

property at Fort Ord, California. The FSEIS also analyzes impacts on a range of potential reuse alternatives.

Copies of the FSEIS have been forwarded to various federal, state and local agencies, and predetermined interested organizations and individuals.

DATES: This FSEIS will be available to the public for 30 days, after which the Army will prepare a Record of Decision for the Army action.

ADDRESSES: Copies of the Final Supplemental Environmental Impact Statement can be obtained by writing or calling Mr. Bob Verkade, Sacramento District, U.S. Army Corps of Engineers, 1325 J Street, Sacramento, California 95814-2922, telephone (916) 557-7423, fax (916) 557-5307.

Raymond J. Fatz,

Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) OASA (I,L&E).

[FR Doc. 96-23691 Filed 9-16-96; 8:45 am]

BILLING CODE 3710-08-M

DEPARTMENT OF EDUCATION

Notice of Proposed Information Collection Requests

AGENCY: Department of Education.

ACTION: Proposed collection; comment request.

SUMMARY: The Acting Director, Information Resources Group, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1995.

DATES: Interested persons are invited to submit comments on or before November 18, 1996.

ADDRESSES: Written comments and requests for copies of the proposed information collection requests should be addressed to Patrick J. Sherrill, Department of Education, 600 Independence Avenue, S.W., Room 5624, Regional Office Building 3, Washington, DC 20202-4651.

FOR FURTHER INFORMATION CONTACT: Patrick J. Sherrill (202) 708-8196.

Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION: Section 3506 of the Paperwork Reduction Act of 1995 (44 U. S. C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information

collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The Acting Director of the Information Resources Group publishes this notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g., new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and frequency of collection; and (6) Reporting and/or Recordkeeping burden. OMB invites public comment at the address specified above. Copies of the requests are available from Patrick J. Sherrill at the address specified above.

The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department, (2) will this information be processed and used in a timely manner, (3) is the estimate of burden accurate, (4) how might the Department enhance the quality, utility, and clarity of the information to be collected, and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology.

Dated: September 11, 1996.

Kent H. Hannaman,

Acting Director, Information Resources Group.

Office of Educational Research and Improvement

Type of Review: New.

Title: The Library Cooperatives Survey (LCS).

Frequency: Pretest and One Universe survey.

Affected Public: Not-for-profit institutions; Federal Government; State, local or Tribal Gov't, SEAs or LEAs.

Reporting Burden and Recordkeeping: Responses: 1,201.

Burden Hours: 400.

Abstract: This survey will be used to request information from library cooperatives. The LCS survey data will be used along with the Public Libraries Survey (PLS) and the State Libraries Agency Survey (STLA) to obtain a more complete picture of library services in

the nation. LCS descriptive data will be aggregated and published at the national and state levels. Descriptive data will also be accessible in electronic files by each library cooperative organization and by state.

Office of Educational Research and Improvement

Type of Review: Revision.

Title: Assessment of the Role of School and Public Libraries in Support of the National Educational Goals.

Frequency: One Time.

Affected Public: Not-for-profit institutions; State, local or Tribal Gov't, SEAs or LEAs.

Reporting Burden and Recordkeeping: Responses: 3,100.

Burden Hours: 2,583.

Abstract: The library and education communities need to know more about the role of libraries in supporting education in order to plan for and direct resources. The respondents are librarians in public libraries and public and private schools.

[FR Doc. 96-23722 Filed 9-16-96; 8:45 am]

BILLING CODE 4000-01-P

DEPARTMENT OF ENERGY

Record of Decision for the Medical Isotopes Production Project: Molybdenum-99 and Related Isotopes

AGENCY: Department of Energy.

ACTION: Record of decision.

SUMMARY: The Department of Energy (DOE) is issuing this Record of Decision regarding DOE's proposal to establish a production capability for molybdenum-99 (Mo-99) and related medical isotopes. DOE has decided to proceed with the proposed action using the preferred alternative identified in the Medical Isotopes Production Project: Molybdenum-99 and Related Isotopes Environmental Impact Statement (DOE/EIS-0249F). The selected facilities are located at Sandia National Laboratories in Albuquerque, New Mexico (SNL/NM), and Los Alamos National Laboratory (LANL) in Los Alamos, New Mexico.

FOR FURTHER INFORMATION CONTACT: Further information on the environmental impact statement (EIS) can be obtained by contacting: Mr. Wade P. Carroll, MIPP EIS Document Manager, Office of Nuclear Energy, Science and Technology, NE-70, U.S. Department of Energy, 19901 Germantown Road, Germantown, MD 20874, Telephone: (301) 903-7731; facsimile: (301) 903-5434.

General information on the DOE National Environmental Policy Act (NEPA) process can be obtained by contacting: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance, EH-42, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585, Telephone: (202) 586-4600, or leave message at (800) 472-2756.

For general information on the DOE isotope production program, please contact: Mr. Owen W. Lowe, Associate Director for Isotope Production and Distribution, NE-70, U.S. Department of Energy, 19901 Germantown Road, Germantown, MD 20874, Telephone: (301) 903-5161.

SUPPLEMENTARY INFORMATION: DOE has prepared this Record of Decision pursuant to the Council on Environmental Quality (CEQ) Regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508) and DOE regulations implementing NEPA (10 CFR Part 1021). This Record of Decision is based on the final EIS, Medical Isotopes Production Project: Molybdenum-99 and Related Isotopes Environmental Impact Statement (DOE/EIS-0249F). The Notice of Availability of this final EIS was published in the Federal Register on May 3, 1996 (61 FR 19931). Several comment letters, discussed in the Comments on the Final EIS section of this document, were received after the final EIS was published. These comments were taken into consideration in preparing this Record of Decision.

DOE initially prepared, and released for public comment, a draft environmental assessment (EA) dated February 7, 1995, on the proposed action of producing medical isotopes using the Annular Core Research Reactor (ACRR) and the adjacent Hot Cell Facility at SNL/NM for target irradiation and isotope extraction, and the Chemistry and Metallurgy Research Facility at LANL in New Mexico for target fabrication. The public review and comment period for the draft EA ended on May 1, 1995. Based on the draft EA and comments received, DOE decided to prepare an EIS. The Notice of Intent to prepare the EIS was published in the Federal Register on July 6, 1995 (60 FR 35191). The draft EIS was published in December 1995, and the Notice of Availability of the draft EIS was published in the Federal Register on December 22, 1995 (60 FR 66542).

Background

For more than 40 years, DOE and its predecessor agencies have produced and distributed isotopes through DOE's

national laboratories. In 1990, Congress established the Isotope Production and Distribution Program (IPDP), combining under one program all DOE isotope production activities.

Among other activities, IPDP has responsibility for ensuring a stable supply of Mo-99 to the U.S. medical community. Mo-99 is a radioactive isotope of molybdenum that results from the fission of uranium atoms or from the irradiation of stable isotopes of molybdenum, such as Mo-98. Technetium-99m (Tc-99m) is a decay product of Mo-99. Approximately 38,000 diagnostic procedures involving radioactive isotopes are performed each day in the United States. Most of these procedures use Tc-99m. Diagnoses using Tc-99m make it possible to define internal conditions of the body that often cannot be determined through any other means except invasive surgery. The short life of Tc-99m minimizes the radiation dose received by the patient. Because these isotopes are highly perishable with short lifetimes (the half-lives of Mo-99 and Tc-99m are 66 hours and 6 hours, respectively), the need to ensure a stable, continuous supply for medical use is critical. The U.S. medical community accounts for about 60 percent of the worldwide demand for Mo-99/Tc-99m, yet there is no current domestic production source for these isotopes.

Prior to 1989, Mo-99 was produced in the United States by a single supplier, Cintichem, Inc. Cintichem produced Mo-99 by irradiating uranium deposited on the inside of stainless steel tubes, called targets, in a reactor and then chemically separating the Mo-99 from the targets and purifying it. In 1989, Cintichem discontinued operation of its production reactor. Since then, the United States has relied on production reactors in Canada for its supply of Mo-99.

Until 1993, two Canadian reactors, operated by Atomic Energy of Canada Limited (AECL) at the Chalk River site (located about 100 miles from Ottawa, Canada), were available to produce Mo-99 through the irradiation of targets. AECL extracted the Mo-99 from the targets and provided it to Nordion International. Nordion then purified the Mo-99 and shipped it to radiopharmaceutical manufacturers. In 1993, one of the Canadian reactors was permanently shut down leaving only one operating reactor, the National Research Universal (NRU) reactor. A shutdown of this single remaining reactor would jeopardize the U.S. supply of Mo-99. In April 1995, this reactor suffered an unplanned shutdown for four days. European

sources were able temporarily to increase their production enough to cover the European demand normally supplied by Nordion, and Nordion had sufficient product in process to meet the U.S. demand during this brief period. However, shortages would have begun in the United States had the Canadian reactor remained out of service for only one or two more days.

Nordion has announced its intention to build two modern ten-megawatt reactors to replace the NRU reactor. However, the earliest that one of the new plants could be producing Mo-99 is mid-1999. Thus, a window of vulnerability for the U.S. medical community exists until a reliable backup source of Mo-99 is available. In addition, AECL has committed to the Canadian nuclear regulatory authority, the Atomic Energy Control Board, to shut down the NRU reactor in the year 2000. This action would extend the dependence of the United States on a single source of supply if only one new Canadian reactor were available at that time and would create immediate shortages if no new reactors were ready to operate at that time.

As a general policy, DOE would favor medical isotope production by the private sector. However, because the medical radioisotope market is influenced by forces other than traditional market forces (e.g., support from national governments), full-cost recovery of investment is often not possible. In addition to these considerations, the uncertainties and liabilities of constructing and operating a nuclear reactor have prevented and will likely continue to prevent private companies from providing a U.S. domestic source of Mo-99 in the near term. In the 1992 hearings on the condition of the IPDP before the House Environment, Energy, and Natural Resources Subcommittee of the Committee on Government Operations, testimony addressed the danger of U.S. dependence upon a single foreign source for its supply of the critical Mo-99 radioisotope and reaffirmed the need for DOE to become a Mo-99 supplier. Congress provided \$7.6 million for this effort for fiscal year 1995, and \$12 million for fiscal year 1996. In its report (S. Rep. No. 103-291) accompanying the Energy and Water Development Appropriations Act, 1995, the Senate Committee on Appropriations noted "that DOE is taking steps to * * * produce molybdenum-99 and related medical isotopes to ensure that there are no inadequacies of supply for domestic use. The committee supports this effort and wishes to be kept informed as DOE progresses."

Production Processes

Mo-99 can be produced by different processes. However, only two processes have been approved by the U.S. Food and Drug Administration (FDA) for Mo-99 sold in the United States: the proprietary process used by Nordion and the Cintichem process. DOE owns the rights to the Cintichem process. Both processes produce Mo-99 in a reactor. The Nordion process results in substantial quantities of liquid radioactive waste; the Cintichem process produces largely solid radioactive waste that is much easier to manage and dispose of.

In November 1991, DOE purchased the Cintichem technology, equipment, and the FDA Drug Master Files for the production of Mo-99, iodine-125 (I-125), iodine-131 (I-131), and xenon-133 (Xe-133) for \$750,000 plus an agreement to pay Cintichem a four percent royalty on the first five years of sales of Mo-99 and the other isotopes produced by DOE using the Cintichem technology. In addition, DOE agreed to accept the spent nuclear fuel from the Cintichem reactor for disposal.

Related Isotopes

The proposed action analyzed in the EIS is the production of Mo-99 and related isotopes. While the focus of the proposed project is the production of Mo-99, related isotopes, I-125, I-131, and Xe-133, could be produced at any of the alternative production sites to offset the costs of Mo-99 production. Isotopes I-125 and I-131 are used in the treatment of thyroid conditions such as Graves' disease. Xe-133 is used in the diagnosis of lung maladies. As noted above, DOE purchased the rights to produce each of these isotopes using Cintichem's technology along with the right to produce Mo-99. Each of these isotopes can be made at any of the reactors under consideration and each can be processed, packaged, and distributed by the same production team. I-131 and Xe-133 are essentially byproducts generated during the processing of Mo-99. I-125 is produced by irradiating a separate target containing nonradioactive xenon-124 in the same reactor. This isotope would be extracted separately and in a manner that would not interfere with Mo-99 processing.

DOE Mo-99 Project History

In 1991, in response to the shutdown of the Cintichem reactor, DOE identified the Omega West Reactor at LANL as the proposed facility to provide a backup supply of Mo-99. In December 1992, however, the Omega West Reactor

experienced an unplanned shutdown. While the reactor was shut down, a leak in the primary cooling system was identified, and the reactor was not restarted.

The search for an alternate facility to produce Mo-99 led to the identification of ACRR at SNL/NM as a suitable candidate for Mo-99 production. Within DOE, ACRR and its associated Hot Cell Facility are managed by the Office of Defense Programs to provide for defense research needs. Defense-related experiments conducted in ACRR were completed in 1995. As mentioned previously, DOE issued a draft EA for public comment on the proposed action of producing medical isotopes using ACRR and its associated Hot Cell Facility at SNL/NM and the Chemistry and Metallurgy Research Facility at LANL. Based on the draft EA and comments received, DOE decided to prepare an EIS.

Mo-99 Market

The current U.S. demand for Mo-99 is about 3,000 6-day curies per week. A 6-day curie is defined as the amount of product, measured in curies, remaining 6 days after the product arrives on the radiopharmaceutical manufacturer's dock. The radiopharmaceutical manufacturers also require that specific activity of the product be at least 250 curies of activity per gram of aqueous molybdenum solution at delivery.

The current supply of Mo-99 from Canada would be interrupted if the NRU reactor experiences a shutdown of approximately five days or longer for any reason. The NRU reactor must operate continuously for 12 or 13 days of each 15-day operating period in order to maintain a continuous supply of Mo-99. Down time of 2 to 3 days every 15 days is normally required for maintenance, repairs, and target replacement. For many years, the NRU reactor has met this operating schedule to supply the U.S. and Canadian demands for Mo-99 and to ship Mo-99 to numerous other countries.

If the NRU reactor were to shut down for reasons other than routine maintenance, it might not be restarted. The reactor was commissioned in 1957, and an aggressive maintenance program is in place to keep it operating. However, no plans exist to continue operation beyond the year 2000 because of the reactor's age and lack of storage capacity for waste generated by the isotope separation process. Any major problem at the reactor requiring significant time and resources to repair would probably result in a permanent shutdown, terminating this source of supply.

In the mid 1980s, Nordion and AECL began the planning and construction of a new isotope production and research reactor, Maple X, to replace the NRU reactor. However, AECL decided to halt construction of the Maple X reactor in 1993 for economic reasons. Nordion's parent company, MDS Health Group Ltd. of Canada, subsequently filed a breach of contract lawsuit against AECL, and the two sides agreed to arbitration hearings to resolve the dispute. The dispute has been resolved and Nordion apparently now plans to contract with AECL for the construction and operation of two new reactors (Maple I, a continuation of the Maple X project, and Maple II) dedicated to isotope production, and a radiochemical separation facility. These facilities would use a Mo-99 production and separation process similar to the Cintichem process to reduce the amounts of radioactive waste generated. Nordion recently announced that it will restart project planning and design activities for the two reactors and the radiochemical separation facility. The sale in the United States of Mo-99 produced at the Maple reactor complex cannot begin until at least one reactor and the radiochemical separation facility are completed and licensed. In addition, FDA must approve the product before Nordion can supply it to U.S. pharmaceutical companies.

Nordion currently plans to build two reactors. However, if only one reactor is built, the situation of dependence on a sole source of supply would remain unchanged for nuclear medicine physicians in the United States as well as the related vulnerability to an interruption of supply. Nordion and AECL estimate that the time required to complete the necessary environmental and construction permitting process, to construct and commission one of the reactors, and to construct the radiochemical separation facility is about three years from the time the project is resumed. Construction and commissioning of the second reactor, if pursued, would proceed simultaneously and would be completed about one year after the first reactor is commissioned. Full-scale Mo-99 production and its sale in the United States would probably require an additional several months at each of the reactors.

Nordion has established a European subsidiary by acquiring the radiopharmaceutical department of the Institut National des Radio-elements (IRE) in Fleurus, Belgium, but IRE (fully owned by the Belgian Federal Government) remains the owner of Mo-99 production. IRE and Nordion have signed a mutual Mo-99 backup

agreement to avoid a complete shortage of Mo-99 in case of an unscheduled shutdown of the Canadian NRU reactor. DOE has been informed that the current contractual backup arrangement requires IRE to supply Nordion with the excess capacity of its facility for up to eight weeks in the event of a shutdown.

It is unlikely, however, that Nordion could immediately respond to a U.S. shortage of Mo-99 through its backup arrangement with IRE. Although IRE has informed DOE that IRE has a sufficient number of certified transport casks to ship the Mo-99 from Europe directly to the U.S. radiopharmaceutical companies, Mo-99 from the Belgian source has never been sold in the United States. Use of IRE's Mo-99 in the United States would depend on IRE's ability to obtain FDA approval. IRE submitted a Drug Master File to the FDA in 1991, and Mo-99 samples were sent to the U.S. radiopharmaceutical companies (DuPont-Merck, Amersham Medipysics, and Mallinckrodt Medical) so that they could support IRE's request for FDA approval. However, the FDA approval process on the submittal has proceeded slowly because IRE has no established U.S. customers.

Mallinckrodt Medical is currently working with the High Flux Reactor (HFR) at Petten in the Netherlands to secure a backup supply in 1996 for its European needs and for its U.S. operations, dependent upon FDA approval. While production at the Petten HFR could be increased beyond European needs, it would not be expected to meet the U.S. demand if the supply from Nordion is interrupted.

Mo-99 is produced in numerous other countries. These include reactor production facilities in Australia, Indonesia, Japan, Peru, Argentina, Russia, China, and South Africa. For the most part, they are small, government-run production facilities, and the Mo-99 is produced for local use rather than international export. None of these foreign sources, most running sporadically, could meet a significant portion of the U.S. demand for Mo-99/Tc-99m generators. Moreover, the foreign governments are reluctant to meet stringent FDA requirements for export to the United States. Transportation difficulties also limit the ability of foreign producers to supply Mo-99 to the United States.

Thermo Technology Ventures, Inc., a U.S. company, is investigating a concept for direct production of Tc-99m using small particle accelerators. If successful in developing this concept and financing the operation of numerous facilities, Thermo Technology Ventures

might be able to supply a significant quantity of Tc-99m to the U.S. medical community in the future.

Proposed Action

The proposed action is for DOE to establish, as soon as practicable, a domestic U.S. production capability that would ensure a reliable supply of Mo-99 and related medical isotopes (I-125, I-131, and Xe-133) for use by the U.S. medical community. DOE's near-term goal is to provide a backup capability to Canadian production by supplying a baseline production level of 10 to 30 percent of current U.S. demand for Mo-99 with the capability to increase production rapidly to supply 100 percent of the U.S. demand should the Canadian source be unavailable. The baseline production level would serve to maintain the capabilities of the facilities and staff to respond on short notice to supply the entire U.S. demand on an as-needed basis.

Each of the alternatives, described in the next section, for accomplishing the proposed action would use the Cintichem process for the production of Mo-99 and related isotopes. A brief description of the steps in the process follows.

As the initial step in the proposed production of Mo-99, targets would be fabricated, tested, and shipped to the reactor facility for irradiation. Targets would be manufactured by coating the inner walls of stainless steel tubes with highly enriched uranium oxide and then sealing the ends of the tubes with custom fittings.

At the reactor facility, the targets would be irradiated for several days. Because Mo-99 decays at the rate of about one percent per hour, all steps following irradiation of the targets must be expedited. Upon removal from the reactor, the irradiated targets would be transferred in a shielded cask to an appropriate hot cell facility, preferably located adjacent to or near the reactor facility. Mo-99, I-131, and Xe-133 would be extracted from the fission product inventory by chemical dissolution and precipitation reactions within the hot cells. The isotopes would be further refined and would undergo strict quality control procedures to meet FDA standards.

The production of I-125 requires the irradiation of a different type of target than that used for the production of Mo-99. These targets would be irradiated in the same reactor selected for Mo-99 production, but the targets would be processed separately and in a manner that would not interfere with Mo-99 processing.

The isotopes would be packaged in Department of Transportation-approved packaging for shipment by air on a daily basis to any of the three currently known potential customers: DuPont-Merck in Boston, Massachusetts; Amersham Medipysics in Chicago, Illinois; and Mallinckrodt Medical in St. Louis, Missouri; or to Nordion International in Canada for final processing and distribution. Air express class shipments would be used.

The radioactive waste generated during the production of the medical isotopes would be primarily low level waste. This waste and the spent nuclear fuel from the reactor would be managed, stored, and eventually disposed of in accordance with applicable regulatory requirements.

Alternatives Considered

This section describes the alternatives evaluated in the EIS.

1. No Action

Consideration of the No Action alternative is required by CEQ Regulations, and provides a baseline for comparison with the action alternatives. If the No Action alternative were selected, there would be no environmental impacts in the United States due to the production of Mo-99. However, the United States would continue to be vulnerable to a Mo-99 supply shortage due to the future uncertainties faced by the sole Canadian supplier.

2. Preferred Alternative—Annular Core Research Reactor and Hot Cell Facility at Sandia National Laboratories/New Mexico and Chemistry and Metallurgy Research Facility at Los Alamos National Laboratory

Under this alternative, DOE would use the Chemistry and Metallurgy Research Facility to fabricate the targets containing highly enriched uranium. The targets would be shipped to the ACRR at SNL/NM for irradiation, and the irradiated targets would be processed in the adjacent Hot Cell Facility. Low level radioactive wastes from target fabrication at LANL would be disposed of on site. Low level radioactive wastes from the Mo-99 production at SNL/NM would be transported to the Nevada Test Site for disposal. Spent nuclear fuel generated during the isotope production activities would first be stored on site and later shipped to the Idaho National Engineering Laboratory (INEL) for storage in accordance with the Records of Decision on the DOE Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory

Environmental Restoration and Waste Management Programs Environmental Impact Statement (SNF PEIS) (DOE/EIS-0203-F).

To produce Mo-99 and related medical isotopes under this alternative, modifications would be required to the Chemistry and Metallurgy Research Facility, the ACRR, and Hot Cell Facility. The modifications required to fabricate targets at the Chemistry and Metallurgy Research Facility are relatively minor. Some interior walls would be removed, doors would be relocated, and glove boxes with filtered exhaust systems would be installed.

The ACRR is operational but has historically operated in a pulsed mode or in a steady-state mode for about a week at a time, whereas continuous operation would be required for isotope production. To be able to meet 100 percent of the U.S. demand for Mo-99, the reactor would be modified to allow steady-state operation at four megawatts and to allow irradiation of a sufficient number of targets. The required modifications include installation of heat exchangers and cooling towers, removal of a stainless steel tube from the center of the reactor core, and various hardware upgrades. In addition, an air lock would be installed to minimize airborne releases during the transfer of irradiated targets, and ventilation and electrical systems would be upgraded. Following each modification to the reactor, a readiness assessment would need to be satisfactorily completed for the reactor to continue operations. When all the reactor modifications were completed, a determination of readiness would be made to establish whether there is a need for an operational readiness review.

The existing Hot Cell Facility adjacent to the ACRR, with the addition of more shielding, could be used to produce approximately 10 percent of the current U.S. demand for Mo-99 on a steady-state basis or 30 percent of the demand for short periods. To meet greater than 10 percent of U.S. demand on a continuous basis, a new hot cell consisting of five workstations would be constructed within the existing Hot Cell Facility. In addition, the Hot Cell Facility floor plan would be reconfigured, and the facility ventilation system would be upgraded.

As noted above, the ACRR is currently managed by DOE's Office of Defense Programs. If responsibility for the ACRR is transferred to the DOE Office of Nuclear Energy, Science and Technology, then the Office of Defense Programs has expressed an interest in retaining the right to have the reactor available to support defense missions in

times of national emergency to address security concerns. Under such an arrangement, the ACRR would technically be subject to recall for defense-related activities if required. DOE has determined that the probability of recalling the ACRR to support Defense Programs' needs is so remote as not to preclude the ACRR as an alternative. Also, if it were recalled to support defense-related activities, the reactor could be reconverted for the production of Mo-99 in a week, if necessary.

On April 15, 1996, the Pueblo of Isleta and the Southwest Research and Information Center filed a complaint against DOE in the United States District Court for the District of New Mexico challenging DOE's lack of a sitewide EIS for SNL/NM and continued reliance upon the 1977 sitewide EA. *Pueblo of Isleta v. Dep't of Energy*, No. 96-0508 (D. N.M. filed Apr. 15, 1996). Plaintiffs allege that NEPA documents prepared at SNL/NM since 1977 do not adequately analyze the cumulative environmental impacts of other past, present, and reasonably foreseeable actions at SNL/NM and seek to enjoin DOE from tiering any projects from the 1977 EA. The complaint lists the Draft Medical Isotopes Production Project EIS among the nuclear reactor research programs at SNL/NM. Plaintiffs do not seek to enjoin any current activity at SNL/NM. DOE believes that this litigation is moot because DOE has already sought congressional funding to begin preparing a sitewide EIS at SNL/NM in 1997. Any action at SNL/NM with respect to the production of Mo-99 and related isotopes would be supported by the final Medical Isotopes Production Project EIS and would not be tiered from or dependent on the 1977 EA.

3. Omega West Reactor and Chemistry and Metallurgy Research Facility at Los Alamos National Laboratory

Under this alternative, the Chemistry and Metallurgy Research Facility would be used to fabricate the targets as described for alternative 2. The targets would be transported to the Omega West Reactor for irradiation, and the irradiated targets would be transported back to the Chemistry and Metallurgy Research Facility for processing. Low level radioactive wastes from Mo-99 production would be disposed of on site. Spent nuclear fuel generated during the isotope production activities would first be stored on site and later shipped to the Savannah River Site for storage in accordance with the Records of Decision on the SNF PEIS.

To produce Mo-99 and related medical isotopes under this alternative,

modifications would be required to the Chemistry and Metallurgy Research Facility and the Omega West Reactor. As discussed previously, the modifications required to fabricate targets at the Chemistry and Metallurgy Research Facility are relatively minor. Some interior walls would be removed, doors would be relocated, and glove boxes with filtered exhaust systems would be installed. Modifications required to support target processing operations would likewise be minor.

The Omega West Reactor is shut down and would need to be restarted to support isotope production. Restarting the reactor would involve replacing an underground cooling water pipe, upgrading reactor cooling and air monitoring systems, and updating the required facility safety documentation. An operational readiness review for restart of the reactor would have to be satisfactorily completed before operations could resume.

4. Oak Ridge Research Reactor and Radioisotope Development Laboratory at Oak Ridge National Laboratory (ORNL)

Under this alternative, the targets would be fabricated at the ORNL Radioisotope Development Laboratory. The targets would be transported to the Oak Ridge Research Reactor for irradiation, and the irradiated targets would be transported back to the Radioisotope Development Laboratory for processing. Low level radioactive wastes from Mo-99 production at ORNL would be transported to the Nevada Test Site for disposal. Spent nuclear fuel generated during the isotope production activities would first be stored on site and later shipped to the Savannah River Site for storage in accordance with the Records of Decision on the SNF PEIS.

To produce Mo-99 and related medical isotopes under this alternative, modifications would be required to the Radioisotope Development Laboratory and the Oak Ridge Research Reactor. The modifications required to fabricate and process targets at the Radioisotope Development Laboratory are relatively minor and include appropriate upgrades to facility ventilation and waste management systems.

The Oak Ridge Research Reactor is shut down and would need to be restarted to support isotope production. Restarting the reactor would involve upgrading the reactor cooling system, installing new reflectors in the reactor core, upgrading or repairing out-of-service equipment, and upgrading the required facility safety documentation. An operational readiness review for restart of the reactor would have to be

satisfactorily completed before operations could resume.

5. Power Burst Facility and Test Area North Hot Cells at Idaho National Engineering Laboratory

Under this alternative, the targets would be fabricated at a facility on site such as the Experimental Test Reactor Critical Facility annex in the Test Reactor Area. The targets would be transported to the Power Burst Facility for irradiation, and the irradiated targets would be transported to the Test Area North Hot Cells or a comparable hot cell facility on site for processing. Low level radioactive wastes from Mo-99 production would be disposed on site. Spent nuclear fuel generated during the isotope production activities would be stored on site in accordance with the Records of Decision on the SNF PEIS.

To produce Mo-99 and related medical isotopes under this alternative, modifications would be required to the Experimental Test Reactor Critical Facility annex, the Power Burst Facility, and the Test Area North Hot Cells. The required modifications at the Experimental Test Reactor Critical Facility annex are relatively minor and would include installation of glove boxes with filtered exhaust systems.

The Power Burst Facility is in standby mode and would need to be restarted to support isotope production. Restarting the reactor would involve replacing a significant portion of the reactor instrumentation, modifying the reactor core to allow for target insertion, and updating the required facility safety documentation. An operational readiness review for restart of the reactor would have to be satisfactorily completed before operations could resume.

The Test Area North Hot Cells would require only minor modifications to support Mo-99 target processing.

Evaluation

This section describes the results of DOE's evaluation of each of the alternatives. It summarizes their environmental impacts, costs, and schedules and concludes by addressing the issue of privatization.

Environmental Impacts

The environmental impacts of producing enough Mo-99 to meet 100 percent of the U.S. demand were assessed in the EIS. However, since DOE currently proposes only to provide a backup capability that would be operating to meet 10 percent to 30 percent of the annual U.S. Mo-99 demand, the actual consequences would be lower than the estimated levels

presented in the EIS and described in this section unless there were an interruption of the Canadian supply for the entire year. The analyses in the EIS indicate that environmental impacts of any of the production alternatives would be minimal and well within applicable regulatory guidelines. Each of the action alternatives would use essentially the same technology for the production of Mo-99 and related medical isotopes. Minor differences in environmental impacts among the alternatives relate primarily to the type and status of the existing facilities, the modifications required to prepare the facilities for production, the quantities of low level waste generated, how those wastes would be managed, and the location of the production facilities with respect to the surrounding population and to the medical isotope distributors. All of the production alternatives discussed in the EIS would use existing facilities with relatively minor modifications and would have negligible consequences with respect to land use, cultural resources, aesthetic resources, geologic resources, water quality, ecological resources, or noise. In the category of regional socioeconomics, the sum of primary and secondary employment impacts ranged from 100 to 300 total regional jobs and from \$3 million to \$6 million in annual regional income, generally less than 0.1 percent of the corresponding regional totals. Thus, the potential impacts on the adequacy of community resources and services would be negligible under any alternative.

The environmental analyses revealed some differences in the radiological impacts to the public and to workers resulting from the design and location of particular facilities, but the consequences would be within regulatory limits in all cases. The analyses did not identify any alternative that provided a substantial advantage in terms of environmental consequences. For example, the combined collective radiation dose to the public from facility operations and transportation (including crew dose) in person-rem per year ranged from 64 for ORNL to 89 for SNL/NM, and the radiological dose to project workers in person-rem per year was estimated to range from 9 to 12 for LANL to 22 to 25 for SNL/NM.¹ As shown in the EIS, these doses would not be expected to result in latent fatal

¹ The facility and transportation values were derived from Table S-2 on page xiv of the EIS by adding the radiological dose to the population within 80 km (50 miles) from target irradiation and processing to the transportation radiological dose to the crew and public. The dose to project workers was taken from Table 3-1 on page 3.61 of the EIS.

cancers for either workers or the public, and doses to exposed individuals would be well within regulatory limits. In addition, because all of the production alternatives would use small research reactors and comparable target fabrication and processing facilities, the risk of human health effects from credible facility accidents is very low, and the consequences of those accidents would be within DOE safety guidelines.

Production of low level radioactive waste would be less than 85 cubic meters per year, and spent nuclear fuel would be generated at the rate of 16 to 32 kilograms per year under any alternative. These quantities of waste and spent nuclear fuel are small compared to the quantities of similar materials at the DOE facilities where they would ultimately be managed. All of the alternative sites have sufficient waste management capability either on site or through existing arrangements with other DOE sites to dispose of low level waste generated by the proposed activity. All alternative sites have adequate capabilities for storage of spent fuel for at least five years, if necessary, before the spent fuel is shipped to the Savannah River Site or INEL for storage in accordance with the Records of Decision on the SNF PEIS.

Cumulative impacts on site and community infrastructure would be negligible because the medical isotope production process would use existing facilities and a relatively small staff. The quantities of radioactive waste generated annually, radiological facility emissions, and radiation dose to workers would increase compared to current or historical DOE operations at each of the sites considered in the EIS. Some sites would experience a large percentage increase in some impact categories; however, the absolute quantities are low and the consequences are generally small compared to current or historical DOE operations. For example, the quantity of solid low level waste that would be generated annually at SNL/NM would represent a 50 percent increase over historical generation levels, but the absolute quantity of waste generated is relatively small (49 cubic meters). Even with these increases, the cumulative regional emissions, doses, or other impacts would not exceed any regulatory limits at any of the alternative sites.

The consequences of the No Action alternative would consist of those associated with ongoing production of medical isotopes at the Canadian facilities and transportation of medical isotopes to the current U.S. suppliers and their customers. The No Action alternative would also result in a

continued risk to the U.S. health care community and its consumers. If the sole Canadian source of Mo-99 became unavailable for an extended time, certain medical procedures could not be offered, and the cost of some diagnostic procedures and medical risk to patients would likely increase substantially.

Costs

All cost analyses presented in the EIS were performed based on the operational capabilities required by each of the alternative sites to produce 100 percent of the U.S. demand for Mo-99 as quickly as possible. Cost estimates for each alternative include estimated expenditures to (1) prepare the reactor facility for startup, (2) operate the reactor to irradiate targets, (3) prepare the hot cell facility for processing irradiated targets, (4) process the targets to obtain the desired product, (5) prepare the target fabrication facility for production, and (6) fabricate targets. Preparation costs include estimated expenditures associated with site-specific process verification and document preparation. Operations costs were estimated on an annual basis and include estimated expenditures associated with radioactive waste management processes. The cost estimates do not include current expenditures that are being incurred by each of the sites to maintain their facilities, general isotope research (including Mo-99) and process experimentation costs being incurred, or planned decommissioning costs.

Both the estimated preparation costs and operations costs are of similar magnitude among the alternatives. The estimated preparation costs range from \$17.2 million for INEL to \$21.0 million for ORNL. The estimated preparation costs for both the SNL/NM and LANL alternatives are \$19.6 million. The estimated annual operating costs range from \$8.4 million for INEL to \$12.8 million for SNL/NM. The estimated annual operating costs for ORNL and LANL are \$9.6 million and \$11.0 million, respectively.

DOE recognized the varying degrees of confidence associated with these estimates and, therefore, commissioned an evaluation of the level of uncertainty associated with each of the estimates. The evaluation was performed by Jupiter Corporation and is presented in the report, *Cost and Schedule Evaluation of Mo-99 Production Options Identified in the Environmental Impact Statement*, June 3, 1996. This evaluation produced a range of likely costs and schedules for each of the production alternatives identified in the EIS. The SNL/NM estimates of schedule and cost

are based on a detailed, integrated schedule with corresponding resource requirements. The Jupiter report estimated the costs for SNL/NM to have an uncertainty of about 10 percent. The LANL estimates are also based on a detailed, integrated schedule and have a similar level of accuracy as the SNL/NM estimates for the activities that LANL has identified. However, a greater level of schedule and cost uncertainty exists for the LANL alternative because of unanticipated delays and facility costs that are likely to be encountered in the restart and operation of the Omega West Reactor. The Jupiter report estimated that the costs for LANL have the potential to increase by about 25 percent for preparation cost and 9 percent for annual operating cost.

The level of uncertainty is also greater in the case of estimated expenditures for ORNL and INEL due to cost projections made at a less detailed level than for the other two sites. Also for ORNL, uncertainties exist in the cost and schedule for restart of the Oak Ridge Research Reactor that has been shut down since 1987. The Jupiter report estimated that the ORNL reactor preparation costs have the potential to increase by over 25 percent and the operating costs have a 20 percent uncertainty. In the case of INEL, Power Burst Facility replacement fuel costs were not included in the EIS estimate for operating costs. On a yearly basis, this added cost is likely to be in the range of \$1 million to \$1.5 million. In addition, the uncertainty in restart requirements and the likelihood of increased operational costs contribute to Jupiter's estimate of potential cost increases of over 35 percent for both facility preparations and operations. When all of these cost uncertainties are taken into consideration, the likely costs of preparation and operation would be of similar magnitude for each alternative.

Schedules

Three milestones were compared in the EIS for each of the alternative Mo-99 production sites. The first milestone is reached when the alternative could begin initial production of Mo-99. Initial production is defined as the ability to reliably irradiate and process a limited number of targets (one or more per week). The ability to reach this milestone quickly is particularly important, because its attainment would allow DOE to initiate the FDA approval process and achieve an emergency production capability for some quantity of Mo-99. The second milestone is completion of all necessary facility modifications (reactor and hot cell) and

process equipment construction. The final milestone is achievement of both an FDA-approved production capacity and trained staff to meet 100 percent of the U.S. demand for Mo-99 on a continuous basis.

Based on the schedules prepared by the potential host sites, the first milestone could be reached by SNL/NM in 6 months from the Record of Decision, in 13 months by LANL, 22 months by INEL, and 24 months by ORNL. The time estimated to complete facility modifications and thus meet the second milestone is 18 months from the Record of Decision for LANL, 22 months for both SNL/NM and INEL, and 24 months for ORNL. Finally, full production capability, the third milestone, is estimated to be reached 20 months from the Record of Decision for LANL, 28 months for both SNL/NM and INEL, and 30 months for ORNL.

As in the case of cost estimates, the foregoing schedules are subject to varying degrees of confidence. The Jupiter Corporation evaluation of the schedules for each of the production alternatives identified a 10 percent uncertainty level in the SNL/NM schedule estimates for the reasons stated previously. Based on uncertainties in restarting the reactors at LANL, ORNL, and INEL, Jupiter estimated that the LANL schedule estimates had the potential to extend by 6 to 24 months, and that both the ORNL and INEL schedule estimates had the potential to increase by 6 to 12 months.

The uncertainties in the restart of reactors arises from the need for these nuclear facilities to have approved safety analysis reports (SAR) and to satisfactorily complete an operational readiness review. It is the policy of the Department that nuclear facilities and operations be analyzed to identify all hazards and potential accidents associated with the facility and the process systems, components, equipment, or structures, and to establish design and operational means to mitigate these hazards and potential accidents. A SAR documents the results of these analyses and their adequacy to ensure that the facility can be constructed, operated, maintained, shut down, and decommissioned safely and in compliance with applicable requirements. These detailed documents must be reviewed and approved by DOE. The current DOE standard for SARs is presented in DOE Order 5480.23. Of the alternatives evaluated in the EIS, the ACRR at SNL/NM is the only reactor with an approved SAR that complies with this order. Initial Mo-99 production activities could proceed under the current ACRR SAR, although

the document would need to be amended in the future to analyze modifications necessary to support full Mo-99 production capability while the reactor continues to operate. The other reactors have previously approved SARs, but they are now out of date and not in compliance with the current DOE order. To operate those reactors, the operating laboratory would need to either demonstrate equivalence of the reactor's approved SAR to DOE Order 5480.23 or update the reactor's approved SAR to comply with the order. The Omega West Reactor at LANL has a draft SAR written in compliance with DOE Order 5480.23, but the approval process was stopped in 1993 after the reactor was placed in safe shutdown. The time and cost to revise existing SARs to meet DOE Order 5480.23 and obtain DOE approval varies according to the type and size of the nuclear facility. The need to update an SAR before a reactor can return to operation creates the potential for schedule delays, cost increases, and facility modifications to resolve unanticipated safety concerns. Significant updating of a reactor SAR to meet the current order and obtaining DOE review and approval typically costs several millions of dollars and takes over two years to complete. These potential schedule and cost impacts were considered in the uncertainty evaluation performed by Jupiter.

Similarly, the need to conduct readiness reviews introduces cost and schedule uncertainties that could be significant depending on the level of review required. DOE Order 425.1 establishes the requirements for the restart of existing nuclear facilities that have been shut down. The requirements specify an independent readiness review process to demonstrate that it is safe to restart the facility. The order provides for two levels of review: an operational readiness review or a readiness assessment. DOE determines whether and which of these reviews need to be performed prior to the restart of a nuclear facility that has experienced conditions such as an unplanned shutdown, an extended shutdown (12 months for the category of reactors considered as Mo-99 production alternatives), or after substantial facility modifications that require changes in the safety basis previously approved by DOE. The breadth and depth of the review required determines the amount of uncertainty introduced into cost and schedule estimates for restarting the reactor.

Generally, an operational readiness review does the following:

(1) Assesses the physical condition of the nuclear facility;

(2) Assures that the facility drawings are a reflection of the current design of the facility;

(3) Assures that the procedures reflect the facility as it currently exists and can be conducted as written;

(4) Assures that the safety documentation is a reflection of the current design of the plant and adequately defines the envelope of the safe operating domain;

(5) Assures that the personnel operating and managing the facility have the appropriate and/or required background and training to safely conduct operations and management of the facility; and

(6) Assures that the facility has achieved a state of emergency preparedness that is acceptable, and that the facility can appropriately conduct the steps of the site emergency procedures.

A minimum set of requirements for an operational readiness review is presented in section 4.d. of DOE Order 425.1, but the full set of review requirements is initially defined by DOE management and may be expanded by the operational readiness review team during the review if appropriate. The length of time required to conduct an operational readiness review depends on the review requirements ultimately established and could take between 6 and 24 months.

In contrast, a readiness assessment generally focuses on a few specific areas of review and is often less time and resource intensive than an operational readiness review. Depending on the causes and duration of the shutdown and the modifications accomplished during the shutdown, a readiness assessment may be as short and simple as a restart check procedure, or it may approach the breadth and depth of an operational readiness review. As in the case of the preparation of safety documentation, the potential schedule and cost impacts of readiness reviews were considered in the uncertainty evaluation performed by Jupiter.

Privatization

DOE's objective is to establish a reliable backup Mo-99 production capability as soon as practicable. From the inception of the EIS process, DOE has stated that while it prefers that Mo-99 be produced for the long term by the private sector, establishment of long-term private sector production is not within the scope of the EIS. In the long term, DOE will explore the possibility of private sector participation in the production of Mo-99 consistent with the DOE National Isotope Strategy. As discussed in the Background section of

this document, however, it is unlikely that a private domestic source of Mo-99 is attainable in the near term to address the current vulnerability of the U.S. supply. For this reason, the long-term goal of privatization of Mo-99 production was expressly excluded from consideration in the EIS. DOE published in *Commerce Business Daily* on December 5, 1995, and in the Federal Register (60 FR 63515) on December 11, 1995, a Notice for Expressions of Interest regarding the possible privatization of all of DOE's isotope activities. The Expressions of Interest were requested by March 29, 1996. Expressions of Interest that could apply to the production of Mo-99 and related isotopes were received for review during April 1996. Some of these Expressions of Interest are general in nature and do not focus on a particular site of interest for Mo-99 production activities. Several others are site specific and are directed toward either the use of the ACRR at SNL/NM or the Omega West Reactor at LANL. Because these Expressions of Interest are proprietary and are still under review, it is not appropriate to elaborate on their contents. However, the decision DOE is making here will not preclude privatization in the long term.

Comments on the Final EIS

DOE received three comment letters after it issued the final EIS and has responded to them individually. Two letters were from residents of Albuquerque, New Mexico, who expressed concern regarding the handling and management of waste and spent nuclear fuel, topics addressed in the final EIS. The third letter was from Senator Dirk Kempthorne of Idaho who urged the selection of INEL as the site for Mo-99 production and included a critique of the EIS. Most of the issues raised in this letter concern the relative strengths and capabilities of INEL as an alternative and the limitations of the preferred alternative including the potential for the ACRR to be recalled for defense-related testing, the agency's motivation for preparing the EIS, and the suitability of the ACRR for privatization. All of these topics are addressed in the final EIS.

Several concerns presented in Senator Kempthorne's letter warrant a response here. First, the Department has considered and recognizes INEL's long history of medical isotope production and the significant historical contributions of INEL to DOE's missions. In the final EIS, DOE has recognized the relative strengths and the desire of each alternative location to host the Mo-99 mission. The

Department has been committed to giving each alternative location a fair and careful look.

The potential recall of the ACRR for a defense mission also deserves particular comment. When it issued the final EIS, DOE believed that the chance of the ACRR being recalled for defense missions in time of national emergency was sufficiently low so as not to disqualify the ACRR as an alternative. Based on extensive discussions between the Office of Defense Programs and the Office of Nuclear Energy, Science and Technology, DOE continues to believe that the likelihood of a defense-related national emergency occurring that would require the use of the ACRR within the next several years is remote. DOE also believes that the critical need to establish a backup supply of Mo-99 in the shortest possible time far outweighs the minimal risk that this reactor would be recalled for defense-related emergencies.

Environmentally Preferable Alternative

With respect to the establishment of a production capability for Mo-99 and related medical isotopes, the No Action alternative is the environmentally preferable alternative. Under the No Action alternative, the U.S. medical community would continue to rely on the single existing supply source for Mo-99, and any environmental impacts would occur primarily outside the United States. The No Action alternative, however, leaves the U.S. medical community vulnerable to a shortage of Mo-99 that could have a significant negative impact on the quality of health care received by thousands of U.S. medical patients each day. Therefore, the No Action alternative was not selected.

Of the alternatives that would satisfy the purpose and need for action, the potential environmental impacts are generally small and of similar magnitude. Each of the action alternatives would use essentially the same technology for the production of Mo-99 and related medical isotopes. Minor differences among the action alternatives relate primarily to the type and status of the existing facilities, the modifications required to prepare the facilities for isotope production, and amounts of low level waste generated and how those wastes would be managed. No single alternative has the least impact in all of the categories analyzed in the EIS. For example, ORNL has the lowest collective radiation dose to the public; however, it could generate the second highest volume of low level waste. Similarly, SNL/NM has the lowest utilization of uranium in fuel,

and water usage, of all the sites considered but has a slightly higher worker dose during processing and operation. However, these differences and the others identified in the EIS are very minor and do not provide a basis for selecting an environmentally preferred alternative among those alternatives that satisfy the purpose and need for action.

Decision

DOE has decided to implement the proposed project as specified in the preferred alternative in the EIS, that is, to produce Mo-99 and related isotopes at the ACRR and Hot Cell Facility at SNL/NM and to fabricate targets at the Chemistry and Metallurgy Research Facility at LANL. The basis for this decision rests on DOE's determination that it is essential to address as soon as possible the U.S. vulnerability to the failure of its sole source of supply of Mo-99, an isotope vitally necessary for the medical diagnosis of thousands of patients every day. Failure of the sole Canadian supply would leave the United States with critical shortages of Mo-99 within a week.

The analyses of the alternatives in the EIS demonstrate that the impacts on the environment, involved workers, and the residents in the affected communities would be very small and within applicable regulatory limits and would not provide a basis for discrimination among the alternatives. The ACRR is the only reactor among all of the alternatives that is presently operating, and the ACRR can provide the earliest possible production of Mo-99 in the event that the Canadian supply becomes unavailable. The ACRR also has the most reliable projections of costs and schedules for meeting the planned production goals.

The Department recognizes that the Office of Defense Programs has expressed interest in retaining the capability to use the ACRR in the event of a national emergency. The Department considers the likelihood of such an emergency in the next several years to be highly unlikely. DOE has decided that the critical need to establish a backup supply of Mo-99 in the shortest possible time far outweighs the minimal risk that this reactor would be recalled for defense-related emergencies.

This decision is not affected by the litigation in *Pueblo of Isleta v. Dep't of Energy*, No. 96-0508 (D. N.M. filed Apr. 15, 1996). The Medical Isotopes Production Project is based upon its own final EIS that evaluates the cumulative impacts of the proposed action at SNL/NM as well as all of the

other proposed alternatives. Neither that EIS nor this decision is dependent in any way upon the 1977 SNL/NM sitewide EA that the plaintiffs seek to enjoin reliance upon. Moreover, DOE believes that this litigation is moot because DOE has already sought congressional funding to begin preparing a sitewide EIS at SNL/NM in 1997.

Use of all Practicable Means To Avoid or Minimize Harm

Implementation of this decision will result in low environmental and health impacts. Mitigation measures typically applied to the operation of small research reactors and to the activities necessary to fabricate, irradiate, and process the Mo-99 targets will be applied throughout the project. These measures include filtration of air emissions from target fabrication, irradiation, and processing activities in accordance with applicable requirements and as low as reasonably achievable principles. Accordingly, no mitigation action plan is necessary.

The Medical Isotopes Production Project: Molybdenum-99 and Related Isotopes will be initiated at the preferred alternative facilities under the program direction of the Office of Nuclear Energy, Science and Technology and the Kirtland Area Office, Albuquerque Operations Office.

Issued in Washington, D.C., this 11th day of September 1996.

Terry R. Lash,

Director, Office of Nuclear Energy, Science and Technology.

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Environmental Management Site-Specific Advisory Board, Pantex Plant, Amarillo, TX

AGENCY: Department of Energy.

ACTION: Notice of open meeting.

SUMMARY: Pursuant to the provisions of the Federal Advisory Committee Act (Public Law 92-463, 86 Stat. 770) notice is hereby given of the following Advisory Committee meeting: Environmental Management Site-Specific Advisory Board (EM SSAB), Pantex Plant, Amarillo, Texas.

DATE AND TIME: Tuesday, September 24, 1996: 4:00 p.m.-8:30 p.m.

ADDRESS: Amarillo College, 2201 S. Washington, College Union Building, 2nd Floor, Oak-Acorn Room, Amarillo, Texas.

FOR FURTHER INFORMATION CONTACT: Tom Williams, Program Manager,