot be proven to meet EPA standards, then no storage of any waste, on an experimental or permanent basis, should be allowed.

What happens to any waste stored at WIPP if the ultimate decision is that the site is not suitable for permanent storage? I understand that the Department of Energy has not spoken to this contingency. Is this an oversight or is WIPP considered an opening wedge from which permanent storage is a foregone conclusion? What is the plan for waste if it must be removed from WIPP?

The two experiments that the Department of Energy has announced as necessary to be conducted underground with nuclear waste in storage incinerators, even to a layman's eyes, are superficial. The one that WIPP staff has proposed is a duplicate of the one that is being conducted at the Nevada Test Site. The second experiment is designed to test the experiment concerning the storage of drums certainly does not need to have or contain any nuclear waste to provide the necessary experience in handling. Why risk any unnecessary exposure to nuclear waste in this mechanical training exercise?

The operation of WIPP will have little impact on the total nuclear waste problem facing this country. While the amount of waste transferred to WIPP will be substantial, it is a very small percentage of the total nuclear waste from all sources. Since its impact is small, why is the Department of Energy so anxious to hold to an unreasonable start-up deadline, given the many unresolved problems connected with the safety of all facets of the project? Storing the waste for a while longer wherever it is currently stored is a small price to pay for demonstrated assurances that the Department of Energy has indeed taken all the necessary steps to insure safety before any storage at all occurs and that, further, the experiments that will be undertaken will

7.72.1
7.86.1
7.14.91-3
31-3
32-17.12.6-4
7.12.6-7

7.11.1

31-2

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in fact be ones that will add reliable scientific knowledge about the storage of the forms of nuclear waste scheduled to be stored at WIPP.

William A. Murray

3.2

FOR THE OFFICIAL WIPP RECORD

When it was decided that WIPP was to be located in Carlsbad, the first thing that the public was assured of was "that there would be no shipments until BYPASSES were completed around all congested areas."

To date there are no BYPASSES, but WIPP is to receive contaminated material in September.

Conflicting reports from assorted agencies lead one to doubt all reports.

I DO NOT WANT WIPP OPENED UNTIL - -

1. All bypasses promised are complete.
2. Shipments to be handled as follows:

Trucks carrying contaminated material travel in convoy - - 4-6 trucks.

Convoys to be under Federal control and duly escorted.

Convoys to be accompanied by fully staffed and equipped by trained personnel for any emergency.

Until these programs are completed, WIPP should not be opened.

William A. Murray

William A. Murray
1303 W. Jaffa Street
Roswell, N. M. 88201
Phone: 505 624 1570

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73213
71541

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Statement for Department of Energy

A Citizen's Opinion About Opening of WIPP in Carlsbad, N. M.

My opposition is not something that just occurred recently.

First, I can understand the community of Carlsbad waiting the business it has brought to the city and will generate. I do not think those people have thought ahead to the damage they are doing to Carlsbad and surrounding communities where the radioactive and toxic waste will pass through, nor to the future of water supplies that will affect New Mexico, Texas and Mexico, to say nothing of other states that want to send us their waste problems.

We lived in Metropolitan Denver in the 1960's and Rocky Flats was a problem then but 29 years later no one has done anything to help. They just let it get worse. We listen to news about people whose homes are uninhabitable because of toxic seepage and no one has corrected their problems. I understand other countries are using their radioactive wastes. Regardless of that, we have had 44 years since the bomb. Why hasn't money been spent for research to neutralize the radioactive waste? What is known about the reactions of putting such waste with toxic waste? Science isn't even sure of the tolerance people have for radiation.

Where are the byproducts promised to protect us? We moved to Roswell, New Mexico 13 years ago for health reasons and to retire in a choice place in New Mexico. We have lived in the same house for four blocks east of Main Street where all this toxic waste will be stored. We have heard several retirees saying they will sell their homes and move here if WIPP opens. We prefer to remain here where the soil, water and air are clean. We already have enough dumping with experiments at Las Alamos and other places in New Mexico.

Isn't asking Westinghouse to train people in safe transportation and how to handle accidents enroute a little like "putting the fox in the chicken house to protect the chickens?" Why continue to produce such radiation waste for defense when we have enough to destroy us now from within? What kind of legacy are we building--greed for money and power rather than precious, healthy lives?

Thank you for listening.

Sincerely,

Shirley M. Haddell

Shirley M. Haddell
606 E. Ladonia Ln.
Roswell, N.M.
June 19, 1989

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June 17, 1989

To the DOE:

I am not in favor of storing nuclear waste in New Mexico at any time or any place.

If this does happen, I do not want WIPP opened before all aspects of WIPP are safe.

I feel appropriate include transportation of Nuclear Waste, DOE-promised road repairs and by-passes in New Mexico, DOE-promised emergency safety equipment and DOE-promised emergency and medical personnel training.

Sincerely, H. Peck
To: S. H. Matthews
Roswell, N.M. 88201

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DOE
WIPP Project Manager
6301 Indian School Road
Albuquerque, NM 87110

The DOE has promised medical training and supplies for emergencies. The last nuclear training was held in the summer of 1988. With your help, not being able to verify the exact type of waste being transported the medical community can not possibly be ready for a nuclear accident. The health of our children and their future to live productive lives is at stake here. The lethargic and unconcerned attitudes of the DOE over this matter is disgusting. MAKE WIPP SAFE.

Debra Bolger
June 17, 1989

7:12:01
7:12:02
7:12:05

3.12

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DOE
WIPP Project Manager
US Dept Energy
6301 Indian School Rd. NE
Albuquerque, NM
87110

The transuranic waste that will be transported on trucks is a major concern. The containers that will contain the waste has failed a out of 4 tests. They were checked and punctured at a straight drop of 35 feet. No crush test was done. With the element of human error involved in the transportation of this waste material, I feel that more testing of the containers is necessary to provide safe transport. MAKE WIPP SAFE.

Paul Abney 6-17-89

7312
73112
73118
73541

1306 S. Alamo Ave.
Roswell, NM 88201

June 19, 1989

Department of Energy
Washington, D.C.

Dear Sirs:

I am concerned about the WIPP site located near Carlsbad, N.M.

No state wants to be a nuclear waste dumping ground. No citizen wants the waste transported by their houses.

Everyone knows that the production of these materials constitutes a problem that will wipe out our civilization, either by making the planet too hot to support life, or by contaminating it completely in a second big bang.

So why don't we stop producing such harmful garbage and get on with more sensible technologies?

Sincerely,
Laura S. Means

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36-1
5.22

22-Jun-89: EX-00719, PAGE 23 OF 93

Department of Energy

Dear Sirs:

This is to notify you of my disagreement with a number of your attitudes, practices and techniques concerning the WIPP located in the Carlsbad area. There are a number of grave issues concerning public safety which your agency has persisted in denying or avoiding. Your spokesmen persist in glossing over these issues with false assurances. I am not positively impressed with such tactics. I have followed the antics of the nuclear energy lobby for decades from the period when the national control of it was under the aegis of the Atomic Energy Commission. There was deception during that era and there continues to be deception in the present time.

I am not reassured by D.O.E. past performances on other storage facilities, let alone the lack of adequate monitoring of manufacturing. The environmentally dead zones your agency has allowed to happen (i.e. Hanford, Washington) are adequate evidence of your unwillingness to deal with your proper responsibilities.

I am not one to deny the need for proper nuclear waste disposal. I am very much opposed to the particular ways your agency has continued to avoid the various on site safety measures at the WIPP location (including the question of demonstrated ability and planning for the removal of all waste deposited, if need should arise). In addition, the problems are numerous in the area of

32-1
7.128-1

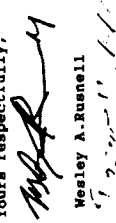
31-2
7.126-4

7.33-4
7.33-5

safe transport routes from place of origin of various wastes. Inadequate highways, lack of enough by-pass routes, and a serious shortage of trained, properly equipped emergency personnel is also involved with why I am opposed to your current efforts.

None of us now alive may be around in the future when the vastly complicated problems WIPP may develop come to harvest. If we answer the problems in haphazard, incomplete ways we will also deposit a curse upon our future generations.

Yours respectfully,


Wesley A. Russell

7.3.3-4
7.3.3-5

Transportation Concerns

- (1) D.W.I. has consistently been a major cause of traffic fatalities in New Mexico. New Mexico has ranked in the top five states nationwide in traffic fatalities for the past decade. 65% or about 2 out of 3 of all traffic fatalities are alcohol-related. (From "The Alcohol Impaired Driver" 1-86 State of N.M. Transportation Dept.) The trucks carrying the waste will cross the state completely in both north and south and east and west directions. According to statistics the northern half of N.M. is especially prone to D.W.I. Since the trucks will traverse practically the entire U.S. of all supply some additional statistics. In 1986, suits for D.W.I. totaled 1,773,000 nationwide, and nearly 500,000 were injured in alcohol-related wrecks. This adds up to more than 1 injury per minute. (Pittsburgh Daily Post 12-1-87) In 1986, 1304 Texans were killed in D.W.I. crashes. Also in '86, 2,300 were killed in alcohol-related traffic accidents. (From National Safety Council) In June 10-11-1989 (Russell Daily Record)

- (2) Lightning is dangerous in N.M. according to the National Weather Service in Albuquerque. Lightning is the number one weather related killer in N.M. Of the low population of the state is taken into account, N.M. claims the distinction of having the highest number of lightning caused deaths in U.S. The D.E.M. computer at 1717 W. 2nd St. in Roswell N.M. recorded 3317 lightning strikes, lightning striking ground, on June 8, 1989 in northeastern N.M. during a 4 hr. period.
(OVER PLEASE)

7.3.6-2
7.3.6-1
7.3.6-2

7.3.1.1-18

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Quoting Don Bateman, N.M.S. spokesman, in Ro. Daily Record 6-12-89, "lightning strikes in a small diameter, but if you could enlarge the hole it has an electrical potential of approximately 100 million volts."

These are two very potent concerns which you refer to the 75, 27 which are in N.M., which you state in P-23 to P-33 of your draft supplement E15 volume 2. April 1989. The 100 ft high impacts would be an ideal target for lightning.

I am opposed to opening WIPP because of the above concerns and the failure to meet EPA standards. Also N.M. has received no road building funds, no highways have been built, and the land has not been released. I think the waste should remain where it is and technology pursued to handle it where it is. Further transportation involves too hazardous an effort. Also in view of the latest news about Rocky Flats I think Rocky Flats should be closed down. Thank you for allowing Roswell to express its concern.

John Griswold
405 Jimma Berenda Dr.
Roswell, N.M. 88201

7.3.1.1-18

1-2

22-JUN-89: EX-00719, PAGE 27 OF 93

2716 Chrysler Dr.
Roswell, NM 88201
6/14/89

Dear DOE:

The name "WIPP" conjures up different fears for different people. Some worry about medical problems such as cancer and birth defects. Some believe that our environment could be damaged permanently. Some fear that New Mexico will come to be synonymous with WIPP, and that tourists will go elsewhere. My concern, related to these, is that property owners in southeastern New Mexico will suffer catastrophic economic loss with no hope of reimbursement.

A worst case scenario for WIPP probably would be closer to Love Canal than to Chernobyl--radiation would more likely seep into the soil than into the air. With radioactive waste in the ground water supply, farmers and ranchers would be faced with the decision whether to keep using the ground water or to sell out and move on. If they decide to continue using the contaminated ground water, they will find their crops and livestock at a decided disadvantage at market. In fact, consumer fears about tainted food could make the fruits of their labors unmarketable at any price.

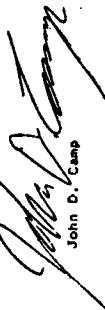
Under these conditions, the agricultural basis of our region's economy, based on ground water, would quickly collapse. What is the value of land that cannot produce goods that anyone will buy? And what is the value of a home located in such a place, where the economy is destroyed and the drinking water is suspect? To compound the damage, there would be little chance of reimbursement. Insurance companies generally exclude losses due to nuclear causes. Even if it were possible to buy property insurance against loss of market value, it would be unfair for us to pay for it. Why should we, the local residents, bear the risks of WIPP, which is a waste dump for the whole country?

There is nothing wrong with progress. Southeastern New Mexico should grow and prosper. However, people should live here by choice. People still live near Love Canal because their homes are unmarketable. I want people to live here because they prefer to, not because their property has lost all value and they can't afford to move.

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The Department of Energy is confident that nothing deadly will leak out of WIPP, and that the risk of medical, environmental, or economic danger is negligible. Nothing could demonstrate the depth of that confidence better than to set aside funds to reimburse us for losses caused by WIPP. It is true that property losses alone could total hundreds of millions of dollars, if not billions, but the odds of paying out these funds are no greater than the odds of WIPP causing them. The federal government could best demonstrate its confidence by putting its money where its nuclear waste is.

Sincerely,



John D. Camp

7.2.2

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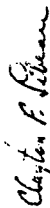
FOR THE OFFICIAL SEIS WIPP RECORD

DOE INFORMATION MEETING

ROSWELL, N.M.
JUNE 19, 1989

A "worst case" potential accident scenario in and around Roswell, New Mexico for Wipp shipments is underestimated. Based on average radioactivity of potential shipments from Rocky Flats, Colorado, DOE concludes that 1/1000 of the wastes released from Trupact II would have no detectable health effects. A "worst case" accident scenario should contain the higher concentration of radioactive wastes in potential shipments from Hanford, Oak Ridge and Savannah River. Two trucks traveling in opposite directions on Highway 287 have a potential collision impact in excess of 100 miles per hour. Collisions of this magnitude frequently cause explosions and fire that threaten public health and safety.

Clayton F. Libeau
802 Hall Drive
Roswell, New Mexico
Phone Number 505 625 2585



7.3.5.1-31

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Blawie!
 June 7, 1989
 Regarding shipment of nuclear waste
 over our highway! I would like to ask
 what criteria has been developed for
 strong drums for these transpoms? What a
 through back ground check? He made an
 all drums, and they do total for drums/poles
 and then after, and who will be responsible
 for the taking? What about vehicles carrying
 the transpoms?
 Regarding the WIPP site - It is my understanding
 that the mine is not a kind of space suit. The
 contents seems to be out of control which
 slowly but steadily keep things into the mine.
 While this is not new a problem due to
 ventilation, what will happen once the mine
 is sealed and there is no ventilation and the
 mine begins to fill with brine? What the
 gas and liquid from the wet waste drums
 long will it take the storage drums? How
 much the faster again?

Samirah Campbell
 P.O. Box 8128
 Roswell, NM 87002
 88-620-9015

772-6
 705-1
 785-2
 786-1
 714-9

7321-6

22-JUN-89: EX-00719, PAGE 31 OF 93

#2 Caye Drive
 Roswell, N. M.
 June 19, 1989

James Watkins
 Department of Energy
 Washington, D. C.

Dear Sir:

It is degrading to voice my WIPP concerns in a letter
 instead of in a forum which Roswell deserves (as proved by
 1200 signatures on our petition). In the absence of a pro-
 per forum, I list the following questions:

Nothing has happened about the by-pass Roswell was
 promised; what do you plan to do about the traffic
 that comes right through the middle of Roswell in its
 way to Carlsbad. Our city had an ordinance that
 prohibits heavy trucks through Roswell except for
 the hours of midnight through 6:00 A. M. Do your
 trucks wait north of town until the proper hour?
 Will you build them a huge ramp north of town for
 parking?

Tim Campbell (Westinghouse representative) stated that
 we would have training for first response. All the
 doctors, nurses, police, chemists will be trained
 before the September opening. When will this train-
 ing happen? Will you gather all these people in
 the football stadiums for a crash course in crash
 happening procedure?

Why have the tests on what brine does to metal have
 not been completed? I brine above and below hour
 storage site?

I ask, or rather plead, do not open the WIPP site for
 storage until the safety standards we were promised are in
 place. To do otherwise is complete folly. Why should we
 rush headlong to a September opening. There is no hurry.
 The waste is safer sitting right where it is. Also there
 should be no deadline; there is no competition. New Mexico
 is the only state in the U. S. who wants a dump site.

Yours truly,
 (Mr. Charles M. Lusk)

715.4-1

733-7

7129-1

511-1
772-61-3
31-3
41-1

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EL DOE HA FORMADO VARIOS COMPROMISOS
CON EL ESTADO DE MEXICO, OFRECIENDO
COOPERAR CON LOS DELEGADOS CONGRESIONALES
DE MEXICO.
PARA OBTENER FONDOS PARA LA REPARACION
DE LOS CAMINOS & DESVIOS (BYPASSES) QUE
SE NECESITAN EN CARRETERAS DE MUCHA
CONEXION
EL EQUIPO DE EMERGENCIA DE TIPO NUCLEAR
DEBE SER ADECUADAMENTE SEGURO.
HASTA LA FECHA SOLAMENTE UNA FRACCION
DE LOS FONDOS PROMETIDOS PARA LOS CAMINOS
HAN SIDO PAGADOS.
LOS ASPECTOS DE SEGURIDAD Y TRANSPORTE
DE "WIPP" SON EL PRIMER INTENES DE LA
SALUD Y BIENESTAR DELA GENTE DE MEXICO
NO DEJEN QUE ABANDEN EL WIPP, NISQUIERA
EN FORMA EXPERIMENTAL, HASTA QUE TODOS
LOS ASPECTOS DE "WIPP" ESTEN SEGUROS.
I EL PROYECTO ESTE DE ACUERDO CON LOS
REQUISITOS QUE REQUIERE LA LEY.

VILMA LONDON
2905 PRINCETON DRIVE
ROSWELL N. M 88201

9.12
7.15.41

1-3

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, N.M.
JUNE 19, 1989

"A. sala WIPP or no WIPP!"

The DOE has signed various agreements with the state of New Mexico, offering to cooperate with the New Mexico congressional delegation to secure funds for the purpose of roads repairs, bypasses around congested New Mexico cities, emergency nuclear-safety equipment, and adequate training of first-responders.

To date, only a fraction of the promised money for roads has been funded, the bypasses have not been built, New Mexico has not received all promised safety equipment, and first-responder and medical personnel have not been adequately trained.

These safety and transportation aspects of WIPP concern the public health.

Do not open WIPP, even experimentally, until all aspects of WIPP are safe and the project meets EPA standards as required by law!

I'm sorry I can't attend the meeting in Arksia for personal reasons, but I have written my Congressmen and they were kind to answer me. I am 100% behind the people who speak for WIPP.

VILMA LONDON 2905 PRINCETON DRIVE
(printed name, signature, street address, city, state, and phone number)

Vilma London

9.12
7.3.5

1-3

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

The draft SEIS assumes that waste packages will be totally reliable and predicts that releases in case of serious accidents would be virtually non-existent.

Given the likelihood of human error (one has only to think of the Alaskan oil spill) and mechanical failure during the 25 years of WIPP's operation, more serious accidents can potentially occur.

SEIS does not address "worst case" scenarios.

John D. Fawcett
(Printed name, signature, street address, city, state, and phone number)

26 W. KYRE ST
S47-5331

7.3.5-1
7.13.3-1
7.13.3-2

7.3.5-1
7.3.5-1-31
7.13.3-2

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

What is the extent of DOE's liability in the event of the radiation contamination of citizens and their homes and property?

My F. McPhee, III
103 Robina Drive

68501
(signature and address)

3.1-5

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

The SEIS lists plans for a MUPAC container to ship high level radioactive waste. Is this container now being manufactured? When will it be tested? What will be the test requirements?

John F. Hinkle
(signature and address)
26 W. Byron St.
347-5331

7.3.1.3-2

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

On 4 August 1987 DOE signed an agreement with New Mexico which says the DOE will assist New Mexico in obtaining federal money for highway construction. What action has the DOE taken in regard to this agreement and when will a bypass be built for Roswell?

James Patterson
(signature and address)
P.O. Box 607
Durbin, NM 88530

7.3.3-5
7.15.4-3

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

In case of area contamination through radiation leakage in transportation, what can the average person do to protect himself?

May Elizabeth Kline
(signature, street address, city, state, and phone number)
1606 Cottonwood
Roswell, N.M.
622-8296

7.3.5.4.3

7.12.9-1
7.12.9-2
7.12.9-5

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

In case of radiation leak and people contamination, what training has WIPP provided to Roswell's medical personnel? What equipment do our hospitals have which would contain radioactive "traces"? What can we do to avoid further contamination?

Rosali E. Truitt
(signature and address) 602 Broken Arrow
Roswell, NM 88201
505-623-2539

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, NM
 JUNE 21, 1989

What can the average citizen do to protect himself from contamination in case of a radioactive leakage? Does the DOE recommend private citizens having certain emergency equipment/supplies in his home to serve as protection from contamination?

Ann J. Patton 902 W. Matthews
 Roswell, N.M. 88201
 (printed name, signature, street address, city, state, and phone number)

7.15.4.4

5.1.2

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, NM
 JUNE 21, 1989

The Environmental Evaluation Group (EEG), a DOE funded group that acts independently of DOE, has stated that WIPP officials need to correct several problems.

Among these problems -- as stated by a senior engineer for EEG, James Channell (published in the *Albuquerque Journal* 5/25/89) -- is that the EEG found several errors in the mathematical calculations and several assumptions DOE has made.

What corrections to these errors has DOE/WIPP personnel made? How relevant to public safety are these errors? How secure can a public feel?

Do not open WIPP until all aspects of WIPP are safe.

Rae Thompson
 (printed name, signature, street address, city, state, and phone number)
 111 W. Matthews
 Roswell, N.M.
 88201

22-Jun-89: EX-00719, PAGE 42 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Let's use our money and scientific expertise to figure up how to clean up DOE facilities without causing severe national hazardous road safety problems by transporting nuclear waste thousands of miles across this country.

WIPP can store only 0.1 percent of the country's nuclear waste. What will we do with the other 99.9 percent?

Why isn't more money being put into scientific research on how to chemically neutralize radioactive material? Surely bright scientists can find some solution other than possibly contaminating the earth at WIPP and the air on route to WIPP in the event of a transportation accident.

Do not open WIPP until all aspects of WIPP are safe.

Dolores Ruc
(printed name, signature, street address, city, state, and phone number)

*Box 234
Roswell NM
88345*

9-2

2-2-1

9-3

1-3

7.3.3-1
7.3.3-5
7.15.4-3

1-3

22-Jun-89: EX-00719, PAGE 43 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Has every precaution been taken for transporting nuclear waste down our nation's many WIPP trails in general and New Mexico's in particular?

That our state does not have the promised road construction and promised by-passes for populated New Mexican areas is just ONE indication that DOE has not taken every safety precaution.

By transporting "hot trash" DOE is creating national hazardous conditions. Radioactive contamination does not stop at a single state's borders.

Do not open WIPP until our promised road construction is completed.

Do not open WIPP until ALL aspects of WIPP are safe.

P.O. Box 312

Roswell NM 88345

Ramona Chavez
(printed name, signature, street address, city, state, and phone number)

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Our first priority should be to stabilize wastes that are now leaking at DOE facilities and to make those facilities as leak-proof as possible for the future--not to open yet another leaking waste site at WIPP.

Do not open WIPP until it's safe!

Lawrence B. Logan
(printed name, signature, street address, city, state, and phone number)
111 W. Mathews
Roswell, NM 88201

5.2.1
5.2.2

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

SEIS does not justify the proposed administrative land withdrawal. It provides no adequate technical or legal basis to justify an administrative land withdrawal.

According to public notice the BLH intended to use SEIS and the DOE SEIS hearings as the basis for approving the land withdrawal application.

SEIS does not provide any detailed explanation of the basis for an administrative land withdrawal.

Land withdrawal to allow wastes to be brought to WIPP can be given only by Congress, so BLH should reject DOE's land withdrawal application.

With an administrative land withdrawal, federal funding for highway improvements and bypasses would be withdrawn. New Mexico's land should be given to WIPP only by an act of Congress.

Do not open WIPP until all aspects of WIPP are safe.

Lawrence B. Logan
(printed name, signature, street address, city, state, and phone number)
111 W. Mathews
Roswell, NM 88201

6.1-1

1-3

22-Jun-89: EX-00719, PAGE 46 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

TRUPACT containers have not been tested for the inner container becoming pressurized.

Since stresses on the container and leakage potential can increase with pressurization, tests with unpressurized containers will not replicate actual shipping conditions.

Additionally, the TRUPACTs will not be over-pressurized during testing to determine the consequences of accidents if pressures exceed 50 psi.

Has the TRUPACT truly been tested for safety? I think not!

Do not open WIPP until all aspects of WIPP are safe!
SEIS shows the TRUPACTs are safe.
Will this be safe? Don't know!
WIPP will eventually state how safe it is?

(Printed name, signature, street address, city, state, and phone number)

Do not open WIPP until shipping & storage will be safe without a doubt.

Jamie Grimes
312 Twin Diamond
Rock Rapids IA 58201

7.3.1.1-4
7.3.1.3
7.3.1.3.2
3.1.2

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Trucks carrying radioactive waste, whether OH TRU or RH TRU, need to carry alpha detecting monitors and geiger counters and the drivers need to be trained to frequently monitor for possible radioactive leakage.

Barbara Duce 1613 S. Ky
(signature and address)
Roswell, NM 88201

7.3.2.1-1
7.3.2.1-6

Z2-Jun-89: EX-00719, PAGE 49 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Provisions must be made for drivers to report unsafe transportation practices--including condition of vehicle, unsafe road conditions, and violation of safety standards--without fear of reprisal.

Ed. Lee Mittle - P.O. Box 5672
(signature and address) 207 Horton St.

Roswell, NM 88201

7.3.2.1-10

Z2-Jun-89: EX-00719, PAGE 48 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

States need to receive federally-funded monitoring equipment to test trucks carrying radioactive waste -- required at ports of entry. This would detect possible radioactive contamination along the various WIPP routes.

Maurine Anderson
(signature and address)

Rd. 2, 4010 A. bp. Loop
Roswell, NM
88201

7.3.2.1-1

22-Jun-89: EX-00719, PAGE 50 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, NM
 JUNE 21, 1989

An estimated 800 truckloads a year of nuclear waste means about two a day through Roswell. What distance does the DOE recommend the private driver to keep in order to avoid contamination in case of a leak from the truck?

Do not open WIPP until all aspects of WIPP are safe.

MARANDA FRANKS 607 E. 6TH Roswell
 (printed name, signature, street address, city, state, and phone number)

7.3.5.2.4

1-3

7.3.3-5

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22-Jun-89: EX-00719, PAGE 51 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, NM
 JUNE 21, 1989

DOE has agreed to assist the New Mexico in obtaining Congressional funding for improvement of highways determined by the State to be most in need of repair along designated WIPP transportation routes.

A total of 205.9 miles was identified in need of repair and upgrading.

Initially the cost was \$57,886,544, but later raised to \$98 million because of inflation.

The funding was to have been obtained during a four-year period commencing, ideally, four years prior to any waste being transported across the state. Road repairs are not completed.

Do not open WIPP until ALL aspects of WIPP are safe.

Raul Martinez
 (printed name, signature, street address, city, state, and phone number)

1114. E. 8th and Roswell N. M.

~~RAUL MARTINEZ~~ Raul Martinez

22-Jun-89: EX-00719, PAGE 52 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, NM
 JUNE 21, 1989

The SEIS report concentrates on WIPP as the "solution" to the containment of nuclear waste. Why isn't federal money also going into research to see if there are other solutions for handling our nation's nuclear waste problem?

Do not open WIPP until all aspects of WIPP are safe.

Billy E. Leos

(printed name, signature, street address, city, state, and phone number)

110 E. Bonney
 Roswell, N.M.

Billy E. Leos

3.6-1

1-3

22-Jun-89: EX-00719, PAGE 53 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, NM
 JUNE 21, 1989

DOE should demonstrate that the WIPP can comply with EPA safety standards (40 CFR 191). Waste receipt at WIPP should not begin until DOE has demonstrated and EPA has certified that the WIPP can comply with EPA standards.

Do not open WIPP until all aspects of WIPP are safe.

Jose A. Radermacher

(printed name, signature, street address, city, state, and phone number)

1705 W. MICHIGAN

ROSWELL, NM

3.1-3

1-3

22-Jun-89: EX-00719, PAGE 54 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Many car accidents involve crushing. Why haven't TRUPACs been tested for crushing?

Do not open WIPP until ALL aspects of WIPP are safe.

Sidney Zink
SIDNEY FOSTER 1609 W POKTALE ROSWELL NM 622-1452
(printed name, signature, street address, city, state, and phone number)

7.3.1.1-9

1-3

22-Jun-89: EX-00719, PAGE 55 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Contracted drivers must be licensed and experienced in transporting nuclear waste. Drivers must be subject to random drug and alcohol testing.

Shelley American 1600 S Kentucky Ave
(signature and address) Roswell, NM 88201

7.3.2.1-6

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Have TRUPACs been tested for being waterproof in case an accident occurs near water?

Do NOT open WIPP until all aspects of WIPP are safe.

Concha Quiroz / Concha Quiroz
(printed name, signature, street address, city, state, and phone number)
916 E Lewis
ROSWELL, NEW MEXICO

7.3.1.1-12

1-3

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

DOE had stated April 21, 1989 (54 Federal Register) that "the filling of available storage capacity for radioactive waste at certain sites may hamper defense production operations vital to national security."

SEIS has not explained the supposed "national security" implications if WIPP does not open in September. Will these "implications" supersede safety measures which need to be taken?

Do NOT open WIPP until all aspects of WIPP are safe.

Rosie Contreras / Rosie Contreras
(printed name, signature, street address, city, state, and phone number)
2905 E. Fenitland, Roswell, New Mexico 80503-0310

3.1-4

1-3

22-Jun-89: EX-00719, PAGE 58 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

The creep rate of non-heated salt at WIPP is three times higher than predicted and the fracturing under the floor of experimental rooms is also greater than anticipated.

The scientists at the Environmental Evaluation Group have acknowledged the projected geomechanical behavior of salt at WIPP may make the retrieval of high level wastes from WIPP more complex and potentially more hazardous than originally anticipated.

Therefore, NO high level waste should be stored at WIPP.

DO NOT OPEN WIPP UNTIL ALL ASPECTS OF WIPP ARE SAFE.

Robert L. Lustig
(printed name, signature, street address, city, state, and phone number)
2005 C. Fruitland Roswell, N.M. 87203

5.1-2

1-3

22-Jun-89: EX-00719, PAGE 59 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

DOE has not stated whether it will abide by the Roswell Ordinance--restricting the transportation of nuclear waste through town during the hours of midnight and 6AM.

Why not?

DO NOT OPEN WIPP UNTIL ALL ASPECTS OF WIPP ARE SAFE.

Corina E. D'Amico
(printed name, signature, street address, city, state, and phone number)
1207 W. Hobbs
Roswell, nm 85201

7.3.3-7

1-3

22-Jun-89: EX-00719, PAGE 60 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

99.9 percent of our nation's nuclear waste will NOT come to WIPP. What does DOE plan to do with the remainder?

Why has DOE spent \$700 million on a facility which does not seem safe and why has DOE made promises to help secure funds for the construction of better roads to transport nuclear waste across the nation -- and not been encouraging/funding more research for finding a solution to handle our nation's nuclear waste?

Not only is WIPP not ready to open, but the DOE seems to be doing a damn poor job in attacking our nation's nuclear waste problem.

The SEIS report -- neglecting to include such local concerns as a Roswell bypass and the hazardous road conditions from Vaughn and Cline's Corners--- indicates that even SEIS is incomplete and wasting taxpayers' money.

Do we have to turn our waste technology over to the Japanese?

Do not open WIPP until all aspects of WIPP are safe.

Heidi E. Barker
Heidi E. Barker: 414 E 23rd, Roswell, NM, 625.1227
(printed name, signature, street address, city, state, and phone number)

2.2-1
5.3-1

7.3.2.1
7.3.3.1-14
7.15.4.3

1-3

22-Jun-89: EX-00719, PAGE 61 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

The SEIS report indicates that WIPP must be opened in order to experiment with waste in salt. Why hasn't the DOE, during these ten years of planning WIPP, been experimenting under controlled laboratory conditions without endangering the aquifer in the WIPP area?

Do not open WIPP until all aspects of WIPP are safe.

Stacy E. Barker 414 E. 23rd Roswell, NM
(printed name, signature, street address, city, state, and phone number)

Stacy E. Barker

7.11-4

1-3

22-Jun-89: EX-00719, PAGE 62 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Certain sections of the WIPP trail are through highly intensive agricultural areas. Has DOE addressed the effects of a radiation leak on livestock, crops, and agricultural products such as milk, wool, alfalfa, and cotton? What provisions has DOE made in case of an accident involving leakage in these areas?

Do not open WIPP until all aspects of WIPP are safe.

Rachel Thompson
(signature and address)
111 W. HATFIELD
ROSWELL, NM 88201

7.3.5.1-31
7.3.5.1-35
7.3.5.4-4

1-3

22-Jun-89: EX-00719, PAGE 63 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

WIPP is not ready to open!

The promised highway improvements and by-passes around population centers have not been completed.

Do not open WIPP until road construction is completed. Where's Roswell's promised by-pass?

Do not open WIPP until all aspects of WIPP are safe.

Virginia Silva
(printed name, signature, street address, city, state, and phone number)
Virginia Silva

7.15.4-1

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22-Jun-89: EX-00719, PAGE 64 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

WIPP is not ready to open in September

DOE does not meet all Environmental Protection Agency standards. These are the major federal safety standards.

Do not emplace waste at WIPP until it meets all EPA standards!

Do not open WIPP until all aspects of WIPP are safe.

(printed name, signature, street address, city, state, and phone number)

Allene Hardcastle *Allene Hardcastle*
104 S. Kansas
Roswell N.M.
88201

3-1-3

1-3

22-Jun-89: EX-00719, PAGE 65 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

New Mexico should be a state that grows, not glows!

Until all promised road construction, including the promised by-passes in populated areas, is complete, WIPP should not open.

Why should trucks bound for WIPP travel through the center of town?

What an accident occurs? Will WIPP and DOE compensate shop owners and the entire city for its lost economy?

Do not open WIPP until transportation of nuclear waste can be safe and can travel NOT through the center of town!

Do not open WIPP until all aspects of WIPP are safe.

(printed name, signature, street address, city, state, and phone number)

TERESA Smith *Teresa Smith*
400 E. Forest
Roswell, N.M.
88201

7-3-3-5
7-15-4-1

1-3

22-Jun-89: EX-00719, PAGE 66 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Since 1985, the International Atomic Energy Agency has required waste shipping containers to withstand a dynamic crush test. DOE has not done a crush test on TRUPACTs.

Has the TRUPACT truly been tested for safety? I think not!

Do not open WIPP until all aspects of WIPP are safe!

LOREN K. M. SCARVAGE
(printed name, signature, street address, city, state, and phone number)
Lorena K. Scarvage
2205 Carver Hwy.
Roswell, N. Mex. 88201 (602-0399)

7.3.1.1-9

1-3

22-Jun-89: EX-00719, PAGE 67 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

At least 60% of the radioactive waste destined for WIPP is co-contaminated with hazardous wastes. These "mixed wastes" are subject to regulation under the Resource Conservation and Recovery Act--ensuring that waste is properly handled from its generation to its disposal. The process of complying with RCRA at WIPP involves completing an inventory of the hazardous constituents in the WIPP wastes, obtaining a permit from EPA or state government to receive these wastes at WIPP, and treating the wastes prior to placement in WIPP.

Will DOE comply with the RCRA?

Do NOT open WIPP until all aspects of WIPP are safe.

(printed name, signature, street address, city, state, and phone number)
Lisa Smith
309 E. 4th Street
Roswell, N. M. 88201
Lisa Smith

3.7-1

1-3

22-Jun-89: EX-00719, PAGE 68 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

DOE does not have a Nuclear Regulatory Commission-certified shipping container for the higher radioactivity "remote handled" wastes coming to WIPP. SEIS shows designs -- but will the container prove safe?

How safe is the TRUPAC -- since it failed two of the four tests it underwent? Why was it not tested for collision and lightning?

Do NOT claim WIPP until all aspects of it are safe.

Susie Welch Roswell
(printed name, signature, street address, city, state, and phone number)
GARY GARCIA, Rt 3 Box 3309 Roswell, NM 88201-6206
Brinda Apudaca 501 W. Street Roswell, NM 88201
Daniel Gendron 1901 S. Sunset Roswell, NM 88201
Bryan Gendron 1206 S. Main Roswell, NM 88201
FELIX PADILLA 411 E VAN BUREN ROSWELL NM 88201
Beverly Long 1515 S. Sunset
Mary Vaid 336 E. Highway Roswell NM.

7.3.1.3.2
7.3.1.3.1
7.3.1.3.3
7.3.1.1.1
7.3.1.1.2
1.3
7.3.4.1.1

22-Jun-89: EX-00719, PAGE 69 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

What emergency plans does DOE have to contain waste in case of a transportation accident during a windstorm? If the TRUPACs have not been tested for being "crushproof," what if a collision takes place, the container crushed, and "light" radioactive items exposed to New Mexico's strong winds?

Christine Goodhue
(printed name, signature, street address, city, state, and phone number)
Christine Goodhue
3005 B. N. Grand
Roswell NM 88201
(505) 623-2707

7.12.9-7

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Do not open WIPP until all aspects of WIPP are safe.
WIPP needs to be experimentally verified by INDEPENDENT scientists, not
employed by Westinghouse. Otherwise, it is not an objective experiment.

Albert M. Davis

(printed name, signature, street address, city, state, and phone number)

1615 W. 4th St.

ROSWELL

N.M. 88201

1-3
3.1-6

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

New Mexico is a state with the highest fatality rate from lightning. Have
TRUPACs been tested for lightning strikes?

Kathryn Hannigan

(printed name, signature, street address, city, state, and phone number)

1200 BAYLOR DR

ROSWELL, N.M. 88201

7.3.1.1-18

22-Jun-89: EX-00719, PAGE 72 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING

ROSWELL, NM
JUNE 21, 1989

Waste should not be shipped to WIPP until emergency responders are adequately trained and equipped to deal with accidents. What equipment has the DOE supplied to emergency personnel along the WIPP Trail, especially in the Roswell area?

James B. Cherry
(Signature and address)
401.50 Pine Row Rd

7.12.9-1
7.12.9-5

22-Jun-89: EX-00719, PAGE 73 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING

ROSWELL, NM
JUNE 21, 1989

If an average citizen witnesses a road accident involving a WIPP truck, what should he do? Whom should he call? How could he help the drivers without fear of contamination?

DO NOT OPEN WIPP TRUCK ALL ASPECTS OF WIPP ARE SAFE.

Roswell
Roswell, NM
(Printed name, signature, street address, city, state, and phone number)
Roswell

7.12.9-1

1-3

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

WIPP must never store high-level and commercial waste. This is contrary to DOE agreements with the state. Therefore, the WIPP site must not conduct high level waste experiments which might lead to storage of waste more dangerous than the spread-upon transuranic military waste.

Do not open WIPP until all aspects of WIPP are safe.

Isabel Lopez
(printed name, signature, street address, city, state, and phone number)

111 W. Matheson

Roswell, NM 88201

5.1-2

1-3

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

Our first priority should be to stabilize wastes that are now leaking at DOE facilities and to make those facilities as leak-proof as possible for the future—not to open yet another leaking waste site at WIPP.

Do NOT open WIPP until all aspects of WIPP are safe.

Isabel Lopez
(printed name, signature, street address, city, state, and phone number)

Isabel

Box 627

Roswell NM

88201

5.2-1
5.2-2

1-3

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

During the many years WIPP has been under development, there has never been previously any mention of national security implications to WIPP not opening by a certain date.

Yet at the December 1988 meeting with the governors of Idaho, Colorado, and New Mexico, DOE officials apparently tried to convince the governors that national security issues were involved of Gov. Andrus maintained his ban on RFP shipments.

If a delay in the opening of WIPP would create national security problems, DOE must detail and evaluate the alternatives to address that concern in SEIS.

FINLAY Lyndean B 260 BYRNES ROSWELL
(printed name, signature, street address, city, state, and phone number) 347-5-331

3.1-4

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

What is the extent of DOE's liability in the event of the contamination of livestock and crops in agricultural areas?

Joseph De Benedicis 103 Robene Dr.
(signature and address)

3.1-5

22-Jun-89; EX-00719, PAGE 78 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

The proposed high level waste experiments at WIPP should be eliminated.

The experiments will add unnecessary danger both on and off site. They are a waste of the taxpayers' money since the data that would be gathered, according to DOE's own internal documents, is no longer necessary.

Our increased knowledge of the geologic and hydrologic characteristics at the site raises serious questions that these experiments may pose greater risk than originally anticipated.

If --without a doubt -- the WIPP site is proven safe, then it should be used only for permanent disposal of transuranic military waste, as originally intended.

High level waste experiments should be banned from WIPP.
DO NOT OPEN WIPP UNTIL ALL ASPECTS OF WIPP ARE SAFE.

NORMA J. DUEA 401 N MISSOURI AV, ROSWELL, NM
(printed name, signature, street address, city, state, and phone number) 623-9913

*Wipp needs to do experiments designed
by independent scientists, not
employed by Westinghouse.*

5.1-2

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3.1-6

22-Jun-89; EX-00719, PAGE 79 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

The SEIS reports lists possible hazardous road conditions in New Mexico on I 40. It does not mention the highways from Chino Corners to Carlsbad. DOE needs to address the frequent traffic tie-ups occurring along this road due to snow and blizzards.

Robert H. Hughes 2504 W. Gungahlin
(signature and address) Roswell, N. Mex.

7.3.3.1-14

22-Jun-89: EX-00719, PAGE 80 OF 93

*For the official
SEIS-WIPP record*

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

With the opening of Wipp scheduled for September, 1989 and no bypass around the City of Roswell, waste-laden trucks must come through Main Street. Will DOE comply with the Roswell ordinance to limit this traffic to the hours between 12 midnight and 6 a.m.?

Clifford Amador
(signature and address)
1511 S. 1st Ave
Roswell, NM 88201

7.15.4-1

7.35.4-3
7.12.9-1

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*For the official
SEIS-WIPP record*

DOE INFORMATION MEETING
ROSWELL, NM
JUNE 21, 1989

In the event of a radiation leak from transported containers, what measures can individuals take to protect themselves for possible radiation?

Clifford Amador
(signature and address)
RA 4 300 INTER RD.
ROSWELL, NM 88201

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, NM
 JUNE 24, 1989

The DOE agreed that it would work with the New Mexico Congressional delegation to seek an appropriation from Congress of \$190 million (1987 dollars) for construction of six bypasses around New Mexico's larger population areas. The DOE was to start its "good faith" effort to obtain these funds from Congress after signing the 1987 agreement.

Where are these funds? Where are these bypasses? When can Roswell expect its promised bypass? What actions has DOE taken to ensure money for our bypass?

The promised bypass routes need to be completed BEFORE trucks begin driving radioactive waste to WIPP.

Jean R. Libeau

(printed name, signature, street address, city, state, and phone number)

802 Hall Dr.
 Roswell, NM 85201
 (505) 625-2585

Do not open WIPP until the area is SAFE.

7.15.4-3

1-3

22-Jun-89: EX-00719, PAGE 83 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, N.M.
 JUNE 19, 1989

"A safe WIPP or no WIPP"

The DOE has signed various agreements with the state of New Mexico, offering to cooperate with the New Mexico congressional delegation to secure funds for the purpose of roads repairs, bypasses around congested New Mexico cities, emergency nuclear-safety equipment, and adequate training of first-responders.

To date, only a fraction of the promised money for roads has been funded, the bypasses have not been built, New Mexico has not received all promised safety equipment, and first-responder and medical personnel have not been adequately trained.

These safety and transportation aspects of WIPP concern the public health.

Do not open WIPP, even experimentally, until all aspects of WIPP are safe and the project meets EPA standards as required by law!

The need for the promised highway by-pass cannot be emphasized enough!

JEANNE M. KUNKO
 1601 S. KENTUCKY
 ROSWELL, N.M. 88201
 622-7546

Jeanne M. Kunko

(printed name, signature, street address, city, state, and phone number)

2.1.2
7.3.5

1-3

7.15.4-3

22-Jun-89: EX-00719, PAGE 84 OF 93

For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, N.M.
 JUNE 19, 1989

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Amelia Poma

(printed name, signature, street address, city, state, and phone number)

Amelia Poma
 705 Hemick
 Roswell NM
 623-5335

*The bypass has been long
 Promised. To bad it is still
 being discussed. We need
 it WIPP or not.*

3.1-2
7.3.3-5

1-3

7.15.4.3

22-Jun-89: EX-00719, PAGE 85 OF 93

For the Official SEIS WIPP Record

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 ROSWELL, N.M.
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I agree with the above.

Hazel M. Hemento

(printed name, signature, street address, city, state, and phone number)

Hazel M. Hemento
 1213 So. Sunset, Roswell, N.M.

3.1-2
7.3.3-5

1-3

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
 ROSWELL, N.M.
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PAUL L. PERKINS
 P.O. Box 605
 Roswell, NM 89022

[Signature]
 (printed name, signature, street address, city, state, and phone number)

3.1-2
7.3.3-5

1-3

22-Jun-89: EX-00719, PAGE 87 OF 93

For the Official SEIS WIPP Record

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 JUNE 19, 1989

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LYNETTE HEINRICH - 1202 BAYVIEW - Roswell, N. Mexico
 (printed name, signature, street address, city, state, and phone number)
[Signature]

3.1-2
7.3.3-5

1-3

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Andres R. Balderama
(printed name, signature, street address, city, state, and phone number)
Andres R. Balderama
612-Tierra Bonanda
Russell NM 83211

3.1-2
7.3.3-5

1.3

DOE INFORMATION MEETING
ROSSELL, N.M.
JUNE 19, 1989

A safe WIPP or no WIPP?

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[Signature] **Greg Thornton** 705 S. Winney, Boston, 623-1493
(printed name, signature, street address, city, state, and phone number)

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For the Official SEIS WIPP Record

DOE INFORMATION MEETING
ROSWELL, N.M.
JUNE 19, 1989

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Violet Tigotsch
(printed name, signature, street address, city, state, and phone number)
Violet Tigotsch
1420 E 71st Ave
Roswell, NM 88201

3.1-2
7.3.3-5

1-3

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For the Official SEIS WIPP Record

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Patty Thornton
703 S. Kentucky
Roswell, NM 88201
505-422-1423

Patty Thornton
(printed name, signature, street address, city, state, and phone number)

3.1-2
7.3.3-5

1-3

22-Jun-89: EX-00719, PAGE 92 OF 93
For the Official SEIS WIPP Record

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James H. Montgomery
James H. Montgomery 3103 Alhambra, Roswell, NM 88201
(printed name, signature, street address, city, state, and phone number)

3.1.2
7.3.5.5

1-3

22-Jun-89: EX-00719, PAGE 93 OF 93
For the Official SEIS WIPP Record

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* Finally, the possibilities of human error -- from the first driving to the handling of materials -- is too frightening to accept. The long drive to and from sites is ripe for accidents. I don't want trucks to be put by the back of the line. Even the pizza people are going to drive the within 30-minute delivery. Since that only guaranteed safety driving and accidents. I'll be happy you'll

(printed name, signature, street address, city, state, & phone)
Kathy L. Bourandas
Kathy L. Bourandas
Success and that the drivers and other workers tell my how often they're being treated. Tell me about emergency plans.

1505 N. Washington Ave.
Roswell, N.M. 88201
623-9539

3.1.2
7.3.5.5

1-3

7.3.5.1

DOE-WIPP-SEIS Hearing
June 22, 1989

My name is Darlene Logan. I am a Compadre for Safe WIPP, a citizens' group in Roswell.

I state now I am not an opponent of nuclear use, but I do regard it as one of the gravest discoveries and now responsibilities of man.

Some people compare man's active involvement with things nuclear as the "Great Genie in the Bottle - now released." I also see an aspect of nuclear usage as that horse left on the Trojan plains, outside the great city of ancient Troy: a seeming victory of man's achievement, but with the potential to bring down not just our civilization, but also our entire planet.

Thus, with this awesome knowledge of nuclear power, man has the awesome responsibility to use it carefully and to dispose of its waste in a responsible manner.

A few weeks ago Congressman Skeen wrote a letter to the Compadres, explaining why he arranged the DOE hold today's public hearing in Artesia instead of Roswell. He wrote "WIPP is a complicated and involved issue." I agree with him on that one.

However, the congressman and I disagree in that he also wrote "as the public is fully informed with the facts about this project, the more acceptance there will be for WIPP to move forward." This statement I find hauntingly reminiscent of the subtitle to the movie "Dr. Strangelove": "How I Learned to Love the Bomb."

For I find that the more I study and read and discuss and listen to "experts" on WIPP - particularly those "independent" experts not employed by Westinghouse - about the many aspects of WIPP, the more I find myself condemning the entire WIPP project as an irresponsible endeavor.

I need not elaborate on those aspects, for you will have received page after page of testimony on problems with the site itself and with the transportation of the waste across twenty states.

1-2

If I had read a novel twenty-five or thirty years ago - around the time Americans were reacting to the "Russian bomb scare" by building bomb shelters in their back yards - with the premise that a country once so fearful of a communist nuclear attack would one day be trucking across twenty of its own states truckload after truckload of nuclear waste, I would have thought the author of such a book to be the author of unbelievable science fiction.

What was it the little comic character Pogo once said? "We have seen the enemy and it is us."

I am here today to ask the Department of Energy - a servant of the people and not, I pray, our enemy - not to open WIPP, even experimentally. I request you and our elected public officials put our money into solid scientific research which can, given the chance, discover safer, more responsible ways of dealing with radioactive waste - not just for our immediate safety, but for the safety of all life on our planet for thousands of years to come.

To support my plea, I call to mind the documentation and testimony of independent scientists and experts who have testified and reported at various hearings throughout the United States that WIPP is not safe.

But if the reports of these scientists and the pleas of common people like myself are as ineffective as Cassandra's warning to the leaders of Troy not to drag the horse across the plains and not to bring it into the city; if, in effect, WIPP does open and nuclear waste is transported across our nation, I ask, with countless others - including over 1200 Roswell citizens who signed statements - we ask you that WIPP comply with all EPA standards.

I also ask the DOE not to hold the state of New Mexico hostage with the Legislative Land Withdrawal Bill, a "catch 22" bill for it seems to be New Mexico's only chance to obtain rightful compensation necessary for promised road repairs and bypasses. The "catch," however, is that the bill gives you our land before DOE has demonstrated that WIPP will comply with EPA standards.

1-2

3.1-3

6.1-1

I am here today to plead that DOE comply with every safety measure possible, even those not "prescribed by law." And I state now two specific safety measures not addressed in SEIS:

WIPP safety -- something Westinghouse has publically stated it prides itself on -- implies site safety as well as transportation safety.

Since employees at Westinghouse are mostly non-union and since the truck drivers are also non-union, these "unprotected" workers need to know that if they report safety violations or have suggestions for better safety practices they will be rewarded or at least commended and not fired for their "whistle blowing." (I cannot imagine Rocky Flats doing what it has done if employees had not been fearful of losing their jobs.)

Gentleman, I would thank you for this opportunity to speak up about WIPP, but this is my right.

More. this is my responsibility.

And we pray to God you do yours.

For yours is the tremendous responsibility of finding solutions to the awesome problems as well as the blessings man has brought upon himself and the entire planet when he discovered how to release nuclear power.

Please keep an open mind as you consider the hundreds of testimonies presented by independent scientists.

Let us not be doomed Cassandra. Let you not be our enemy.

Darlene L. Logan
Darlene L. Logan
111 West Mathews
Roswell, NM 88201

More, included. These questions in the
updated 5E's and answers. Thank you. 2019

QUESTIONS FOR CONSIDERATION AT THE DOE QUESTION-ANSWER SESSION IN ROSWELL: June 19, Monday, ENMU-R, Performance Arts Center

Department of Energy

1. According to the June 12, 1989 statement of the deputy director of the Environmental Protection Service (EPS), Lelchuk Chervinskii, to the Environmental, Energy and Natural Resources Subcommittee in the U.S. House of Representatives, the EEO — a group of environmental scientists — states that "the data in this document is incomplete and inconsistent both internally and when compared with other DOE documents.... The WPPF facility is not yet ready to start receiving radioactive wastes." If scientists are not sure that WPPF is not yet ready to accept, what does DOE believe is there? And if DOE will not claim to be certain, perhaps, how can a concerned public suspect the DOE to pay any attention to our concerns?
2. Given the thousands of Russia's DOE's (DOEs) Reactivity Field — an unacknowledged record — specifically near the right of the recent happenings of Nukulya Field — why does the DOE even not consider the need to demonstrate that WPPF can comply with Environmental Protection Agency (EPA) safety standards? (4/9/1977)
3. Can the DOE openly say WPPF should receive any radioactive waste until it complies with these standards?
4. At least 60% of the radioactive waste destined for WPPF is co-contaminated with hazardous wastes. These "mixed wastes" are subject to regulation under the Resource Conservation and Recovery Act (RCRA) and are subject to regulation under the Atomic Energy Act (AEA). The DOE is not permitted to place these wastes in WPPF until they are removed from the RCRA AEA — considering an inventory of the hazardous contaminants in the WPPF wastes, obtaining a permit from EPA and the state government, to receive these wastes, and treating the waste to reduce toxicity, leachability, and corrosivity.

WIPP Site

1. If WPP data upon in 1989 and if at the end of the five-year-testing years (or sooner), WPP is to be used in operation experimentally, the DOE finds WPP unsuitable for sludge incineration waste, solid incineration waste, and low-level radioactive waste. DOE made sure to ensure the waste can be processed safely? Where will that waste then be transported? What alternate plan has DOE developed?

Research

- [illegible]

5. If WPP is truly a "gold plant," and the DOE wants to run tests to order to judge whether WPP is a reliable waste site, why did the DOE not, ISS experimental (IIR) instead of the 38 and 100, as recommended by EPA? And why, in the DOE's view, did the State ever agree to a recommended WPP reactive ISS experimental waste instead of only 38?

6. Since WPP has held only 0.1% of our nation's nuclear waste, what other methods of storage is DOE developing? (Or does it plan to build another 999 WPPs across the USA?)

7. WPP has cost the taxpayers over \$700 million. This is a "gold plant," something DOE cannot be sure will even work, something that certainly jeopardizes the active nation since nuclear waste is WPP will cost twenty dollars. What kind of money is the DOE putting into research for other means of handling nuclear waste? For example, one scientist in Los Alamos has discovered a substance that can safely "neutralize" WPP. Is the DOE funding this kind of research which might find a way to "neutralize" radioactive waste on site?

DOE Liability

1. In a "worst case" scenario — in case of a WPP truck accident or even leakage and the land, cells, property, human life, etc., are all contaminated — what kind of monetary compensation will the government/DOE pay its citizens? Would this payment be immediate or would survivors have to live lawyers?

Site Workers

1. What guarantees do the WPP workers in Carlsbad have they will not be fired, but rather compensated or even given bonuses, if they report safety violations or safety hazards of the WPP site?

2. Why is the DOE-WPP fearful of hiring union workers at the WPP site?

3. What medical services will Carlsbad WPP workers receive? Has DOE conducted baseline cancer studies on these workers or in the city of Carlsbad? What provisions will DOE-WPP make if the number of cancer deaths or cases increase?

Public Health/Medical Training

The all still in Alaska occurred after 20,000 shipments. Neither Alaska nor Exxon was prepared to respond to that catastrophe. However, New Mexico, behind all 20 states through which the WPP trucks will travel do not want to be in an ill-prepared

1. Why hasn't the Roswell community received serious emergency medical training?

2. List specific ways medical personnel at St. Mary's and Eastern New Mexico Medical Center have been trained and equipped to handle contaminated persons?

3. List the ways individuals can protect themselves in case of a radiation leak or accident. Are protective garments required? What are they? What are purchase these garments or will DOE provide them?

4. What specific equipment and training have the first-responders of the city of Roswell received?

5. Are the taxpayers of Roswell now locally responsible for maintaining, repairing, and replacing that equipment?

6. Who are Roswell's first-responders? When should Roswell citizens call in case of a WPP truck accident or leak?

7. Are the other 19 states along the WPP route as ill-prepared to handle a radiation accident or leak as is New Mexico?

7.14-5.1

2.3.1
5.3-13.1.5
7.3.2.1-2
7.3.2.1-6
7.12.9-11

7.12.8-1

7.12.8-1
9-17.12.8-1
7.12.10-17.12.9-1
7.12.9-2
7.12.9-3
7.12.9-5
7.12.9-7

8. Has the DOE conducted baseline cancer studies of citizens along the thousands of miles of WPP trail? If WPP does open in 1989 and if in 1990 the DOE finds an increase in cancer rates, would that be sufficient cause to close WPP?

Transportation

1. What assurance does the public have that truck drivers are licensed from losing their jobs if they are critical of any safety aspect or safety violations of the waste transportation operations?

2. Why won't each truck carry radiation-detection devices in order for drivers to check periodically for leaks?

3. What will be the procedures if a leak is detected? When will they notify? What will be done on the open road to stop contamination?

4. Since the distance each WPP-based truck must travel, how often will drivers check for possible radiation leakage?

5. What state or local radiation-detection tests can be conducted on WPP-based trucks? Do they have the authority to stop trucks and test for leakage before they enter a town or state?

6. What recourse do states or cities have if they detect radiation leaks? What procedures do they follow for impounding the trucks? How can they safely impound a contaminated truck?

7. What warning signs will WPP-based trucks carry to alert others to be extra careful?

8. How will those warning signs be seen at night or in a rain or snow storm?

DOE-promised Road Repair and Bypasses

1. The SES report makes no mention of the hazardous weather road conditions around Vaughn and Chinle Canyons. Every vehicle truck is held up in that area, for hours if not days. Are you not aware of the worst road condition? Why did the report not include warnings about these roads?

2. How many other states have equally treacherous roads on which the WPP-based trucks must travel?

3. Why does the SES report mention Santa Fe's promised bypass, but not Roswell's?

4. Will DOE-WPP trucks abide by Roswell's Ordinance No. 1187 and NOT drive trucks through town except during midnight-6A.M.?

5. Since DOE has been working on WPP for ten years, why haven't New Mexico's bypasses been built BEFORE the shipment of radioactive waste begins?

6. Whose idea was it to put Roswell's bypass on the west side of town? After all, the west flows from the west and if a truck had an accident there, it would contaminate the entire town.

7. Why does the DOE scare local officials about the Land Withdrawal Bill — claiming that if it doesn't pass in this session of Congress, then New Mexico won't get money for roads, etc. Explain why the DOE feels it should be automatically given our land before it proves without a doubt that WPP is safe and will comply with EPA standards.

TruPact and NUPAC: Containers for Transporting Waste

1. What is the estimated date the TruPact will be approved by the Nuclear Regulatory System?

7.12.10-1

7.3.2.1-1
7.3.2.1-107.3.2.1-4
7.3.2.1-10

7.15.4-1

7.3.3-7

7.15.4-1

6.1-1

7.3.1-2

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2. Will you stop nuclear waste in those before they are approved?	7.3.1-2
3. Given the high rate of collision accidents, especially in New Mexico where collision accidents caused by drunk drivers is alarmingly high, why hasn't DOE funded the Traffic for "dynamic crash tests"?	7.3.1.1-9 7.3.1.1-18 7.3.4-2
4. Given the tremendous number of lightning strikes in New Mexico (3317 lightning strikes landing the ground during a 4 hour period in southeastern New Mexico, as reported by the SLT on June 8, 1989) -- why hasn't DOE funded tests for lightning?	7.3.1.3-2
5. What is the purpose of the SES-disposed MUPAC? There are 120 inches long by 26 inches in diameter. Why the different configuration from TSPACT? Are they designed to carry drums? If so, how are the drums to be released?	7.3.1.1-2
6. How many MUPACs will be transported per truck?	5.2-1 5.2-2
7. Will MUPAC eventually be used to carry plutonium rods?	7.3.5-1 7.13.3-1 7.13.3-2
8. How can the DOE claim Traffic is safe when they've failed two of the four tests?	3.2-1 5.3-1
Miscellaneous 1. Our first priority should be to stabilize wastes that are now leaking at DOE facilities and to make those facilities as leak-proof as possible for the future -- not to open another leaking site at WIPP. What is the DOE doing to clean up other waste sites that are contaminating the environment around the United States? 2. The draft SES consensus that waste packages will be totally reliable and predicts that releases in case of serious accidents would be virtually non-existent. Given the likelihood of human error (see last entry in list of the Allocation of split) and mechanical failures during the 25 years of WIPP's operation, how serious accidents can occur? If DOE is truly becoming more "safety conscious," why doesn't DOE-SES anticipate "worst case" scenarios in SES and be prepared? 3. At a December 1988 meeting with members of Idaho, Colorado, and New Mexico, DOE officials reportedly told us that DOE would not accept the fact that nuclear waste is not leak-proof. If the DOE would not accept the fact that nuclear waste is not leak-proof, if a delay in the opening of WIPP would create national security problems, why hasn't the DOE dealt and evaluate the alternatives to address the concerns in SES. 4. Again ... If scientists -- EXPERTS -- state that WIPP is not ready to open and DOE seems not ready to listen to them, how can we, the common people, expect the DOE to pay any attention to our concerns? Please! Do not open WIPP until all aspects of WIPP are safe and WIPP can comply with EPA standards. Questions taken from Rosewell citizens' statements to the DOE-SES. Southeastern Compadres for Safe WIPP 622-1669	
1-3	

Name
Description

City Council
Facility, funded over 50 years

Observed process that resulted in facility establishing WIPP facility, from the inception

I believe I am typical of Ciudad Juarez, and the attitude process, which expected each opinion was made to locate WIPP project near Ciudad Juarez

1. Participation that project would have reality
2. Participation about safety, future and quality of design
3. Determination of information by DOE
4. But ultimately for safe storage of waste
5. Opportunity to learn our country by helping to solve a serious problem with nuclear waste
6. Acceptance, with confidence

Refer to recent discussion with citizens

My only serious difference with process has been the thinking DOE to arrange for the land without before WIPP was built.
I have come to believe that without opinion to be a thing was not ended by confident and assumption.

During the planning and early development phase of WIPP, there was a national and world-wide awareness that a new source of energy must be developed.

President Jimmy Carter, during his administration, encouraged the energy strategy at that time; the equivalent of now.

During that era, nuclear energy was recognized as a viable, although complex alternative to fossil fuel energy.

I have also recognized that nuclear power is also necessary to maintain a strong military posture in our relationship with other world powers.

As a result of this awareness, during that time, I am confident that even though WIPP was not designed nor planned for nuclear energy waste materials, it was assumed by the planners that support would continue for this vital, defense-related facility, not even considering that with the passing of time the waste would be used as a ~~potential~~ fuel by a pre-selected of pink and catfish groups, to further

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their self-serving cause.

I have listened carefully for any national, regional alternative offered by the people who oppose WIPP, and have heard of none.

I commend the D.O.E. for their thorough effort to inform our citizens for the excellent job in building a safe facility and for ~~the~~ providing a vision to achieve a nation of national significance.

I heartily endorse giving the WIPP facility as the highest possible reward.

Thank you for this opportunity to speak.

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C.H. no pickup's pos in con. became weary of
advising early on. not afraid of pickup.
If provides job, strongly favor.

D. W. How many percent job? good and undisturbed
- tip that during transport. I suspect
- pickup would be most safe method than
current procedure.

D. J. no reservation in favor. Disputed to long
Should you, sure job

J. L. no favor in transport. In fact delayed
Great job

J. H. Do not give until the price worth of
particular money.
Opportunity seems to be based on greed of them
along way, trying to get more in way money.

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R. W. Demand compensation. commit pickup
is 5th. By your command team, your
priority, given with it.

Well agreed
no possible alternative!!

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Presentation in Support of

WIPP

Given June 22, 1989

Artesia, New Mexico

by Jon R. Tully

Director of Public Safety

City of Carlsbad, New Mexico

My name is Jon Tully, and, as Director of Public Safety for the City of Carlsbad, my responsibilities as chief administrator of the Department of Public Safety include the formulation of comprehensive emergency plans. In this capacity, hazards that pose a real and potential threat to the citizens of Carlsbad are identified and addressed in a manner designed to bring the coordinated resources of city government and the private sector to bear

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22-Jun-89; EX-00722, PAGE 2 OF 10

in the event that a disaster--man-caused or natural--impacts upon the community.

Clearly, any hazard analysis must include the possibility of a radiological emergency stemming from a source other than a war-related incident. Radioactive substances are, as we all know, widely used in the commerce of this nation--in the practice of medicine, in the oil field, in countless other industries. Improperly handled, deliberately misused or carelessly stored, many of these substances can, indeed, pose a threat to the wellbeing of those exposed to them. The transportation of transuranic wastes to the Waste Isolation Pilot Plant and the storage of

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22-Jun-89; EX-00722, PAGE 3 OF 10

these wastes therein obviously involve a degree of risk.

Yet, every great achievement of mankind involves an element of risk. Aviation is not hazard free; yet, for the most of us, it is the conveyance of choice for distant travel. Electricity is dangerous, but it is an essential factor in our existence. Petrochemicals are inherently hazardous, but without them, we would have little electricity and no aviation. The vaccines with which we immunize our children from deadly diseases are not entirely risk free. Even those who at these hearings have railed against the safety of WIPP have undoubtedly arrived by automobile which kills 50,000 people in this country each year.

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Risk is a fact of life.

But, risk as a factor in hazard analysis for emergency preparedness planning must be assessed in its relative potential for adverse impact upon a given population so that the resources of the government can be effectively allocated to mitigate and prepare for such potential hazards. In Carlsbad, our emergency planning is predicated upon a thoughtful, rational and thorough analysis of the real and potential hazards to the community. And, the real potential hazards posed by WIPP, in all aspects of its current and future operation, rank far behind the hazards that threaten the community by flood and other weather-related phenomena, and

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far, far behind the risks presented daily by the transportation of hazardous chemicals through the very heart of the city.

In Carlsbad, we have a very safety-conscious public as evidenced by the fact that the citizens of Carlsbad and south Eddy County overwhelmingly supported the first Enhanced 9-1-1 system in the State of New Mexico. In Carlsbad, we have a very effective Department of Public Safety. Our firemen, policemen and EMTs are well-qualified professionals, very cognizant of the needs of the community with regard to public safety. We do not minimize community risk factors because it is politically expedient to do so, or because it is

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economically advantageous to do so. If we minimize the risk potential of a particular hazard, it is because it is minimal. And, in Carlsbad, we do not build sea walls to protect against mythical tidal waves.

My department heads and I have participated closely in past years with the Department of Energy and Westinghouse officials in emergency preparedness planning and public safety. We speak, therefore, with some insight into the processes of hazard mitigation, preparation, response and recovery--the four cornerstones of emergency planning--applied by the Department of Energy and Westinghouse to the concept known as WIPP. We have witnessed the infinite care

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22-Jun-89: EX-00722, PAGE 7 OF 10

and dedication that has gone into the planning of every contingency. And, we firmly believe the risk to the community of Carlsbad posed by WIPP to be minimal because it is minimal.

But, the considerations are far more pressing in those areas of this country where transuranic wastes have accumulated and continue to accumulate under conditions that are clearly not conducive to the current or future safety of the public. In those locations from which WIPP is to receive its shipments of TRU waste, a real and imminent potential for disaster looms on the horizon. And, because I live in Carlsbad, far from the Savannah River or Rocky Flats or Hanford, Oregon, does not

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22-Jun-89: EX-00722, PAGE 8 OF 10

make me insensitive to the public safety hazards that face the populations of those areas and their needs for the government to provide for the mitigation of those hazards.

As a public safety official, I have great empathy with my counterparts in those areas of the nation that have waited many years for the bureaucratic and scientific decision-makers to turn words into deeds and promises into realities and to relegate those radioactive wastes into isolation at WIPP. As a public safety official, I share their frustrations in seeking a timely resolution to the problem. And, as a public safety official, with my own community foremost in my thoughts and with the knowledge of the emergency

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planning regarding WIPP, I believe it is right and proper and, more importantly, imminently safe for communities like Carlsbad and those along the WIPP routes to assume the very minimal risks to mitigate this very national problem of radioactive waste disposal.

Emerson once wrote that a foolish consistency is the hobgoblin of small minds. It is a small mind that persists in reducing the issues of WIPP to theatrical hysteronics and absurd arguments. It is a small mind that continues to oppose the opening of WIPP while transuranic wastes lie vulnerable in increasing quantities. And, it is, perhaps, the smallest mind of all that, in the face of a problem of national

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22-Jun-89: EX-00722, PAGE 10 OF 10

proportions, perseveres in the unfortunate ethic that the only acceptable risk is no risk at all.

As a public safety official, I state my support for the Waste Isolation Pilot Plant and urge, in the interest of public safety, that this project be fully implemented with no further delays.

Thank you.

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Thank you for allowing me this time and the opportunity to speak today in relation to the Waste Isolation Pilot Plant and its associated issues.

First, I would like to make brief comments in relation to the production and its byproducts of nuclear fission and its benefits and byproducts which were created approximately 50 years ago. Since that time, there have been many benefits from the uses of nuclear energy. There have also been disadvantages to the presence and use of nuclear energy and its byproducts. In some instances, the issues of nuclear energy and the issues now of what to do with its waste has created much more heat than the nuclear energy

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or its waste has produced. There has always been the issue of waste; however, during the last 50 years, there have been more proposals for solutions of the waste issue, but other than temporary storage, the solutions have ended up not to be viable, acceptable, or safe. However, at this time, an alternative which may be a solution is being offered through the chosen site of the Waste Isolation Pilot Project.

The study and selection of potential sites began over 40 years ago. And, after extensive studies, salt deposits were recommended as a geological formation extremely promising for the storage of radioactive waste. The salt formation present in the WIPP project location is

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geologically stable and has qualities which provide for a desired sealing effect. The presence of minute quantities of saturated brine and the plastic qualities of salt formations allow for a slow, progressive movement to fill voids where excavations have, or may occur.

In 1962, the United States Geological Survey indicated likely locations for a repository with these qualities represented. It indicated areas in the Permian Basin would have locations best suiting site selection guidelines. There are indications that the salt deposits in this geological formation were formed approximately 225 million years ago. The characteristics of the salt

beds in the Permian Basin area, of which WIPP is included, has been extensively studied for over 50 years. Much of that study has come from oil and mineral explorations. The specific site of WIPP does not consist of any bore holes from those types of exploration. The planned repository is at a depth of 2,150 feet, which constitutes more or less the middle of a 3,000 foot solid salt formation.

Studies, again, have indicated that the region was formed 225 million years ago. The search for that salt repository location, at best, is only 30 years old. The life of the project is phased with a 5-year evaluation and assessment period followed by a 20-year utilization period

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at which time final evaluation and impact decisions will be made. Two hundred twenty-five million years ago, it is certainly understandable that these formations would not have been completed if it had to withstand the scrutiny of environmental impact statements and groups in opposition to salt formations.

Putting a time line on the 225 million years ago forward to today's date and include the 10,000-year, environmentally-safe statements for EPA standards in theory and on paper, it appears to be possible. In checking references for recorded history, there are many different assessments of when mankind inhabited this planet. One indicated over 4,004 years ago B.C. and now

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it is 1989 A.D. which is an approximate total of 5,993 years. So, using a time line for the 10,000-year safe standard, if this issue had been addressed at that time, Adam--if there was an Adam--then there would remain 3,107 years to complete a 10,000-year safe cycle. But, in part, my understanding is the need for the 10,000-year standard is to ensure safety for future generations. I find that beginning now and looking to the aspects of 10,000 years in the future to be rather ludicrous. It is important now that we look to the near generations rather than to look to Circa October, 11,994, A.D. Is it possible in the year 11,994 A.D. that Geothermal Solar Intergalactic Geologists when boring

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22-Jun-89; EX-00723, PAGE 7 OF 13

exploration holes in the Permian Basin area may find a new but very limited source of energy if it hasn't already decayed? The realistic approach is the proposed 5-year storage of 3% of the contact-handled TRU waste with appropriate and continual scientific assessments, evaluations and oversight. Upon the completion of that 5 years, the remaining 97% (and by that time it will be 97% plus what waste has been generated for that previous 5-year evaluation period) should be stored at the WIPP location provided it successfully passes evaluation.

Another concern I have in relationship to issues involved with nuclear energy and its waste byproducts

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involves the incident where a sales job by an opponent of safe storage for transuranic waste began. That salesman knocked on my door and was very persistent in selling opposition to the WIPP project. I closed the door on him. He knocked another time and again was persistent, full of anxiety and clamor. I closed the door on him. Whenever he yelled through the door about what he was offering through this opposition, I really began to worry. He screamed through the door, "You are missing the opportunity of a lifetime!" I found whenever this type of opportunity starts pounding on the door, then there has to be a catch to it. It appears to me and has recently been stated that many opponents, as

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well as some proponents, have agendas involved in this issue. It appears to me that the opposition to WIPP has many other hidden agendas other than a safe repository for transuranic waste.

Another area of importance is the container used to transport transuranic waste to the Waste Isolation Pilot Plant. The transuranic waste will utilize the TRUPACT canister and it is a container which more than meets the federal requirements. Testing the TRUPACT container includes drops at 30 feet onto an unyielding surface and one from a height of one meter onto a 6-inch diameter spike, then followed by a 30-minute burn which is at least 1,475 degrees F. There are 10 inches of polyurethane foam

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and a protective skin of stainless steel. These are for energy absorption and protection. The inner containment vessel is sealed to keep its contents from leaking. While the protective skin and its 10 inches of foam may be injured or damaged through an impact, the inner containment vessels are safe. Thirty percent of the weight of a fully loaded TRUPACT container is for energy absorption and over 2 tons of material is in place to provide complete container protection. As certified, the TRUPACT container will have limits for operation, also weight limits, number of watts, and number of grams of radioactive material allowed.

In a series of comments addressed recently, much

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concern was expressed about tractor-trailer rigs transporting TRUPACT containers through various locations and communities enroute to WIPP. One particular item that was mentioned was the chance of an accident involving drunken drivers in certain locations where statistics for fatalities involving drinking drivers is very high and above the national average. Lawful transportation of transuranic waste or any other lawful commercial interstate transportation must continue. Drunken drivers injure and kill more people across the United States within a year's time than could be injured by accidental releases of minute transuranic waste particulate. The concern appears not to

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22-Jun-89: EX-00723, PAGE 12 OF 13

protect us from drunken drivers, but to stop lawful, strictly regulated transportation of materials.

In addition to excellent and certified containment vessels, the transportation contractor will have a high degree of accountability for driver qualifications and continued certification of vehicles meeting very strict vehicle specifications. The vehicles will have constant surveillance and call-in procedures, will have a tracking system, will have emergency requirements and procedures to be followed to assist in providing safe transportation of its product.

The Department of Energy with and through its contractor have made available and have provided training to

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law enforcement agencies, fire departments, and emergency medical departments throughout the region where transportation of transuranic waste will travel. They have provided first responder courses, training in command and control of hazardous materials radiological transportation emergencies. Locally, we are about to receive our second annual training in the previously mentioned categories.

In summary,

- the issue is disposal of transuranic waste
- the issue is not whether it should be disposed of
- the issue is to allow the opening and operation of WIPP for a 5-year assessment and evaluation
- the issue is a 25-year

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program

- the issue is meeting standards
- the issue is safe transportation of transuranic waste in TRUPACT II MRC certified containers
- the issue is not drunken drivers being involved in accidents with lawful, regulated transporters of materials
- the issue is safe transportation, receiving, depositing transuranic waste for safe disposal.

The Department of Energy in its plan to achieve the goals of safe disposal have been, are being, and shall continue to be met. There are provisions for continued oversight and vigilance by regulatory commissions, safety commissions, environmental

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22-Jun-69: EX-00723, PAGE 15 OF 15

commissions, and citizens with the issues being addressed. The opening of WIPP to receive the initial 3% of existing transuranic waste must be allowed in order to successfully and scientifically evaluate and assess the WIPP project as a safe alternative for a permanent repository.

Thank you.

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22-Jun-69: EX-00724, PAGE 1 OF 3

June 22, 1969

Department of Energy
Admiral James Watkins, Sec'y
180 Independence Ave. SW
Washington, D.C. 20585

Dear Sir:

For the first time in the history of mankind, we are faced with a problem that defies solution. When man opened the Pandora's box of nuclear warfare, he didn't envision the larger problems of nuclear waste disposal. Now we are in the state of New Mexico, where the Trinity bomb opened this new age, is slated to become the dumping ground of the nuclear garbage.

Our purpose here today, is to search for answers to these problems that won't go away. It is now evident that DOE has adopted a policy of information, illusion, cover up and make and misrepresent to the people no longer believes them. The promised by-passes to take this waste material around the populated areas, that should have been completed, has not even been started.

Boswell is a city fast approaching 50,000 population; yet we have no trained emergency response to a spill; as it stands now, we must depend on citizen heroism of citizens. This type of flawed planning beggins the mind. Our medical facilities, however, have been trained for emergency response; and of course, there is no special protection for citizens, or other necessities for this sort of emergency. Our school children, along the WIPP route are not being trained in emergency cover procedures. These are totally unacceptable premises, for what may prove to be the most challenging crisis in our history. But so far, this is the manner in which DOE has met these challenges-by subterfuge! More time is spent in deluding the people, than in sensible precaution and solution. We have actually been told that, "Medical personnel will be given a one day training session, sometime in the future; and then only the personnel at the trauma center; even though the hospital has a very adequate emergency facility." An impossible situation!

Concerned citizens, those insisting on a WIPP site that is as safe as is humanly possible, are not trying to dismantle what has already been done. We want to make sure that DOE doesn't continue, as they have in the past, to totally ignore the most basic sworn-to tests, safety standards, and personnel training, that is promised to the citizens of the designated areas. The people seem to be in a, "boy crying wolf mode!" if a violation does occur, they will resort to any tactic to keep the facts from the people most immediately involved.

Since I've begun this observation, there seems to be incident upon incident, compounding upon each other. One of the latest is the incident upon incident, at the nuclear plant there; a shift, control engineer has moved up to the use of Cocaine; it is not yet known how long he has been on the drug, but he stated, "the whole nuclear plant runs on Cocaine." Of course, the Gov't employees kept into the breach minimizing the incident. We can no

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Dep't of Energy

Dept't of Energy

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June 22, 1989

DOE has only one consuming motivation; to rush into the transport and delivery of these hazardous materials, without abiding by the promised testing, training, and safety standards. This type of folly and headlong cutting of corners can only result in catastrophe.

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22-Jun-89; EX-00725
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Hearing Officer
DOE-SZIS Project

Dear Sir:

Please enter the attached comment relating to the SZIS
for WIPP site into the public record of the June 22, 1989
public hearing in Artesia.

Sincerely,

Barbara A. Peres Casey

Barbara A. Peres Casey
State Representative, District 58

Mailing address:

P.O. Box 2457

Roswell, New Mexico 88202

Residence:

1214 East First Street

Roswell, New Mexico 88201

Telephone:

(505) 523-5064

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I am Barbara Peres Casey, State Representative of District 58. As
the first Hispanic woman to be elected from this part of the state,
I am here to tell the DOE that they have not tried to communicate
their intentions to the Hispanic community. According to the 1980
census, there are 550,600 Hispanics in New Mexico. Of this number,
44 percent of the population in my district is Hispanic. Many of
the people don't understand English enough to understand the SZIS
report and be able to know enough about the benefits or dangers
that are presented to them by the opening of WIPP.

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SOY BARBARA PEREA CASEY REPRESENTANTE ESTATAL DEL DISTRITO 58. COMO LA PRIMERA MUJER HISPANA PARA SER ELIGIDA DE ESTA PARTE DEL ESTADO, ESTOY AQUI PARA DECIRLES QUE EL DEPARTAMENTO DE ENERGIA NO HA TRATADO DE COMUNICAR SUS INTENCIONES CON LA GENTE HISPANA. SEGUN EL CENSO DE 1980, EN EL ESTADO DE NUEVO MEXICO HABIA 550,600 (QUINIENTOS CINCUENTA MIL SEISCIENTOS) HABITANTES HISPANOHABLANTE. DE ESE NUMERO, 44% DE LA POBLACION EN MI DISTRITO ES HISPANA. MUCHA DE ESA GENTE NO ENTIENDE INLES SUFICIENTEMENTE PARA ENTENDER EL REPORTE SEIS Y PODER SABER QUE ES LO QUE DICE TOCANTE SU BIENESTAR O EL PELIGRO QUE SE LES PRESENTA AL ABRIRSE WIPP.

I STARTED MY PRESENTATION IN SPANISH TO MAKE A STRONG POINT. THE NON-ENGLISH SPEAKING POPULATION OF THE STATE HAS BEEN TOTALLY IGNORED BY THE DOE. NONE OF THE INFORMATION WHICH HAS BEEN DISSEMINATED HAS BEEN WRITTEN IN SPANISH (OR NAVAJO, TEWA, VIETNAMESE, OR ANY OTHER LANGUAGE), AND A LARGE PORTION OF NEW MEXICANS HAS BEEN TOTALLY UNINFORMED ABOUT WIPP.

I AM HERE TODAY, NOT ONLY AS A LEGISLATOR WHO IS VERY CONCERNED FOR THE WELFARE OF THE PEOPLE OF NEW MEXICO, BUT FOR THE FUTURE OF THE STATE ITSELF. TO REQUEST AND STRONGLY URGE THAT NO ACTION BE TAKEN TO TRANSPORT ANY RADIOACTIVE/TRANSURANIC WASTE TO THE WIPP SITE UNTIL ALL EPA STANDARDS ARE MET.

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ANOTHER OF MY PRIMARY CONCERNS IS THAT THE TRANSPORTATION OF TRANSURANIC WASTE MATERIALS IS NOT SAFE. ACCORDING TO YOUR OWN REPORT, THERE WILL BE FEWER SHIPMENTS OF WASTE IF DONE BY RAIL, (18,467 compared to 34,144 shipments by truck), IN THE PROPOSED 25 YEAR PERIOD. INJURIES EXPECTED FOR TRUCK SHIPMENT ARE THREE TIMES HIGHER THAN THOSE ANTICIPATED IF THE WASTE IS TRANSPORTED BY RAIL.

SERIOUS CONSIDERATION MUST BE GIVEN TO THE FACT THAT NEW MEXICO ROADS ARE SUBSTANDARD AND MUST BE UPGRADED BEFORE THE TRUCKING OF TRANSURANIC WASTE TAKES PLACE. THE TREACHEROUS AREAS NEAR CLINES CORNERS, SANTA ROSA, AND VAUGHN, NOT TO MENTION OTHER AREAS IN THE NORTHERN PART OF THE STATE, ARE ILL EQUIPPED TO DEAL WITH ANY TYPE OF EMERGENCY IN THE EVENT OF AN ACCIDENT CAUSED BY BAD ROAD CONDITIONS DUE TO INCLEMENT WEATHER.

THE TRAINING OF EMERGENCY MEDICAL PERSONNEL IS NON-EXISTENT. AT THE INFORMAL QUESTION/ANSWER SESSION HELD IN ROSWELL TWO NIGHTS AGO, THE PEOPLE IN ATTENDANCE WERE TOLD THAT DOE WOULD PROVIDE A ONE DAY WORKSHOP TO TRAIN EMERGENCY PERSONNEL IN EMERGENCY RESPONSE TECHNIQUES AND PROCEDURES. THIS IS NOT ONLY PROBABLY INADEQUATE, IT

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IS LUDICROUS AS WELL. FURTHERMORE, EACH POPULATED AREA IS RESPONSIBLE FOR OBTAINING ITS OWN CLEAN-UP EQUIPMENT. OUR FIRE DEPARTMENTS, MANY OF WHICH ARE MANNED BY VOLUNTEERS, ARE NOT PROPERLY EQUIPPED (NOR DO THEY HAVE THE FINANCIAL CAPABILITY TO BE EQUIPPED) WITH THE PROPER EMERGENCY CLEAN-UP EQUIPMENT. DOE MUST ASSURE PERMANENT EQUIPMENT CAPABILITY.

I HAVE BEEN CONTACTED BY MANY PEOPLE IN THE ROSWELL/ARTESIA AREA WHO ARE CONCERNED ABOUT THE CONSEQUENCES OF A WIPP TRUCK ACCIDENT. WHO IS LIABLE FOR THE LOSS OF REAL/PERSONAL PROPERTY WHO WILL COMPENSATE CITIZENS FOR THEIR LOSS OF LAND, LIVESTOCK? DOES DOE EXPECT STATES ON THE WIPP TRAIL TO TAKE UP THAT RESPONSIBILITY? WHAT ABOUT THE LOSS OF HUMAN LIFE?

ASIDE FROM THE VERY REAL DANGERS THAT EXIST ALONG THE TRANSPORTATION ROUTE, ONCE THE WASTE HAS BEEN CONTAINED AT THE DISPOSAL SITE, THERE ARE NO ASSURANCES THAT THE SITE IS COMPLETELY SAFE. YOUR REPORT STATES THAT GEOLOGIC AND HYDROLOGIC CHANGES PREVIOUSLY NOT ANTICIPATED HAVE OCCURRED. MOISTURE CONTENT AND BRINE INFLOW ARE SUBSTANTIALLY HIGHER THAN PREVIOUSLY BELIEVED.

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"SALT CREEP" IS TAKING PLACE FASTER THAN EXPECTED. SOME OF THE STORAGE ROOMS HAVE DEVELOPED CRACKS AND MAY BE TOO DANGEROUS FOR WORKERS. ONE OF THE ORIGINAL CONDITIONS FOR STORING THE WASTE WAS THE POSSIBLE RETRIEVAL OF THE WASTE. IF STORAGE AREAS ARE TOO HAZARDOUS OR MAY EVEN POSSIBLY COLLAPSE, HOW CAN THIS WASTE BE REMOVED? THERE IS NO CONTINGENCY PLAN FOR WASTE RETRIEVAL IF THAT SITUATION DOES BECOME A REALITY. HOW CAN DOE EVEN HINT THAT THE WIPP SITE IS SAFE WHEN THERE IS SO MUCH OBVIOUS POTENTIAL THREAT TO PUBLIC HEALTH AND THE ENVIRONMENT?

IN ADDITION TO THE PROBLEMS IT ENCOUNTERS WITH WIPP, THE DOE HAS LOST ITS CREDIBILITY. LOOK AT THE ROCKY PLAINS SITUATION, THE CRIMINAL INVESTIGATION OF ENVIRONMENTAL NON-COMPLIANCE, NOT JUST AT THE PLANT, BUT THE DOE OFFICE IN ALBUQUERQUE, THE SAME OFFICE THAT OVERSEES WIPP. IT IS OBVIOUS THAT THE DOE IS MORE CONCERNED WITH OPENING WIPP AS SOON AS POSSIBLE INSTEAD OF FULFILLING ITS SAFETY COMMITMENTS TO THE STATE.

NEW MEXICO, OUR LAND OF ENCHANTMENT, HAS ATTRACTED TOURISTS FROM ALL OVER THE WORLD. THE TOURIST TRADE IN SANTA FE HAS BROUGHT MILLIONS OF DOLLARS TO OUR ECONOMY EVERY YEAR. CARLSBAD CAVERNS,

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ONE OF THE SEVEN WONDERS OF THE WESTERN WORLD, HAS ATTRACTED MILLIONS OF PEOPLE. HOW MANY TOURISTS/PEOPLE DO YOU KNOW THAT WILL WANT TO TRAVEL TO OUR STATE TO SEE A NUCLEAR GARBAGE DUMP? NOT MANY.

I HAVE TOUCHED ON JUST A FEW OF MY CONCERNS AND THOSE OF MY CONSTITUENCY, BUT BECAUSE OF TIME CONSTRAINTS I WOULD LIKE TO RESPECTFULLY REQUEST THAT ALL PERTINENT DATA CONCERNING WIPP BE PLACED AT THE ROSWELL PUBLIC LIBRARY WHERE IT MAY BE MORE READILY ACCESSIBLE TO THE CITIZENS, AND THAT THE DATA BE WRITTEN IN BOTH ENGLISH AND SPANISH SO THAT THE INFORMATION IS AVAILABLE TO ALL CITIZENS IN THIS AREA. (FOR DOE'S INFORMATION, NEW MEXICO IS THE ONLY STATE THAT RECOGNIZES BOTH ENGLISH AND SPANISH AS THE LEGAL LANGUAGES OF THE STATE.)

I WOULD FURTHER LIKE TO STRESS THAT DOE SHOULD DO EVERYTHING TO MEET EPA SAFETY STANDARDS SO AS TO PREVENT THE POLLUTION OF OUR ENVIRONMENT AND THE ENDANGERMENT OF PUBLIC HEALTH.

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YOUR HONOR:

My name is William Adair Gossett. I live at 603 Elora Drive, Carlsbad, Eddy County, New Mexico.

I am the owner of Gossett's Jewelry and have traded with and serviced the people of the Carlsbad area for over 49 years.

I am adamant in my support of WIPP.

WIFE IS SAFE

My testimony is not that of a Nuclear Physicist, Engineer, or Hydrologist. I am testifying as a husband, father, grandfather, businessman, taxpayer, and a very proud American citizen, who believes in and works within our American system.

I am confident WIPP is safe. Most of my family, our homes, and our property are in Carlsbad.

I am a former Mayor of Carlsbad and State Director of the New Mexico Office of Civil and Defense Mobilization. As Director of MDCDM, it was my responsibility to organize civil defense units - statewide - and create the New Mexico Survival Plan.

I have witnessed two nuclear detonations. One was Project Numa near Carlsbad (an underground blast) and the other was a tower detonation at Frenchman's Flats, Nevada.

My experience in dealing with governments - federal, state, and local as well as the military, is lengthy.

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22-Jun-89: EX-00726, PAGE 2 OF 4

YOUR HOME:

New Mexico has always been in the forefront of nuclear development and technology. The first uranium mine was at Grants; fine tuning of the atomic bomb at Los Alamos; detonation of the first atomic bomb near Alamogordo; and we should store, safely, the transuranic waste at WIPP near Carlsbad and loving 2150 feet underground.

I have traveled hundreds of thousands of miles on New Mexico roads and highways and would feel much safer following the TRUPACT truck with its cargo of transuranic waste than an 18-wheel tandem truck or a propane truck -- especially from Mexico!

The proposed shipments of transuranic waste CANNOT BE EXPLAINED BY ANY MEANS. It WILL NOT HAVE ANYONE PASSING THROUGH THE CITIES ON THE HIGHWAYS.

The WIPP Project is as safe as man can build and design it. The WIPP designers, technicians, scientists, and planners are the same type of dedicated professionals that were able to plan, fly, and land our United States Senator Harrison Schmidt on the moon!

The largest number of misinformed, anti-WIPP protestors are from the Santa Fe area.

Many of us in Carlsbad respectfully request the Department of Energy to ONLY Santa Fe from any transuranic WIPP shipment routing. This would accomplish two major things:

- (1) Obviously please hundreds of Santa Fe protestors; and
- (2) Eliminate the spending of over ONE HUNDRED MILLION dollars

(\$100,000,000) on unneeded by-pass roads in the area.

1-1
3.1-1

9-1

7.15.4.1
7.15.4.2
7.15.4.3

22-Jun-89: EX-00726, PAGE 3 OF 4

The people in Santa Fe are being exposed today and everyday to more radiation and contamination problems than the residents of Eddy County will ever face with the safe storage of transuranic waste at WIPP.

WIPP IS SAFE -- TRUPACT TRANSPORTATION IS SAFE!

Most of the top management of the WIPP Project have moved their families and children to live in Carlsbad. These are the people that are knowledgeable of radiation and the risks and what the negative effects can be to humans. Does anyone truly believe that if there was imminent danger that these people would risk their lives -- or the lives of their loved ones -- for a job? Of course they are NOT going to do that!

There's risk in everything in life, but we minimize that risk by planning and the use of technology! Nuclear power can be the most abundant, least expensive, and safest power for all Americans.

WIPP IS SAFE

Let's all work together to regain America's rightful place as the leading Nation of the world. WE NEED NUCLEAR POWER.

3.1-1

#126 Cassatt

22-Jun-89: EX-00726, PAGE 4 OF 4

I have always been proud of my
neighbor in action.

They are independent
HARRIS WASHING that along with the Reds
Prophetes Arizona that along with the Reds
Sally are Wilkethers -- Toolmakers
Builders -- -- miners -- -- farmers -- -- Cowboys --

They didn't buy the refinery from
being built and operated. Although it
could be dangerous --

As the Director of CDM. I signed
the agreement that allowed the Artesia
School Board to build the only
Underground School in the Western
Hemisphere. ^{100% owned by the} Artesia School.
You should see it. It's great!

22-Jun-89: EX-00727, PAGE 1 OF 1

June 22, 1989

Re: Artesia Hearing - Supplement to the Environmental Impact Statement on
the Waste Isolation Pilot Plant

Person Commenting: Mike Currier
P.O. Box 430
Carlsbad, New Mexico 88220

Thank you for allowing me the opportunity to speak today.

I do not intend to sit here and convince anyone that I know that the WIPP site is a safe depository for any type of nuclear waste. My background and education have not prepared me to try and make such a statement. On the other side of the coin I would say that I do not think that numerous people who are testifying and saying that WIPP is not safe have the credentials to be making that testimony. I would say, however, that having been through a complete above AND underground tour of the site that it definitely appears to be safe to me. I am also aware that strict monitoring of the site will be done after it is opened and will be continuous from the time waste is deposited there.

My main reason for wanting to speak is to tell you a story as it was related to me. A friend of mine from Artesia had his car break down while on his way from Carlsbad to Artesia. He was fortunate to be picked up by some people who live in Dexter. On the way to Artesia, the gentleman from Dexter said that he had just been through a tour of the WIPP site. He went on to say that prior to moving to Dexter he had been a resident of Los Alamos and had been employed on the maintenance crew at Los Alamos Laboratories. His job on that staff was one of a painter at the labs. The paint used on the jobs was purchased in 55 gallon containers. When the containers were emptied, they would be cleaned and then the type of low level waste that is designated for storage at the WIPP site would be placed into these containers, sealed, and rolled down into a ravine to be left to face the heat, cold, rain, snow, wind and all of the other elements.

Now, as I have stated, I do not know if WIPP is safe and I do not know if nuclear energy is the answer but I feel confident in that the WIPP site is a considerably better place to store low level nuclear waste than is the bottom of a ravine. In other words I would strongly suggest the WIPP site and all of the research backing it as opposed to nuclear waste in a 55 gallon paint can lying out on the ground!

Mike Currier
Mike Currier

Hearing Officer
DOE-SEIS Project

Dear Sir:

Please enter the attached comment relating to the SEIS for WIPP site into the public record of the June 22, 1989 public hearing in Artesia, New Mexico.

Sincerely,


FRANK J. ROSWELL
1214 E. First St.
Roswell, New Mexico 88201
(505) 523-5054

MY NAME IS FRANK CASE. I WOULD HAVE LIKED TO HAVE STARTED THIS WITH A MOMENT OF SILENCE, FOLLOWED BY THE LORD'S PRAYER, FOR WE ALL NEED GUIDANCE.

WHAT HAS ME SO UPSET AND FRUSTRATED IS DOE AND WESTINGHOUSE HAVE FORCED THE PEOPLE OF NEW MEXICO TO FIGHT AMONG THEMSELVES TO PUBLICLY DISPLAY THEIR LAUNDRY, SO TO SPEAK, FOR THE NATION TO SEE.

THIS IS A PROUD STATE WITH A REPUTATION OF A "CAN DO" ATTITUDE. WHEN ALL THE FACTS ARE PRESENTED TO THE PEOPLE, THE PEOPLE MAKE THE RIGHT CHOICE. DOE AND WESTINGHOUSE HAVE IGNORED SEGMENTS OF THE POPULATION, PARTICULARLY, MY HOMETOWN, ROSWELL. WE WERE ASSURED THAT A BYPASS WOULD BE IN PLACE BEFORE WIPP OPENED AT A PUBLIC MEETING EIGHT YEARS AGO.

I'M NOT A SCIENTIST, I'M JUST A NORMAL, EVERYDAY PERSON. I HAVE A BACKGROUND WORKING WITH NUCLEAR WEAPONS IN THE MILITARY, SO I UNDERSTAND MOST OF THE THEORIES AND DIFFERENT TYPES OF WASTE THAT WILL BE IN THESE CONTAINERS THAT ARE BEING SHIPPED TO WIPP.

22-Jun-89; EX-00728, PAGE 3 OF 4

FOR ANYONE TO SIT THERE AND SAY THAT WIPP IS ONE HUNDRED PERCENT

SAFE AND SECURE, IS LUDICROUS. IF IT IS SO SAFE, WHY CAN'T YOU

MEET THE EPA STANDARDS? IN YOUR REPORT, WHY IS THERE NO MENTION

OF THE HUMAN FACTOR? WHY IS THERE NO MENTION OF ENVIRONMENTAL

FACTORS SUCH AS LIGHTNING, TORNADOES, HAILSTORMS? AND, AS AN

UPDATE, WHAT'S THE FBI DOING IN YOUR ALBUQUERQUE OFFICE? DOE'S

CREDIBILITY HAS BEEN SHOT.

TIME AND TIME AGAIN, YOU HAVE LIED TO THE AMERICAN PEOPLE.

WIPP IS ONE OF THOSE LIES. YOU SAY THAT THIS REPOSITORY WILL

SOLVE THE PROBLEM, YET YOUR OWN REPORT SAYS THERE IS NO PROBLEM.

WHICH IS IT? IS THERE OR IS THERE NOT A PROBLEM?

IN THE MATTER OF SECURITY, THERE IS NO MENTION IN ANY OF

YOUR REPORTS, ABOUT TERRORISTS. YET, WE HAVE SEEN, AS A NATION,

THE INCREASE IN TERRORIST ACTIVITIES. YOU HAVE MADE WIPP A PRIME

TARGET FOR TERRORIST ACTIVITIES BY PLACING A HIGHLY VISIBLE AND

IDENTIFIABLE CONTAINER ON PUBLIC HIGHWAYS.

IT WOULD HAVE MADE MORE SENSE ECONOMICALLY, SECURITY-WISE, AND

FIVE MORE PEOPLE WOULD HAVE BEEN ALIVE AT THE END OF THE PROJECT,

ACCORDING TO YOUR STATISTICS, IF WE HAD SHIPPED BY TRAIN.

31-2
31-37311-18
735-1
7193-1
7193-3
714-2

32-1

73-2

732-4

22-Jun-89; EX-00728, PAGE 4 OF 4

WHEN PEOPLE TALK ABOUT EPA STANDARDS, THESE STANDARDS ARE THE
MINIMUM STANDARDS, NOT THE MAXIMUM. NOT ONLY SHOULD YOU COMPLY

WITH EPA STANDARDS, BUT, BEING A PART OF THE GOVERNMENT, YOU SHOULD
EXCEED THOSE STANDARDS TO PROTECT THE PEOPLE YOU REPRESENT AND WHO
PAY YOUR SALARIES.

I WOULD LIKE TO ENCOURAGE DOE TO HOLD MORE PUBLIC HEARINGS
TO GET MORE INPUT FROM THE PEOPLE. I WOULD LIKE TO STRONGLY URGE
DOE TO MEET EPA STANDARDS BEFORE OPENING THE WIPP SITE SO THAT THE
REPOSITORY IS SAFE. I WOULD LIKE TO ENCOURAGE DOE TO STOP PUTTING
POLITICAL AND FINANCIAL GAIN ABOVE HUMAN LIVES.

1-3
25-1
31-2

31-3

22-Jun-89: EX-00729, PAGE 1 OF 27

Public Hearing

The Tru-Pact was developed and has been very adequately tested to transport nuclear wastes to WIPP. If other hazardous materials in our country were transported in such containers as adequate as Tru-Pact so many lives would be saved each year. I haven't heard of too many special interest groups barking up those trees.

I have with me today two petitions that already have a total of over 300 signatures of local citizens and businessmen on them. They are from the Tri-Pac and Tri-Pac II groups. I have Mr. 285 and Mr. 92 who are carriers of the Tri-Pac and Tri-Pac II. They say that they would like to see the Tri-Pac and Tri-Pac II groups merged into one group. Mr. 285 and some straight through Athens trucks down the main route unnecessary. These citizens are coveting that adequate measures have been taken for their safety and the safety of their families. Copies of these petitions for signature may be acquired from Eddie Guy of Guy Chevrolet or Greek Economides, City Councilman.

Along with many people who wanted to see and learn first hand about WIPP, I visited the site. I've gone down the 2,130 ft. into the Report Cory deep in the salt beds, traveled the many corridors, and I honestly viewed the numerous experiments in process and I honestly impressed that in this day in time when quality hasn't been as important to many companies or individuals; that there really are people very concerned with quality of their workmanship, the quality of life and to have the attitude that safety is first. I feel secure that all precautions have been taken and will be taken in the appropriate transportation and storage of nuclear wastes at WIPP.

Whether you are for or against nuclear energy it's time to get realistic about a serious situation. Nuclear waste is accumulating at many locations all over the country. The Waste Isolation Pilot Plant has been built at much expense to safely take care of this waste and I say it's time to make use of this facility.

Testimony of Evelyn Smith
709 Mann
Artesia, N.M. 88210

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies for the designation of all 2885 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

termination.
address

1657

Richard Champagne 1018 Blum Rd
Blaine, MN 55425

[illegible]

W. Russell Bryant 904 5th Roseland

Jesse D CARLIS 10/19 320TH Mr D Cople

Kabat Breken siz chising'is' Mikent w Baiken

Howard C. Hardy, 1154 Conroe Howard Center

1. *Journal of the American Medical Association*, 1997; 277: 1039-1043.

[illegible]

1385

44-38861-1

22-Jun-89: EX-00729, PAGE 2

[illegible]

[REDACTED]

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Robert Scott - 404 S. 2nd
 David Cochran - 709 Ave. 10th
 Robert Marshall - 1011 West
 Ralph M. Moore
 Sandra Carr
 Maryanne D. Nelson
 Dora Wilkins

7

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Monte Sanders - 412 Springdale Rd.
 Debbie Bellare - 1603 Ave.
 Chris Craggs - 417 Ave. 10th
 David Rogers - 911 20th St.
 John D. Smith - 1407 Chisum
 Margaret O. Parnell - 2106 W. Richey Ave.
 Robert Rogers - 2505 Richey Ave.
 Joseph V. Smith - 1002 1/2 Ave. 10th

P E T I T I O N

The undersigned ~~residents~~ ^{CITIZENS} and merchants on U. S. Highway 82 (then Street) and U. S. Highway 285 (First Street), request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commission of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Dorothy Brown 1309 Cannon Ave.
 Lynn Mason 901 Mahone Rd
 Lucy Perea 1301 Spide
 Bob Perea 1301 Spide
 Marvin Mayne 405 W. Grad
 Anita Perea 113 W. Gibson
 Carol Mayne 1202 Green
 David Perea 911 714th St/105th
 Mary Mack 605 5th
 Gladys Perea 2512 W. Richey Avenue
 Harvey Perea — —
 Karen Lewis P.O. Box 302
 Betty Vining B. 1401 S. 23rd
 Gene Johnson 1911 Booker Avenue

7.3.3.1.3

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commission of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Kathy Egge 804 24th Ave.
 James Egge 708 Washington
 John B. Baker 2403 S. 7th
 Bonnie L. Perea 1507 Brown St
 Rick Egge 3106 Richey
 Marie Perea 1105 W. Main
 Mark Lister 1214 No. Perea
 Gene Perea 2085 19th Avenue
 Rosalie Egge 808 S. 19th
 Mary Lister 2106 W. Dallas
 Mary Lister 2106 W. Dallas
 William Lister 1111 W. Dallas
 Linda Lister 1401 Brown Ave.
 Gene Lister 1515 W. Richey Avenue

7.3.3.1.3

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

7.3.3.1-3

John A. Thomas	612 E First	Artesia, NM
Mr. Wayne Davis	808 Avenue	Artesia, NM
Barbara Mayfield	2610 Mayfield	Artesia, NM
Ala. May	702 Avenue	Artesia, NM
John G. Smith	2302 Yellow	
William R. Ruestert	1816 Rungyan	Artesia, NM
Harold W. Klein-Carver	703 Republic	Artesia, NM
Norman Dickerson	604 N. Blvd.	
Mr. Arthur C. Harris		
Patricia Freeman	703 Bowdoin	
Blaine Pittman	11030 Springton	
J. Sellers	1803 Center	

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

7.3.3.1-3

Bucky Neal	Box 452	Artesia, NM
John J. O'Neil	1000 Rungyan	Artesia, NM
James L. Smith	112 Spring Lake Blvd	
Edna Moore	1203 Clayton	Artesia, NM
W. J. L. L. L.	2302 Spring Lake Blvd	
Charles L. L.	81122 2nd	
William D. L.	2002 Maun Artesia	
Alinda Martin	1909 Rungyan	Artesia
Mr. J. K. S.	1803 1st	Artesia
Mr. J. K. S.	1125 W. W. 1st	Artesia
Mr. J. K. S.	825 Artesia	
Mr. J. K. S.	1807 Center	Artesia
Mr. J. K. S.	2400 W. Main	Artesia

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico state Highway and Transportation Department, the team appointed to investigate roundabouts, and other affected agencies to designate U. S. Highway 2885 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptability, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Pittier Darwin
Carl Rogers
Alice Cooper
~~Chapman Jones Jr.~~
~~Sydney S. Wilkins~~
Johnny & Son
Maggie Walden
Brendan Pippin
David Craig
Nigel O'Halloran Jr.
~~[Signature]~~
113 Dundas St W
Lawrence Bessner

P E R T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 2885 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Nile Chauvin
 Jim M
 Betty DeLong
 Sam Good
 [unclear]
 [unclear]
 Lynde Morero
 Jimmy Morala
 Jimmy Nguyen
 [unclear]
 Dan Galtowski
 Jeff Collins
 A.C. Fuch
 Fred Collins
 Jimmy Bell
 Sam Bell

400 S 4th St Antioch, MN
 518 1/2 Whiting Antioch, MN
 Box 1077 Antioch, MN
 A 4-44-26
 31311-1275
 21 Ashlar Dr. Arv
 # 33 Chimes Rd
 # 33 Chimes Rd
 # 76 Roubille Pl
 # 14 M... Dr
 # 7 Jackson Drive
 9785 49th Hwy. Antioch
 Box 27 Antioch, MN
 Antioch, MN

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Larry Bradlee 114 S. First
John Davis Jr 1903 E. Mill Rd
John Collins 124 N. 1st
Doris Johnson 402 S. 283
Bryan Johnson 2714 W. Richardson
John J. Moore 821 S. Rose Lane
Frankie Johnson 1414 N. 1st S. 36
John R. 3302 W. Grand
John R. 1004 N. 1st 4th
D. Johnson 510 N. 8th
D. Johnson 802 S. 1st N. 1st
D. Johnson 802 S. 1st N. 1st
D. Johnson 802 S. 1st N. 1st

73313

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

David Morales 1004 N. 1st S. 36
John R. 3302 W. Grand
John R. 1004 N. 1st 4th
John R. 510 N. 8th
John R. 802 S. 1st N. 1st
John R. 802 S. 1st N. 1st
John R. 802 S. 1st N. 1st
John R. 802 S. 1st N. 1st
John R. 802 S. 1st N. 1st
John R. 802 S. 1st N. 1st

73313

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 385 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

[illegible]

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

NAME	ADDRESS
Raul Dominguez	615 N. 1 st
Jimmy Hard	182
James Mathewson	1411 1/2 E. 1 st Ave. N.W.
Mylio Karl	Deerw. H. 14 Ave. N.W.
Paul Rogers	1010 W. Quay Ave. N.W.
John Lee	1310 S. 2 nd
Ted Donahue	1814 1/2 Ave. N.W.
Charles L. Kunkin	1108 SEAS
Joseph Mearl	2001 Seave
Steve Simpson	410 S. First Ave. N.W.
Ernest Mearl	400 S. First Ave. N.W.
	2001 CENTRE

P B T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the Texas appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Clyde Lloyd
John W. Bradlee
George E. Bradley
John F. Huns
Hunt - Economist
Lloyd Mott
Howard S. Bond

Brent J. Lyon
Colman Lyford
Lee Linn
Erving Pittor
G. Walter Allen
Robert Curriell
J. K. Blair
J. B. Allen
Walter L. Nelson
Marion C. Nolan
Dwight Duffield
Charles G. Duval
Rayner Pearson

PETITION

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Ernest P. Thompson	1906 Washington Antenna
Christoph Thompson	1906 Washington Antenna
W. H. Hancherson	11042 Mohave Antenna
Paul Smith	11042 Mohave Antenna
Dora McDuff	1010 S 2 nd St. Bona
William J. Davis	315 S 3 rd St.
Walter L. Williams	229 N. Roseburg
John H. Hurd	2438 S. Williams Rd.
James Graham	1114 S 4 th St.
David Webb	1114 S 4 th St.
Emily Foster	1110 S 4 th St.
Harry Palmer	1044 N 1st
Sammye E. Egan	1910 Penn Ave., Antenna

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

John H. Smith 1704 Bristol
James Smith 1609 N. 13th St. Artesia
James Smith 1260 N. 30th St. Artesia
James Smith 314 S. 30th St.
James Smith 36 S. 30th St.
James Smith 608 S. 4th
James Smith 712 W. 4th
James Smith 907 S. 4th
James Smith 909 Dallas
James Smith 909 1/2 4th St.
James Smith 909 1/2 4th St.
James Smith 1301 1/2 4th St.
James Smith 1301 1/2 4th St.

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

John H. Smith 1704 Bristol
James Smith 1609 N. 13th St. Artesia
James Smith 1260 N. 30th St. Artesia
James Smith 314 S. 30th St.
James Smith 36 S. 30th St.
James Smith 608 S. 4th
James Smith 712 W. 4th
James Smith 907 S. 4th
James Smith 909 Dallas
James Smith 909 1/2 4th St.
James Smith 909 1/2 4th St.
James Smith 1301 1/2 4th St.
James Smith 1301 1/2 4th St.

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Miss Virginia _____ 101 E. Riverside Road.
 Virginia _____ 1501 Upper Avenue
 Christine A. Hovitz _____ 1909 W. Richardson's
 Margaret Deane _____ 8410 W. Ridgeway
 Alta Colby _____ 201 South 40th
 Jean S. Gorman _____ 2410 N. Parkway
 William E. Hildner _____ 1703 Bristol - Artesia, N.M.
 Christopher Hildner _____ 1703 Bristol, Artesia, N.M.
 Margaret Van Curen _____ 6496 T. Avenue Hwy 285
 Helen L. Longst _____ 201 N. Main St.
 Penny Brito _____ 1008 N. 4th St.

P E T I T I O N

The undersigned citizens of Artesia, Eddy County, New Mexico, and surrounding areas request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Edward Economides _____ 1505 W. Beaver Ave
 Jackie Spencer _____ Lake Arthur, N. M. 89253
 David M. Teller _____ 1508 Burk, Artesia, N.M.
 Betty Klein _____ 1703 Currier, Artesia, N.M.
 Elizabeth Huntman _____ 161 Frank - Lake Arthur, N.M.
 James Lee _____ 269 Bird Road, Artesia, N.M.
 Robert Lee _____ Box 522, Artesia, N.M.
 Douglas M. Evans _____ P.O. Box 52, Lake Arthur, N.M.
 _____ P.O. Box 85, Lake Arthur, N.M.
 Edward J. Huntman _____ 161 Frank Rd. Lake Arthur, N.M.
 Virginia Cooper _____ 708 Horseshoe Drive
 Meri Morris _____ 1804 Ray
 Ernest Cherry _____ 1814 Westline, Artesia, N.M.

P E T I T I O N

The undersigned citizens of Artesia, Zddy County, New Mexico, and the surrounding areas, have been informed that the New Mexico Economic Development District the Artesia, Zddy County, New Mexico, County Commissioners of Zddy County, the New Mexico State Transportation Department, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for that project, in order that safety, public acceptance, and the impact on the environment, and impact on the community be given their proportional weight in making the designation.

Mary A. Thayer
 Emma Emerson
 Ben. Wadsworth
 Mrs. Henry
 John B. King
 Mary & Captain
 L. S. Stafford
 by Copying
 Anne Cook
 Mary Parker
 Elizabeth
 (Mother)

49. *Truncatella*

P E R T I T I O N

The undersigned businessmen and merchants on U. S. Highway 82 (Main Street) and U. S. Highway 182 (First Street) request the Santa Fe County Commissioners of 1964, the County Commissioners of 1965, the New Mexico State Highway and Transportation Department, the Texas Department of Transportation, and other affected agencies be appointed to investigate routes, and designate U. S. Highway 285 as the primary thoroughfare for the transshipment of all commodities, including transuranic materials, through the most remote areas, without regard to whether federal funding is available for such a project, in order that safety, public acceptance, economic impact, and impact on the environment, and impact on the community be given their proper and equal weight in making the determination.

Photography by Guy Sayer
Big H. Electric

P E T I T I O N

The undersigned businessmen and merchants on U. S. Highway 82 (Main Street) and U. S. Highway 265 (First Street) request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 265 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

BUSINESS NAME

Holt Auto Parts Ted Donahue
Baker Stephens Tire Charlie Stephens
B&K Motors Carolyn M. Baker
LITTLE GIANT INC. Carolyn Baker

7.3.3.1-3

P E T I T I O N

The undersigned businessmen and merchants on U. S. Highway 82 (Main Street) and U. S. Highway 265 (First Street) request the Southeastern New Mexico Economic Development District, the Artesia City Council, the County Commissioners of Eddy County, the New Mexico State Highway and Transportation Department, the team appointed to investigate routes, and other affected agencies to designate U. S. Highway 265 as the primary thoroughfare for the transportation of all commodities, including transuranic waste, through Artesia and the adjacent areas, without regard to whether federal funding is available for the project, in order that safety, public acceptance, economic impact, impact on the environment, and impact on the community be given their proportional weight in making the determination.

Thompson 1311 W. Main Artesia, N.M. Jeff Thompson
The Village Tavern 266 W. 24th, Artesia, N.M.
Burger King 1411 W. 24th, Artesia, N.M.
Luis' Deli & Grocery PO Box 448, Artesia, N.M.
Cibola Hardware 1002 S. 1st, Artesia, N.M.

7.3.3.1-3

P E T I T I O N

The underwritten businessman and merchants on U. S. Highway #2 (Main Street) and U. S. Highway #85 (First Street) request the Southeastern New Mexico Water Conservation District, the Artesia City Council, the County Commission, the Baby County, the New Mexico State Highway and Transportation Department, a team appointed to investigate routes, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for waste transportation of all commodities, including transuranic waste, from federal funding and the adjacent areas, without regard to whether federal funding for the Project, in order to that safety, public compliance, economic, and impact on the environment, and impact on the community be given their proportional weight in making the determination.

Superintendant Stationer Sec
 James Wesley Holman Shug
 Justice and Law
 A.C. Lenses
 An Avenue to the
 Bearing Service Supply Co.
 Dairy Products
 General Agency Selling Insurance
 J. Wells C. W. Victoria Dept Water
 Land and Water
 Aggra C. and - Submarine
 Water Fil
 Park Motor Manufacturing Co. Ltd

The undersigned businessmen and merchants on U. S. Highway 82 (Main Street) and U. S. Highway 285 (First Street) request the Southern and Mexican Economic Development District, the City Council, the County Commissioners of Zeddy County, the New Mexico State Highway and Transportation Department, the Federal Highway Administration, and other affected agencies to designate U. S. Highway 285 as the primary thoroughfare for the transportation of all commodities, including without limitation to waste, through Artesia and the adjacent area, in order that whether Federal funding is available for the project, in order that safety, public impact on the community, economic impact on the community, and impact on the environment be given their proper consideration in making the determination.

Capone Services Station Jan 7 1948
 Mustang Auto Trim Cecil McClure
 Electrocut Early May 1948
 Bob's Metal Bldg Jan 14 1948
 Artistic Car Wash 746
 TRUCK & TRAIL SUPPLY
 Truck & Trailer Supply May 1948
 Curtis Tire Service Feb 1948
 A-1 Tires May 1948
 Evans Motor Western
 Ed's Garage
 Ed's Garage 1515 W. 1st

As a member of the City Council of Lowell, I have received numerous calls regarding the city of our road leading to the Campbells. I myself directed the removal of the same on May 26, 1938. It was during one of our excursions to the airport to our quarters near there.

Will be required to maintain a record of the need in the various areas where the water will be shipped, and in which area some or a funding more than \$5 million would be required for investment and may provide an estimate of \$60 million for the purpose. The funds will be allocated through the state of various projects, highway department, while supply department may begin before all required and department code completed, supply department will also only state approved routes under conditions of state without so drawn as code for the water.

Is it that answer that our state is responsible
for the abominations coming through our towns and
cities? Also how can we our leaders, our kind
of worried about the trouble coming through our
human heart, that the trouble we passed on to our
offspring the trouble to come through from 12:00 P.M.
to 1:00 P.M. only. How can we use that they will
listen to us. O father as I am concerned, I would

II

Let's to have the shipments stopped, until the supplies are completed.

City Council
Mayor & Mayor
702 S. Delaney
Riverside, MO 63201

P.S. My questions were,

1. The conflict of our needs and ability carrying it's maintenance, who will be in charge of it?
2. Will the needs be ready by the time the trucks start coming in?

7.15.41
7.15.44

7.3.5

the carlsbad department of development

June 22, 1989

My name is Chuck Bernhard. For the past two years, I have been the Executive Director of the Carlsbad Department of Development. I am submitting this testimony to you today on behalf of the City of Carlsbad, Eddy County as well as some 70 businesses and individuals who support the operation and activity of our organization in its attempts to stimulate new economic growth in the Carlsbad area.

It is no secret that WIPP has been of benefit to our local economy and currently employs over 800 persons. Nevertheless, our past and current involvement with WIPP has never been, nor is, nor ever will be an act of economic desperation. When the leadership of our community first registered its support for WIPP, the price of a barrel of oil was two to three times its current value in real dollars and the potash industry, our most basic industry, was peaking at a healthy level. With the establishment of a pricing and production agreement with Canada in early 1988, the potash industry has upped by over 100 jobs and continues to show improvement.

Other areas of our economy have also shown marked improvement. For instance, travel at the Carlsbad Caverns over



PHONE (609) 817-6422

P.O. BOX 1000

CARLSBAD, NEW MEXICO 88520

7.2.27

22-Jun-89: EX-00731, PAGE 2 OF 3

Memorial Day showed a 25% increase over last year. Agriculture, particularly the production of alfalfa, is also showing an increase over previous years.

If the only reason underlying our support of WIPP is economic then why would we continue to support the project in light of our economy that is showing increasing strength in these other areas? And, if we only wanted WIPP for its jobs it provides then why did our Board of Directors recently unanimously pass a resolution against a proposal for interim storage of transuranic waste even though it could mean several hundred new jobs to our area?

The answer is simple. It is our belief along with Governor Andrews of Idaho that the storage of 55 gallon barrels containing radioactive waste on a concrete slab in a bubble tent is no solution to the problem of transuranic waste and we simply do not want that kind of use in or near Carlsbad. We are convinced that the permanent isolation of waste in bedded salt 2,150 feet underground is likely the solution and is certainly worth trying out. In addition, we are also convinced that DOE has taken increased precautions to ensure the safety of the project to the public and to the environment while the demonstration period is in progress.

Moreover, we believe it is critical that this project be "tested" with live waste in an amount of sufficient quantity that both the scientific and operational integrity of the project can undergo an accurate evaluation. Without a test of the project

7.2-27

31-1
51-3
7.2-27
7.11-3

22-Jun-89: EX-00731, PAGE 3 OF 3

with live waste in situ, our community and the rest of the world will never really know and will never be assured that our beautiful river, lakes, mountains and caverns as well as our people will truly be protected. Who can argue that our community, Carlsbad, stands to lose more than anybody if WIPP is faulty? *WIPP is not a repository for the future.*

In sum, we say lets give the project a chance over these next five years to prove itself. Therefore, we support the proposed action by DOE to proceed with a phased approach to determine whether the WIPP should become a repository for the disposal of T&U waste. Future generation will hold us responsible for creating a safer world and if we don't give WIPP this chance we simply are not acting responsibly.

1-1

31-1
51-3
7.2-27
7.11-3

22-Jun-89; EX-00732, PAGE 1 OF 2

My name is J. R. Walls. I live in Carlsbad, New Mexico. I established by residence there in 1950.

A major portion of my career has consisted of working in the Potash Mines where I worked for about 37 1/2 years. I feel with that exposure in the bedded salts around Carlsbad that I have a good concept of the characteristics and behavior of salt.

I have had an active interest in the WIPP Project since the preliminary studies were started in 1976 and have followed the project, including traveling to various hearings both in West Texas and in New Mexico, to learn as much as I could about the project. As a natural extension of my interest I became a part of the Westinghouse team, at WIPP, approximately 1 1/2 years ago. My exposure to WIPP and the study that I have done has convinced me that the project is a sound, viable solution to the nations nuclear waste problem. I believe that the salt deposit with its characteristics of self healing, impermeability, and plasticity is an ideal media to store the waste. I believe when the project goes forward and we actually receive waste that the WIPP Project will conclude that bedded salt is the ideal place to store the millions of cubic feet of waste that exist or will be produced in the future.

The current issue concerning the cracks in the back that you may have heard about are normal occurrences in the openings. The rooms where these cracks occurred were mined approximately 5 years ago. The

1-1

1-1
7.12.1-2

7.7.2-1

22-Jun-89; EX-00732, PAGE 2 OF 2

Page 2

conditions that we now see were predicted, and anticipated. The reason we moved out of these rooms are to preclude the possibility of exposing someone to a hazard. Since safety is our number 1 goal at WIPP, we go overboard to ensure that no one will be in a situation that would create a risk for them personally.

I repeat, my home is in Carlsbad. I have raised by family in Carlsbad. I intend to retire in Carlsbad and I feel that the WIPP Project is not a detriment to Carlsbad, nor will be, and that indeed it is just the opposite. It is an asset to our community as well as to our nation.

Thank you for this opportunity.

1-1
7.12.8-1

June 20, 1989

U.S. Department of Energy
Office of Public Affairs
MPP Project Office
P.O. Box 3090
Carlsbad, N.M. 88221

Re: Waste Isolation Pilot Project
Letter of Testimony

Ladies and Gentlemen,

Your concept of transuranic waste storage at the underground WIPP facility raises my concern for future generations. I do believe that your proposed application will safely isolate these radioactive materials, however I strongly request an evaluation of the container handling process. The proposed IND-PACK II shipping container remains potentially "human error plagued". Rail transport should be selected for final shipment.

As you are aware, these transuranic wastes will be fossilized into the Salado salt formation and could eventually mix with underground water sources. Are we sure the Carlsbad location has geologic stability? My recent independent studies of your Savannah River Plant site, Hanford Reservation facilities, and the Three Mile Island environmental cleanup efforts indicate the process of vitrification is in the solution.

Implementation of the vitrification process prior to shipment to the WIPP facility and other probable facilities, enable transportation concerns to be minimized. Future mining of vitrified transuranic waste deep from within the WIPP facilities would allow easier retrieval. The human intellect will surely invent nuclear reactors "harvesting" this abundant fuel source. The primordial plutonium of sea-contaminated waste breeds into our future development, please respect its predictability.

Sincerely,

Walt Messert Jr.
Walt Messert Jr.
P.O. Box 446
Castle Rock, Colorado
U.S.A. 80104-446



22-Jun-89: EX-00733, PNBE 2 OF 2

June 20, 1989

U.S. Department of Energy
Office of Public Affairs
MPP Project Office
P.O. Box 3090
Carlsbad, N.M. 88221

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Letter of Testimony

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Sincerely,

Walt Messert Jr.
Walt Messert Jr.
P.O. Box 446
Castle Rock, Colorado
U.S.A. 80104-446

1-1
7.3.12
7.3.5-1

7.3.2-4

7.15.3-1

INTRODUCTION

LIVE IN
~~GRAND~~ CARLOS
~~OF~~ & TR. SEVENTH RE
 BSME. UNUS
 RECENTLY ~~INTERVIEWED~~, ENGR. NH
 WORKED ON TRACI. PROJECT. A MR.
 PLEASED TO HAVE OPPORTUNITY
 TO SPEAK

22-JUN-89: EX-00734, PAGE 1 OF 12

2

LIVE MOST OF YOU - I WAS CONCERNED
 BURY RADIOACTIVE WASTE
 AND ~~LABORATORY~~ ~~ASSISTANT~~ ~~USELESS~~
 LIVE HERE BY CHANCE - QUALITY
 UNTIL 4 YRS. AGO EVERYTHING
 FROM PHOTOS & TV.

TRANSCRIPTION

22-JUN-89: EX-00734, PAGE 2 OF 12

7.3.1.1-19

3
IN MY DEMO ~~ON~~ EACH BE
US ~~THE~~ WAY OR NEAR ROUTE
HAVE A GOOD REASON TO WANT
TO KNOW FACTS...

WHY -- PAGE 1000 IS
OPERATIONAL -- ASSUMING 5 YR
DEMO DOES NOT FIND ANY
SHOW STOPPERS.

THERE WILL BE 1-2
SHIPMENTS DAY SOUTH ON
45-285.

22-JUN-89: EX-00734, PAGE 3 OF 12

7.3.1.1-19
7.3.1.2

4
DEFICIENT
RELATES TO DRUMS STORED
NEAR ALMOST 1/2 MILE UNDER
GROUND
RELATE TO SALT 200 MILLION
YEARS OLD
CAN RELATE TO 18 WHEELS
ON THE SAME HIGHWAY.

22-JUN-89: EX-00734, PAGE 4 OF 12

7.3.1.1-2
7.3.1.1-19

WASTE : 22-JUN-89: EX-00734, PAGE 5 OF 12

BASALLY ITS THE SAME
STUFF YOU FIND IN A
LAND FILL W/ 2 EXCEPTIONS

1. CONTAMINATED WITH VERY
SMALL AMT RADIOACTIVE
ISOTOPES -- Pu

2. MAY HAVE ~~HAZARDOUS~~
~~HAZARDOUS~~ AMTS OF
HAZARDOUS CHEMICALS PPM
CARBON TETRACHLORIDE -- TRICHLOROETHYLENE

7.3.11.2
7.3.11.19

22-JUN-89: EX-00734, PAGE 6 OF 12

NOT NUCLEAR BOMBS

" TOXIC SOUP

" EXPLOSIVE GASSES

IS PHYSICALLY IMPOSSIBLE
TO START A CHAIN
REACTION

RADIATION SO WEAK
THAT IT IS ~~CONSIDERED~~
~~STOPPED~~ BY A SHEET
~~OF PAPER~~ NEUTRONER

7.3.11.2
7.3.11.19

22-Jun-89, EX-00734, PAGE 7 OF 12

WHY WORRY

1. DONT WANT TO INGEST IT

BREATH OR EAT

~~25~~ SOLN.

1. CONTAINMENT - GARGLE DAS

7311-2
7311-19

22-Jun-89, EX-00734, PAGE 8 OF 12

TRIPACT

DESCRIPTION =

55 GAL DRUM OR 50/75

55 PRESSURE VESSEL - LEAKING

55 " " - LEAKING

10" LAYER OF INSULATION

10" FOAM

LAYER OF INSULATION

55 OUTSIDE SHELL

THIS IS A

~~TRIPACT~~ TRIPACT II

7311-2
7311-19

9
ACCIDENT DANGER - 2

1. FRICTION OR PUNCTURE
2. FIRE AND BUILD UP PRESSURE OR BURN OUT SEALS,

22-Jun-89: EX-00734, PAGE 9 OF 12

7.3.1.12
 7.3.1.1-19

22-Jun-89: EX-00734, PAGE 10 OF 12

REGULATIONS:

REPAIRING W/ SEQUENTIALLY
 TEST A VERY SEVERE
 ACCIDENT USING AN
 UNYIELDING TARGET

1. 30' DROP
2. 40" PUNCTURE
3. BURN - ASSUMPTION 50'

7.3.1.12
 7.3.1.1-19

4 PACKAGES
12 30' DROPS
25 PUNCTURES
2 FIRES

~~AT NO TIME DURING ANY TEST~~
WOULD THERE EVER HAVE
BEEN A RELEASE OF
RADIOACTIVITY 73-JUN-89: EX-00734, PAGE 11 OF 12

73112
731119

CONCLUSIONS:
23-JUN-89: EX-00734, PAGE 12 OF 12

IF TRIPACT-II IS EVER
IN AN ACCIDENT IT WILL
BE NO WORSE THAN ANY
OTHER ACCIDENT INVOLVING
AN 18 WHEELER -- RELEASE
OF RADIOACTIVE CONTENTS WILL NOT BE ISSUE

73112
731119

Statement for
Department of Energy on
Supplemental Environmental Impact Statement
Artesia, N. M., June 22, 1989
By M. B. Haddell, Roswell, N. M., as a Private Citizen

I attended the question and answer session in Roswell on June 19. While some of my questions were answered, a number of others were raised by the discussion.

Before addressing the problems of WIPP as I see them, I want to say that I think the Department of Energy and others involved in the decision were short sighted and irresponsible in deciding that the only way to dispose of nuclear waste was by underground burial. If we had spent as much money on research to neutralize its toxicity as we have on aging of nuclear waste as we have on WIPP, its toxicity would be lessened. We would be much closer to solving the problem of the waste. We are now treating the symptoms which have become monstrous. For those who say it cannot be done, it was not many years ago that the same was said about nuclear fission.

The most pressing concern of residents in Roswell is that of transportation of the waste to the WIPP site. At the present, an estimated 80 percent of all waste deposited in WIPP will go through the heart of the City of Roswell. Despite promises and agreements that bypasses would be built around cities on the routes leading to Carlsbad, none have yet been funded or built even though WIPP is scheduled to open in September. All waste should be transported through the City until such time as the necessary bypasses are available for use. I also resent the power play which causes cities to buy the current plan because of the threat of administrative withdrawal of WIPP site land adversely affecting money for bypasses.

The Department says that rail transportation has not been ruled out, yet all the comments and plans deal with truck transportation. The action speaks louder than words. With a lower rail safety hazard I cannot see why the current activity. One solution to the bypass situation is to haul all waste to Carlsbad by rail until such time as the necessary truck bypasses can be built.

The Department quotes millions of miles of safe trucking in the hauling of nuclear waste. None of these have been over the access highways to WIPP and very few experiencing the weather, winter and summer, that are a perennial hazard in New Mexico.

The type of container for transporting waste has been partially tested; one has not yet been developed to the testing stage. The types of tests conducted on the prototype available now do not begin to exhaust the potential for varying conditions of the waste transported and for the potential of accidents that may occur along the highways. The damage that can result from any spill during transportation is pervasive enough to require exhaustive tests of actual equipment so that it will exceed conceivable worst case situations in the transport of waste.

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521
522
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73112
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The Department of Energy agreed to provide training and equipment for emergency response preparedness. While some training has been undertaken, it is not yet complete and, from the description by WIPP staff, that has been given is quite perfunctory. The necessary monitoring equipment has not yet been supplied. Full-scale emergency response for any spills in and around Roswell would come from the WIPP site itself. With the extensive winds that are prevalent in this area, serious damage could occur over a large area before any personnel from WIPP could possibly arrive at the scene of a spill. This whole area of emergency response has been given short shrift and certainly leaves much to be desired in assuring that the Department of Energy has any real concern for the safety of residents in this or any other area in New Mexico.

The City of Roswell, recognizing some of the potential transport dangers through the city, has passed an ordinance that would limit movement of waste shipments through Roswell to hours immediately after midnight to minimize traffic hazards. The Department of Energy is riding the fence whether this rule will be honored. If the Department insists on shipping waste ahead of completion of bypasses, then by all means the Department should honor this rule. If for some compelling reason this ordinance cannot be honored, then no waste should be transported through the City of Roswell until a bypass can be built. The same should apply elsewhere too.

With respect to the WIPP site itself I have several concerns.

One is the reaction to the existence of brine in the storage locations. Early on there was assurance that no brine existed at all--these were dry salt beds. Now that it is found that brine does exist and in quantities not expected, it is said there is nothing to worry about as this was expected. When the storage area is sealed up, the corrosive action of the brine and/or the pressure of the encompassing salt crushing the storage containers will allow mix of the brine with the contaminated waste, causing a real danger of long duration ground water contamination. Also ignored is the high pressure brine area below the storage level. Why does not the Department do much more exploration and research on this problem when we are talking about possible storage and attendant changes over thousands of years?

A related problem is that of mixed wastes. Much of the waste to be stored at WIPP is apparently a combination of nuclear waste and other toxic wastes. Although the Secretary of Energy has agreed to delay the storage of mixed wastes, there has not been the same kind of control over toxic wastes so that the effect within the WIPP storage area cannot even be estimated. WIPP staff says that x-ray of each drum to be stored will be able to determine its content, but I submit that this is not possible. There needs to be some control of non-nuclear, toxic waste either before shipment to WIPP or sorting of the contents of each drum at WIPP with a determination of whether such waste can legally be stored at WIPP before such storage is in fact accomplished. As I understand, the Department of Energy is silent on this subject.

I also understand that this unknown mixture of wastes also has other

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71261
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22-Jun-89: EX-00735, PAGE 3 OF 3

implications, for it will affect the type and amount of gases forced. Since the WIPP storage area is sealed and these gases form, what happens over a period of time? It seems only reasonable to me. I mean, that once the pressure builds from these gases, they will seek an outlet. With the extensive cracks in the walls, floors and ceilings already in evidence and the different types of layers of strata above and below the salt in the storage area, it seems highly likely that these contaminating gases may well escape to contaminate the atmosphere.

WIPP has already been exempt from Nuclear Regulatory Agency standards (which was a major mistake) and now is not willing to comply with the old Environmental Protection Agency regulations (which have already been determined to be inadequate) before storage. Thus, I should not be stored in WIPP until all EPA regulations have been met and this can be demonstrated to the scientific community. This is more important than otherwise when you consider the track record of the Department of Energy at the Hanford, Rocky Flats, and Savannah River projects where there has apparently been little or no supervision, standards or control with respect to waste handling. It can be cleaned up at all. New an horrendous cleanup problem. I think it is a matter of time with a similar facility in Mexico should not become still another site with a similar facility problem because of the lack of adequate safety precautions and safeguards from the Department of Energy. To repeat, if WIPP cannot be proven to meet EPA standards, then no storage of any waste, on an experimental or permanent basis, should be allowed.

What happens to any waste stored at WIPP if the ultimate decision is that the site is not suitable for permanent storage? I understand that the Department of Energy has not spoken to this contingency. Is this an oversight or is WIPP considered an opening wedge from which permanent storage is a foregone conclusion? What is the plan for waste if it must be removed from WIPP?

The operation of WIPP will have almost no impact on the total nuclear waste problem facing this country. While the amount of waste transferred to WIPP will be substantial, it is a very small percentage of the total nuclear waste from all sources. Since its impact is small, why is the Department of Energy so anxious to hold to an unreasonable start-up deadline, given the many unresolved problems connected with the safety of all facets of the project? Storing the waste for a while longer wherever it is currently stored is a small price to pay for the demonstrated assurance that the Department of Energy has indeed taken all the necessary steps to insure safety before any storage at all occurs.

22-Jun-89: EX-00736, PAGE 1 OF 1

WIPP NOTES

I am Joe Rose, with Lakeview Christian Home. Lakeview operates two senior citizen retirement living and nursing care facilities at Carlsbad. One on US 285 at 1905 West Pierce Street near the Northgate Shopping Center, the other on the river at 1300 North Canal.

Our operations include a 48 unit Village, Assisted Living, and total nursing care serving approximately 365 people with an additional 250 employees.

We support the WIPP facility. Residents and staff of Lakeview Christian Home do not consider it a threat to their health or welfare. Many recognize the significance of the salt beds (for waste storage) from friends and relatives working in the potash mines for many years. The transportation and storage of low-level waste is not a problem to people of Lakeview.

EXTRA IF QUESTIONS FOLLOW:

Yesterday morning I visited with our professional people and the housekeeping staff - again, no one objects to WIPP. The beauty shop on our campus at Lakeview is quite a "crossroads of conversation" - off-campus volunteers, residents and staff meet there - all comments are favorable to WIPP facilities.

74 - Village 60 - Assisted Living (43 LV + 17 MG)
231 Nursing Care

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STATEMENT FOR WIPP HEARING
ARTESIA, NEW MEXICO
JUNE 22, 1989

My name is Terry Burns, 302 S. Canal, in Carlsbad. I am the Executive Director of the Carlsbad Chamber of Commerce, and my purpose here this evening is to register the support of the Carlsbad Business Community, as represented by the 700 business and professional members of the Carlsbad Chamber.

There is no doubt that the WIPP site is an economic boost for the Carlsbad area. However, NO ECONOMIC INCENTIVE is worth trading your health and safety for. The support of the Carlsbad Business Community clearly indicates that they feel the site poses no threat to the community.

In previous hearings, DOE has come under considerable fire for problems arising in other areas. I would like to say that DOE representatives have been nothing but open and above board with our community, but we do feel that there are valid concerns with these other areas that need to be addressed. The safety of the site in Carlsbad, however, rests not on the large, impersonal national bureaucracy, but on its local representatives, and even more importantly, on the operator Westinghouse.

Westinghouse is committed that there will be none of the problems which have arisen in other areas. They have brought in an array of experts. They have instituted safety programs, instruments, and procedures that are head and shoulders above what is being used anywhere. Yet I just had a conversation with a new engineer with an intensive background in these programs, and he said that the procedures who has been charged with the task of taking a "static" of the art' monitoring and safety system and finding ways to improve on it more.

Yes, the Carlsbad community is absolutely comfortable that the site is safe. Those who have worked for many years in the mines know that the salt beds are dry, are stable, and represent the safest known repository for Transuratic waste. Yet, I would assure you, if a better alternative were brought forth tomorrow, we would gladly switch our support to that method.

In the meantime, we cannot sit idly by with substantial portions of our population at risk from waste which is improperly stored while we possess the means to eliminate or greatly reduce that risk. This is not a stand we have to take but it is a stand that our consciences require us to take.

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It would seem that a number of people place themselves in opposition to this project. We applaud the public spirit that causes them to care. However, anyone can spot problems. What we need in this world today is people who can propose solutions. To just place yourself in opposition to a viable solution without being able to offer an alternative is irresponsible.

To us, WIPP represents a viable solution to a pressing national problem. We strongly support proceeding with full scale testing at the earliest opportunity.

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PRESENTATION
TO THE

U. S. DEPARTMENT OF ENERGY

JUNE 21, 1989

ARTESIA, NEW MEXICO

GENTLEMEN:

THANK YOU FOR ALLOWING ME TO TESTIFY TONIGHT ON THIS MOST IMPORTANT TOPIC. MY NAME IS MIKE GARLINGER. I AM 34 YEARS OLD, MARRIED AND THE FATHER OF TWO YOUNG CHILDREN, AGES 6 AND 4. I WAS BORN AND RAISED IN CARLSBAD, NEW MEXICO AND I AM CURRENTLY PRESIDENT OF AN INDEPENDENT OIL COMPANY IN CARLSBAD. I SERVE ON SEVERAL CIVIC AND COMMUNITY BOARDS AND COMMITTEES.

WE HAVE AN OLD SAYING IN THIS PART OF THE COUNTRY: THE WATER WILL NEVER CLEAR UNTIL YOU GET THE MOGS OUT OF THE CREEK. IN THE CREEK OF PUBLIC OPINION, AS IT REGARDS WIPP, WE HAVE A NUMBER OF MOGS MUDDLING UP THE WATER. AS A YOUNG PERSON GROWING UP IN THE SIXTIES, I LEARNED TO BE SKEPTICAL OF THE GOVERNMENT. THAT SKEPTICISM CONTINUES TO THIS DATE. MY FIRST GROUP OF "MOGS" ARE THE DOE, WESTINGHOUSE AND THE STATE OF NEW MEXICO'S ENVIRONMENTAL EVALUATION GROUP. FIRST,

THE DOE. IN RECENT DAYS IT HAS BECOME PUBLIC KNOWLEDGE THAT DOE FACILITIES IN SAVANNAH RIVER, HANFORD AND ROCKY PLAINS ARE LESS THAN MODEL OPERATIONS. IN POINT OF FACT, THEY ARE DISASTERS. TRUE ECOLOGICAL DISASTERS.

ONE MUST WONDER WHETHER THE DOE IS CAPABLE OF MISLEADING THE PUBLIC.

THE ANSWER IS OBVIOUSLY YES. WESTINGHOUSE, AS PRIME CONTRACTOR AND OPERATOR OF THE WIPP FACILITY TAKES DIRECTION FROM THE DOE. EVERYTHING THEY DO IS A RESULT OF A DIRECTIVE BY THE DOE. THEREFORE, THEIR CREDIBILITY COULD BE SUSPECT. THE EEC, A STATEWIDE GROUP SET UP

AFTER IMPLEMENTATION OF THE ADVISE AND CONSENT AGREEMENT DRAWN BETWEEN THE DOE AND THE STATE OF NEW MEXICO, HAS BEEN AND STILL IS A POLITICALLY MOTIVATED GROUP OF QUASI-SCIENTIST WITH LIMITED AUTHORITY AND, IN MY OPINION, BASED ON SOME OF THEIR RIDICULOUS STATEMENTS, LIMITED KNOWLEDGE. THUS ALL OF THESE GROUPS ARE OR HAVE THE CAPACITY TO BE MOGS IN THE CREEK. IN OTHER WORDS, THEY HAVE THE CAPABILITY TO MISLEAD THE PUBLIC, INTENTIONALLY OR OTHERWISE.

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THE SECOND GROUP OF MOGS COMPRISES MANY OF THE POLS YOU HAVE HEARD FROM CARLSBAD. PLEASE UNDERSTAND, NO COMMUNITY IN THE WORLD IS AS EDUCATED ABOUT WIPP AS ARE THE PEOPLE OF CARLSBAD, NEW MEXICO. WE HAVE BEEN INFORMED WITH INFORMATION ABOUT THE PROJECT, BOTH PRO AND CON. WE HAVE HEARD SPEAKERS AFTER SPEAKERS, SCIENTIST AFTER SCIENTIST, AND READ AND HEARD HUNDREDS OF MEDIA PRESENTATIONS CONCERNING THE PROJECT. BUT OF ALL THE PEOPLE FROM CARLSBAD, FROM WHEN YOU HAVE HEARD COMMENTS, THERE IS NOT ONE NUCLEAR PHYSICIST AMONG THEM. SOME OF THEM HAVE TOLD YOU UNCATAGORICALLY THAT WIPP IS SAFE. I HONESTLY DO NOT KNOW HOW THEY WOULD KNOW THAT. WE ARE DEPENDENT UPON INFORMATION RECEIVED FROM OTHERS, AND AS WE ARE NOT EXPERTS, WE ARE CAPABLE OF BEING MISLED. SO WE TOO ARE MOGS IN CREEK, AND I INCLUDE MYSELF IN THAT GROUP.

AND PERHAPS THE MOST DANGEROUS ACTIVE OF THE MOGS IN THE CREEK ARE THE SO CALLED SOCIAL AWARENESS GROUPS, SUCH AS THE CONCERNED CITIZENS FOR NUCLEAR SAFETY AND ENVIRONMENTAL RESEARCH INITIATIVE. BOTH GROUPS AND THEIR FOLLOWERS ARE ANTI-WIPP, AND FRANKLY, ANTI ANYTHING TO DO WITH THE NUCLEAR INDUSTRY. THEY ARE, IN REALITY, PROPAGANDISTS, SPECIALIZING IN EXPLOITING THE FEAR THAT PEOPLE HAVE OF SOMETHING THEY DO NOT UNDERSTAND. THEIR CAMPAIGN OF MISINFORMATION, REAGGERATION AND CROSS LIES HAVE SERVED NO PURPOSE, SAVE TO INCITE THE PUBLIC AGAINST WIPP AND OTHER NUCLEAR RELATED PROJECTS. THEY OFFER NO INTELLIGENT ALTERNATIVES. PERHAPS THE MOST DANGEROUS OF ALL THE GROUPS THAT SHOULD BE REJOICING IN THE POSSIBILITY OF MOVING THIS RADIOACTIVE GARBAGE FROM THEIR BACK DOORS TO A POTENTIAL SAFE LOCATION, IT SHOULD BE THEIR SUPPORTERS ENVIRONMENTALLY CONSCIOUS GROUP. THEIR NATIONALITY, WHAT LITTLE THERE IS OF IT, DEVIES LOGIC AND REASON. THEY MUST BE CHASED FROM THE CREEK.

I AM GOING TO SUGGEST TO YOU THE FOLLOWING:

1) SET UP AN OVERSIGHT GROUP (I WOULD RECOMMEND THE NATIONAL ACADEMY OF SCIENCES) WITH COMPLETE AUTONOMY AND WITH THE ABILITY TO REQUIRE PROGRESS REPORTS, ON-SITE INSPECTION AND ACCOUNTABILITY TO A NON-GOVERNMENTAL, NON POLITICAL GROUP.

2) GIVE US, THE PUBLIC, A REAL TEST OF THE WIPP FACILITY AND A REAL TEST OF THE TRANSPORTATION PROBLEM. WIPP WAS DESIGNED AS AN EXPERIMENT. WE DON'T YET KNOW ALL THE ANSWERS AND WITHOUT A TRUE P. 3/E

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7-11-3

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TEST WE WILL NOT GAIN THE INFORMATION NECESSARY TO MAKE INTELLIGENT AND THOUGHTFUL DECISIONS ABOUT THE FUTURE OF STORING NUCLEAR WASTE IN SALT FORMATIONS.

FOR ALL TO IT IS THE RESPONSIBILITY OF THE DOE AND WESTINGHOUSE TO SHOW TO CONGRESS THEY ARE CAPABLE OF OPERATING A FACILITY WHERE THE PUBLIC IS TRULY PROTECTED. IT IS CONGRESS'S RESPONSIBILITY TO MAKE TIGHT DECISIONS ABOUT PROPERLY FUNDING THOSE OPERATIONS. WIPP HAS LONG BEEN A POLITICAL FOOTBALL AND POLITICS HAS NO RIGHTFUL PLACE IN THIS KIND OF DECISION. THE DECISION SHOULD BE ONE BASED ON SCIENTIFIC DATA, NOT ON WHETHER A CERTAIN CONGRESSMAN IS GOING TO GET HIGHWAY MONEY FOR HIS DISTRICT, OR ANOTHER CONGRESSMAN IS GOING TO GET JOBS FOR HIS DISTRICT OR A SENATOR IS GOING TO GET A FEW HUNDRED VOTES BECAUSE HE LINED UP WITH THE OPPOSITION. THIS DECISION RELATES DIRECTLY TO THE FUTURE OF THE NUCLEAR INDUSTRY, BOTH PUBLIC AND PRIVATE, AND THE DECISIONS BEING MADE TODAY WILL AFFECT GENERATION AFTER GENERATION. HENCE, IT IS TIME TO CHASE THE HOGS FROM THE CREEK, TO LET THE WATER CLEAR AND MAKE SOME REASONABLE AND THOUGHTFUL DECISIONS ABOUT OUR FUTURE. THANK YOU.

MIKE GARRINGER

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22-Jun-89: EX-00739, PAGE 1 OF 4

HENRY H. BROWN, D.C.
CHIROPRACTOR
CARLEBAD, NEW MEXICO 88502

I am not in the least bit afraid of WIPP. I have lived in Carlebad all of my 59 years. 2 of my grown children and my 84 year old Mother live there and none of them are afraid of it..

I personally believe that a large part of the problem concerning the safety of WIPP has been brought about by some of our newspapers who seem to love sensationalism. Its been said by many that "bad news is what sells newspapers". When a city the size of Albuquerque with about 500,000 people has a group of 2 or 300 protest something it should be reported as such. Why should the tail wag the dog. To make headlines and fill the front pages with news like "City is outraged about WIPP" is nothing but a gross exaggeration. And, they know it...

Recently a protest in Albuquerque was noted by the Albuquerque Tribune. All the quotes on the front page, ~~newspapers~~ were from the Albuquerque people who attended. Not one word was said about what the citizens of Carlebad had to say. This is biased reporting and they know it. Just today, another big front page article about WIPP ~~was~~ started off with the caption, "Another city up in arms over route of WIPP." The article goes on to say that a group of 20 people had formed against WIPP. I ask you, why should 20 people sit out of approx. 40,000 be the spokesman for this? Its ridiculous to see one tenth of one per cent of Roswell be given as "another city up in arms" Just another excuse to sell newspapers. ~~Re...~~ Mayor Brainerd,

Henry H. Brown

and I quote said, "I believe the majority of the Roswell residents still believe WIPP can be operated safely" He states also, " I don't believe opposition in this town is as widespread as some people might think"

In summation, it seems to me that we have had a world of scientists study this situation. They are in the vast majority when stating that they believe WIPP is safe. I believe the storage containers built by TRUPACT to ship the waste is safe. Millions of dollars were spent to build and test them.

One last statement. YXX Why hasn't XMMX Santa Fe said anything about the waste products stored above ground at Los Alamos National for the past 40 years? so. Well, I would suppose that a lot of people work in Los Alamos and the business community there has Mr certainly enjoyed the spinoff. Thank you.

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Another City Up in Arms Over Route To WIPP

By Chuck McCutcheon

Some residents of a New Mexico city along the transportation route to the Waste Isolation Pilot Plant recently have become concerned about potential problems caused by a proposed highway interchange down a heavily radioactive waste disposal site.

The city, however, has taken no action.

A growing number of Roswell residents appear to be concerned about the safety of the permanent nuclear waste repository near Carlsbad, 74 miles to the south.

Some of them said they will make their voices heard at a public hearing on WIPP in May at the Department of Energy's Energy Research Center, 612 N. Eighth St.

The hearing starts at 9 a.m. at the Energy Research Center, 612 N. Eighth St. The hearing is expected to last about 100 people to attend the service.

Like Santa Fe, the main center of opposition against WIPP, Roswell now has a new climate group to scrutinize the Energy Department's plans.

The group, the Southeastern Committee for a Safe WIPP, was formed in May after the state officials said public hearings on the facility would be held in Albuquerque and Santa Fe, but nowhere else in the state.

One of the group's founders, Logan, one of the southeast New Mexico's and a teacher at New Mexico State University.

About 20 group members spent

more: See A07708 on page 21

Art Jorgensen Tachon
Tachon, June 22.

Over. To WIPP

CONTINUED FROM PAGE A1

at days outside sleeping centers with no electricity, adding energy efficiently, they collected 1,200 signatures, a number Logan called "overwhelming."

"There's a little more that everyone thought that people coming up with all these signatures," she said.

When she heard of the group's plans for a hearing in June, she and energy officials decided to which to hold the hearing in Arvada, Colorado.

The decision infuriated the group, Logan said, but the members have agreed to go on with their work. They recently learned that the federal agency is trying to get the company with U.S. Environmental Protection Agency standards before any waste is shipped there — a position taken by most WIPP officials.

Group members also have been told city officials will take a formal stand on the plan, she said.

But Logan said she doesn't think the city should take a position "because individual citizens can."

Logan said the efforts of Logan's group, Brainerd, also said he believes the majority of concerned residents will believe WIPP can be operated safely.

"I don't believe opposition to WIPP is as widespread in this town as some people might think," he said.

Tommy Hallenbeck
Rt 1 Box 815
Roswell.

It is apparent that there is a wide disparity of belief systems here and it appears that there is no real resolution. That can render one cynically helpless, ultimately apathetic. Yet this is outside of hand. DOE has the albatross around its neck. I and my use of energy, is partly responsible. I share the concerns of those who are conscious of their consumption of energy & are conscientious. We're not "flaming liberals" as sometimes accused of being. I stand for concern for not just me, my loved ones, my neighbors, but for OUR planet. How much time, energy, intellect, money, is DOE expending for Alternative Energy Sources?

Energy Repudiation

36-1
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How much more "Nuclear Weapons
Readiness" do we need? And on
the long range plan? How
much ~~weapons~~ can the
planet sustain... Maybe the
real question we could all
ask - those on both sides
of this issue, how concerned
am I about the planet?
Enough to need alternate
sources of energy, less energy
production
It's not just weapons ~~production~~
we are dealing with, but the
or will be
production of energy sources
in the future.
Of the waste is so safely
stored in containers strong as
than cardboard what shakes
it such an urgent issue that
it be moved?

My name is Arthur H. Reeb. I live at 1009 N. Guadalupe St., in
Carlsbad, New Mexico. I am a retiree-formerly a farmer in Illinois and
later a missionary in the barrios of the Philippines. *We are changing*

We have lived in Carlsbad for 9 years. We became interested in the
WIPP project about 6 years ago; the underground storage of nuclear waste
was entirely new to us. I have read that WIPP is the first underground
storage of nuclear waste in the world.

This project first came to the mind of Eddy County citizens 15 or
20 years ago. It was worked on by interested parties and is now completed.

My years of experience has told me that when anything toward progress
has entered the minds of interested groups-vision is given. Different
approaches to the project are studied and continually details are worked
out over a lengthy period of time which has taken place; and a dream
has come into reality. That is often the case. (U.S. technology excels
above that in any other country of the world)

We have traveled around the globe; and have conversed with people
from 91 countries on this earth. I am confident that the waste isolation
plant is just where it is supposed to be, with every detail handled by
experts in their respective fields. I would say, SAYE, is the word.
There is there a better place to store nuclear waste than a half mile
below the surface of the particular area that was chosen for WIPP
sight? There is no other alternative that I would consider, certainly
not in railroad cars on RR side tracks or similar dangerous places;
where the public would be contaminated.

I've listened to many testimonies regarding the nuclear disposal
plant-both negative and positive. I've decided that since I first began
to take an interest in WIPP until now I'd say my impressions have been
favorable. *I would give a prominent spot in the 7 min*

As I have conversed with people in Carlsbad about the WIPP
project it seems as though about one out of ten disapproved the plan.
To a few people it seems to make no difference; but to the majority of
Carlsbad residents they approve of the project; and highly approve that
deliveries of nuclear waste be taken to WIPP. There seems to be no fear
of loaded trucks going thru the city of Carlsbad. I sure there are trucks
that have traveled thru our city and other cities with other things just
as dangerous or even more so and nothing is said against that.

Some people have stated that there are no workers from Carlsbad
employed at the WIPP sight. I know that is not a true statement, for I

2.

22-Jun-89: EX-00741, PAGE 2 OF 2

have friends who have worked there ever since its beginning and are satisfied with the entire project.

My wife and I have confidence in those who made the plans and then carried through the ideas to the completion of the project. That includes Tru Pac and others who will be making contributions to a successful completion of this project. I wouldn't think of scrapping 750,000 dollar project.

I have used the letters W I P P to make this particular phrase-- World's Important Project Perfectd.

Thank you.

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22-Jun-89: EX-00742, PAGE 1 OF 2

June 22, 1989

My name is Judy Jones, 1408 Glasier Street, Carlsbad. I am a real estate broker in Carlsbad. I support the WIPP project because it means jobs, and jobs means real estate sales. Simple economics!

However, I have a higher duty than my profession, and that is my role as wife and mother. No amount of economic benefit would be worth putting my family at risk, and real estate values do not do well if something happens to impact the safety or the quality of life of the community.

I am comfortable that WIPP is safe and presents no threat to my family or to our community. If I were not perfectly secure in that knowledge, I assure you I would be just as outspoken on the opposite side.

A lot of criticism has been leveled at DOE for things that have happened at other locations. I think these criticisms have raised valid points which should be addressed. It is not some indistinct federal entity to which I must look for the safety of the site here. It is Westinghouse, and local DOE representatives. Regardless of what might have happened elsewhere, here officials have been very open and above board.

Our community probably knows more about WIPP than anyone else. We live and work with the people involved. We have been on the site. We know it is enforcing stronger safety provisions and monitoring procedures than any nuclear facility anywhere. Yet I know they have brought in new engineers and charged them with the task of improving the system even more.

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Testimony of Judy Jones
June 22, 1989
Page 2

I'm here today to say I support WIPP. As a wife, mother and professional person, I say let's get on with the task of testing the facility. We've had enough emotional dialogue.

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22-Jun-89, EX-00743, PAGE 1 OF 1

Good Evening Mr. Chairman and Gentlemen and ladies and gentlemen, I am Fred Alvarez Commissioner of Eddy County Dist. 2 I am here in support of WIPP Project. I am chairman of the Relief Route here in Artesia and I have been keeping up with the progress of the Wipp Project. I have visited the WIPP Plant out side of Carlsbad And found it to be a well planned and organized Project and very high in safety standards. The people working there seem to be well trained and show a great interest in working with safety procedures first. I realize that WIPP is by no means a solution to our waste problem. But it is certainly a better alternative. We all feel very secure in knowing that our country has a nuclear capability in case of a hostile attack. We know that there is a need for this nuclear power for our own well being..... As we should realize that there is a need to dispose of the waste that it took to build these weapons. I personally believe that these waste materials would be better off twenty-~~one~~^{one} hundred and fifty ft. below the surface, then having them sitting around in a ware house exposed to lighting, fire or even a tornado which would scatter all over the country side then we would have a problem.

The Trupect. (1) has proven to be meet the requirements for Packaging-Highways Cline conor to the plant. ^{transportation of Radioactive Material}

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26-Jun-89, EX-00744, PAGE 1 OF 4

TESTIMONY OF JOHN KRECHTING
DIRECTOR OF TECHNICAL INTERFACE
NUCLEAR ENGINEERING AND OPERATIONS GROUP
TU ELECTRIC

ON

THE DRAFT SUPPLEMENT TO THE ENVIRONMENTAL IMPACT
STATEMENT FOR THE WASTE ISOLATION PILOT PROJECT

GOOD MORNING. I AM JOHN KRECHTING, DIRECTOR OF TECHNICAL INTERFACE FOR THE NUCLEAR ENGINEERING AND OPERATIONS GROUP OF TU ELECTRIC. TU ELECTRIC IS AN ELECTRIC UTILITY BASED IN DALLAS. IT SERVES CUSTOMERS IN 87 COUNTIES ACROSS THE NORTHERN THIRD OF TEXAS.

I WANT TO TALK BRIEFLY TODAY ABOUT THE IMPORTANCE OF THE WASTE ISOLATION PILOT PROJECT TO THE FUTURE OF COMMERCIAL NUCLEAR POWER IN THE UNITED STATES. WIPP IS OF VITAL INTEREST TO TU ELECTRIC AND OTHER ELECTRIC UTILITIES WITH NUCLEAR POWER PLANTS BECAUSE IT WILL DEMONSTRATE THE SAFETY AND EFFECTIVENESS OF STORING RADIOACTIVE WASTE IN DEEP GEOLOGIC FORMATIONS.

OUR COMANCHE PEAK NUCLEAR PLANT IS SCHEDULED TO GO INTO COMMERCIAL OPERATION EARLY NEXT YEAR. WE CAN SAFELY STORE SPENT FUEL FOR SEVEN YEARS ON SITE AND WE CAN MAKE ARRANGEMENTS AT A SIGNIFICANT COST TO OUR CUSTOMERS TO STORE IT LONGER IF WE NEED TO. BUT MANY UTILITIES WITH OLDER PLANTS ARE FINDING THEMSELVES WITH A SERIOUS AND EXPENSIVE WASTE-DISPOSAL PROBLEM AS THEY WATCH THEIR ON-SITE STORAGE FILL UP WITH THE 30 TONS OF SPENT FUEL RODS DISCHARGED EACH YEAR FROM A TYPICAL REACTOR. AND, EVENTUALLY, TU ELECTRIC WILL HAVE THE SAME PROBLEM. BY THE END OF THE CENTURY,

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NEARLY 60,000 TONS OF THIS MATERIAL WILL ACCUMULATE. REMOVED FROM THE REACTOR TYPICALLY ONCE A YEAR WHEN IT CAN NO LONGER GENERATE POWER EFFICIENTLY, SPENT FUEL IS HIGHLY RADIOACTIVE AND REQUIRES EXTENDED CARE. ON-SITE STORAGE CANNOT BE CONSIDERED A PERMANENT, COST-EFFECTIVE SOLUTION TO DISPOSAL OF HIGH-LEVEL WASTE.

NUCLEAR POWER IS BECOMING MORE AND MORE ESSENTIAL TO THIS COUNTRY'S ENERGY FUTURE AS WE FACE ENVIRONMENTAL PROBLEMS FROM BURNING FOSSIL FUELS. BY CONTRAST, NUCLEAR POWER PRODUCES RELATIVELY LITTLE WASTE, AND URANIUM IS COMPARATIVELY CHEAP AND DOMESTICALLY ABUNDANT. NUCLEAR POWER ADDS TO THIS COUNTRY'S FUEL DIVERSITY AND STRENGTHENS OUR NATIONAL ENERGY SECURITY. PROMPT ACTION TO THE PROBLEM OF HIGH-LEVEL WASTE DISPOSAL IS CRUCIAL TO THE CONTINUED SUCCESS OF NUCLEAR POWER IN THE UNITED STATES AND TO A SAFER ENVIRONMENT.

BY LAW, THE FEDERAL GOVERNMENT HAS THE RESPONSIBILITY FOR DISPOSING OF COMMERCIAL HIGH-LEVEL RADIOACTIVE WASTE. AS THE PRIMARY GENERATORS OF THIS WASTE, NUCLEAR UTILITIES ARE OBLIGATED UNDER THE NUCLEAR WASTE POLICY ACT TO PROVIDE AND PAY FOR ITS INTERIM STORAGE UNTIL DOE ACCEPTS IT. SINCE CONGRESS PASSED THE ACT IN 1982, NUCLEAR UTILITIES ALSO HAVE PAID BILLIONS OF DOLLARS IN FEES TOWARD BUILDING A PERMANENT FEDERAL REPOSITORY. TU ELECTRIC, FOR EXAMPLE, WILL PAY ABOUT \$14 MILLION EVERY YEAR AS SOON AS COMANCHE PEAK IS FULLY OPERATIONAL. LAW MANDATES THAT THE FIRST FEDERAL STORAGE FACILITY BE IN OPERATION BY THE END OF THIS CENTURY.

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MANY UTILITIES, HOWEVER, ARE SKEPTICAL THAT THE FEDERAL GOVERNMENT WILL MEET THIS OBLIGATION. THOSE UTILITIES SEE NO RECOURSE BUT TO SPEND CONSIDERABLE AMOUNTS OF ADDITIONAL MONEY AND TIME TO EXPAND THEIR ON-SITE CAPACITY FOR INDEFINITE STORAGE. COMANCHE PEAK, FOR EXAMPLE, HAS SUFFICIENT SPENT FUEL STORAGE SPACE THROUGH 1998. WE COULD COMPLETELY AVOID THE CONSIDERABLE EXPENSE OF EXPANDING OUR STORAGE FACILITY IF DOE CAN FULFILL ITS OBLIGATION AND BEGIN TAKING SPENT FUEL ON SCHEDULE. TU ELECTRIC AND ITS CUSTOMERS WOULD PREFER NOT TO PAY TWICE FOR STORING THIS WASTE.

AT TU ELECTRIC, WE BELIEVE WIPP COULD BE OF GREAT BENEFIT IN HELPING THE FEDERAL GOVERNMENT MOVE TOWARD FULFILLING ITS RESPONSIBILITY OF DISPOSING OF COMMERCIAL NUCLEAR WASTE. ALTHOUGH WIPP WILL TEST STORING ONLY TRANSURANIC WASTE FROM NUCLEAR DEFENSE ACTIVITIES, IT NEVERTHELESS WILL GIVE DOE VITAL INFORMATION ABOUT THE SAFETY OF STORING COMMERCIAL HIGH-LEVEL WASTE IN DEEP GEOLOGIC FORMATIONS. THE EXPERTISE AND KNOWLEDGE GAINED AT THE WIPP SALT FORMATIONS WILL BE READILY TRANSLATABLE TO DEVELOPING A REPOSITORY FOR STORING COMMERCIAL WASTE PERMANENTLY IN THE THICK LAYERS OF VOLCANIC TUFF UNDERLYING YUCCA MOUNTAIN IN NEVADA.

FOR MANY YEARS, THE AMERICAN PUBLIC HAS IDENTIFIED RADIOACTIVE WASTE AS ITS PRIMARY CONCERN ABOUT COMMERCIAL NUCLEAR POWER. NEITHER THE KNOWLEDGE NOR THE TECHNOLOGY, THE PUBLIC BELIEVES, IS AVAILABLE FOR SAFE AND COMPETENT MANAGEMENT OF NUCLEAR WASTE. WE IN THE NUCLEAR INDUSTRY BELIEVE THAT THE

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KNOWLEDGE AND THE TECHNOLOGY ARE AVAILABLE TO STORE HIGH-LEVEL WASTES. BUT WE NEED TO DEMONSTRATE THAT SAFE STORAGE. WIPP CAN MEAN A SIGNIFICANT STEP TOWARD REASSURING THE PUBLIC ABOUT THE SAFETY OF NUCLEAR POWER AND TOWARD A PERMANENT, COST-EFFECTIVE SOLUTION TO THE STORAGE OF HIGH-LEVEL NUCLEAR WASTE. TU ELECTRIC SUPPORTS THE PROJECT'S PROGRESS.

THANK YOU FOR ALLOWING ME TO COMMENT ON THE WASTE ISOLATION PILOT PROJECT.

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Jack Bailey
Houston Lighting & Power
P.O. Box 1700
Houston, Texas 77001

Good Morning.

My name is Jack Bailey and I am speaking here today on behalf of Houston Lighting & Power Co. HILAP is an investor owned utility whose service area includes the cities of Houston and Galveston, Texas. We are also the managing partner of the South Texas Project Electric Generating Station which includes two 1350 megawatt electric pressurized water reactors. These units are located near Bay City, Texas.

This meeting today is being held receive comments regarding the supplement to the Environmental Impact Statement for the Waste Isolation Pilot Plant. HILAP has NOT reviewed the supplement in depth and as such can not endorse or reject its findings.

HILAP, who as a commercial power plant owner, will ship no waste to WIPP, believes however that valuable information can be gained, which will be directly applicable to facilities yet to be constructed for commercial use.

We feel that the development of technology associated with the storage of waste, including the development and qualification of packaging systems will benefit the nuclear power industry in the future.

Operational experience, to be gained from handling and storage of waste will provide valuable insight into the design of

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future facilities with more depth and understanding than could be gained from simulations.

Finally, the transportation controls including the truck drivers qualification program, shipment tracking system and emergency preparedness program, will allow for higher performance standards to be developed through this practical experience.

So, although the nuclear power industry will not benefit directly from the storage of waste at WIPP, this is an important project in the development of the technologies necessary to safely transport and store waste.

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Public Outreach in Texas for
Waste Isolation Pilot Plant
Supplement to the
Environmental Impact Statement

The following activities were undertaken in Texas to disseminate information on the Supplement to the Environmental Impact Statement (SES) and the public hearing to be held in Odessa, Texas on June 26, 1989.

Local officials were notified by telephone about the public hearing in Odessa and offered information on the SES in the following cities and towns of Texas:

- Abilene
- Amarillo
- Big Spring
- Colorado City
- Midland
- Monahans
- Odessa
- Sweetwater
- Wickenburg

Advertisements publicizing the Odessa hearing and offering a toll-free telephone number for further information were placed in the following newspapers:

- Abilene Reporter News
- Amarillo Globe Times
- Big Spring Herald
- Dallas Morning News
- El Paso Times
- Ft. Worth Star Telegram
- Houston Chronicle
- Lubbock Avalanche Journal
- Midland Reporter Telegram
- Odessa American
- Pecos Enterprise
- San Angelo Standard Times

Public Service Announcements regarding the Odessa hearing were sent to the following radio stations:

- Abilene, KEAN-105 FM
- Austin, KASE-101 FM
- Beaumont, KALO-1260 AM
- Big Spring, KBST-96.3 FM and 1480 AM
- Brownsville, KBFM-104 FM
- Dallas, KZPS-92.5 FM and KQAM-1310 AM
- Galveston, KGBG-1540 AM

Public Service Announcements, continued

- Houston, KPRC-850 AM
- Lubbock, KPNX-94.5 FM and 1340 AM
- Midland, KBAT-93 FM and KVLE-1070 AM
- Odessa, KQEE-100 FM
- Pecos, KJUN-1400 AM
- San Antonio, KQYX-680 AM

Press conferences were held the week before the Odessa hearing in Midland, Abilene, Tyler, and Dallas/Ft. Worth.

A Media Advisory announcing the Odessa hearing was sent to newspapers, magazines, and television and radio stations in the following cities:

- Abilene
 - Abilene Reporter News
 - KBBC TV
 - KTAB TV
 - KTXS TV
- Amarillo
 - Amarillo Globe News
 - KAMR TV
 - KCTV TV
 - KFDA TV
 - KVEI TV
- Austin
 - Austin American-Statesman
 - KTBC TV
 - KQAN TV
 - KXUE TV
- Big Spring
 - Big Spring Herald
- Ft. Worth
 - Fort Worth Star-Telegram
 - Fort Worth Commercial Recorder
 - KDFW TV
 - KTVT TV
 - KQAS TV

Media Advisories, continued

- Longview
Longview News
KTAL TV
KLJG TV
- Mesa
Mesquite News
- Midland
Midland Reporter Telegram
KMID TV
KOSA TV
KTPX TV
KNFM-92.3 FM
KMND-1610 AM
- Odessa
The Odessa American
Business Journal of the Permian Basin
EI Editor
KOYL-1310 AM
KOPF-98.9 FM
KRLL-1410 AM
KWES-102 FM
KYXX-920 AM
KQEE-100 FM
KLJT-1000 AM
KNFM-92.3 FM
KMND-1610 AM
KODM-98 FM
- Pecos
Pecos Enterprise
- Sugarbaker
Sweetwater Reporter

Media Advisories, continued

- Tyler
Tyler Morning Telegraph
Tyler Courier Times
KLTU-7
KETK TV
- Weatherford
Weatherford Democrat

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U.S. HOUSE OF REPRESENTATIVES
 COMMITTEE ON GOVERNMENT OPERATIONS
 ENVIRONMENT, ENERGY AND NATURAL RESOURCES SUBCOMMITTEE
 WASHINGTON, D.C. 20515

**ONE HUNDRED FIRST CONGRESS
 House of Representatives
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 ENVIRONMENT, ENERGY AND NATURAL RESOURCES
 SUBCOMMITTEE**

**COMMITTEE ON GOVERNMENT OPERATIONS
 ENVIRONMENT, ENERGY AND NATURAL RESOURCES
 WASHINGTON, D.C. 20515**

**OPENING STATEMENT
 HONORABLE MIKE SYNAR, CHAIRMAN
 June 12, 1989**

Today's hearing will focus on the Department of Energy's Waste Isolation Pilot Plant (WIPP) program for the disposal of transuranic nuclear waste. This marks the second Subcommittee review of this \$700 million project. If designated a suitable repository, WIPP is projected to cost \$2.5 billion over its 25 year operating life.

WIPP is a critical facility for several reasons. It is the first permanent nuclear waste repository built in the nation. To many, this is an important demonstration that the nuclear waste problem can be adequately addressed.

Secondly, the Department of Energy has hundreds of thousands of drums of transuranic waste in storage, and will be producing hundreds of thousands more in the future. Therefore, WIPP is a vital element in DOE's \$150 billion clean up and modernization plan.

Finally, WIPP is, in a sense, the first real test of the "new DOE" in which safety and environmental concerns will be treated as essential components of its mission plan, and will not take a back seat to production.

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ENVIRONMENTAL EVALUATION GROUP

**707 WYOMING BOULEVARD, N.E.
 SUITE 42
 ALBUQUERQUE, NEW MEXICO 87109
 (505) 425-1000**

An Analysis of the Status of WIPP

**Invited Testimony
 by
 Lokesh Chaturvedi
 Deputy Director, EEO**

To

**Environment, Energy and Natural Resources Subcommittee
 of the
 Committee on Government Operations
 U.S. House of Representatives**

June 12, 1989

Providing an Independent Technical Analysis of the Waste Isolation Pilot Plant (WIPP)

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I am glad the Department of Energy extended the public comment period. This hearing was advertised only recently in the Midland newspaper, which, unfortunately has not been very good about keeping Midland abreast of developments in the ailing project. There was no time to go through the original EIS or the new draft before this hearing. Another 60 days would be very helpful, and after 10 years two months doesn't seem like much. Compared to 20,000 years, it's like no time at all. *Support Amable*

My primary objection to this supplement, as well as the original document, is the lack of consideration given the "no action" option. Particularly bothersome is the statement in the "fact sheet" under the No Action alternative that states "Transuranic waste would continue to be generated and stored in facilities at various generator sites around the nation.". Apparently the DOE has never considered "no action" as discontinuing the actions already undertaken which produce the wastes. The DOE acts as if, once given permission, they can never stop. That is confusing license with mandate. *That is, as the TV electric spinners say, thinking it and hoping someone else will solve it.*

The "no action" option is the only one that exposes us to no further danger from DOE operations. In Table S-1, Summary of Environmental Consequences, under the No Action heading, we see a long list of Minimal Risks. The worst risk listed is "Temporary decline in air quality during decommissioning of WPP." I presume that to be some windborn salt and dust. When this is compared to the Proposed Action column's list of routine operational doses;

1-2
52-1
52-234-1
36-1
52-1
52-2

2.3.2-1

1-2
52-1
52-2

32-1

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population doses from accidental releases; and acceptable deaths from transportation related accidents and latent cancers; the choice seems clear. I'll take dust over deaths any day. If the DOE believes we are safer leaving the waste where it is now, I don't know why there needs to be any further discussion. The Proposed Action should be No Action.

But, instead, the Proposed Action asks for a sacrifice of 10,000 acres of public land and the lives of a few citizens. The DOE asks us to trust them and allow them to regulate themselves. They ask in a year that has been filled with banner headlines announcing mismanagement in DOE plants all across the USA. Unreported radioactive releases like in Fernald, Ohio and Hanford, Washington. Illegal waste burned under cover of darkness at Rocky Flats. Worn out reactors that ran at full capacity in order to produce raw materials for new nuclear warheads ordered during the last eight years. Illegally dumped radioactive waste and hazardous chemicals leaked into local water tables. The Pantex plant in Amarillo among those. Some of these sites are now closed because of the danger they pose to us, sacrifices already made. Some of the cities that sprung up around them are in danger of closing too. We don't need anymore sacrifices.

It is obvious that the Department of Energy has a credibility problem. What is not so obvious is the extent of their deception of the public. People in Amarillo were told Pantex was a clean plant until the Environmental Protection Agency put it on its

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"ten dirtiest" list last year. Many people living near the Rocky Flats plant applauded when the DOE decided the management there was so good, it deserved an 8.6 million dollar bonus award for excellence. This year, when the FBI began investigating the cover-up of illegal waste disposal practices there going back to 1986, they realized they had become acceptable risks. As the Justice Department and the General Accounting Office continue that investigation, I believe they will find it endemic to the system. It is the same system that spawned Oliver North and his company. It cannot be allowed to regulate itself if it cannot be trusted.

The DOE calls WIPP an experiment. They admit they do not know what will happen. There are many unanswered questions. There have already been unexpected problems with the site: rock fracturing, the brine layer and salt creeping faster than expected. Several ideas are suggested as experiments which may solve those problems. The engineers will work on those but they will be powerless over the greatest unknown: human error. The transportation of waste carries the greatest risk to the public, according to the statement. Also the greatest risk to the environment. In a year that oil and diesel spills have become routine, will we become so casual about radiation spills? And who decides the numbers for acceptable deaths? What would the limit be? 10? 100? 1000?

This statement does not adequately assess those transportation

3.12
7.12.1
7.12.2

7.12.4
7.12.5
7.12.6
7.12.7

7.12.8
7.12.9

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risks in West Texas. Over 3,000 shipments are expected to roll down our interstate by truck. Trucks rather than trains which figures show to be safer. On a heavily traveled road with few alternate routes. When the satellites report a truck missing, who will they call? How long will response times be? Who will clean up the accidents? How far will they have to travel? Who will pay for it? This document should realistically discuss what the DOE considers to be "acceptable" risks to the public during transportation.

It is clear that the "no action" alternative is the best of the three for this proposal at this time. The DOE should finish its homework before trying to rush a project of this scope by us again.

Mike Gray
Box 11262
Midland, TX
79702

3.15
7.12.4
7.12.5
7.12.6
7.12.7
7.12.8
7.12.9

1.2
4.1-3

The New York Times

Book Review

June 18, 1969 20
From the City Hall News, New York



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A Prairie Love Song

By Ben Harkiss

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Department of Energy
Abolition Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

July 10, 1989

An expanded list of DOE Public Affairs activities in preparation for the WIPP public hearings is found under Exhibit Number EX-00003.

