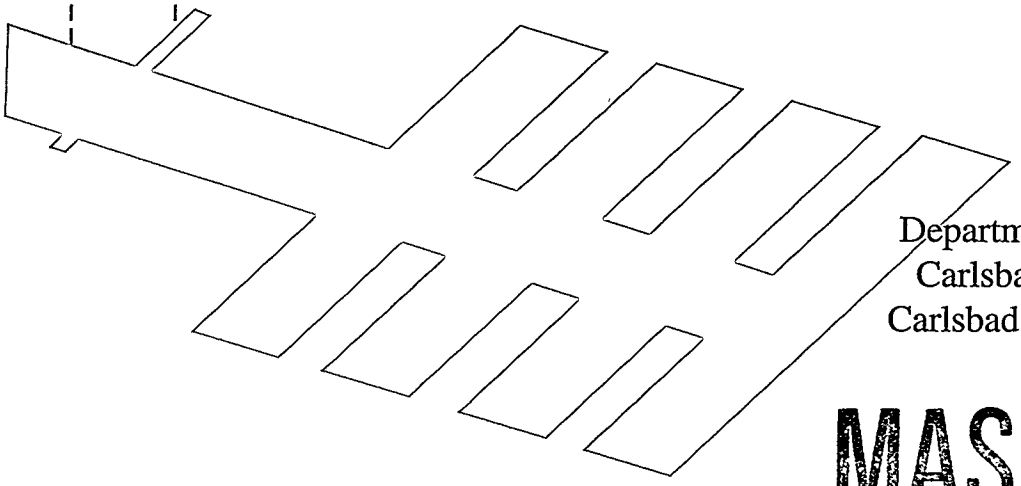
DOE/EIS-0026-S-2-IP
Revision 0

Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement

Implementation Plan



Department of Energy
Carlsbad Area Office
Carlsbad, New Mexico

May 1996

TRANSURANIC WASTE

Transuranic (TRU) waste is waste that contains alpha particle-emitting radionuclides with atomic numbers greater than that of uranium (92), and half-lives greater than 20 years, in concentrations greater than 100 nanocuries per gram of waste. Isotopes of neptunium, plutonium, americium, curium, and californium are examples of such alpha-emitting radionuclides. The half-lives of many of these radionuclides can be considerably longer than 20 years. For instance, the half-life of weapons-grade plutonium is 24,000 years.

TRU waste is primarily generated by research and development activities, plutonium recovery, weapons manufacturing, environmental restoration, and decontamination and decommissioning projects. TRU waste has often been generated by processes that also contaminate the waste with solvents, heavy metals, or other substances designated as hazardous constituents under the Resource Conservation and Recovery Act. Waste so contaminated is classified as TRU mixed waste. Most TRU waste exists in solid form such as protective clothing, paper trash, rags, glass, miscellaneous tools, and equipment contaminated with TRU radionuclides.

In 1970, the U.S. Atomic Energy Commission, which was a predecessor to the Department of Energy, concluded that waste containing relatively high concentrations of long-lived alpha-emitting radionuclides should be stored in a manner that will prevent it from reaching the accessible environment. Thus, all TRU waste generated since the early 1970s has been segregated from other waste types and placed in retrievable storage, pending final disposal.

Packages of TRU waste are classified as either contact-handled (CH) or remote-handled (RH) depending on the radiation level at the surface of the package at the time of packaging. If the level is 200 mrem per hour or less, the package is classified as CH-TRU waste. CH-TRU waste does not generally contain large quantities of elements that produce highly penetrating radiation. CH-TRU waste emits primarily alpha particles and low-energy photons of little penetrating power. More than 90 percent of TRU waste in current storage is of this type.

If the radiation level exceeds 200 mrem per hour, the package of waste is classified as RH-TRU waste. RH-TRU waste typically contains a considerable concentration of elements that produce highly penetrating radiation.

Department of Energy
Carlsbad Area Office
P. O. Box 3090
Carlsbad, New Mexico 88221

MAY 1 1996

Dear Interested Party:

The U.S. Department of Energy (the Department) is pleased to provide you with a copy of the Implementation Plan for the Waste Isolation Pilot Plant (WIPP) Disposal Phase Supplemental Environmental Impact Statement (SEIS-II). The Implementation Plan reports the results of the scoping process and provides guidance for the preparation of SEIS-II.

The Department appreciates the efforts of all who participated in the public involvement process. The Department considered all comments received during the scoping process in preparing the Implementation Plan and the Draft SEIS-II, and has modified the scope of the analysis in response to public comments to make the analysis more useful to the public and the decision maker.

Additional questions can be directed to Harold Johnson, Mailstop 535, U.S. Department of Energy, Carlsbad Area Office, P.O. Box 3090, Carlsbad, NM 88221.

Sincerely,

Harold Johnson

Harold Johnson
NEPA Compliance Officer

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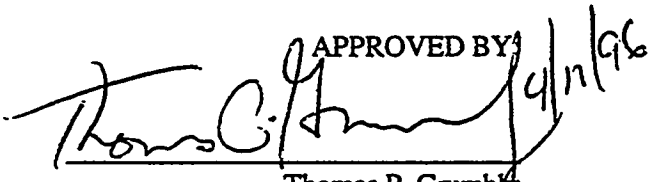
Implementation Plan
for the
Waste Isolation Pilot Plant Disposal Phase
Supplemental Environmental Impact Statement

PREPARED BY:

The United States Department of Energy
Carlsbad Area Office
Carlsbad, New Mexico

APPROVED BY:



4/11/96

Thomas P. Grumbly
Assistant Secretary
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This document is subject to revision.

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GLOSSARY

activity	A measure of the rate at which a material emits nuclear radiation, usually given in terms of the number of nuclear disintegrations occurring in a given length of time. The common unit of activity is the curie (Ci).
alpha particle	A positively charged particle emitted in the radioactive decay of certain nuclides. Made up of two protons and two neutrons bound together, it is identical to the nucleus of a helium atom.
air quality	A measure of the quantity of pollutants in the air.
atom	Smallest unit of an element which is capable of entering into a chemical reaction.
backfill	Salt, other materials, or a mixture of salt and other materials, used to fill an excavation to achieve a specific purpose (usually mechanical or chemical).
contact-handled waste	Waste that does not require shielding other than that provided by its container in order to protect those handling it from radiation exposure.
contamination	The presence of excess radioactive material in or on a material or property.
cumulative impacts	The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.
curie (Ci)	A unit of radioactivity equal to 37,000,000,000 (3.7×10^{10}) disintegrations (decays) per second.
decommissioning	The removal from active service of a facility.
decontamination	The removal of unwanted material (especially radioactive material) from the surface or from within another material.
defense waste	Nuclear waste deriving from the manufacture of nuclear weapons and the operation of naval reactors. Associated activities such as the research carried on in the weapons laboratories also produce defense waste.
disposal	In this document, permanent disposition of waste in a repository. Use of the word disposal implies that no need for later retrieval is expected. It also implies a minimal need for surveillance.
Disposal Phase	The period in which the Department of Energy (DOE) proposes to permanently emplace transuranic wastes in the Waste Isolation Pilot Plant (WIPP).
dose rate	The radiation dose delivered per unit time (e.g., rem per hour).

EIS	Environmental impact statement; a document required by the National Environmental Policy Act (NEPA) of 1969, as amended, for proposed major Federal actions involving potentially significant environmental impacts.
element	One of the known chemical substances that cannot be divided into simpler substances by chemical means.
endangered species	Plants and animals that are threatened with extinction, serious depletion, or destruction of critical habitat. Requirements for declaring a species endangered are contained in the Endangered Species Act.
energy	The capacity to produce heat or do work.
environment	The sum of all external conditions and influences affecting the life development, and ultimately the survival of an organism.
environmental monitoring	The act of measuring, either continuously or periodically, some quantity of interest, such as radioactive material in the air.
40 CFR Part 191	The Environmental Protection Agency (EPA) standard for managing and disposing of spent nuclear fuel and high-level and transuranic wastes. Subpart A deals with managing and storage of wastes while Subpart B covers long-term isolation and disposal.
formation	A body of rock identified by lithic characteristics and stratigraphic position. Formations may be combined into groups or subdivided into members.
gamma rays	Short-wavelength electromagnetic radiation (high energy photons) emitted in the radioactive decay of certain nuclides. Gamma rays are the same as gammas or gamma particles.
half-life	Time required for a radioactive element to lose 50 percent of its activity by decay. Each radionuclide has a unique half-life; that is, half of a particular nuclide will decay in a specified amount of time; then half of the remaining portion will decay in the same amount of time, and so on. Half-life can also refer to the length of time that a chemical/radionuclide/ biological agent remains in the body. Each material has biologically unique half-lives, depending on the substance, the organ of concern, and its route of elimination.
hazardous waste	Hazardous constituents regulated by the Resource Conservation and Recovery Act (RCRA) and defined in 40 CFR 261 Subparts C and D.
ion	An atom or molecule that has gained or lost one or more electrons to become electrically charged.
ionization	The process that creates ions. Nuclear radiation, x-rays, high temperatures, and electric discharges can cause ionization.

ionizing radiation	Radiation capable of displacing electrons from atoms or molecules to produce ions.
irradiation	The process of exposing a material to radiation.
isotope	An atom of a chemical element with a specific atomic number and atomic weight. Isotopes of the same element have the same number of protons but different numbers of neutrons. Isotopes are identified by the name of the element and the total number of protons and neutrons in the nucleus. For example, uranium-235 is an isotope of uranium with 92 protons and 143 neutrons and uranium-238 is an isotope of uranium with 92 protons and 146 neutrons.
migration	The natural travel of a material through the air, soil, or groundwater.
mitigate	To take practicable means to avoid or minimize environmental harm from a selected alternative.
National Environmental Policy Act (NEPA)	This 1969 Act was designed to promote consideration of environmental impacts in Federal decision-making.
nuclear weapon	The general name given to any weapon in which an explosion can result from the energy released by reactions involving atomic nuclei, either fission, fusion, or both.
nuclide	A species of atom, characterized by its number of protons, number of neutrons, and energy state.
package	In the Nuclear Regulatory Commission (NRC) regulations governing the transportation of radioactive materials (10 CFR Part 71), the packaging together with its radioactive contents as presented for transport.
packaging	A shipping container without its contents.
panel	A disposal area within the repository consisting of seven rooms.
plutonium (Pu)	A transuranic heavy (average atomic mass ranging from about 237 to 244 atomic mass units), silvery metallic element with 15 isotopes that is produced by the neutron irradiation of natural uranium.
radiation	ionizing radiation, e.g., alpha particles, beta particles, gamma rays, x-rays, neutrons, protons, and other particles capable of producing ion pairs in matter. As used in this document, radiation does not include nonionizing radiation.
radiation exposure	A measure of the ionization produced in air by x or gamma radiation. The special unit of exposure is the roentgen.

radioactive decay	The spontaneous transformation of one nuclide into a different nuclide or into a different state of the same nuclide. The process results in the emission of nuclear radiation (alpha, beta, or gamma radiation).
radioactive mixed waste	Radioactive mixed waste is defined as any radioactive waste that is commingled with RCRA-regulated hazardous wastes as defined in 40 CFR Part 261, Subparts C and D.
radioactive waste	Materials from nuclear operations that are radioactive or are contaminated with radioactive materials and for which there is no practical use or for which recovery is impractical.
radioactivity	The property or characteristic of radioactive material to undergo spontaneous transformations ("disintegrations" or "decay") with the emission of energy in the form of radiation. It means the rate of spontaneous transformations of a radionuclide. The unit of radioactivity is the curie, Ci (or becquerel, Bq). (1 Ci = 3.7×10^{10} Bq)
radionuclide	A nuclide that emits radiation.
Record of Decision (ROD)	The decision document published in the Federal Register by which a Federal department or agency decides on an alternative presented and evaluated in an EIS.
rem	A common (or special) unit of dose equivalent, effective dose equivalent, or committed dose equivalent.
remote-handled waste	Waste that requires shielding in addition to that provided by the container in order to protect people nearby from radiation exposure.
repository	A facility for the storage or disposal of radioactive waste.
Resource Conservation and Recovery Act (RCRA)	This Act was designed to provide cradle to grave control of hazardous chemical wastes.
retrievable storage	Storage of radioactive waste in a manner designed for recovery without loss of control or release of radioactivity.
risk assessment	A qualitative or quantitative evaluation of the environmental and/or health effect from exposure to a chemical or physical agent; combines exposure assessment results with toxicity assessment results to estimate effects.
Salado Formation	The evaporite formation of Permian age within which wastes would be disposed of in the WIPP repository.

shaft	A man-made hole, either vertical or steeply inclined, that connects the surface with an underground excavation.
shield	Material used to reduce the intensity of radiation that would irradiate personnel or equipment.
stabilization	The action of making a nuclear material more stable by converting its physical or chemical form or placing it in a more stable environment.
storage	Temporary placement of waste in a facility.
threatened species	Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
transmutation	Any process in which a nuclide is transformed into a different nuclide, or more specifically, when transformed into a different element by a nuclear reaction.
transuranic nuclide	A nuclide with an atomic number (number of protons) greater than that of uranium (92). All transuranic nuclides are radioactive.
TRU waste	Waste materials (excluding high level waste and certain other waste types) contaminated with alpha particle-emitting radionuclides with atomic numbers greater than that of uranium and half-lives greater than 20 years, in concentrations greater than 100 nanocuries per gram (nCi/g) of waste. TRU waste results primarily from plutonium reprocessing and fabrication as well as research activities at DOE defense installations.
TRUPACT	Transuranic Package Transporter.
TRUPACT-II	TRUPACT-II is the package designed to transport contact-handled TRU waste to the WIPP site. It is a cylinder with a flat bottom and a domed top that is transported in the upright position. The major components of the TRUPACT-II are an inner, sealed, stainless steel containment vessel within an outer, sealed, stainless steel containment vessel. Each containment vessel is non-vented and capable of withstanding 50 pounds of pressure per square inch (psi). The inner containment vessel cavity is six feet in diameter and 6.75 feet tall, with a capability of transporting fourteen 55-gallon drums, two standard waste boxes, or a ten-drum overpack.
uranium (U)	A heavy (average atomic mass of about 238 atomic mass units), silvery-white metal with 14 radioactive isotopes.

Waste Acceptance Criteria (WAC)	The DOE document, currently in draft revision number 5, that describes the criteria by which unclassified transuranic waste will be accepted for emplacement at the WIPP and the basis upon which these criteria were established. The current planning basis for WAC is a compendium of the minimal requirements established by law, regulation, and DOE orders that transuranic waste must meet to be transported to and disposed of at WIPP (assuming DOE's planned no-migration petition is granted). The SEIS-II analyses (or denial of the no-migration petition) could result in modifications to the planning-basis WAC.
Waste Isolation Pilot Plant (WIPP)	The facility near Carlsbad, New Mexico, that has been designated an experimental and operational site for evaluating disposal capabilities of bedded salt for DOE-generated transuranic waste.
x-ray	A band of electromagnetic radiation, produced by the bombardment of a substance (usually one of the heavy metals) by a stream of electrons moving at a great velocity.

ACRONYMS AND ABBREVIATIONS

BIR	*Waste Isolation Pilot Plant Transuranic Waste Baseline Inventory Report*
BIR-2	*Waste Isolation Pilot Plant Transuranic Waste Baseline Inventory Report, Revision 2*
Bq	becquerel
CAO	Carlsbad Area Office
CEQ	Council on Environmental Quality
CFR	*Code of Federal Regulations*
CH-TRU waste	Contact-Handled Transuranic Waste
Ci	curie
Department	U.S. Department of Energy
DOE	U.S. Department of Energy
EEG	Environmental Evaluation Group
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEIS	Waste Isolation Pilot Plant Final Environmental Impact Statement (published in 1980)
FR	*Federal Register*
LDR	Land Disposal Restrictions
LWA	Land Withdrawal Act
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NRC	Nuclear Regulatory Commission
PCB	Polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
RH-TRU waste	Remote-Handled Transuranic Waste
ROD	Record of Decision

SEIS-I	*Waste Isolation Pilot Plant Final Supplement Environmental Impact Statement* (published in 1990)
SEIS-II	*Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement*
SNL	Sandia National Laboratories
TRU	Transuranic
WAC	WIPP Waste Acceptance Criteria
WID	Westinghouse Waste Isolation Division
WIPP	Waste Isolation Pilot Plant
WM PEIS	*Draft Waste Management Programmatic Environmental Impact Statement*

CHAPTER 1
INTRODUCTION

This chapter provides an overview of why this *Implementation Plan* was prepared and summarizes background information on the Waste Isolation Pilot Plant (WIPP) project.

1.1 PURPOSE AND ORGANIZATION OF THE IMPLEMENTATION PLAN

The *Implementation Plan* for the *Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement* (SEIS-II) has two primary purposes:

- To report on the results of the scoping process
- To provide guidance for preparing SEIS-II

SEIS-II will be the National Environmental Policy Act (NEPA) review for WIPP's disposal phase. Chapter 1 of this plan provides background on WIPP and this NEPA review. Chapter 2 describes the purpose and need for action by the Department of Energy (hereafter DOE or the Department), as well as a description of the Proposed Action and alternatives being considered. Chapter 3 describes the work plan, including the schedule, responsibilities, and planned consultations with other agencies and organizations. Chapter 4 describes the scoping process, presents major issues identified during the scoping process, and briefly indicates how issues will be addressed in SEIS-II.

Appendix A is a copy of the Notice of Intent (NOI) published in the *Federal Register* on August 23, 1995. Appendix B contains the current outline of the WIPP SEIS-II. Appendix C presents summaries of the public scoping comments within each comment category. Appendix D contains disclosure statements of the contractors that are assisting DOE in preparing the SEIS-II. On the inside front cover is a brief discussion of transuranic (TRU) waste and its generation. On the inside back cover is an overview of the DOE NEPA review process.

1.2 WIPP BACKGROUND INFORMATION

This NEPA review will address DOE's proposal to continue the phased development of the WIPP and to begin the disposal of TRU waste from defense activities and programs at the WIPP facility, located approximately 26 miles east of Carlsbad in southeastern New Mexico. The review also will address the transportation routes and methods that would be used to move TRU waste to the facility and the characterization, pretreatment, packaging, and certification of the waste before its transportation.

TRU wastes result from the defense activities and programs of the United States government, including nuclear weapons development and manufacturing, plutonium recovery, research and development, environmental restoration and decontamination and decommissioning activities, waste management programs at various DOE and other government facilities and laboratories, and testing and research at private institutions and universities under contract to DOE. TRU wastes also result from commercial activities subject to regulation by the U.S. Nuclear Regulatory Commission (NRC) and from DOE-sponsored activities that are not considered to be defense activities or programs.

TRU waste contains more than 100 nanocuries per gram of alpha-emitting transuranic isotopes with half-lives greater than 20 years. These isotopes include isotopes of neptunium, plutonium, americium, curium, and californium. TRU waste radionuclides generally decay by the emission of alpha particles which are easily shielded. More penetrating gamma radiation is also emitted by some radionuclides, though, affecting the radiation levels from the waste container.

In 1970, the U.S. Atomic Energy Commission, a predecessor of the Department, concluded that waste containing specified concentrations of alpha-emitting radionuclides with long half-lives should be retrievably stored rather than being disposed of by burial near the surface. Thus, TRU waste generated since 1970 has been segregated from other waste and placed in retrievable storage pending disposal.

TRU waste is classified in terms of the level of radiation at the surface of the container (DOE Order 435.1, Radioactive Waste Management). Contact-handled (CH) TRU waste, as defined by DOE Order 5820.2A, emits radiation at or below 200 millirem per hour (mrem/hr). (It is noted that the WIPP Land Withdrawal Act [LWA] defines CH-TRU waste as having a surface dose rate of not greater than 200 mrem/hr and RH-TRU waste as having a surface dose rate of 200 mrem/hr or greater; containers emitting 200 mrem/hr are defined, therefore, in this Act as both). CH-TRU waste containers can be safely handled by workers without additional shielding. This type of waste contains relatively small amounts of the fission and activation products that produce highly penetrating radiation; typically, its emissions consist mostly of alpha particles and low-energy photons with low penetrating power. More than 90 percent of the TRU waste currently in storage is CH-TRU waste. Waste with levels of radiation greater than 200 mrem/hr is classified as remote-handled (RH) TRU waste. This waste contains larger amounts of radioactive fission and activation products and produces larger amounts of radiation at the surface of its containers. Remote handling equipment or additional shielding is used to safely move or relocate containers of this type of waste. In addition, about 55 percent of all TRU waste currently in storage also contains solvents or other hazardous constituents that result in it being classified as TRU mixed waste. These other hazardous constituents must be taken into consideration when choosing appropriate disposal methods.

After nearly 10 years, the WIPP facility construction phase was completed in 1990. Currently, the plant includes surface facilities for receiving and unloading TRU waste, for radiation safety and emergency services, and for various support operations. WIPP currently also includes underground facilities for the disposal of TRU waste that constitute about one eighth of its planned disposal capacity. As analyzed under the Proposed Action, additional disposal space would be excavated, as needed, up to the WIPP waste capacity of 6.2 million cubic feet (175,600 cubic meters). The waste disposal areas eventually would be sealed with the intent that the waste would remain in the underground facility permanently.

A key surface facility is the 92,000-square-foot Waste Handling Building. In this building, TRU waste containers would be received, inventoried, inspected, and prepared for transport to and disposal in the underground facilities. The underground facilities were excavated out of the Salado Formation, a 3,000-foot-thick salt deposit in the Permian Basin. Evaporation of an ancient ocean formed this deposit 225 million years ago. The underground facilities are 2,150 feet below ground level and 1,250 feet above sea level. They include an experimental area, waste disposal area, a maintenance and storage area, four ventilation and access shafts, and connecting tunnels. One of the eight planned TRU waste disposal areas has been completed. Construction of these underground facilities resulted in the removal of approximately 800,000 tons of rock salt to date. The location of

the facility is shown on Figure 1-1. A drawing of the facility is shown on Figure 1-2. A photograph of the aboveground facility is presented in Figure 1-3.

Currently, most TRU waste is generated and stored at 10 principal facilities located throughout the nation. Other sites generate and store small quantities of TRU waste. Three methods of transporting the waste from generation or storage sites to WIPP will be assessed in SEIS-II: truck, commercial rail, and dedicated rail. Transportation by truck would involve the use of specially designed tractor trailers which could be continually monitored by satellite. Commercial rail transportation would include flatbeds containing TRU waste among the other railroad cars on regularly scheduled trains. Dedicated rail transportation would employ trains that would carry only TRU waste; these dedicated trains would transport a limited number of containers of waste per trip. In each case, the waste would be carried in specially designed containers. Also, before the TRU waste can be transported, each drum or box of waste must be certified as complying with the WIPP Waste Acceptance Criteria (WAC) (see glossary).

The container used for transporting the CH-TRU waste, the TRUPACT-II, has been certified by the NRC. The TRUPACT-II consists of a one-quarter-inch thick inner containment vessel positioned within an outer containment assembly. An outer stainless steel skin and 10 inches of foam protect the outer containment vessel. To achieve NRC approval, these containers endured fire, attempts to puncture them, immersion in water, and free drops with no leakage of their contents. Each container can hold up to fourteen 55-gallon drums, two standard waste boxes of TRU waste, or a ten-drum overpack. Figure 1-4 shows a tractor trailer loaded with three TRUPACT-IIs.

The proposed container for transporting the RH-TRU waste, the RH-72B, has not yet been certified by the NRC. Any container finally approved for RH-TRU waste will be designed to protect the public and environment from the more penetrating radiation that RH-TRU waste produces.

1.3 NEPA REVIEW OF WIPP

Major NEPA documents that discuss the environmental impacts of WIPP are the following:

- The *Final Environmental Impact Statement* (DOE/EIS-0026) (FEIS) in which DOE evaluated the potential environmental impacts of construction of WIPP. The FEIS was published in 1980 and was followed by its Record of Decision, published in the *Federal Register* on January 28, 1981, in which DOE decided to proceed with the construction of surface and subsurface facilities.

- The *Final Supplement Environmental Impact Statement* (DOE/EIS-0026 FS) (SEIS-I) and its Record of Decision (published in the *Federal Register* on June 22, 1990) in which DOE determined that it could, beginning with the test phase, proceed with the phased development of WIPP. The Record of Decision included a decision to prepare SEIS-II before deciding whether to proceed to the WIPP disposal phase.

Other NEPA activities include those associated with SEIS-II to date, including the Notice of Intent published in the *Federal Register* on August 23, 1995 (see Appendix A) and the scoping meetings that are summarized in this document.

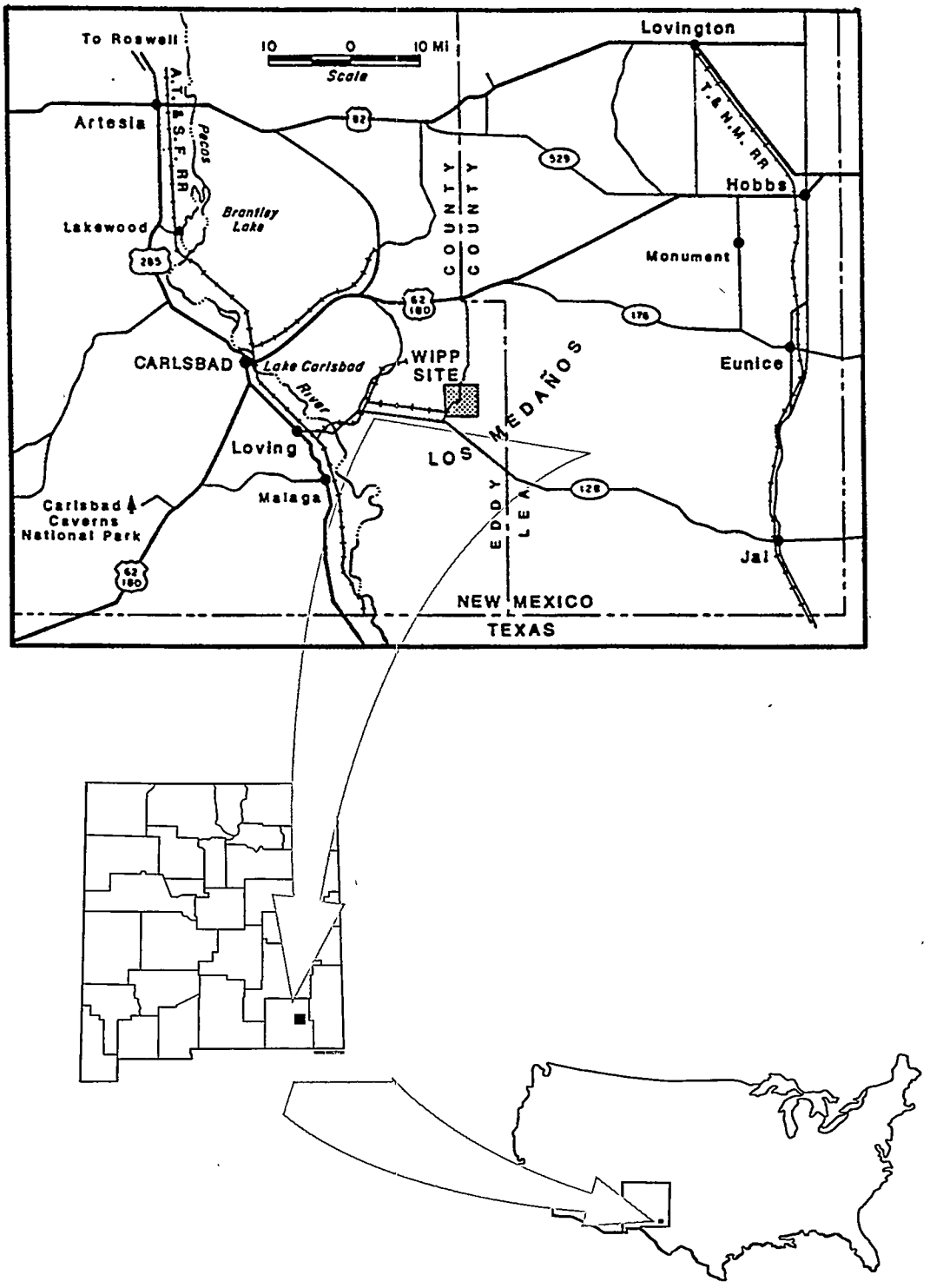

Figure 1-1
The Location of WIPP

WIPP Facility and Stratigraphic Sequence

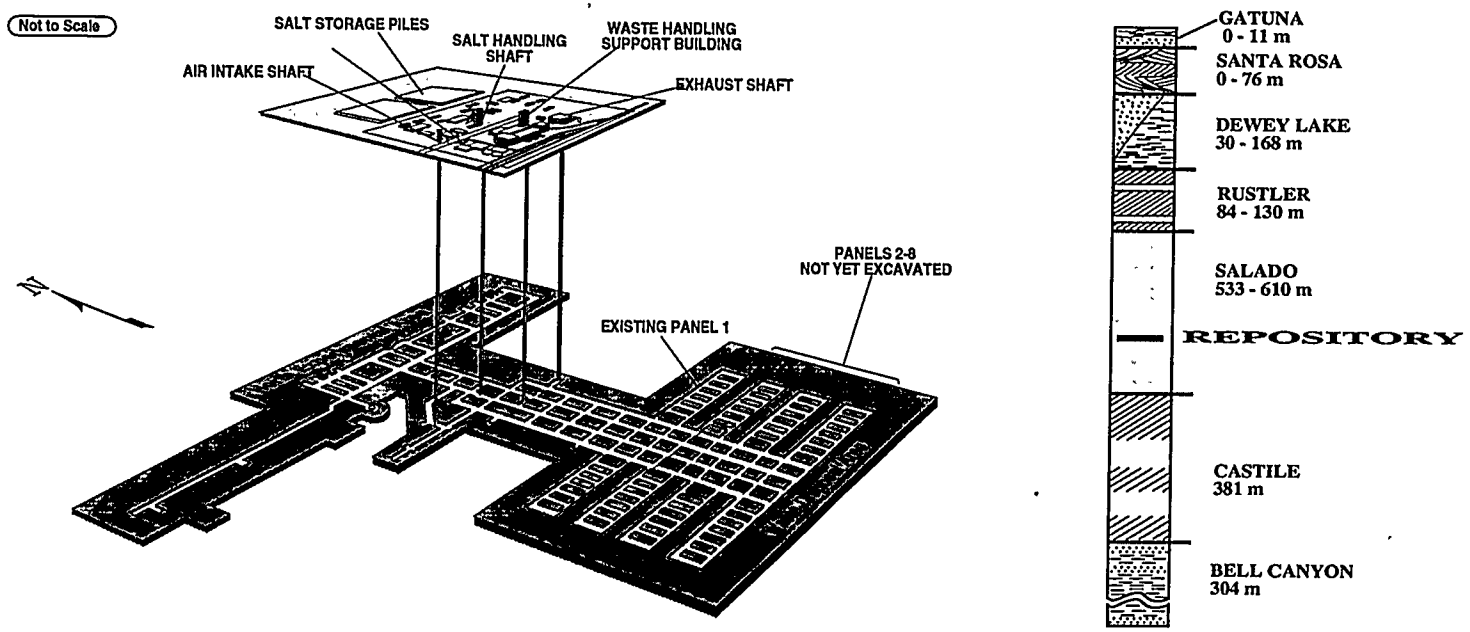

Figure 1-2
The WIPP Facilities

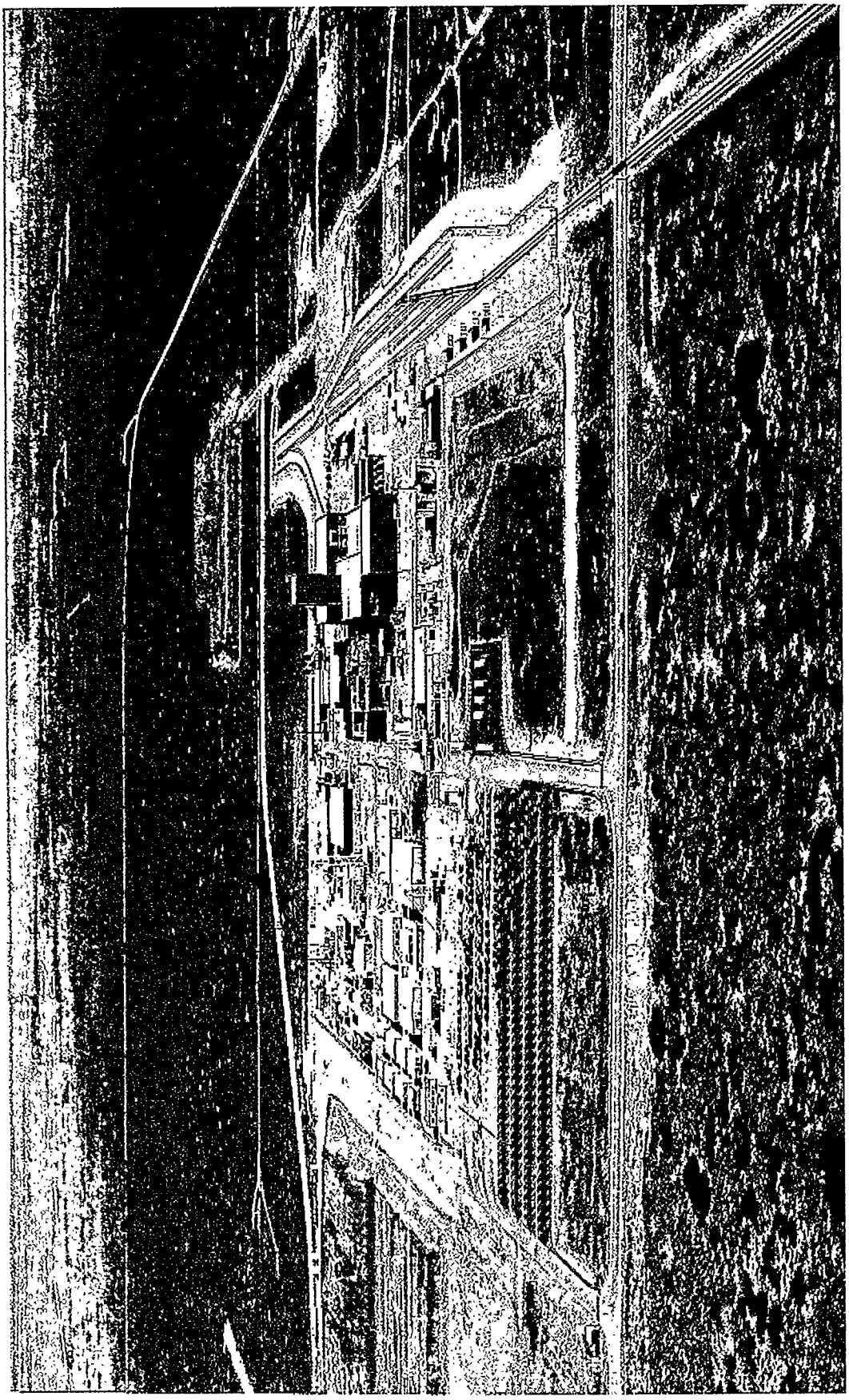

Figure 1-3
The Aboveground Facilities at WIPP

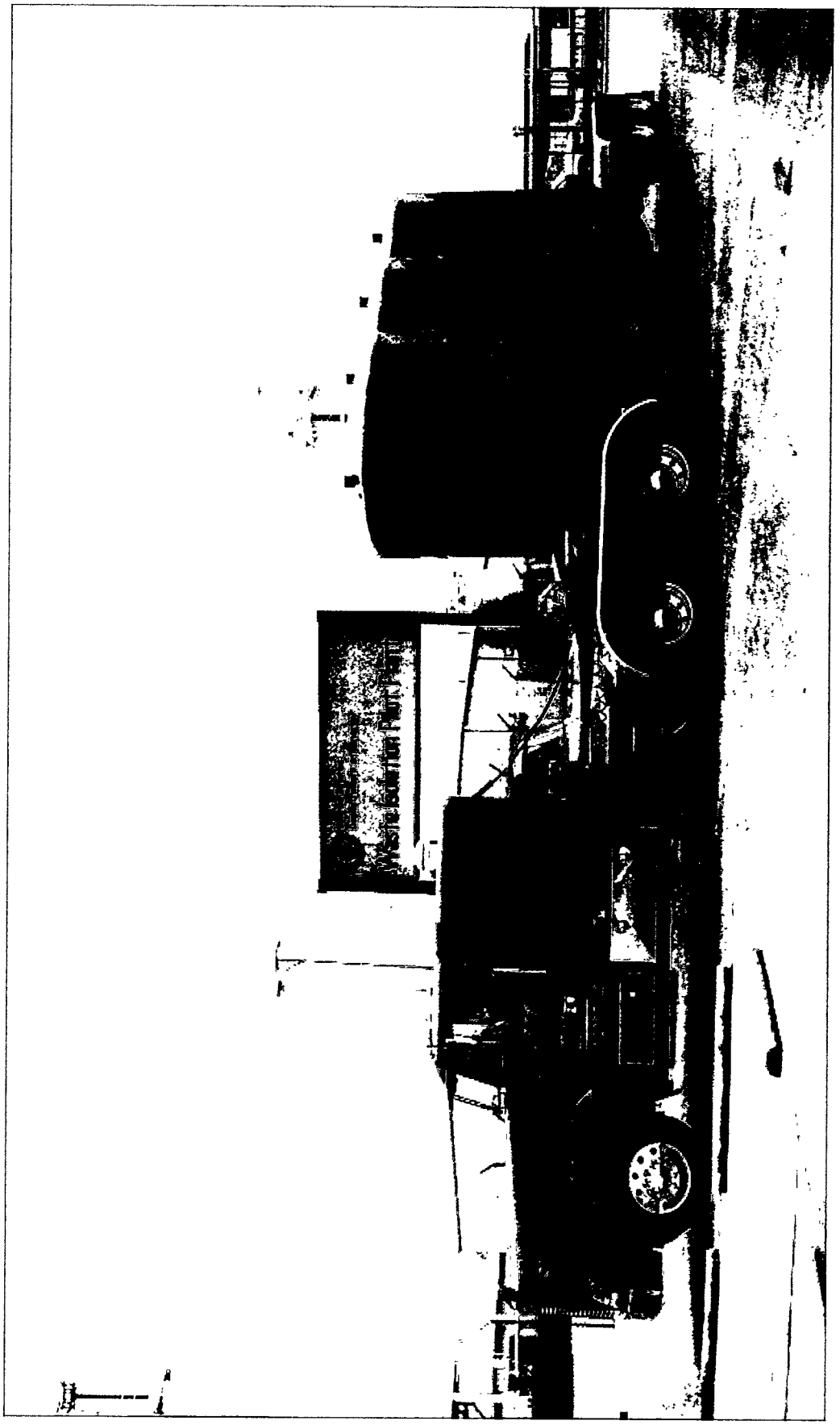

Figure 1-4
TRUPACT-II Containers

1.3.1 Need for SEIS-II

The 1990 Record of Decision stated that the scope of SEIS-II would include an analysis of the long-term performance of WIPP in light of new information obtained since 1990. It also stated that a more detailed analysis of the processing and handling of TRU waste at the generator facilities would be included. In addition, regulatory and statutory changes have occurred since 1990 that may affect WIPP and its performance. SEIS-II, therefore, will discuss all of the changed circumstances since 1990 that might affect the environmental impacts of WIPP. Some of those changes are presented below.

New Generator Sites: The 1990 SEIS-I identified 10 principal sites as generators of DOE's TRU waste. Since then, the Department has identified additional sites that generate and store small amounts of TRU waste that may be disposed of at WIPP. The potential impacts from the waste management activities of these additional sites will be evaluated as part of SEIS-II.

Revised TRU Waste Volume Estimates: Estimates of the volumes of TRU waste yet to be generated and that would be disposed of at WIPP have changed since 1990. This is partially due to the reduced activities associated with production of nuclear weapons in the United States and partially due to better information on waste volumes obtained from the generator sites. The new volumes will be included in SEIS-II.

Consequences of the WIPP Land Withdrawal Act (LWA): The LWA, which transferred WIPP from the Department of Interior to DOE, included provisions that affect environmental impacts for some WIPP disposal alternatives. One provision limits the total TRU waste disposal capacity to no more than 6.2 million cubic feet (176,000 cubic meters). RH-TRU waste disposal is limited to 5.1 million curies (MCi). Further, the Act requires studies of rail and truck transportation, waste processing, and volume reduction technologies. All relevant information obtained during these studies will be used in SEIS-II to assess potential impacts. The LWA also requires DOE to submit a recommendation to Congress for disposal of all TRU waste.

Results of the Experimental Program: Since 1990, the Department has continued an experimental program to acquire additional information about the WIPP site, TRU waste, and the potential interactions that may occur between the two. Information on these items will be analyzed and included in SEIS-II.

Changes to the Waste Acceptance Criteria (WAC): WIPP's planning-basis WAC have changed since 1990. A proposed requirement to treat waste to eliminate corrosive characteristics could affect environmental impacts. The Department's latest WAC and alternative criteria will be addressed in SEIS-II.

Changes to the Transportation Routes: Changes have been made to the transportation routes presented in the 1990 SEIS-I. These changes will be considered during SEIS-II.

Changes in the Status of Relevant Regulations and Executive Order: The U.S. Environmental Protection Agency in 1994 codified at 40 Code of Federal Regulations (CFR) 191 issued the Environmental Standards for Management and Disposal of TRU Waste (40 CFR 191), and in 1996 issued criteria to certify and determine WIPP's compliance with these standards (61 *Federal Register* 5224, February 9, 1996) to be codified at 40 CFR 194. In 1993 the President issued Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, to

ensure that Federal agencies manage their facilities to meet the objectives of the Pollution Prevention Act and to develop goals to reduce releases of toxic chemicals and pollutants to the environment. These changes will be considered in SEIS-II.

Changes in Compliance Disposition of Previously Disposed TRU Waste: Until about 1970, DOE disposed of TRU waste in shallow trenches. SEIS-I did not consider this waste in its analyses. Since SEIS-I, it has become evident that compliance with federal regulations may result in the excavation of a portion of this TRU waste. If excavated, this waste would be considered newly generated and subject to DOE's waste management program. In SEIS-II, an estimate of previously disposed inventory will be included and the impacts of disposing of this waste at WIPP assessed.

1.3.2 Relationship to Other DOE EISs

SEIS-II will update and amend those NEPA reviews presented in the 1980 FEIS for WIPP and the 1990 SEIS-I. Currently, SEIS-II is to be the last NEPA document produced before the Department decides whether to begin disposal of TRU waste at WIPP.

In addition to these previous environmental impact statements (EIS) produced on WIPP, SEIS-II is closely related to DOE's *Draft Waste Management Programmatic Environmental Impact Statement* (WM PEIS), which was published in August 1995. The WM PEIS is a nationwide study that examines the environmental impacts of various management and siting alternatives for DOE radioactive and hazardous wastes, including TRU waste. DOE will use this information to decide where to locate additional treatment, storage, or disposal facilities for each waste type. Under all of the WM PEIS TRU waste action alternatives, disposal at WIPP of TRU waste was assumed for purposes of its analyses. DOE will analyze impacts of disposal of TRU waste in SEIS-II and will make decisions concerning both disposal and levels of treatment of TRU waste based on SEIS-II analyses. As appropriate, decisions on complex-wide TRU waste treatment levels, such as modification of the planning-basis WIPP WAC, will take into account the analyses in both the WM PEIS and the WIPP SEIS-II, and as appropriate, the Records of Decision will be coordinated. The WM PEIS will provide a basis for decisions on where any TRU waste treatment and storage facilities would be sited. A summary of treatment and storage scenarios from the WM PEIS is provided as Table 1-1.

For purposes of its analysis concerning sitings, the WM PEIS examines treatment of TRU waste to three different levels: characterize or repackaging to meet the planning-basis WAC currently in place (see glossary), intermediate treatment of the waste (shredding and using grout to solidify it), and enhanced treatment (incineration) to meet the Resource Conservation and Recovery Act's (RCRA) Land Disposal Restrictions (LDRs). SEIS-II will summarize with modification and incorporate by reference the WM PEIS analyses. The modification will address differences in baseline waste volume estimates. SEIS-II will include analyses of the impacts of disposal of the waste when treated to the three different levels.

Three other NEPA documents that are directly related to SEIS-II are the following:

- *Environmental Assessment for the Proposed Actinide Source-Term Test Program at Los Alamos National Laboratory* (DOE/EA-0977). This assessment examined the site-specific environmental impacts of conducting tests in the laboratories of Los Alamos National Laboratory as part of the WIPP experimental program. A Finding of No Significant Impact was issued on January 23, 1995.

Table 1-1
WM PEIS Transuranic Waste Alternatives

	Alternatives					
	No Action	**Decentralized**	**Regionalized-1**	**Regionalized-2**	**Regionalized-3**	**Centralized**
Total Number of CH-TRU Waste Treatment Sites	11	16	5	5	3	WIPP
Total Number of RH-TRU Waste Treatment Sites	5	5	2	2	2	2
Treatment Criteria	WIPP WAC	WIPP WAC	Shred and Grout	LDRs	LDRs	LDRs
Role of Site						
Argonne National Laboratory - East	Treatment/Storage	Treatment/Storage	---	---	---	---
Energy Technology Engineering Center	Storage	Treatment	---	---	---	---
Hanford Site	Treatment/Storage	Treatment/Storage	Treatment[a]	Treatment[a]	Treatment[a]	Treatment[b]
Idaho National Engineering Laboratory	Treatment/Storage	Treatment/Storage	Treatment	Treatment	Treatment	---
Los Alamos National Laboratory	Treatment/Storage	Treatment/Storage	Treatment	Treatment	---	---
Lawrence Berkeley Laboratory	Treatment/Storage	Treatment	---	---	---	---
Lawrence Livermore National Laboratory	Treatment/Storage	Treatment/Storage	---	---	---	
Mound Plant	Treatment/Storage	Treatment/Storage	---	---	---	---
Nevada Test Site	Storage	Treatment/Storage	---	---	---	---
Oak Ridge National Laboratory	Treatment/Storage	Treatment/Storage	Treatment[c]	Treatment[c]	Treatment[c]	Treatment[c]
Paducah Gaseous Diffusion Plant	Storage	Treatment	---	---	---	---
Rocky Flats Environmental Technology Site	Treatment/Storage	Treatment/Storage	Treatment	Treatment	---	---
Sandia National Laboratories - Albuquerque	Storage	Treatment	---	---	---	---
Savannah River Site	Treatment/Storage	Treatment/Storage	Treatment	Treatment	Treatment	
University of Missouri Research Reactor	Treatment/Storage	Treatment	---	---	---	---
Waste Isolation Pilot Plant	---	---	---	---	---	Treatment
West Valley Demonstration Project	Storage	Treatment	---	---	---	---

Note: An additional five sites with very little waste are mentioned in the WM PEIS but not included in its analyses.
Treatment = Treatment by shred and grout or to LDRs also meet the WIPP WAC.
Storage = Sites that store after treatment under the No Action and Decentralized Alternatives or store its current inventory under the No Action Alternative.

[a] The Hanford Site treats both contact-handled (CH) and remote-handled (RH) TRU waste.
[b] The Hanford Site treats RH-TRU waste only.
[c] Oak Ridge National Laboratory treats RH-TRU waste only.

Source: Table 6.1-1 of the WM PEIS Summary.

- *Environmental Assessment for the Construction and Operation of the Carlsbad Environmental Monitoring and Research Center* (DOE/EA-1081). This assessment examined the impacts of continued Department funding of the operations of the Carlsbad Environmental Monitoring and Research Center by the University of New Mexico. The center's laboratory would be constructed in Carlsbad, New Mexico, near the existing New Mexico State University campus. The center would independently monitor environmental impacts from ongoing and future WIPP operations as part of its aim to improve environmental monitoring techniques. A Finding of No Significant Impact was issued on October 10, 1995.

- *Environmental Assessment for the Construction and Operation of the Sand Dunes to Ochoa Powerline Project* (DOE/EA-1109). The Department adopted the Bureau of Land Management's environmental assessment and Finding of No Significant Impact on May 19, 1995. This assessment examined the impacts of constructing a second powerline to support WIPP. As part of the project, a new substation also will be constructed.

In addition to these documents, several ongoing or recently completed documents analyze or have the potential to analyze proposals or alternatives that concern TRU waste. They, therefore, may relate to SEIS-II. These documents include the following:

- *The Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Program Final Environmental Impact Statement* (DOE/EIS-0203-F, April 1995) and its Record of Decision (60 *Federal Register* 2680, June 1, 1995)

- *Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling, Volume II* (DOE/EIS-0161, October 1995) and its Record of Decision (60 *Federal Register* 63878, December 12, 1995)

- *Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement* (DOE/EIS-0229) - draft issued - February 1996

- *Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components* (DOE/EIS-0225) - draft issued - March 1996

- *Site-wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS-0238) - in preparation

- *Nevada Test Site and Other Off-Site Locations within the State of Nevada Site-wide Environmental Impact Statement* (DOE/EIS-0239) - draft issued - January 1996

- *Rocky Flats Environmental Technology Site Site-wide Environmental Impact Statement,* Rocky Flats, Golden, Colorado (no number assigned) - in preparation

1.3.3 The WIPP SEIS-II and Record of Decision

The SEIS-II is being prepared to inform DOE's decision-making process. The Proposed Action and the alternatives have been structured to allow easy comparison of environmental impacts to support DOE decision-making. The major decisions expected to be based on the SEIS-II analyses are:

- Whether to dispose of TRU waste at WIPP or leave it at generator sites
- And, if the decision is to dispose of waste at WIPP, (1) what type of TRU waste (currently stored, newly generated, and/or buried) to dispose of at WIPP, (2) whether to modify the planning-basis WIPP WAC to specify a different level of treatment for waste disposed of at WIPP, and (3) what mode of transportation to use for TRU waste shipments

DOE will prepare a draft SEIS-II for public review and comment. Issuance of the draft document is scheduled for July 1996. In addition to an invitation for written comments, DOE will hold public hearings to solicit comments on the draft. The public hearings are tentatively planned for August and September of 1996. At this time DOE plans to publish all comments received and comment responses with the final SEIS-II. However, if comments prove to be too voluminous, DOE may publish only a comment summary in the final SEIS-II; all comments and the comment response document would be available for public review at the public reading rooms listed in Table 1-2.

The Record of Decision for SEIS-II will be signed by the DOE Assistant Secretary for Environmental Management or the Secretary of Energy. If DOE decides to mitigate any environmental impacts of the WIPP decision in the Record of Decision, a Mitigation Action Plan, which will describe the mitigation measures that are made a part of the WIPP decision, explain how and when they will be implemented, and explain how DOE will monitor the mitigation measures over time to judge their effectiveness, will be issued following the Record of Decision. The Record of Decision and Mitigation Action Plan will be placed in the WIPP public reading rooms listed in Table 1-2 and will be made available to interested parties upon request.

Table 1-2
List of WIPP Reading Rooms

NAME	ADDRESS
Public Reading Room for U.S. Department of Energy Headquarters[a]	Room 1E-190/Forrestal Building Freedom of Information Reading Room 1000 Independence Ave. S.W. Washington, DC 20585
Defense Nuclear Facilities Safety Board[a]	625 Indiana Ave. N.W., Suite 700 Washington, DC 20004
Scientific and Technical Information Center Department of Energy Reading Room[a]	P.O. Box 62 Oak Ridge, TN 37831
Thomas Branigan Memorial Library	200 East Picacho Las Cruces, NM 88001
New Mexico State Library[a]	325 Don Gaspar Santa Fe, NM 87503
Pannell Library New Mexico Junior College	5317 Lovington Highway Hobbs, NM 88240
Carlsbad Public Library[a] Public Document Room	101 South Halagueno Carlsbad, NM 88220
Zimmerman Library[a] Government Publications University of New Mexico	Roma Ave. and Yale Blvd. Albuquerque, NM 87131-1466
Martin Speare Memorial Library	New Mexico Institute of Mining and Technology Leroy and Bullock Campus Station Socorro, NM 87801
U.S. Department of Energy National Atomic Museum WIPP Public Reading Room	Wyoming Blvd. South Kirtland Air Force Base P.O. Box 5400 Albuquerque, NM 87115
Raton Public Library	244 Cook Ave. Raton, NM 87740
New Mexico State University Library	P.O. Box 30001 Las Cruces, NM 88003
Department of Energy Public Reading Room[a]	1776 Science Center Dr, Idaho Falls, ID 83702
INEL Boise Office	816 West Bannock Suite 306 Boise, ID, 83702
Shoshone-Bannock Library HRDC Building	Bannock and Pima Fort Hall, ID 83203
University of Idaho Library University of Idaho Campus	Rayburn St. Moscow, ID 83202
[a] Reference documents will be available at these locations	

Table 1-2
List of WIPP Reading Rooms – Continued

NAME	ADDRESS
Moscow Environmental Restoration Information Office	530 South Ashbury Suite 2 Moscow, ID 83842
Pocatello Public Library	113 South Garfield Pocatello, ID 83201
Idaho State University Library	741 South 7th Ave., Box 8089 Pocatello, ID 83209
Twin Falls Public Library	434 2nd St. East Twin Falls, ID 83301
Standley Lake Library	8485 Kipling St. Arvada, CO 80005
Superfund Records Center, U.S. Environmental Protection Agency	999 18th St. 5th Floor Denver, CO 80202
Public Reading Room Department of Energy Rocky Flats Operations[a]	Front Range Community College Library 3645 West 112th Ave. Level B, Center of the Building Westminster, CO 80030
Citizens Advisory Board	9035 N. Wadsworth Pkwy Suite 2250 Westminster, CO 80021
Public Reading Room for U.S. Department of Energy Richland Operations Office	Washington State University Tri-Cities 100 Sprout Rd, Room 130 West Richland, WA 99352
Public Reading Room for U.S. Department of Energy	USC - Aiken Library 171 University Pkwy. Aiken, SC 29801
U.S. Department of Energy CH Public Reading Room	9800 South Cass Ave. Building 201 Argonne, IL 60439
Public Reading Room for U.S. Department of Energy Nevada Operation Office	2621 Losee Rd. North Las Vegas, NV 89030-4129
Public Reading Room for U.S. Department of Energy Oakland Operations Office	1301 Clay St. Room 700 N Oakland, CA 94612
U.S. Department of Energy CERCLA Public Reading Room	Miamisburg Senior Adult Center 305 Central Ave. Miamisburg, OH 45342
Texas State Library Information Services Division	1201 Brazos St. Austin, TX 78701
Wyoming State Library Government Documents	Supreme Court Building 2301 Capitol Ave. Cheyenne, WY 82002
Idaho National Engineering Laboratory, Pocatello Office	1651 AT Ricken Dr. Pocatello, ID 83201

[a] Reference documents will be available at these locations

Table 1-2
List of WIPP Reading Rooms – Continued

NAME	ADDRESS
Idaho National Engineering Laboratory, Twin Falls Office	233 2nd St. North Suite B Twin Falls, ID 83301
Information Center Colorado Department of Public Health and Environment	4300 Cherry Creek Dr. South Building A Denver, CO 80222-1530
Department of Energy Public Reading Room	55 Jefferson Cir. Oak Ridge, TN 37830
Community Reading Room	Los Alamos National Laboratory P.O. Box 1663, MS A-117 Los Alamos, NM 87545
Mobile Public Library Federal Document Collection	701 Government St. Mobile, AL 36602-1499
Arkansas State Library Federal Document Collection	One Capitol Mall Little Rock, AR 72201
Flagstaff City-Coconino County Public Library	300 West Aspen Flagstaff, AZ 86001
Atlanta-Fulton Public Library Federal Document Collection	One Margaret Mitchell Square, N.W. Atlanta, GA 30303-1089
Indiana State Library Federal Document Collection	140 North Senate Ave. Indianapolis, IN 46204-2296
Kansas State Library Federal Document Collection	State Capitol Building Topeka, KS 66612
Mississippi State Law Library Federal Document Collection	450 High St. Jackson, MS 39215-1040
Missouri State Library Federal Document Collection	600 West Main Jefferson City, MO 65102
Oregon State Library Federal Document Collection	State Library Building 250 Winter Street, N.E. Salem, OR 97310-0640
The Navajo Nation Environmental Protection Agency	c/o Levon Benally, Jr. P.O. Box 339 Window Rock, AZ 86515
State Library Louisiana	760 North Third St. Baton Rouge, LA 70802
The Oklahoma Department of Libraries	200 N.E. 18th St. Oklahoma City, OK 73105
[a] Reference documents will be available at these locations	

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CHAPTER 2
PURPOSE AND NEED FOR DOE ACTION, AND DESCRIPTION OF DOE PROPOSED ACTION AND ALTERNATIVES

This chapter describes the purpose and need for the Department of Energy (DOE or the Department) action and provides a summary of the Proposed Action and alternatives that will be analyzed in the *Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement* (SEIS-II).

2.1 PURPOSE AND NEED FOR DOE ACTION

DOE needs to dispose of transuranic (TRU) waste generated by its past, present, and future activities, as well as by its predecessors, in a manner that protects public health and the environment.

Most TRU waste is currently being stored at the sites where it was generated, awaiting disposal. There are about 2.0 million cubic feet (58,000 cubic meters) of contact-handled (CH) TRU waste and about 127,000 cubic feet (3,600 cubic meters) of remote-handled (RH) TRU waste in retrievable storage at DOE sites around the country. More than 90 percent of the Department's TRU waste has been generated by the following 10 major sites:

- Idaho National Engineering Laboratory
- Rocky Flats Environmental Technology Site
- Hanford Site
- Savannah River Site
- Mound Laboratory
- Nevada Test Site
- Los Alamos National Laboratory
- Oak Ridge National Laboratory
- Lawrence Livermore National Laboratory
- Argonne National Laboratory-East

The remaining 10 percent of the TRU waste inventory is attributed to an additional 14 sites around the country. Eleven of these sites were mentioned in the *Draft Waste Management Programmatic Environmental Impact Statement* (WM PEIS) (though only six were included in its analysis). The three remaining SEIS-II sites are identified in the latest inventory of the nation's TRU waste, *Waste Isolation Pilot Plant Baseline Inventory Report, Revision 2 (BIR-2).*

DOE projects that approximately 1.9 million additional cubic feet (54,000 cubic meters) of CH-TRU waste will be generated through the year 2023 from continuing site activities and decontamination and decommissioning of DOE facilities. In addition, there also may be TRU waste generated from environmental restoration activities at Departmental sites.

About half of DOE's TRU waste also contains hazardous constituents regulated under the Resource Conservation and Recovery Act (RCRA). This portion of the waste is referred to as TRU mixed waste.

Continued storage of TRU waste at the generator sites would pose concerns that would need to be accommodated. Some of the metal drums used to store TRU waste are showing signs of corrosion, and the contents would eventually have to be repackaged for long-term storage. Additional storage facilities would be needed at the generator sites, and additional worker exposures would occur due to repackaging and inspection of waste containers. Treatment facilities would be needed because much of the TRU mixed waste is subject to the Land Disposal Restrictions (LDR) of RCRA. RCRA does not permit the generator and treatment sites to store such waste indefinitely. Also, continued storage at some sites may be contrary to agreements between DOE and the various states where generator sites are located.

Alpha radiation is the primary factor in the radiation health hazard associated with TRU waste. Alpha radiation is not energetic enough to penetrate human skin but poses a health hazard if alpha-emitters are taken into the body (inhaled or ingested), as do the hazardous constituents associated with TRU mixed waste. Because TRU waste emits alpha radiation for a long period of time, DOE needs to isolate this waste from means of environmental transport (primarily air and water) so that it no longer presents a health hazard. Isolation would also prevent the hazardous constituents of the waste from becoming a health hazard.

The National Security and Military Applications of Nuclear Energy Act of 1980 (Pub. L. 96-164) authorized the Department to develop a research and development facility to demonstrate the safe disposal of radioactive waste resulting from defense activities and exempt from regulation by the Nuclear Regulatory Commission (NRC) (defense waste). This legislation promoted the design of a centralized permanent repository for disposal of TRU waste instead of smaller, individual, and temporary storage sites. In 1980, DOE prepared the *Waste Isolation Pilot Plant Final Environmental Impact Statement* (FEIS) assessing the potential impacts of developing the WIPP site and alternatives for disposal or management of TRU waste. In the subsequent Record of Decision (ROD), DOE announced it would begin the phased development of the Waste Isolation Pilot Plant (WIPP) to provide for the safe, centralized disposal of TRU waste. In 1990, following construction of most of the existing WIPP facilities, DOE prepared the *Waste Isolation Pilot Plant Supplement Environmental Impact Statement* (SEIS-I). In the subsequent ROD, DOE chose to continue with phased development of WIPP and to proceed with WIPP's test phase to improve understanding of WIPP's potential performance to isolate waste.

2.2 PROPOSED ACTION: DISPOSE OF POST-1970 DEFENSE TRU WASTE TREATED TO WIPP'S PLANNING-BASIS WASTE ACCEPTANCE CRITERIA (WAC)

The Department's Proposed Action is to continue phased development of WIPP by beginning the disposal phase operations at the facility and emplacing defense TRU waste. Any unfinished compliance activities would continue until the Department obtains regulatory approvals needed to begin receiving waste.

Under the Proposed Action, retrievably-stored and to be generated defense TRU waste would be characterized, treated, packaged, and certified as required at the generator sites to meet current planning-basis WAC.

After treatment to WAC, the waste would be loaded into approved reusable shipping containers for transportation to WIPP by truck. Upon arrival at WIPP, each shipping container would be unloaded, and the waste containers inside would be inspected and scanned before being emplaced underground. Table 2-1 at the end of this chapter summarizes the Proposed Action (and each action alternative and no action alternative).

Waste Sources: The 10 major waste generator and storage sites listed earlier would supply about 90 percent of the TRU waste that would be sent to WIPP. Some of these major generator and storage sites already have the capability to inspect, characterize, conduct some types of the waste processing or treatment, and certify that waste and its packaging meet planning-basis WAC. The source for the remaining waste volume under the Proposed Action would be the additional sites that have small quantities of TRU waste in storage. BIR-2 is the most recently published compilation of the TRU waste inventory and will be used for analyses in the draft SEIS-II.

Waste Types: Under the Proposed Action, waste designated for disposal at WIPP would be TRU waste generated as a result of defense activities since 1970 that is in retrievable storage. It also would include all such TRU waste that would be generated during WIPP's planned 35-year operational lifetime. This inventory will be known throughout this document and SEIS-II as the Proposed Action inventory.

Waste Treatment: Waste destined for WIPP would be characterized and packaged at the 10 major consolidation sites for both CH-TRU and RH-TRU wastes. Treatment would be to the degree necessary to meet current planning-basis WAC. These criteria would ensure that the contents and packaging of the waste are compatible with requirements for transportation and subsequent handling and emplacement at WIPP. WIPP would be assumed to receive a no-migration variance for the hazardous components of the TRU mixed waste.

Waste Volume: The total volume of waste available to be disposed of at WIPP would depend on treatment and packaging and will be based on the total volume reported in BIR-2. For analysis, this volume will be scaled to full statutorily authorized WIPP capacity if the actual and projected volumes are below that capacity. As specified by the WIPP Land Withdrawal Act (LWA), the current capacity for WIPP is 6.2 million cubic feet (175,600 cubic meters) and the current curie limit for RH-TRU waste is 5.1 million curies (MCi). The Consultation and Cooperation Agreement between DOE and the State of New Mexico limits the disposal volume for RH-TRU to 250,000 cubic feet (7,080 cubic meters).

Transportation: Under the Proposed Action, all waste shipments would be by truck using the TRUPACT-II for CH-TRU waste and an NRC - approved Type B container (currently projected to be the RH-72B cask) for RH-TRU waste. The TRUPACT-II has been certified by the NRC, and the RH-72B cask design is currently undergoing review. Transportation impacts would be analyzed in SEIS-II from the small quantity sites to the major consolidation sites then from the major consolidation sites to WIPP.

WIPP Operations: Operations at WIPP would include waste receipt, inspection, and emplacement underground. Drums and standard waste boxes of CH-TRU waste would be put into the underground rooms. RH-TRU casks would be put into horizontal boreholes in the walls of the rooms, prior to

CH-TRU waste disposal there. Should CH-TRU waste disposal begin before RH-TRU waste disposal, the amount of RH-TRU waste that could be disposed of in horizontal boreholes, as currently planned, may be limited. Under this alternative, additional disposal rooms would be excavated as needed, to accommodate the waste volume. WIPP would receive and emplace waste for 35 years beginning in 1998. For purposes of analyzing long-term impacts, active institutional control would be assumed to end in 2143.

Engineered Barriers: No backfill would be used around the waste containers in the disposal rooms or in the tunnels under the Proposed Action. Seals in the tunnels and shafts are part of the basic design of the repository. Analysis of use of backfill will be done, though, to determine whether such backfill would be an appropriate mitigating action and assurance measure. Also, both retrieval and recovery of the waste will be included in the SEIS-II analyses.

For purposes of comparison and to aid DOE in its decision-making, the analyses for the Proposed Action and each action alternative will be broken down according to the following scheme:

- Waste will be differentiated as the Proposed Action inventory and the additional TRU waste inventory. The Proposed Action inventory is defined as defense waste (except polychorinated biphenyl [PCB]-contaminated waste) currently in retrievable storage or newly generated since 1970. The additional TRU waste inventory, which is a part of some action alternatives, includes nondefense and commercial TRU waste, and TRU waste disposed of prior to 1970. Both components will include 35 years of projected future generation. Together the Proposed Action inventory and the additional TRU waste inventory comprise "all DOE TRU waste" as the term is used in this document. The impacts related to each of these inventories will be assessed separately and collectively.

- The waste also will be differentiated as either RH-TRU or CH-TRU waste. The impacts of each of these types of waste will be assessed separately and collectively.

- Waste treatment and consolidation scenarios outlined in the WM PEIS for TRU waste will be used for SEIS-II analyses.

- Transportation analyses will be performed quantitatively for truck transportation. For action alternatives, both maximum commercial rail and maximum dedicated rail transportation also will be analyzed.

- As appropriate, analytical results will be presented as annual averages and as totals.

2.3 SELECTION OF ACTION AND NO ACTION ALTERNATIVES

The following alternatives have been identified for analysis in SEIS-II based on Council on Environmental Quality (CEQ) guidance indicating that an agency should consider alternatives that are "practical or feasible from the technical and economic standpoint and using common sense." Using these criteria, and considering the LWA requirement that DOE submit recommendations for disposal of all TRU waste, it is reasonable to consider as an alternative to disposing of all of the Department's TRU waste at WIPP. DOE recognizes that all of the alternatives discussed below may, in part, require legislative revision or modification of agreements negotiated with involved states. The fact that DOE is considering these alternatives should not be construed as meaning that the

Department intends to implement any action that would violate the law or legally binding agreements. Table 2-1 at the end of this chapter summarizes key elements of the Proposed Action and alternatives to be analyzed in SEIS-II.

2.4 ACTION ALTERNATIVE 1: DISPOSE OF ALL DOE TRU WASTE AFTER TREATMENT TO PLANNING-BASIS WAC

Waste Sources: The waste sources for Action Alternative 1 are the same as those noted for the Proposed Action.

Waste Types: Both the Proposed Action inventory and additional TRU waste inventory, as defined above, will be considered separately and collectively.

Waste Treatment: Under this alternative, all waste would be treated to current planning-basis WAC. Treatment sites would be the same as those identified in the decentralized alternative presented in the WM PEIS (see Table 1-1).

Waste Volume: Waste volume would differ under this alternative from that under the Proposed Action. This alternative would examine disposing of other TRU waste types, some of which are currently prohibited by the WIPP LWA, and could potentially involve disposing of volumes of waste in excess of those allowed under that Act.

Transportation: Three modes of transportation will be considered, truck, maximum commercial rail, and maximum dedicated rail. Truck analyses will be quantitative while analyses for both rail modes will be qualitative. The containers would be the same as those used for the Proposed Action.

WIPP Operations: WIPP would receive and emplace waste beginning in 1998 and disposal operations would continue until all waste is emplaced. For the purpose of long-term impact analysis, active institutional control would be assumed to end 100 years after closure.

Engineered Barriers: The barriers analyzed will be the same as those under the Proposed Action.

2.5 ACTION ALTERNATIVE 2: DISPOSE OF ALL DOE TRU WASTE TREATED TO LDRs

Waste Sources and Transportation: Action Alternative 2 is the same as Action Alternative 1 for each of these categories.

Waste Types: The waste types would be the same as for Action Alternative 1 with the addition of PCB-contaminated waste.

Waste Treatment: All waste would be treated thermally to meet the RCRA LDRs. Action Alternative 2 will quantitatively assess the WM PEIS regionalized 2 alternative (chosen to maximize transportation impacts and because it involves treatment at the same locations as SEIS-II Action Alternative 3) but will perform a sensitivity analysis of waste consolidation and treatment site impacts based on WM PEIS regionalized 3 and centralized alternatives (see Table 1-1).

Waste Volume: The baseline waste volumes under this alternative would be the same as those under Action Alternative 1 with the addition of PCB-contaminated waste. However, all waste would be

treated by a thermal process expected to reduce its volume by 65 percent. This alternative would examine disposing of TRU waste types currently prohibited by the WIPP LWA and could potentially involve disposing of volumes of wastes in excess of those permitted under that Act.

WIPP Operations: WIPP would receive and emplace waste beginning in 2010 and disposal operations would continue until all waste is emplaced. For the purpose of long-term impact analysis, active institutional control would be assumed to end 100 years after closure. LDR treatment would begin in 2010, after construction of the treatment facilities.

Engineered Barriers: The barriers analyzed will be the same as those under the Proposed Action.

2.6 ACTION ALTERNATIVE 3: DISPOSE OF ALL DOE TRU WASTE TREATED BY SHRED AND GROUT

Waste Sources and Waste Types: The waste sources and waste types under Action Alternative 3 are the same as those noted for Action Alternative 1.

Waste Treatment: Under Action Alternative 3, nearly all of the TRU waste destined for WIPP would be treated with a shred and grout process. The waste would be mechanically shredded and then mixed with a cement grout to fill the containers. Treatment facilities would be located at the WM PEIS regionalized 1 alternative's consolidation sites (see Table 1-1).

Waste Volume: The waste volume to be emplaced at WIPP under Action Alternative 3 would increase due to the shred and grout process. The estimated volume after treatment will be used in SEIS-II analyses.

Transportation: Three modes of transportation will be considered, truck, maximum commercial rail, and maximum dedicated rail. Truck analyses will be quantitative while analyses for both rail modes will be qualitative. The transportation containers would be the same as those used for the Proposed Action.

WIPP Operations: WIPP would receive and emplace waste beginning in 2010 and disposal operations would continue until all waste is emplaced. For the purpose of long-term impact analysis, active institutional control would be assumed to end 100 years after closure. Shred and grout treatment would begin in 2010, after construction of the treatment facilities.

Engineered Barriers: The barriers analyzed will be the same as those under the Proposed Action.

2.7 NO ACTION ALTERNATIVE 1: DISMANTLE WIPP, TREAT ALL DOE TRU WASTE TO LDRs, AND STORE AT CONSOLIDATION SITES

In this alternative, WIPP would be dismantled and closed. The waste would be treated and packaged in accordance with the RCRA and the WIPP WAC. The waste would then be consolidated and stored in new monitored retrievable storage facilities at the WM PEIS regionalized 2 consolidation sites, until a disposal solution is identified. For the purpose of analysis, a time period of 100 years before disposal will be used. Discussion of incremental impacts will be included for periods beyond the initial 100-year period.

Waste Sources: The waste sources for this alternative are the same as those noted for Action Alternatives 1 and 3.

Waste Types: The types of waste stored under this alternative would be the same as those for Action Alternative 1, plus PCB-contaminated TRU waste.

Waste Treatment: TRU waste managed under this alternative would be treated to meet LDRs or Toxic Substances Control Act requirements at the WM PEIS regionalized 2 alternative's consolidation sites. In addition, all waste would be repackaged as necessary. For the purpose of analysis, the frequency of repackaging will be assumed to be every 20 years. A sensitivity analysis of waste consolidation and treatment site impacts will be performed based on the WM PEIS regionalized 3 alternative (see Table 1-1).

Waste Volume: The total volume of waste from this alternative would be the same as Action Alternative 2.

Transportation: Three modes of transportation will be considered, truck, maximum commercial rail, and maximum dedicated rail. Truck analyses will be quantitative while analyses for both rail modes will be qualitative. The transportation containers would be the same as those used for the Proposed Action.

WIPP Operations: WIPP would be closed and waste treatment would begin at the consolidation sites in 2010, after construction of the treatment facilities. For the purpose of analysis, it would be assumed that the consolidation sites listed in the WM PEIS regionalized 2 alternative would be managed indefinitely.

Engineered Barriers: Because WIPP would be dismantled, no engineered barriers would be used.

2.8 NO ACTION ALTERNATIVE 2: DISMANTLE WIPP, PROPOSED ACTION INVENTORY STORED AT CONSOLIDATION SITES

Under this alternative, WIPP would be dismantled and closed. TRU waste would continue to be temporarily stored at the various DOE generator sites. TRU waste would be packaged and treated to meet the current planning-basis WAC as assumed for the WM PEIS no action alternative. The TRU waste would be shipped to one of the major consolidation sites for storage. This alternative assumes the loss of institutional controls at the various consolidation sites after 100 years. No analysis of repackaging will be included in the assessment.

Waste Sources: Waste sources under this alternative are the same as those described under the Proposed Action.

Waste Types: No Action Alternative 2 would analyze the Proposed Action inventory.

Waste Treatment: Waste would be treated and packaged to meet the current planning-basis WAC.

Waste Volume: The total volume of waste is assumed to be about the same as the total volume reported in the BIR-2 for the Proposed Action inventory.

Transportation: Three modes of transportation will be considered, truck, maximum commercial rail, and maximum dedicated rail. Truck analyses will be quantitative while analyses for both rail modes will be qualitative. The transportation containers would be the same as those used for the Proposed Action.

WIPP Operations: WIPP would be closed. Sites would generate waste for 35 years, beginning in 1998. Storage at the generator sites would be evaluated for 35 years, ending in 2033. For the purpose of analysis, it would be assumed that institutional control would end in 2133.

Engineered Barriers: Because WIPP would be dismantled, no engineered barriers would be used.

2.9 ALTERNATIVES NOT ANALYZED IN DETAIL

The Department has decided not to perform detailed analyses of several alternatives discussed during the scoping process. These alternatives will not be analyzed in detail because they do not adequately or economically meet DOE's need to safely dispose of accumulated TRU waste and to provide for disposal of the additional TRU waste that may be generated. The following alternatives will not be analyzed in detail:

Transmutation: Transmutation is a technology that has not yet been proven acceptable for production-size facilities. Demonstration of the process also has not been applied to TRU waste.

Co-process with high level waste and vitrify: Mixing of the two waste streams would create a great deal of additional high level waste, more than the nation's current high level disposal plans could accommodate. Also, vitrification has not been demonstrated as a suitable technology for this combination of waste types.

Disposal in space: The high cost of space launches and the uncertainty about the ability to ensure the safety of the public should a launch accident occur prohibit consideration of disposal of such a large volume of TRU waste in this manner.

Underground detonation: Such detonations would produce a large amount of radioactive fission products. Also, the geologic environment around the detonation points would be greatly disturbed. A large number of detonations would be required. Analysis of the environmental impacts from the products remaining after detonation would have great uncertainties. Also, manufacture of the explosive devices would generate more TRU waste.

Subseabed disposal: This option has been considered previously but faces major obstacles including public concerns about the migration of waste disposed in this manner and legal restrictions. Such disposal is prohibited by international treaties. Also, a substantial period of further development would be required. The U.S. program studying subseabed disposal was canceled in 1986. No country currently is actively pursuing such research.

Deep borehole disposal: The cost of emplacing such a large volume of waste makes this disposal method impractical at this time. Additional research would be required to find suitable borehole sites. Also, there would probably be environmental issues that would need to be accommodated

Greater confinement (shallow borehole): This option, which is being used for waste at the Nevada Test Site, involves burial of waste in containers engineered to provide multiple barriers. The

containers are buried at depths of approximately 100 feet. The risk of a radiological release to the environment over a long-term period makes this method impractical for larger scale TRU waste disposal (WIPP's capacity is 6.2 million cubic feet).

Geologic repositories at sites other than WIPP: The WIPP site was chosen as the safest alternative for a geologic repository after nearly 25 years of research. This research has continued over the last 15 years, as the site has been developed in accordance with National Environmental Policy Act (NEPA) review. Other sites have been considered during past NEPA analyses and have been removed from consideration

Developing technologies: Plasma arc techniques to neutralize the waste, zircon technology for the storage of plutonium, and changing the state of atoms to "supercold" in order to slow down radionuclide activity are technologies that were suggested for TRU waste treatment methods during the public scoping process. None of these technologies are currently technically or economically feasible. It is uncertain whether any of these technologies would prove feasible in the future and how long development of any feasible technologies could take.

Table 2-1
Summary of WIPP SEIS-II Alternatives

Comparison Parameter	Proposed Action *Dispose of Defense-Related Post-1970 TRU Waste Treated to WAC*	Action Alternative 1 *Dispose of All DOE TRU Waste Treated to WIPP WAC*	Action Alternative 2 *Dispose of All DOE TRU Waste Treated to LDRs*	Action Alternative 3 *Dispose of All DOE TRU Waste Treated by Shred and Grout*	No Action Alternative 1 *Close WIPP, Treat All Waste to LDRs and Store at Consolidation Sites*	No Action Alternative 2 *Close WIPP, Defense-Related Post-1970 TRU Waste Treated to WIPP WAC and Stored at Consolidation Sites*
Waste Type[a]	Proposed Action Inventory	Proposed Action Inventory plus Additional Inventory, excluding PCB-contaminated	Same as Action Alternative 1, plus PCB-contaminated	Same as Action Alternative 1	Same as Action Alternative 1, plus PCB-contaminated	Same as Proposed Action
Waste Treatment	WIPP WAC	Same as Proposed Action	LDRs	Shred and Grout	Same as Action Alternative 2	Same as Proposed Action
WM PEIS Alternative	Decentralized	Same as Proposed Action	Regionalized 2, Regionalized 3, and Centralized	Regionalized 1	Regionalized 2 and Regionalized 3	Same as Proposed Action
Waste Disposition[b]	6.2 million cubic feet disposed at WIPP. CH stacked in rooms, RH in horizontal boreholes.	11.9 million cubic feet disposed at WIPP. CH stacked in rooms; mix of RH (horizontal and vertical boreholes, new mining, shielding to CH levels)	4.5 million cubic feet disposed at WIPP in same configuration as Action Alternative 1	14.1 million cubic feet in same configuration as Action Alternative 1	4.3 million cubic feet in New Monitored Storage at Regionalized 2 and Regionalized 3 Sites	6.2 million cubic feet stored using existing storage at 10 Consolidation Sites
Transportation	Trucks only	Three Cases: Trucks only and Trucks with maximum commercial and dedicated rail	Same as Action Alternative 1	Same as Action Alternative 1	Same as Action Alternative 1	Same as Action Alternative 1
Time Frame[b]	Operations until 2033 Assumes loss of institutional control in 2143.	Receive and emplace waste beginning 1998, disposal operations continue until all waste is emplaced, D & D for 10 years, assumes institutional control for 100 years, ending 2268.	Receive and emplace waste beginning in 2010, disposal operations until all waste is emplaced, for 10 years, and assumes institutional control for 100 years ending in 2270. LDR treatment begins in 2010 after construction.	Receive and emplace waste beginning 2010, disposal operations continue until all waste is emplaced, D & D for 10 years, assumes institutional control for 100 years ending in 2310. Shred and grout treatment begins in 2010 after construction.	Indefinite Storage at Consolidation Sites (no loss of institutional control, analyze storage for first 100 years and increments thereafter).	For the purpose of analysis, assumes loss of institutional control at Generator Sites in 2133.

[a] The Proposed Action Inventory is composed of post-1970 defense TRU waste in retrievable storage and newly generated defense TRU waste through 2033. Additional Inventory is composed of nondefense, commercial, pre-1970, and PCB-contaminated waste.

[b] The estimates for total TRU waste volume and operational time frames are based upon preliminary analysis and are subject to change in the draft or final SEIS-II. The relatively long operations periods for alternatives involving disposal of all DOE waste are driven by additional mining and waste handling time required to dispose of the increased volume of RH-TRU waste that is included in the additional TRU waste inventory.

CHAPTER 3
WORK PLAN

This chapter presents the conceptual framework for the *Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement* (SEIS-II), beginning with the study methodology and the approach to data collection. Discussions of the SEIS-II schedule and planned work assignments for the SEIS-II team are also included.

3.1 SEIS-II STUDY METHODOLOGY

SEIS-II will build on previous National Environmental Policy Act (NEPA) documentation of the Waste Isolation Pilot Plant (WIPP) including the 1980 *Waste Isolation Pilot Plant Final Environmental Impact Statement* (FEIS) and the 1990 *Waste Isolation Pilot Plant Supplement Environmental Impact Statement* (SEIS-I).

SEIS-II will use environmental data currently available such as performance assessments, technical progress reports, and updates to safety analysis reports. As appropriate the SEIS-II will utilize methodologies consistent with those mandated by regulation (in particular 40 CFR 194) to assess impacts of the alternatives. These data will be assessed to determine the potential impacts of WIPP's disposal phase. SEIS-II also will summarize and incorporate by reference analyses of the alternatives for transuranic (TRU) waste treatment found in the *Draft Waste Management Programmatic Environmental Impact Statement* (WM PEIS) (see Chapter 8 of the WM PEIS).

The No Action Alternatives will provide a baseline against which the impacts of disposal of TRU waste at WIPP under the Proposed Action and each alternative will be compared. The environmental consequences will address each discipline, (such as socioeconomics) and the impacts of implementing the Proposed Action. Each of the alternatives also will assess the same disciplines. Should an impact be the same for several alternatives, the discussion will be detailed in the first alternative discussed, and to avoid repetition, the others will reference this discussion. For each alternative, though, adequate information will be provided to demonstrate how conclusions will be reached.

The issues to be studied include those identified in the Notice of Intent (NOI). They include the following:

- Potential effects on the public and on-site workers from releases of radiological and non-radiological materials during normal operations and from reasonably foreseeable accidents
- Pollution prevention and waste minimization
- Potential effects on soil, air, and water quality and other environmental consequences during normal operations and reasonably foreseeable accidents
- Potential cumulative effects during operations at the WIPP site, including impacts from past, present, and future activities at the site

- Potential effects on endangered or threatened species, other species of concern, floodplains and wetlands, and archaeological and historical sites
- Potential effects from normal transportation and reasonably foreseeable transportation accidents
- Environmental justice considerations
- Unavoidable adverse environmental effects
- Short-term uses of the environment versus long-term productivity
- Potential irretrievable and irreversible commitments of resources

Comments received during the public scoping period have been summarized and categorized. The categories that drew the largest number of comments included: the alternatives to be studied, the geology and hydrology, the NEPA process, the transportation of the waste, waste characterization, and WIPP's design. The comments are summarized in Chapter 4.

3.2 DATA COLLECTION

Data from a variety of sources including Department of Energy (DOE or the Department), Sandia National Laboratories (SNL), and Westinghouse's Waste Isolation Division (WID) reports; literature from government agencies; and articles in professional journals will be used for SEIS-II analyses. Some supplemental inventories, surveys, and site visits may be required to further evaluate potential impacts. Relevant data and information will be obtained from the Environmental Evaluation Group (EEG), the State of New Mexico, the U.S. Environmental Protection Agency (EPA), other regulatory agencies, and Native American Tribes.

3.3 PROPOSED SEIS-II SCHEDULE

Figure 3-1 illustrates the schedule for developing and approving SEIS-II. Each iteration of the document from the preliminary draft through the final document will require review and coordination among DOE offices and DOE support contractors.

3.4 PLANNED WORK ASSIGNMENTS

The DOE Office of Environmental Management is responsible for the WIPP SEIS-II and has signature approval for this *Implementation Plan.* The Secretary of Energy or the Assistant Secretary for Environment, Safety and Health will approve the Draft and Final SEIS-II. The Secretary of Energy or the Assistant Secretary for Environmental Management will issue the Record of Decision. The DOE Carlsbad Area Office (CAO) is preparing SEIS-II and is supported by WID, SNL, and the Battelle team.

WID is the WIPP Management and Operating Contractor, and SNL is WIPP's Scientific Advisor. WID and SNL personnel will assist DOE and the Battelle team by providing data and reports necessary to support SEIS-II analyses.

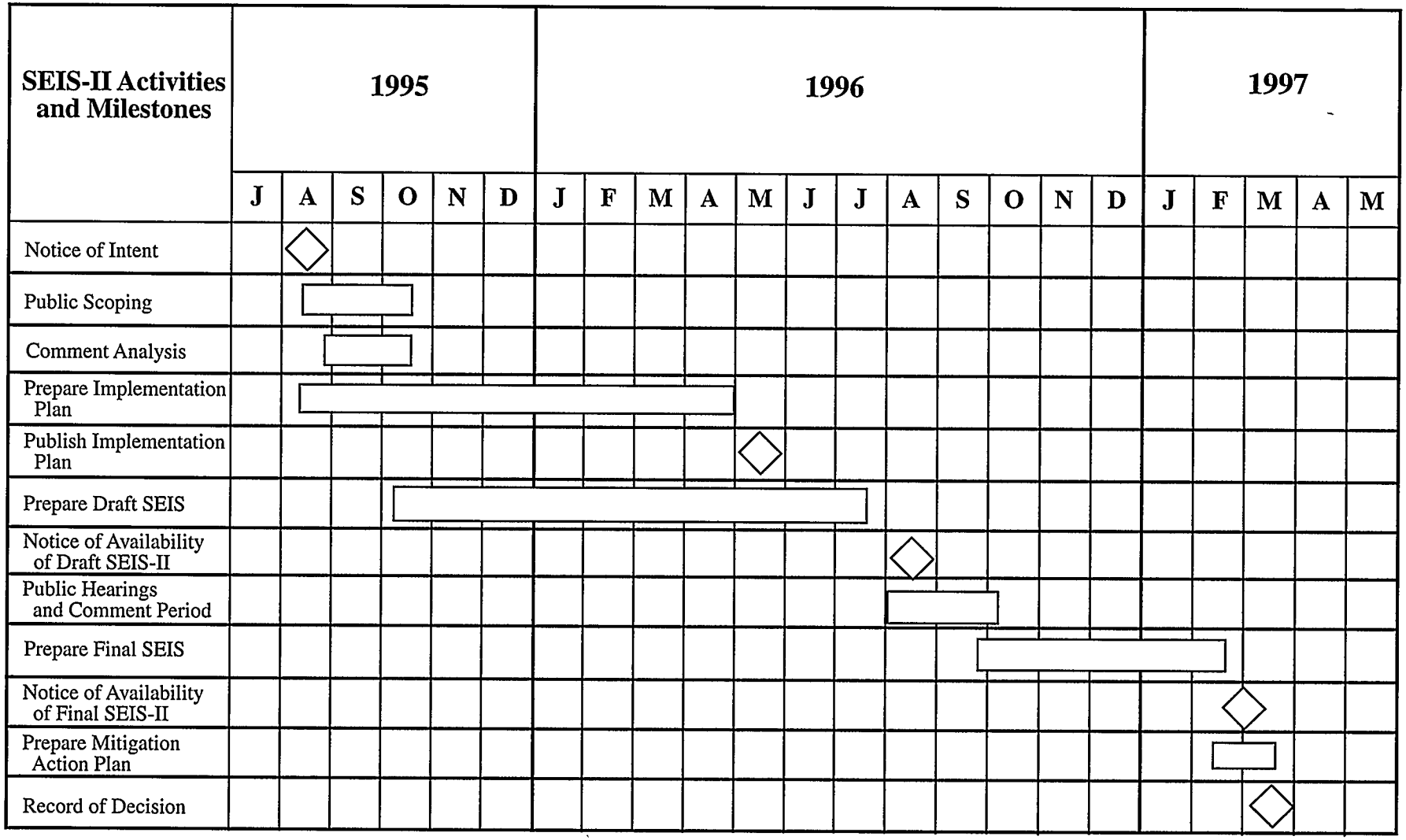

Figure 3-1
WIPP SEIS-II
Schedule

The Battelle team will provide support services to the CAO in preparation of SEIS-II. The team consists of Pacific Northwest National Laboratory (managed and operated by Battelle), Lechel Incorporated, and the Battelle Albuquerque Office. Battelle and Lechel, Inc., have provided NEPA disclosure statements (see Appendix D) pursuant to 40 Code of Federal Regulations (CFR) 1506.5(c).

In supporting DOE, Battelle is responsible for management, organization, and analysis of scoping comments and for providing technical support to develop the *Implementation Plan*, Draft SEIS-II, Final SEIS-II, and *Mitigation Action Plan*. Throughout the preparation of SEIS-II, Battelle will provide support in the following areas: study integration, data collection, impact assessments, coordination with government agencies, health physics, environmental sciences, socioeconomics, document production, and quality assurance.

3.5 ENVIRONMENTAL CONSULTATION

Coordination of NEPA documents with other environmental review requirements is required by Council on Environmental Quality (CEQ) Regulations (40 CFR 1502.25) and DOE's NEPA regulations (10 CFR 1021.341). The objective is to ensure an integrated assessment. It also is to ensure compliance the Fish and Wildlife Coordination Act (16 U.S.C. Sec 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. Sec 470 et seq.), and the Endangered Species Act of 1973 (16 U.S.C. Sec 1531 et seq.).

The following agencies were among those consulted during the preparation of SEIS-I.

- The Environmental Protection Agency
- The Department of Transportation
- Bureau of Land Management
- The Nuclear Regulatory Commission
- New Mexico State Historic Preservation Office
- Advisory Council on Historic Preservation
- Fish and Wildlife Service
- New Mexico Department of Game and Fish

As required, these or other agencies may be consulted again as appropriate.

CHAPTER 4
SCOPING

This chapter describes the public scoping process, the results of scoping, and introduces the planned scope of the *Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement* (SEIS-II).

4.1 DESCRIPTION OF THE SCOPING PROCESS

WIPP SEIS-II public scoping activities have included the following:

- A Notice of Intent (NOI) published in the *Federal Register* (FR) on August 23, 1995 (60 FR 43779) (see Appendix A) and a notice reopening the comment period published in the *Federal Register* on October 13, 1995
- A public comment period from August 23, 1995, to October 16, 1995
- Public scoping meetings held in Carlsbad, New Mexico, on September 7, 1995; Albuquerque, New Mexico, on September 12, 1995; Santa Fe, New Mexico, on September 14, 1995; Denver, Colorado, on September 19, 1995; Boise, Idaho, on September 20, 1995; and a second meeting in Denver, Colorado, on October 11, 1995

The Department of Energy (DOE or the Department) decided to hold a second public meeting in Denver, Colorado, in response to stakeholder concerns about a scheduling conflict during the first meeting on September 19, 1995. The Department scheduled a second public meeting in Denver, Colorado, and extended the comment period through October 16, 1995, to accommodate comments received as a result of this second scoping meeting.

4.1.1 Public Scoping Meetings

The public scoping meetings used an informal format to facilitate dialogue among representatives from DOE and the public. The meetings were divided into the following three components:

- An information room, where DOE and the Waste Isolation Pilot Plant (WIPP) contractor staff were available for informal, off-the-record discussions and to answer questions regarding the displays that were presented and the WIPP project in general (not included at the second Denver meeting)
- An area where stakeholders could tape verbal comments or statements or provide written comments on the project
- An on-the-record round table discussion that provided a forum for people to speak directly to DOE and WIPP contractor staff, make statements, or ask questions

Comments from the round table discussions were recorded by note takers and became the meeting record. In addition, spoken comments were summarized at the meetings and displayed at the meetings to assist the participants.

4.1.2 Scoping Comments

Analysis of the comments received resulted in a total of 564 individual comments, categorized into the 20 comment categories shown on Figure 4-1. A team of technical personnel analyzed and categorized all comments received to determine specific and general issues. The individual comments are summarized in Appendix C. DOE plans to address all scoping comments in SEIS-II, except as specifically discussed in Section 4.2.

4.2 COMMENTS RECEIVED DURING SCOPING

In the analysis of scoping comments, each comment was assigned to one of the categories presented in Sections 4.2.1 through 4.2.20. Sometimes the analyst had to make a subjective judgment as to which category best fit a particular comment. For example, one commenter asked what the real cost of using dedicated transportation would be. This comment was categorized as a transportation comment, although any of the following categories could have been chosen: general environment, funding and cost, environmental justice, or worker-public health and safety. Thus, the numbers reported below are useful indicators of the general level of interest in a given issue but are somewhat subjective.

4.2.1 Transportation

DOE received 93 comments on transportation issues during the scoping period for SEIS-II. The most common theme dealt with the mode of transportation and routes that would be used to transport waste to WIPP (29 comments). Eleven comments were received regarding the shipping containers and the testing conducted on the containers. A specific request was that the TRUPACT-II be subjected to a crush test. The crush test was adopted by the Nuclear Regulatory Commission (NRC) in a Final Rule published in the *Federal Register* on September 28, 1995, but was not made retroactive. Another commenter requested that the containers be tested to sustain a fire at 2,000 degrees Fahrenheit for 60 minutes. The TRUPACT-II was tested to NRC specifications at the time it was certified. These tests included drop testing and testing in a sustained fire. DOE does not plan to retest the TRUPACT-II or crush test it unless required to do so by the NRC.

The remaining comments dealt with emergency preparedness, general safety and training, and the number and schedule of shipments. Five comments requested that an independent transportation risk assessment be performed. One specific comment requested that SEIS-II include a comprehensive analysis of all aspects of packaging, transportation, design of shipping containers, emergency preparedness, and accident testing of the waste containers. A commenter requested that the vehicles transporting waste be clearly marked and escorted by trained technicians. Also, SEIS-II must include an analysis of plans for training emergency response teams along the shipment routes, one commenter said.

SEIS-II will analyze the transport of transuranic (TRU) waste by three distinct modes of transportation: truck, maximum commercial rail, and maximum dedicated rail. Routes will be identified in SEIS-II. The risk to the public and workers from the transport of TRU waste using NRC-certified packaging will be assessed for all alternatives. Information regarding the NRC's requirements for certification of TRU waste packaging also will be included, as will a brief discussion of emergency response and preparedness.

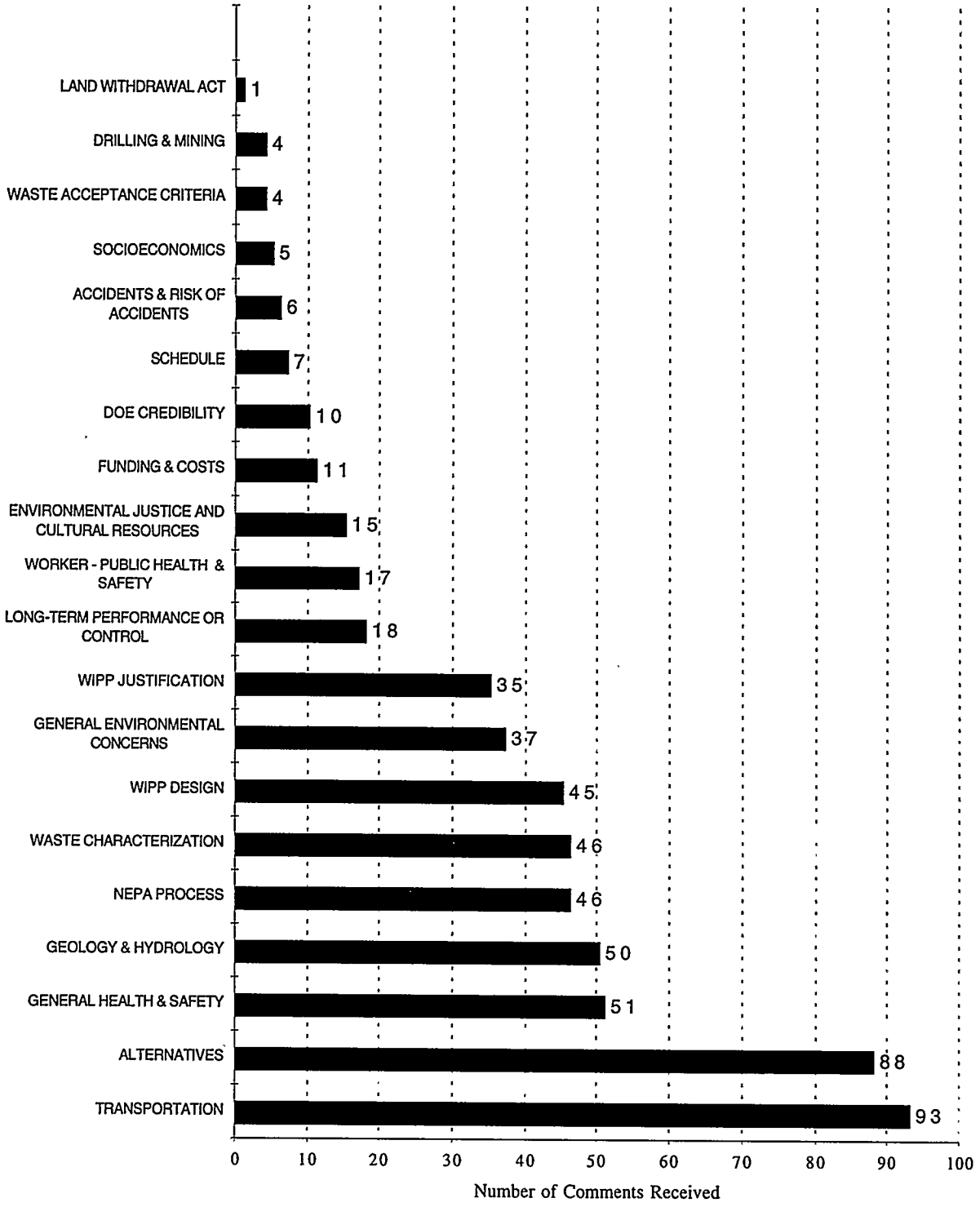

Figure 4-1
WIPP SEIS-II Scoping Comment Totals by Category

4.2.2 Alternatives

DOE received 88 comments during the scoping period on the alternatives to be considered in SEIS-II. Sixty-eight of these comments suggested alternatives other than geologic disposal or other forms of waste treatment that are currently being considered. Topics suggested by these comments included reevaluation of geologic disposal, long-term aboveground storage at the generator sites, transmutation, use of breeder reactors, use of zircons instead of borosilicate glass for storage, arc plasma techniques to neutralize molecules, and a supercold pretreatment of waste prior to transport or storage. A majority of these commenters suggested that DOE use aboveground storage facilities for the TRU waste. In this fashion, the waste could be monitored and retrievable.

The only suggested alternative to disposal of waste at WIPP that will be evaluated during SEIS-II is the use of monitored retrievable storage at the generator sites. The remaining suggested alternatives are not reasonable for the reasons stated in Section 2.9 of this *Implementation Plan.*

Fourteen of the comments concerned the alternatives that DOE proposes be evaluated in SEIS-II. These comments primarily dealt with the Proposed Action and the No Action Alternative. Some commenters suggested that the alternatives should include pre-1970 buried waste as well as the post-1970 waste that is currently being stored at the generator sites, while the New Mexico Radioactive Waste Consultation Task Force opposed the inclusion of non-defense TRU waste in the alternatives. The comment that DOE should not examine non-defense TRU waste as part of its analysis is addressed more fully in Section 2.3 of this *Implementation Plan;* non-defense waste will be considered because its disposal at WIPP is a reasonable alternative for analysis under the National Environmental Policy Act (NEPA).

4.2.3 General Health and Safety

DOE received 51 comments on the general health and safety of the public from impacts associated with the operation of WIPP. Twelve of the comments expressed opinions either in favor of or against WIPP. One comment noted that the existing transportation and training systems are adequate to protect the citizens of Utah. Other comments in favor of the project stated that the method of storage was safe and delays in opening WIPP could degrade the existing safety programs. Commenters expressing opinions against WIPP noted that the then proposed Skeen Bill (H.R. 1663) would remove environmental oversight of WIPP from the U.S. Environmental Protection Agency (EPA) and other entities leading to compromised safety at WIPP. One commenter stated that economic development seems to take priority over health and safety.

Commenters suggested that engineered barriers must be emplaced for basic safety measures, even if not required by the EPA. One specific comment asked what precautions will be made to ensure monitoring and to safeguard the WIPP site to reduce potential hazards.

The remaining comments were concerned with potential contamination resulting from WIPP operations. Concerns ranged from a potential contamination of the food supply for the lower Rio Grande Valley to birth defects.

SEIS-II will evaluate health and safety issues associated with WIPP operations including the use of engineered barriers. Monitoring networks currently exist at WIPP and will continue to monitor the surrounding environment for impacts.

4.2.4 Geology and Hydrology

The Department received 50 comments during the scoping process on geologic and hydrologic issues. The number of comments were fairly evenly divided in the topical areas of well tests and the resultant data, brine migration and seepage in the repository, the structural integrity and technical uncertainties of the repository and wells, and water flow patterns above and below ground. Many of those commenting expressed a concern for potential contamination of water resources. SEIS-II will, therefore, provide an evaluation of these issues including potential contamination of water resources.

The well tests and resulting data concerns focused on tracer tests and why results from some wells were considered an anomaly. Two comments were made on seismic activities and the structural integrity of the repository. The ideas brought out by these comments will be addressed in SEIS-II.

4.2.5 NEPA Process

DOE received 46 comments on the NEPA process. The most recurring issue, comprising 23 comments, dealt with the scoping meetings for the WIPP SEIS-II. The commenters asserted that scoping meetings should be formal "events" and should include court reporters. The commenters also requested that the scoping meetings be held in all states that are impacted by the storage, transportation, or disposal of DOE's TRU waste. Commenters asserted that it was a mistake to hold scoping meetings only in New Mexico, Colorado, and Idaho. The commenters also requested that DOE provide the public with adequate publicity and notice of any public meetings.

Sixteen comments dealt with the general NEPA approval process and compliance issues. Other comments dealt with various forms of public involvement related to WIPP issues and coordination with the Federal Facility Compliance Act of 1992 and the *Waste Management Programmatic Environmental Impact Statement* (WM PEIS).

Many of the comments in this category addressed procedural requirements of NEPA and will not be discussed in SEIS-II. The comments pertaining to scoping have been considered and will be adopted as appropriate for the SEIS-II public hearings.

One commenter requested that DOE complete its NEPA requirements before submitting a compliance certification application to EPA and prior to taking any action constituting an irrevocable commitment with respect to any engineered alternative. DOE does not believe submitting a compliance certification application prejudices its decision under NEPA, or constitutes an irrevocable commitment concerning engineering alternatives. Concurrent compliance certification activities are consistent with the Council on Environmental Quality (CEQ) regulations and guidance including 40 Code of Federal Regulations (CFR) 1500.2 (c), 40 CFR 1500.5 and the answer to question 9 in CEQ's *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 40 FR 18026 (March 23, 1981).

4.2.6 Waste Characterization

DOE received 46 comments concerning waste characterization. The most recurring issues dealt with the source of the waste (such as pre-1970 disposed waste, and decommissioning and decontamination waste) and the levels of contamination. One commenter questioned what the source of future waste would be since there are no weapons production activities in DOE. Another commenter asked that

DOE begin disposal operations with strictly TRU waste and that a goal be set for TRU mixed waste disposal at WIPP.

There were 16 comments that dealt with waste characterization plans and a general waste definition. Commenters requested that DOE provide a full evaluation of waste characterization, treatment, and transportation for the small quantity sites, as well as impacts due to the implementation of site treatment plans. Commenters inquired as to whether the Department had a load management plan and a plan to characterize waste at sites where there are no characterization capabilities. One commenter asked about the methods to be used for quality control of the waste. Seven comments were received concerning the current waste volume, number of sites, and DOE's previous handling of remote-handled waste issues.

Segregation of TRU waste from TRU mixed waste will not be analyzed, but the analysis will examine potential health effects from both radioactive and hazardous constituents of TRU waste disposed of at WIPP and could provide a basis for deciding not to dispose of TRU mixed waste at WIPP.

One commenter requested that SEIS-II discuss the disposal of non-TRU wastes at WIPP. The purpose of SEIS-II is to examine alternatives for disposing of TRU waste. DOE is considering alternatives for disposition of other waste types in other contexts in the WM PEIS. DOE has no current plans to dispose of any non-TRU waste at WIPP and is not considering WIPP as an alternative disposal location for such wastes in any ongoing NEPA documents. SEIS-II will not analyze disposal of non-TRU wastes at WIPP.

4.2.7 WIPP Design

DOE received 45 comments regarding the design of the WIPP repository. The most common topics of these comments were the capacity of WIPP and specifics of its excavation. Numerous comments were received regarding the ability to retrieve waste from WIPP should a problem arise and asked where the wastes would be taken upon removal. Commenters inquired about the projected capacity of WIPP and the possible loss of capacity if contact-handled (CH) TRU waste is emplaced before remote-handled (RH) TRU waste. Also, concerns were raised on the capacity of WIPP and what would be done with TRU waste once WIPP should reach capacity. One commenter suggested that SEIS-II evaluate the past, present, and future waste inventories as well as the past, present, and future treatment, storage, and disposal facilities.

Twelve of the comments dealt with engineered barriers, passive markers, and future technologies that would allow treatment, storage, and disposal of TRU waste in a safer manner. Other commenters asked for a comparison of WIPP to other underground repositories in the world. Commenters also inquired about the containers that would be used to dispose of the waste and the operational life of WIPP.

Most of the comments dealing with the design of WIPP will be considered in SEIS-II. However, other underground repositories will not be discussed.

4.2.8 General Environmental Concerns

DOE received 37 comments related to general environmental concerns. The most recurring theme in this category dealt with activities associated with the waste including compliance, storage,

minimization, and source reduction. The commenters felt that SEIS-II should provide a detailed evaluation of the relationship of these activities with DOE's programs in defense and energy research, environmental restoration, decontamination and decommissioning, pollution prevention, and technology development. One commenter stated that issues to be examined in SEIS-II should include waste source reduction, land use planning assumptions related to waste management (including institutional controls and site dedication), general categories of decontamination and decommissioning, and alternative waste treatment technologies. These comments will be addressed to determine their effects on the TRU waste inventory analyzed in SEIS-II.

Five of the comments received concerned environmental compliance. They asked for a demonstration of environmental compliance and requested a thorough discussion in SEIS-II. One commenter requested that the regulatory oversight of the WIPP site be provided by a separate entity to avoid the conflict of interest that DOE possesses.

Although programmatic oversight of WIPP operations will remain with DOE, other federal agencies will enforce environmental regulations at WIPP. Other comments pertained to cumulative impacts, threatened and endangered species, cultural resources, irretrievable and irreversible commitment of resources, short-term use and long-term productivity, air and water quality; asking how the Department planned to evaluate such impacts. Cumulative impacts and environmental issues will be addressed in SEIS-II, and related NEPA documents will be referenced.

4.2.9 WIPP Justification

The Department received 35 comments during the scoping period pertaining to the justification of the WIPP project overall. Thirty-three of these comments pertained to the mission of the WIPP project. In general the commenters asked that the WIPP mission be clarified. One commenter requested that the disposal mission be examined in detail now that the Cold War has ended and weapons production has been curtailed. The remaining commenters suggested that WIPP should be opened since DOE has met all of the technical requirements and has proven that WIPP is a safe place to dispose of TRU waste.

The waste disposal mission of WIPP will be discussed in detail in SEIS-II. The end of the Cold War will not alter the mission of disposal of DOE's TRU waste because, among other things, disposal is needed both for TRU waste generated by past activities and TRU waste generated by ongoing (and foreseeable) waste management and environmental restoration activities.

4.2.10 Long-Term Performance or Control

DOE received 18 comments related to the long-term performance or control of the WIPP site. Six of these comments dealt with institutional control and documentation of the WIPP site and its impacts. One commenter asked if the WIPP waste would be able to be retrieved for a future useful purpose. Another commenter inquired whether control of the WIPP site can be assured for 10,000 years. Related comments stated that SEIS-II should consider that the waste remains dangerous for 240,000 years and analyze the performance of the facility and impacts from human intrusion over that period. One commenter asked that DOE analyze long-term dosage estimates over a period of 1.2 million years.

SEIS-II will contain discussions pertaining to institutional control. The long-term performance analyses will evaluate potential impacts for a 10,000-year period consistent with the Environmental

Standards for Management and Disposal of TRU Waste (40 CFR 191) and the Land Disposal Restriction of Resource Conservation and Recovery Act (RCRA) (40 CFR 268.6).

4.2.11 Worker-Public Health and Safety

DOE received 17 comments concerning worker-public health and safety issues. The comments in this category were fairly evenly divided between training, risks to workers and the public, and studies or inspections. Commenters were concerned with the level of training given to emergency responders. Commenters requested that community, county, and state employees be trained in order to properly respond to an emergency. One commenter suggested that hazardous material training should be started for those who would respond to evacuations or emergencies. Another commenter noted that DOE has deleted worker accident doses for inhalation in the latest Safety Analysis Report for WIPP, and, thus, those doses should be included in SEIS-II.

Commenters also requested that DOE analyze the risk to workers and the public for the storage, treatment, transportation, and other waste management activities under each alternative. One commenter suggested that the risk of leaving the wastes at the current storage sites should be weighed against the risk of transportation, handling, and emplacement at WIPP. Other comments dealt with the existence of the Federal track inspection program in New Mexico and whether the Carlsbad Environmental Monitoring and Research Center would perform an epidemiological study. SEIS-II will discuss training and will present an analysis of health and safety impacts to workers and the public from treatment, transportation, handling, and emplacement of the waste. An epidemiological study is not anticipated.

4.2.12 Environmental Justice and Cultural Resources

DOE received 15 comments during the scoping period regarding environmental justice. The most recurring issue dealt with the impact of the WIPP project on cultural facilities and cultural influences. One commenter questioned how DOE weighs the relative influence of northern New Mexico sentiments on WIPP. A related comment noted that SEIS-II should analyze our generation's social responsibilities and consider future generations and the legacy that would be left if WIPP becomes operational.

Other comments raised at the scoping meetings pertained to environmental justice impacts on ethnic minorities and women. Comments also addressed the impacts on the demand and satisfaction of goods and services. One commenter asked that DOE consider actions that would be necessary to mitigate environmental justice issues.

DOE will assess impacts to cultural resources and environmental justice as well as potential mitigation measures that could be necessary if an impact is deemed significant. In the absence of a sufficient connection to such impacts, issues related to psychological impacts, differing cultural values, and social responsibilities will not be evaluated.

4.2.13 Funding and Cost

DOE received 11 comments from the public that were related to the funding and cost of the WIPP project. Approximately half of the comments were directed to the life cycle cost related to the project. Commenters requested that the life cycle cost of WIPP be discussed in SEIS-II. One

commenter requested SEIS-II supply estimates or historical values of the annual amount of Gross Receipts Taxes paid to the state and local governments as a result of the WIPP project. The life cycle cost of WIPP will be discussed in SEIS-II; however, historical values of Gross Receipts Taxes will not be provided.

The remaining comments pertained to the cost of disposal, long-term storage, and repackaging. A commenter noted that a cost comparison between disposal at WIPP and long-term storage at current locations should be performed. Another comment questioned the level of verification required for process knowledge, stating that this cost will be key to the overall cost.

Total life-cycle and transportation cost in a compliant facility will be presented for all of the alternatives. Total life-cycle costs will consider DOE's sampling analysis protocols as indicated in the WIPP Waste Characterization Program Plan.

4.2.14 DOE Credibility

DOE received ten comments that either questioned or supported DOE regarding the WIPP project. The Carlsbad Chamber of Commerce provided unqualified support for DOE and WIPP. The other comments questioned DOE's influence on the Skeen Bill and noted that DOE has fostered animosity between Los Alamos and the surrounding communities. SEIS-II will not analyze proposed legislation such as the Skeen Bill. SEIS-II will not analyze impacts to public perception or psychological impacts, in the absence of a sufficient connection to physical impacts.

4.2.15 Schedule

DOE received seven comments concerning the schedule of SEIS-II and DOE's WM PEIS. These comments were generally concerned with the status of both documents. One commenter requested that SEIS-II analyze the deadlines projected by DOE to determine if they are arbitrary and capricious. Other comments pertained to the impact of the Skeen Bill on the schedule of SEIS-II. SEIS-II will consider the schedule for disposal operations, waste generation, and TRU waste treatment and storage in each of its alternatives.

4.2.16 Accidents and Risk of Accidents

DOE received six comments dealing with accidents and risk of accidents or incidents. The risk of leaving the waste at the generator site should be weighed against transporting the waste to WIPP, one commenter stated. A specific comment inquired whether DOE would analyze incidents as well as accidents. One commenter noted that the risk is reduced by moving the TRU waste to WIPP. SEIS-II will analyze the risk to workers and the public from potential transportation and disposal accidents.

4.2.17 Socioeconomics

DOE received five comments concerning the socioeconomic impacts of the WIPP project including the impacts of the No Action Alternative. One commenter noted that the 1980 *Waste Isolation Pilot Plant Final Environmental Impact Statement* (FEIS) and the 1990 *Waste Isolation Pilot Plant Supplement Environmental Impact Statement* (SEIS-I) did not adequately analyze the socioeconomic and sociocultural impacts of the WIPP project. Another commenter asked how DOE plans to assess

the effectiveness of its programs to educate staff on the needs of minorities and tribal groups. DOE will present a complete socioeconomic analysis in SEIS-II, but the development or training of DOE staff will not be presented.

DOE will assess impacts to socioeconomics as well as potential mitigation measures that could be necessary if an impact is deemed significant. In the absence of a sufficient connection to such impacts, issues related to psychological impacts, cultural influences, and social responsibilities will not be evaluated.

4.2.18 Waste Acceptance Criteria

DOE received four comments pertaining to the planning-basis Waste Acceptance Criteria (WAC) for WIPP. It was suggested that SEIS-II evaluate WIPP's current planning-basis WAC. One commenter asked when the final WAC would be determined. Another commenter asked if the Rocky Flats residues would meet WAC.

All waste received at WIPP will be required to meet WAC. The current planning-basis WAC will be presented and will be a part of the analysis in SEIS-II. DOE will also analyze other waste treatment options in SEIS-II and could decide to alter the WAC based on that analysis.

4.2.19 Drilling and Mining

DOE received four comments regarding drilling and mining. One commenter requested that SEIS-II examine oil and gas drilling, potash mining, and drilling for water. The commenter asked that the frequency of oil and gas drilling after active controls are removed be addressed in SEIS-II. Other comments asked whether the State of New Mexico would act as the primary enforcement arm regarding drilling and how the 16-square-mile buffer zone would prevent slant drilling into the repository. In the context of the WIPP Land Withdrawal Act (LWA), these issues will not be analyzed in detail in SEIS-II. However, because drilling after loss of institutional control is a potential intruder scenario, SEIS-II will assess the performance of the repository under this scenario.

4.2.20 Land Withdrawal Act

DOE received one comment on the LWA. The commenter asked how SEIS-II meets the legal requirements of the WIPP LWA of 1992. This comment will be addressed in the SEIS-II discussion of regulatory requirements.

APPENDICES

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APPENDIX A
NOTICE OF INTENT

This appendix presents the entire text of the Notice of Intent that appeared in the *Federal Register* on August 23, 1995

DEPARTMENT OF ENERGY

Notice of Intent To Prepare Supplemental Environmental Impact Statement Waste Isolation Pilot Plant, Disposal Phase

AGENCY: Department of Energy.
ACTION: Notice of intent to prepare a supplemental environmental impact statement.

SUMMARY: The Department announces its intent to prepare a Supplemental Environmental Impact Statement (SEIS II) for the proposed continued phased development of the Waste Isolation Pilot Plant (WIPP) for disposal of transuranic (TRU) waste. The Department will prepare the SEIS II pursuant to the National Environmental Policy Act (NEPA) of 1969, in accordance with the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA and the Department's implementing procedures, and to conduct public scoping meetings.

The Department has been proceeding with the phased development of WIPP to meet its statutory responsibility to demonstrate the safe disposal of TRU waste resulting from United States defense activities.

After preparing an EIS in 1980, the Department decided in its 1981 Record of Decision to begin phased development of a research and development facility to demonstrate the safe disposal of TRU wastes in salt by constructing WIPP near Carlsbad, New Mexico. The Department prepared its first Supplemental EIS in 1990 to analyze changes in environmental impacts resulting from significant new information and changed circumstances since the 1980 EIS. In a 1990 Record of Decision, the Department decided to continue with phased development of WIPP by conducting test phase activities to demonstrate WIPP's compliance with applicable disposal regulations. Test phase activities were to have included tests with TRU waste in the excavated underground area of WIPP. In October 1993, however, the Department decided to conduct tests using radioactive wastes in above-ground laboratories rather than underground at WIPP. Some experiments to further examine the hydrologic, geologic and physical characteristics of the repository continue to be conducted underground at WIPP.

In the Record of Decision for the 1990 Supplemental EIS, the Department stated that it would prepare the SEIS II before deciding whether to proceed with the WIPP disposal phase. The Department proposes to continue phased development of WIPP to begin waste disposal in 1998. The Department is aware that a bill, H.R. 1663, has been introduced in Congress that, if enacted, could accelerate this planned schedule. The Department intends to prepare the SEIS II to further examine the environmental impacts of the proposed future phases of WIPP, including the disposal, closure, and post-closure phases.

DATES: The Department invites all interested parties to submit comments or suggestions concerning the scope of the issues to be addressed, alternatives to be analyzed, and the environmental impacts to be assessed in the SEIS II during a comment period ending September 30, 1995. All comments will be considered in preparation of the SEIS II. Written comments must be postmarked by September 30, 1995 to assure consideration. Comments postmarked after that date will be considered to the extent practicable.

The public is also invited to attend scoping meetings where comments will be received on the SEIS II. Public scoping meetings will be held on the dates and at the locations given below:

Carlsbad, New Mexico	September 7, 1995	Holiday Inn Carlsbad, 601 South Canal Street, Carlsbad, NM 88220, (505) 885–8500.
Albuquerque, New Mexico	September 12, 1995	Pyramid Holiday Inn, 5151 San Francisco Road NE., Albuquerque, NM 87109, (505) 821–3333.
Santa Fe, New Mexico	September 14, 1995	Best Western High Mesa Inn, 3347 Cerrillos Road, Santa Fe, NM 87501, (505) 473–2800.
Denver, Colorado	September 19, 1995	Denver Marriott West, 1717 Denver West Boulevard, Golden, CO 80401, (303) 273–4022.
Boise, Idaho	September 20, 1995	Red Lion Inn Riverside, 2900 Chinden Boulevard, Boise, ID 83714, (208) 343–1871.

Scoping meetings will be conducted in the afternoon and evening at the New Mexico locations. Only evening scoping meetings are planned for Denver and Boise. The hours for scoping meetings will be: 2:00 PM to 5:00 PM for the afternoon meetings and 7:00 PM to 10:00 PM for the evening meetings.

The scoping meetings will be conducted as workshops. Displays will provide an overview of the WIPP project, and Department personnel will be present to answer general questions about the project. Separate displays will explain individual aspects of the WIPP project in more detail and experts will be present to answer questions on a variety of topics, including transportation, waste handling and disposal plans, and long-term performance issues (including geology, hydrology, and health impact assessment). Additional displays and experts may be added to the presentation based on public input before the scoping meetings.

Note takers will capture the substance of public comments in the display and discussion areas. A separate area also will be available where the public can write their own comments or record them on audiotape.

Records of, and responses to, the oral and written scoping comments will be presented in the Implementation Plan for the SEIS II. The Implementation Plan will also provide guidance for preparation of the SEIS II and state the planned scope and content (10 CFR 1021.312). The Implementation Plan will be issued as soon as possible after the close of the public scoping process, but in any event before issuing the draft SEIS II.

ADDRESSES: Copies of the Implementation Plan will be provided to interested and affected members of the public upon request and will be available for inspection in the public reading room locations indicated below:

Public Library Reading Room, Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585

Defense Nuclear Facilities Safety Board, 625 Indiana Avenue, NW., Suite 700, Washington, DC 20004

Office of Scientific and Technical Information, Technical Information Center, Department of Energy, P.O. Box 62, Oak Ridge, TN 37831

WIPP Public Reading Room, National Atomic Museum, Albuquerque Operations Office, Department of Energy, P.O. Box 5400, Albuquerque, NM 87115

Zimmerman Library, Government Publications Department, University of New Mexico, Albuquerque, NM 87138

Carlsbad Public Library, 101 S. Halagueno Street, Carlsbad, NM 88220

Pannell Library, New Mexico Junior College, 5317 Lovington Highway, Hobbs, NM 88240

Thomas Brannigan Memorial Library, 200 E. Picacho, Las Cruces, NM 88005

Raton Public Library, 244 Cook Avenue, Raton, NM 87740

New Mexico State Library, 325 Don Gaspar, Santa Fe, NM 87503

Martin Speare Memorial Library, New Mexico Institute of Mining and Technology, Campus Station, Socorro, NM 87801

Idaho National Engineering Laboratory, Boise Office, 816 West Bannock, Suite 306, Boise, ID 83706

Shoshone-Bannock Library, Human Resources Center, Bannock and Pima, Fort Hall, ID 83203

Public Reading Room, Idaho National Engineering Laboratory Technical Library, 1776 Science Center Drive, Idaho Falls, ID 83402

University of Idaho Library, Government Document Department, University of Idaho Campus, Rayburn Street, Moscow, ID 83403

Moscow Environmental Restoration Information Office, 530 South Ashbury, Suite 2, Moscow, ID 83843

Idaho National Engineering Laboratory, Pocatello Office, 1651 Al Ricken Drive, Pocatello, ID 83201
Idaho National Engineering Laboratory, Twin Falls Office, 233 2nd Street North, Suite B, Twin Falls, ID 83301
Standley Lake Library, 8485 Kipling Street, Arvada, CO 80005
Information Center, Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Building A, Denver, CO 80222–1530
Superfund Records Center, U. S. Environmental Protection Agency, 999 18th Street, 5th Floor, Denver, CO 80220
Rocky Flats Public Reading Room, Department of Energy, Front Range Community College Library, 3645 West 112th Avenue, Westminster, CO 80030
Citizens Advisory Board, 9035 N. Wadsworth Parkway, Suite 2250, Westminster, CO 80021

Comments on the scope of the SEIS II, questions concerning the Department's proposal to begin the WIPP disposal phase, and requests for copies of the Implementation Plan and/or the Draft SEIS II should be directed to the designated Carlsbad Area Office contact below.

FOR FURTHER INFORMATION CONTACT: Written questions and comments should be directed to: Harold Johnson, NEPA Compliance Officer, Attn: Scoping Comments, Mail Stop 535, Carlsbad Area Office, U.S. Department of Energy, Post Office Box 3090, Carlsbad, NM 88221.

Oral and faxed questions and comments should be directed to the SEIS II Project at the numbers below: Telephone: 1–800–336–9477, Facsimile: 1–505–224–8030.

For information on the Department's NEPA process, contact: Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance (EH–42), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, D.C. 20585, Telephone: 202–586–4600 or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

Background

The "National Security and Military Applications of Nuclear Energy Act of 1980" (Pub.L. 96–164) authorized the Department to develop a research and development facility to demonstrate the safe disposal of radioactive waste generated by national defense activities. WIPP is intended to meet the statutory requirements of Pub.L. 96–164. Initially the WIPP mission was to include experimentation with high-level radioactive wastes, but subsequent legislation has limited the radioactive component of waste the Department proposes to place in WIPP to TRU waste.

TRU waste is waste that contains alpha particle-emitting radionuclides with an atomic number greater than that of uranium (92), half-lives greater than 20 years, and concentrations greater than 100 nanocuries per gram of waste. TRU waste is classified according to the radiation dose rate at a package surface. Contact-handled TRU waste has a radiation dose rate at a package surface of 200 millirem per hour or less; this waste can be safely handled directly by personnel. Remote-handled TRU waste has a radiation dose rate at a package surface greater than 200 millirem per hour; this waste must be handled remotely (e.g., with machinery designed to shield the handler from radiation). Alpha radiation is the primary factor in the radiation health hazard associated with TRU waste. Alpha radiation is not energetic enough to penetrate human skin but poses a health hazard if it is taken into the body (e.g., inhaled or ingested). Remote-handled TRU waste also emits gamma and/or beta radiation, which can penetrate the human body and requires shielding during transport and handling.

The Department's TRU waste inventory has resulted primarily from research and development, nuclear weapons production, and fuel reprocessing activities at Departmental sites. [Idaho National Engineering Laboratory; Rocky Flats Environmental Technology Site; the Hanford, Savannah River, Mound and Nevada Test Sites: and Los Alamos, Oak Ridge, Lawrence Livermore and Argonne (Chicago) National Laboratories have historically generated over 90 percent of the Department's TRU waste, with smaller sites generating the remainder.] Currently, about 2.6 million cubic feet of contact-handled TRU waste and about 42,000 cubic feet of remote-handled TRU waste are in retrievable storage at Departmental sites around the country. The Department projects that approximately 1.8 million additional cubic feet of contact-handled TRU waste and 127,000 cubic feet of remote-handled TRU waste will be generated through the year 2022 from continuing site activities and decontamination and decommissioning. Additional TRU waste would be generated by environmental restoration activities at Departmental sites, but the volume and characteristics of this waste that might be disposed of at WIPP are uncertain. (Decisions on the disposition of waste and contaminated media from environmental restoration activities are made on a cleanup-by-cleanup basis, and such decisions have not yet been made for many of the Department's environmental restoration activities. The Department has also not yet sufficiently characterized all of the contaminated sites to be certain as to the specific wastestreams from those cleanups.) The potential for disposal at WIPP of TRU waste from environmental restoration activities will be analyzed in the cumulative impacts section of the SEIS II as a reasonably foreseeable future action.

Before 1970, material that is now classified as contact-handled TRU waste was not segregated from low-level waste and was buried along with low-level waste. At the time of burial, the Department did not intend to retrieve that waste. Since the Atomic Energy Commission (one of the Department's predecessor agencies) adopted a policy requiring retrievable storage of certain waste containing transuranic radionuclides in 1970, Departmental TRU waste has been stored in containers so that it could be easily retrieved when future decisions were made regarding the management or disposition of this waste.

About 55 percent of the Department's current TRU waste inventory contains hazardous substances regulated under the Resource Conservation and Recovery Act and is referred to as TRU mixed waste. The fraction of TRU waste streams that is mixed waste is expected to decrease in the future due to Departmental pollution prevention activities. Under the Resource Conservation and Recovery Act, land disposal of waste containing certain listed hazardous constituents is prohibited, unless the waste is treated to substantially diminish the waste's toxicity or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized. (This prohibition, and the required treatment level, are referred to as the "land disposal restrictions.") The Environmental Protection Agency can grant an exemption from the land disposal restrictions if it finds that there will be no migration of hazardous constituents from the disposal unit for as long as the wastes remain hazardous (a "no-migration exemption"). (The Department received such an exemption for the WIPP test phase.) The Department plans to submit a petition for a no-migration exemption for the WIPP disposal phase to the Environmental Protection Agency in

June 1996. As discussed further below, the SEIS II will analyze three levels of TRU waste treatment to provide for any decision the Environmental Protection Agency may make on that petition.

The Department has been proceeding with the phased development of WIPP since 1981. In the *Final Environmental Impact Statement, Waste Isolation Pilot Plant* (DOE/EIS–0026, 1980), the Department examined the environmental impacts of the WIPP and alternatives and in the 1981 Record of Decision (46 FR 9162, January 23, 1981) decided to begin construction of the WIPP facility to demonstrate the safe disposal of TRU waste in salt formations. In the following nine years, construction of WIPP surface facilities and shafts necessary for waste and salt handling and ventilation were completed, and the experimental area and a portion of the underground disposal area were excavated.

In 1990, the Department prepared the *Final Supplemental Environmental Impact Statement, Waste Isolation Pilot Plant* (DOE/EIS–0026FS, 1990), which reexamined the environmental impacts of WIPP in light of new information and changed circumstances (including a reduction in the expected volume of TRU waste, inclusion of high-curie and high-neutron waste in the TRU waste inventory, a decision not to emplace high-level waste in WIPP for experimental purposes, and changes from a vented to a non-vented TRU waste transportation package). In the 1990 Record of Decision (55 FR 25689, June 22, 1990), the Department decided to continue phased development of WIPP by conducting test phase activities to reduce uncertainties associated with performance assessment predictions that are necessary to determine whether WIPP would comply with applicable disposal regulations. Test phase activities were to have included tests with TRU waste in the underground area of WIPP. On October 21, 1993, in response to comments from the Environmental Protection Agency, the scientific community, and the public, the Department decided to conduct tests using radioactive wastes in above-ground laboratories rather than underground at WIPP. Performance assessment models based on these tests are being used to demonstrate compliance with applicable disposal regulations.

In the 1990 Record of Decision, the Department announced it would prepare this SEIS II before proceeding with the proposed waste disposal phase at the WIPP. The Department is proposing to begin the disposal phase of WIPP operations in June 1998. (The Department is aware that a bill, H.R. 1663, has been introduced in Congress that, if enacted, could accelerate disposal to March 1997.) The Department is preparing the SEIS II to provide updated information about the environmental impacts of the proposed action and alternatives.

The 1990 Record of Decision stated that the scope of the SEIS II would include an analysis of the long-term performance of WIPP in light of the information obtained during the test phase activities and a more detailed analysis of the processing and handling of TRU waste at the generator facilities. In 1992, Congress passed the "Waste Isolation Pilot Plant Land Withdrawal Act" (Pub.L. 102–579) (Land Withdrawal Act), which imposed additional requirements on the Department's phased development of the WIPP site. As explained more fully below, the SEIS II will also discuss these statutory changes and other changed circumstances to the extent that they could affect the environmental impacts of WIPP.

Additional changes to the Land Withdrawal Act proposed in H.R. 1663, if enacted, could further affect the scope of the SEIS II analysis.

Changed Circumstances and New Information:

Several changed circumstances since 1990 that could affect the environmental impacts of the WIPP disposal phase will be examined in the SEIS II, as part of the analysis of the proposed action or of alternatives or subalternatives to the proposed action, including the following:

- *Waste Management Programmatic EIS.* The Department is examining various options for waste management across the Departmental complex in the *Waste Management Programmatic EIS* (DOE/EIS–0200) (PEIS). The Notice of Intent was published on October 22, 1990 and an Implementation Plan was issued on December 23, 1993. The Department proposed to modify the scope of the PEIS in January 1995 (60 FR 4607, January 24, 1995). The Draft PEIS is scheduled for issuance in September 1995. The PEIS is examining alternatives for treatment, storage, and disposal of specified waste types complex-wide, including post-1970 generated TRU waste. Because the SEIS II will examine impacts of TRU waste disposal at WIPP, the PEIS does not examine those impacts. Under all of the PEIS TRU waste alternatives, disposal at WIPP of all post-1970 Department-generated retrievably-stored TRU waste is assumed for purposes of analysis.

The PEIS examines the potential environmental impacts of treating the waste to three levels: treatment to meet the planning-basis WIPP waste acceptance criteria (primarily designed to decrease waste mobility), intermediate treatment to also reduce the gas generation potential of the waste, and enhanced treatment of TRU mixed waste to also meet Resource Conservation and Recovery Act land disposal restrictions at various Departmental sites that generate TRU waste. WIPP is the only Departmental site not currently generating TRU waste that would be considered as an alternative treatment site (for contact-handled TRU waste only).

To fulfill the commitments made in the 1990 Record of Decision to examine the impacts of waste processing and handling at the generator sites, the SEIS II will summarize and incorporate by reference the PEIS analysis of the alternatives for TRU waste treatment locations that are being considered in the PEIS. The SEIS II will also include an analysis of the impacts of disposal of waste treated to meet the three treatment levels being considered in the PEIS. The information from the PEIS concerning impacts of various treatment levels at the treatment sites and the SEIS II analysis of disposal impacts at WIPP from various treatment levels will inform the Department's decision on final WIPP waste acceptance criteria.

The Department proposes to use WIPP to dispose of post-1970 retrievably-stored and newly-generated TRU waste generated by defense-related activities. For completeness, however, the SEIS II also will assess the impacts of disposing of a relatively small volume (when compared to defense-related waste) of non-defense TRU waste at WIPP, consistent with the PEIS action alternatives. The SEIS II will incorporate the PEIS analysis by reference and supplement it as appropriate. Statutory changes would be required before WIPP could dispose of non-defense generated TRU waste.

The scope of the analysis in the SEIS II will differ from that of the PEIS in several major aspects resulting from the documents' different purposes. Specifically, the SEIS II, but not the PEIS, will analyze the impacts of TRU waste disposal at WIPP. In addition, because the PEIS assumes for analytic purposes that WIPP will operate, the long-term environmental impacts of indefinite storage of TRU waste at generator sites are not included in the PEIS analysis. The PEIS no-action alternative analyzes the impacts of continued storage of TRU waste at generator sites until disposal at WIPP,

assuming that existing waste management facilities would be used. The impacts of storage for an indefinite time will be analyzed as part of the no-action alternative in the SEIS II.

- *More Generator Sites.* Ten generator sites for the majority of the Department's TRU waste were identified in the 1990 Supplemental EIS (listed under Background, above), but the Department since then has identified additional sites that generate small quantities of TRU waste that would be disposed of at WIPP. Options for managing this waste are being addressed in the PEIS (and will be incorporated by reference in the SEIS II), including treatment at the small generator sites to meet the planning-basis WIPP waste acceptance criteria and direct shipment from these sites to WIPP for disposal (which would require activities such as certification, treatment, storage, and loading for transportation to be done at each small generator site) and using one or more of the main generator sites to perform such waste management activities.
- *Less Waste.* The volumes of contact-handled and remote-handled TRU waste in retrievable storage and estimated to be generated at the generator/storage sites from continuing operations have greatly decreased since 1990, primarily because of the Department's reduced nuclear weapons production activities.
- *Land Withdrawal Act.* The Land Withdrawal Act contains provisions that could affect the environmental impacts of various WIPP alternatives. One section of the Act sets an upper limit on the volume of TRU waste (6.2 million cubic feet) and the radioactivity (5.1 million curies) of remote-handled waste that can be disposed of at WIPP. The SEIS II would examine whether these limitations would affect the previous analysis of the impacts and whether the Department may need to dispose of more waste than the Act would allow to be disposed of at WIPP. Also, the Land Withdrawal Act requires the Department to perform certain studies, including one on rail and truck transportation alternatives, one on remote-handled TRU waste, and one on waste processing and volume reduction technologies. Any new information contained in studies required by the Land Withdrawal Act will be used, as appropriate, in preparing the SEIS II.
- *WIPP Experimental Program.* The WIPP experimental program has provided additional information regarding the site, the waste, and potential interactions between the waste and the WIPP environment that are relevant to the performance of the WIPP site. To date, experimental results appear to confirm previous expectations regarding the suitability of WIPP as a TRU waste repository. Performance assessment models based on these tests are being used to demonstrate compliance with applicable disposal regulations, and will be used to provide information on waste disposal impacts in the SEIS II.
- *Waste Acceptance Criteria.* DOE has revised the planning-basis WIPP waste acceptance criteria since 1990. The revision that could potentially affect environmental impacts the most is the addition of a requirement to treat waste to eliminate corrosive characteristics. The planning-basis WIPP waste acceptance criteria could potentially change again to conform with decisions made regarding TRU waste treatment based on the analysis of treatment subalternatives in the SEIS II.
- *Transportation Routes.* The Department has made minor changes to the local portions of some of the truck transportation routes that were presented in the 1990 Supplemental EIS.

Purpose and Need For Agency Action

As discussed under Background, above, since the mid-1940s, the Department's research and development, nuclear weapons production, and fuel reprocessing activities have produced TRU waste. Continued operation of Departmental facilities, decontamination and decommissioning of defense production facilities, and environmental restoration activities (including remediation of sites where pre-1970 wastes were buried) at Departmental sites are expected to generate additional TRU waste. The Department needs to safely dispose of the accumulated TRU waste and provide for the disposal of the additional TRU waste to be generated. TRU waste emits alpha radiation for a long period of time and must be isolated from means of environmental transport (primarily air and water). Similarly, the hazardous constituents of the TRU mixed waste also pose a hazard if they are taken into the body and need to be isolated or treated to reduce exposure and its consequences. As noted above, Congress authorized the Department in Pub.L. 96–164 to develop a research and development facility to meet the Department's need for disposal. The Department also needs to examine reasonable alternatives for treatment of the TRU waste to ensure that the disposal of the waste is protective of human health and the environment.

Proposed Action

The Department's proposed action is to continue phased development of WIPP by beginning the disposal phase of TRU waste operations at the facility. Any unfinished compliance activities would continue until the Department obtains regulatory approvals needed to begin receiving waste. (Compliance activities are ongoing now, and are scheduled for completion before a decision on the WIPP disposal phase.) The remainder of the planned waste disposal area at WIPP would be excavated to accommodate the waste, as needed. (Approximately one-eighth of the planned disposal area has already been excavated.)

Under the proposed action, retrievably-stored defense-generated waste would be characterized, packaged, and certified at the generator sites to meet WIPP waste acceptance criteria (to be determined based on the analysis in the SEIS II) and then loaded into approved reusable shipping containers for transportation to WIPP by truck. When the waste arrives at WIPP, the shipping container would be unloaded and the waste containers would be inspected before being emplaced underground at WIPP.

Under the proposed action, the SEIS II will analyze the impacts of waste storage, characterization, certification, treatment, and loading at the generator sites, and of transporting TRU waste from the generator sites to WIPP. The SEIS II will also discuss mitigation and accident prevention measures and emergency response procedures to protect the safety and health of workers and the public at the generator sites and along transportation routes, and tracking of waste shipments to WIPP. Much of this analysis will have already been done in the context of the PEIS and the previous WIPP Supplemental EIS, and will be summarized and incorporated by reference, and supplemented or updated as necessary.

The impacts of waste disposal operations at WIPP also will be analyzed under this alternative in the SEIS II, including the impacts of waste receipt and waste package inspection, monitoring, emplacement, and subsequent activities associated with eventual closure, decommissioning and institutional control of the WIPP after waste disposal operations have been completed. Loss of institutional controls will also be considered.

Alternatives to the Proposed Action

The SEIS II will consider a no-action alternative that consists of continued management of TRU waste at the

generator facilities and decommissioning or other disposition of the WIPP facility. This alternative will be analyzed to provide a baseline of environmental impacts if the waste were not disposed of at WIPP. Analysis of the no-action alternative would compare the impacts of continued storage of TRU waste (including an assumed loss of institutional controls after 100 years) with the expected post-closure impacts of WIPP under the proposed-action alternative.

Subalternatives

Subalternatives of the proposed action would also be considered. The effects on the performance of WIPP as a disposal site of several TRU waste treatment subalternatives would be considered in the SEIS II to help the Department establish final WIPP waste acceptance criteria. Another set of subalternatives would address the disposal of non-defense generated TRU waste. Transportation subalternatives, including rail common carrier service and dedicated rail service, particularly for remote-handled waste, would also be reexamined in the SEIS II.

Preliminary Identification of Environmental Issues

The issues listed below have been tentatively identified for analysis in the SEIS II. This list is presented to facilitate public comment on the scope of the SEIS II. It is not intended to be all-inclusive or to predetermine the potential impacts of any of the alternatives.

(1) Potential effects on the public and on-site workers from releases of radiological and non-radiological materials during normal operations and from reasonably foreseeable accidents;

(2) Pollution prevention and waste minimization;

(3) Potential effects on air and water quality and soils, and other environmental consequences of normal operations and reasonably foreseeable accidents;

(4) Potential cumulative effects of operations at the WIPP site, including relevant impacts from other past, present, and reasonably foreseeable activities at the site;

(5) Potential effects on endangered or threatened species, other species of concern, floodplain/wetlands, and archaeological/historical sites;

(6) Effects from normal transportation and reasonably foreseeable transportation accidents;

(7) Potential socioeconomic impacts on communities surrounding WIPP and the generator sites;

(8) Environmental justice considerations;

(9) Unavoidable adverse environmental effects;

(10) Short-term uses of the environment versus long-term productivity; and

(11) Potential irretrievable and irreversible commitments of resources.

Related NEPA Documentation

NEPA documents that have been or are being prepared for activities related to WIPP include, but are not limited to, the following:

(1) Final Environmental Impact Statement, Waste Isolation Pilot Plant (DOE/EIS–0026, October 1980), and the January 23, 1981, Record of Decision (46 FR 9162) and *Final Supplemental Environmental Impact Statement, Waste Isolation Pilot Plant* (DOE/EIS–0026–FS, January 1990), and the June 13, 1990, Record of Decision (55 FR 25689). These documents provide environmental analysis and the decision rationale for earlier phases of the WIPP project.

(2) *Waste Management PEIS.* The Waste Management PEIS will analyze complex-wide waste management alternatives. The Department published the Notice of Intent to prepare the PEIS on October 22, 1990 (55 FR 42633) and issued the Implementation Plan on December 23, 1993. The Department proposed to modify the scope of the PEIS in January 1995 (60 FR 4607), and the Draft PEIS is now scheduled for issuance in September 1995. As noted above, the SEIS II will incorporate the PEIS analysis of treatment alternatives to ensure that the decision whether to proceed with the WIPP disposal phase is consistent with the programmatic decisions on locations of waste treatment facilities that may be made based on the PEIS.

(3) *Environmental Assessment for the Proposed Actinide Source-Term Test Program at Los Alamos National Laboratory* (DOE/EA–0977). This Environmental Assessment examined the site specific impacts of conducting in-laboratory waste testing at Los Alamos National Laboratory as part of the WIPP test phase activities. A Finding of No Significant Impact was issued on January 23, 1995.

(4) *Environmental Assessment for the Construction and Operation of the Carlsbad Environmental Monitoring and Research Center* (DOE/EA–1081) (in preparation). The proposed action is for the Department to continue funding operation of the Carlsbad Environmental Monitoring and Research Center by the University of New Mexico. The Center's laboratories and offices would be constructed in Carlsbad, New Mexico, adjacent to the existing New Mexico State University campus. The Center would independently monitor and analyze biological and ecological impacts from ongoing and future WIPP operations as part of its work to improve environmental monitoring techniques.

(5) *Environmental Assessment for the Construction and Operation of the Sand Dunes to Ochoa Powerline Project* (DOE/EA–1109). The Department adopted this Bureau of Land Management Environmental Assessment and Finding of No Significant Impact on May 19, 1995. This Environmental Assessment examined the impacts of constructing a Department-funded backup powerline to WIPP so that commercial electric power would not be interrupted if the single existing powerline is damaged. As part of the project, a new substation also will be constructed within the WIPP secure area to increase the electrical supply available at WIPP.

(6) The *Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final Environmental Impact Statement* (DOE/EIS–0203–F, April 1995) and Record of Decision, (60 FR 2680, June 1, 1995); *Tritium Supply and Recycling Programmatic Environmental Impact Statement* (DOE/EIS–0161) (in preparation); *Long-Term Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement* (DOE/EIS–0229) (in preparation); *Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components* (DOE/EIS–0225) (in preparation); *Site-wide Environmental Impact Statement for Continued Operation of the Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS–0238) (in preparation); *Nevada Test Site and Other Off-Site Locations within the State of Nevada Site-wide Environmental Impact Statement* (DOE/EIS–0239) (in preparation); and *Rocky Flats Environmental Technology Site-wide Environmental Impact Statement, Rocky Flats Site, Golden, Colorado* (no number yet assigned) (in preparation) are among several recently completed and ongoing documents that analyze or have the potential to analyze proposals or alternatives that could generate additional transuranic waste for disposal at WIPP.

Issued in Washington, D.C., this 18th day of August, 1995.

Peter Brush,

Principal Deputy Assistant Secretary, Environment, Safety and Health.

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APPENDIX B
OUTLINE OF WIPP SEIS–II

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APPENDIX C
SCOPING COMMENT SUMMARIES

Appendix C contains a summary of all comments recorded during the public scoping process for *Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement* (WIPP SEIS-II). Comments were analyzed, summarized, and grouped into the following Comment Categories:

1. Transportation
2. Alternatives
3. General Health and Safety
4. Geology and Hydrology
5. NEPA Process
6. Waste Characterization
7. WIPP Design
8. General Environmental Concerns
9. WIPP Justification
10. Long-Term Performance or Control
11. Worker-Public Health and Safety
12. Environmental Justice
13. Funding and Cost
14. DOE Credibility
15. Schedule
16. Accidents and Risk of Accidents
17. Waste Acceptance Criteria
18. Socioeconomics
19. Drilling and Mining
20. Land Withdrawal Act

The comment summaries in each category are numbered for reference (left hand column in the listings that follow). The right hand column refers to the Appendix B outline and states where in SEIS-II disposition of each comment or its general theme will be presented. When the reader is directed to an entire chapter as opposed to a specific section, the information pertaining to the comment or its general theme will be found throughout that chapter of SEIS-II. Disposition of some comments is discussed in this Implementation Plan (IP). In those cases, the section of the IP is referenced.

Comment Number	Comment Summary	Proposed Disposition
Comment Category: TRANSPORTATION		
1	The SEIS-II should evaluate emergency preparedness and routes through all localities along the transportation corridors.	SEIS-II 3.1, 4.1, 5.0
2	What will happen to the road from Vaughn to Carlsbad? This evaluation should be included in the SEIS-II.	SEIS-II 4.1, 5.0
3	What type of shipping containers will be evaluated in the SEIS-II?	SEIS-II 3.1, 5.0
4	Will the SEIS-II consider both the DOE and the states' transportation system?	SEIS-II 3.1, 5.0
5	Will DOE conduct the same study as was done for the Land Withdrawal Act for rail and truck transportation?	SEIS-II 3.1, 5.0
6	Certification of the remote-handled waste cask should be similar to the certification process used for the contact-handled cask.	SEIS-II 3.1
7	How many shipments per day are planned from Rocky Flats to WIPP? How many total shipments to WIPP are planned?	SEIS-II 3.1
8	Will WIPP waste be transported by truck or rail?	SEIS-II 3.1, 5.0
9	Why was the truck versus rail study done initially?	SEIS-II 3.1, 5.0
10	Is TRANSCOM operating in the western states?	SEIS-II 3.1
11	Does DOE require mountain driving training for transportation of waste to WIPP?	SEIS-II 3.1, 4.1
12	If roads are closed will WIPP trucks stop?	SEIS-II 3.1, 4.1
13	Will the WIPP transport trucks meet state requirements for over-the-road weight limits?	SEIS-II 3.1, 4.1
14	What will be the WIPP transport trucks maximum speed if Congress changes the national limit or allows the states to set their own limits?	SEIS-II 3.1, 4.1
15	Are the WIPP transport truck drivers paid by the load, the hour, or are they salaried?	SEIS-II 4.1
16	There is continuing concern whether the available transportation vehicles and containers will be able to meet the anticipated need.	SEIS-II 3.1
17	What is the real cost of dedicated transportation?	SEIS-II 5.0
18	The routine shipment duration limit of 30 days should be reexamined/mitigated.	SEIS-II 5.0
19	There is a need to reexamine the possibility of reduced limitations of the transportation envelope and to expand the waste acceptance criteria related to transportation.	SEIS-II 5.0
20	Waste entering from the south should use the natural by-pass afforded by Highway 31.	SEIS-II 3.1, 4.1
21	There should be no transportation bypass of Vaughn and Encino, New Mexico.	SEIS-II 3.1, 4.1
22	The SEIS-II needs to fully analyze the effects of transportation throughout the lifetime of WIPP.	SEIS-II 5.0

Comment Number	Comment Summary	Proposed Disposition
23	People along the transportation routes are well-trained and the transportation drivers are a well-trained model for industry.	SEIS-II 3.1
24	I am concerned about the condition of the Highway 285 south to Carlsbad.	SEIS-II 3.1, 4.1, 5.0
25	Accident-free shipments to WIPP and storage/disposal at WIPP might do wonders in allaying the public's fears.	SEIS-II 3.1, 5.0
26	There is a natural bypass (Highway 31) which should be used so there is no liability for the whole south part of Carlsbad. The north bypass will only benefit those on the northern part of town.	SEIS-II 4.1, 5.0
27	The SEIS-II should include a full analysis of the waste transportation alternatives, including alternative routes and alternative treatment methods which may affect the intensity of transportation.	SEIS-II 5.0
28	The SEIS must include a comprehensive analysis of all aspects of packaging and transportation of this nuclear waste to WIPP, including the design and accident-testing of shipment containers, as well as emergency response in the event of an accident during shipment.	SEIS-II 5.0
29	Containers must be tested in a protracted hot fire (2000 degrees F.) by engulfing them for 60 minutes. The SEIS must include an analysis for training emergency response teams along the shipment routes.	SEIS-II 3.1, 5.0
30	The analysis of the plan for transportation of the waste to WIPP must seek to minimize the risk of exposure to people living near, or traveling along, the transportation routes. Routing must avoid high population areas whenever feasible.	SEIS-II 4.1, 5.0
31	The analysis must fully examine the alternative of rail transport (including dedicated and purpose-built trains) to keep these hazardous shipments off the public highway system to the maximum extent feasible.	SEIS-II 3.1, 5.0
32	How many shipments of waste are expected from each source-site to WIPP per year, and when will these shipments begin and end?	SEIS-II 3.1, 5.0
33	What will be the average and total volumes of waste shipments to WIPP from each site?	SEIS-II 3.1
34	The SEIS-II should describe the TRUPACT-II and the tests that were made on it. Why has it not been crush tested?	SEIS-II 4.1
35	Over what routes does DOE expect to transport this waste? What is the annual and total number of shipments anticipated for each route?	SEIS-II 3.1, 4.0, 5.0
36	What improvements to roads or other transport systems are expected?	SEIS-II 3.1, 4.1
37	Provide a full comparative assessment of all the alternative modes of transport.	SEIS-II 5.0
38	Regarding potential accidents, what precautions are anticipated? What training will be provided to what personnel where? What special equipment will be made available to whom and on what basis?	SEIS-II 3.1, 5.0
39	Regarding potential accidents, given the number of shipments per year along each of the several anticipated routes, provide an independent assessment of the likely number of accidents per year and overall. Provide this information for each route, for the overall transport web, and for all possible modes of transport.	SEIS-II 3.0, 4.1, 5.0

Comment Number	Comment Summary	Proposed Disposition	
40	DOE is not legally required to "crush test" the TRUPACT-II. Nevertheless, it should perform this test as a part of the SEIS-II. The concept is simple: in an accident it is likely that the container will be impacted on two sides; therefore, the container should be tested for such impacts.	IP	4.2.1
41	The Nuclear Regulatory Commission (NRC) has now ruled that a crush test for shipping containers should be performed. While this rule is not retroactive, and while DOE is not required to perform a "crush test," it is necessary if the impacts of shipments to WIPP are to be fully assessed. Therefore, DOE should perform a "crush test" as specified by NRC 10 CFR Part 71, as published in the *Federal Register* on September 28, 1995.	IP	4.2.1
42	The SEIS-II must include a thorough analysis of transportation routes, reasonable accident scenarios, and shipping containers for all waste.	SEIS-II	5.0
43	The SEIS-II must identify and fully examine a shipping container for remote-handled waste and must ensure that the TRUPACT-II for contact-handled waste has been thoroughly tested. The TRUPACT-II should undergo a "crush test" as part of the analysis for the SEIS-II.	IP	4.2.1
44	The SEIS-II must fully examine the extent to which emergency responders and hospitals are equipped to handle an accident involving a shipment to WIPP.	SEIS-II	3.1
45	Because there is often a high turnover of emergency responders and hospital personnel, the SEIS-II must examine plans for continuous training of these personnel.	SEIS-II	3.1
46	The SEIS-II must describe and analyze the schedule of shipments to WIPP by each generator site.	SEIS-II	3.1, 5.0
47	The SEIS-II should consider rail and highway shipment of waste.	SEIS-II	3.0, 5.0
48	The SEIS-II should provide details on the number of shipments of waste and the impacts of these shipments.	SEIS-II	3.1, 5.0
49	Discuss in the SEIS-II the safety systems in place to mitigate any transportation accidents.	SEIS-II	3.1
50	If the maximum limit of each drum is met, would the maximum limit of the TRUPACT be exceeded?	SEIS-II	3.1
51	Will all sites begin shipment to WIPP at once or will it be phased?	SEIS-II	3.1
52	The SEIS-II should examine the impacts to the maximally exposed individual during waste transport.	SEIS-II	5.0
53	Has there been an INDEPENDENT transportation risk assessment?	SEIS-II	3.1
54	The SEIS-II should examine using rail for shipment of waste.	SEIS-II	3.1, 5.0
55	Does testing the TRUPACT-II without radioactive materials adequately portray the expected behavior?	SEIS-II	3.1
56	Are the small communities along the transportation route properly trained in emergency response procedures?	SEIS-II	3.1
57	The SEIS-II should analyze the emergency response training systems in place in the smaller communities along the transportation routes. DOE should ensure that these communities have periodic follow-up training sessions.	SEIS-II	3.1

Comment Number	Comment Summary	Proposed Disposition	
58	The SEIS-II should analyze all transportation routes.	SEIS-II	5.0
59	Is the truck carrying the TRUPACT-II easily recognizable?	SEIS-II	3.1
60	The SEIS-II should consider having escorts for all the waste shipments (like for Safe Secure Transport [SST] shipments).	SEIS-II	3.1
61	Was testing of the TRUPACT-II done adequately and independently?	SEIS-II	3.1
62	What is the exposures along the transportation route? What is the exposure to the public during traffic jams?	SEIS-II	5.0
63	The TRUPACT-II has not been crush tested. Will this test be done in the future?	IP	4.2.1
64	An independent analysis of the transportation system by non-DOE entities is crucial.	SEIS-II	3.1
65	Shipping waste is ridiculous.	SEIS-II	3.1, 5.0
66	The transportation containers should be crush-tested.	IP	4.2.1
67	All reasonable accident scenarios should be fully evaluated, and the expected shipping routes should be evaluated for accident risk and emergency response.	SEIS-II	5.0
68	The SEIS-II should address the dangers of transporting radioactive materials.	SEIS-II	5.0
69	What happens if there is a traffic accident en route?	SEIS-II	3.1, 5.0
70	How are you going to prepare the people living along the transportation route to deal with transportation accidents?	SEIS-II	3.1
71	It is totally irresponsible to wait until after an accident happens to develop a solution.	SEIS-II	3.1, 5.0
72	This waste should not be transported. The risk of accident is too great.	SEIS-II	5.0
73	I am concerned about nuclear waste traveling on our highways. This could be a threat to many citizens if accidents occurred.	SEIS-II	5.0
74	Shipment of WIPP waste would be too dangerous for highways.	SEIS-II	5.0
75	Transport of waste to WIPP is not viable because safety issues involved have not been well thought out.	SEIS-II	5.0
76	The transportation of wastes to WIPP should be more secure with some kind of emergency plans ready to be placed immediately in case of an accident.	SEIS-II	3.1, 5.0
77	Trucking the waste destined for WIPP over major interstate roads and passing through congested urban areas is not well thought out.	SEIS-II	3.1, 5.0
78	Provisions for accompanying escort emergency vehicles for the transport trucks must be made as well as utilizing the least populated roads.	SEIS-II	3.1
79	Transporting hazardous waste across the U.S. by any means is not a good idea.	SEIS-II	5.0
80	More concern should be shown by the DOE on the effect of transporting dangerous waste.	SEIS-II	5.0
81	What are the alternatives to interstate transportation of radioactive waste?	SEIS-II	3.1

Comment Number	Comment Summary	Proposed Disposition
82	What are the plans of action and containment when there is a transportation accident?	SEIS-II 3.1, 5.0
83	The SEIS-II must describe and analyze the schedule for shipments to WIPP.	SEIS-II 3.1, 5.0
84	The SEIS-II must examine transportation of wastes to WIPP.	SEIS-II 3.1, 5.0
85	Vehicles transporting waste should be accompanied by trained technicians and the vehicles should be marked.	SEIS-II 3.1
86	The SEIS-II should examine all transportation issues including accident scenarios related to the use of public roadways.	SEIS-II 3.1, 5.0
87	The SEIS-II must examine waste transportation to WIPP.	SEIS-II 3.1, 5.0
88	I would like to have the idea of transporting the materials reviewed in the SEIS-II. It's too dangerous with current technology.	SEIS-II 3.1, 5.0
89	The SEIS-II should contain evaluations of transportation methods.	SEIS-II 5.0
90	The SEIS-II should address the effects during routine transport operations and from possible transportation accidents.	SEIS-II 5.0
91	The WIPP SEIS-II should include a thorough discussion of the analyses and findings contained in a DOE report entitled *Comparative Study of Waste Isolation Pilot Plant (WIPP) Transportation Alternatives*, DOE/WIPP 93-058, February 1994.	SEIS-II 3.1, 5.0
92	The SEIS-II should contain a much more comprehensive, in-depth analysis of the potential human health and environmental impacts associated with two WIPP transportation (modal) options: truck and dedicated train.	SEIS-II 5.0
93	It is critical that the SEIS-II analyze a number of alternative scenarios to assist DOE/CAO in determining the optimal schedule for dispatch of WIPP shipments. The document should provide the best available information about when the various DOE sites are projected to be ready to ship wastes to WIPP and in what quantities. Both contact- and remote-handled TRU waste must be addressed in this regard.	SEIS-II 3.1, 5.0
Comment Category: ALTERNATIVES		
1	What alternatives are being considered in the SEIS-II?	SEIS-II 3.0
2	Do an analysis in the SEIS-II comparing impacts under current laws and those that would result from implementation of the "Skeen Bill" HR 1663.	SEIS-II 1.0
3	It is inadequate to incorporate the PEIS analysis of the 21-22 FFCA sites into WIPP SEIS-II.	SEIS-II 1.5
4	If WIPP is disapproved (the No Action Alternative is implemented) what is the alternative? Siting of a new facility for recovered wastes should be considered in the SEIS-II.	SEIS-II 3.2
5	The Draft SEIS must look at FFCA site treatment plans individually and analyze them in terms of operational and environmental impacts at the sites and at WIPP.	SEIS-II 3.0
6	DOE should go back and reevaluate the idea of putting waste into the ground.	SEIS-II 3.3

Comment Number	Comment Summary	Proposed Disposition	
7	Aboveground storage would be better in terms of retrievability and utility in the future.	SEIS-II	3.2
8	Transmutation should be evaluated in the SEIS-II.	SEIS-II	3.3
9	The SEIS-II should examine zircon technology for storage of plutonium.	SEIS-II	3.3
10	Are breeder reactors in Japan useful for our kind of plutonium?	SEIS-II	3.3
11	Could WIPP-destined plutonium be retrieved and used for other processes?	SEIS-II	3.3
12	The SEIS-II should evaluate the treatment of waste by the Massachusetts Institute of Technology process prior to disposal.	SEIS-II	3.3
13	The agency needs to take a hard look at all alternatives, not just those that seem practical.	SEIS-II	3.0
14	Review of the alternatives should include buried wastes as well as barreled wastes.	SEIS-II	3.2
15	The SEIS-II should consider the alternative of long-term storage.	SEIS-II	3.2
16	The mission may be changed since no new weapons or plans for new weapons, are being produced. The SEIS-II should address these changes to see if WIPP is necessary or if its proposed mission should be changed.	SEIS-II	1.0
17	The SEIS-II should address the alternatives of bringing the RH wastes to WIPP.	SEIS-II	3.2
18	Zircons are a superior alternative to basilicate glass for storage of plutonium and should be explored for future use.	SEIS-II	3.3
19	Arc plasma techniques are revealed as a means of "melting" and neutralizing molecules of highly toxic chemicals and may be used to neutralize parts of the waste destined for WIPP.	SEIS-II	3.3
20	The super-cold option is perhaps an avenue which allows the agitated state of a radionuclide to calm down. This could be used for pretreatment for transport or storage.	SEIS-II	3.3
21	The SEIS-II must consider impacts to all affected areas, including storage sites, transportation corridors, and the disposal site.	SEIS-II	5.0
22	We strongly believe that improvements and changes are only worthwhile if they significantly reduce the potential impacts in all areas.	SEIS-II	5.0
23	The SEIS-II should address all generation, treatment, and disposal alternatives for all relevant TRU waste types, and generating sites.	SEIS-II	3.1, 3.2
24	Alternative storage and disposal facilities must be examined, particularly in light of the fact that the volume of transuranic waste in the Department's control far exceeds the capacity of WIPP for CH- and RH-TRU waste.	SEIS-II	3.2
25	Alternatives to WIPP obviously include leaving the wastes at the current storage sites for treatment, transportation, and other waste management activities.	SEIS-II	3.2
26	The SEIS-II must examine the alternatives for characterizing, transporting, and emplacing RH-TRU waste. DOE's strategy on RH-TRU waste is currently in flux.	SEIS-II	3.2

Comment Number	Comment Summary	Proposed Disposition	
27	DOE shall develop plans for long-term storage of all wastes currently at Rocky Flats and prepare contingency plans for storage of transuranic waste in the event that the Waste Isolation Pilot Plant (WIPP) does not open.	SEIS-II	3.0
28	All reasonable alternatives to WIPP must be detailed in the SEIS-II and fully assessed.	SEIS-II	3.0
29	Regarding transmutation of the radionuclides, what is DOE doing to research or to fund research in this area? What is the present state of such research?	SEIS-II	3.3
30	Evaluate the possibility of keeping the waste at the point(s) of generation (e.g., Rocky Flats) in safe, monitorable, retrievable storage. This is not a "No Action" alternative.	SEIS-II	3.2
31	Spell out the contingencies in the event that WIPP does not open.	SEIS-II	3.0
32	What plans does the DOE have for waste that exceeds the capacity of WIPP?	SEIS-II	3.1, 3.2
33	The SEIS-II must assess all reasonable alternatives to WIPP including storage of transuranic wastes at the point of generation. Such waste storage should be in a state of the art, monitored (allowing for inspections) facility that allows for retrieval of the waste.	SEIS-II	3.2
34	The SEIS-II must analyze alternative storage or disposal facilities because WIPP will quickly run out of space.	SEIS-II	3.2
35	DOE should ensure that all reasonable alternatives are considered in the SEIS-II including transmutation.	SEIS-II	3.2, 3.3
36	What is the state of transmutation research?	SEIS-II	3.3
37	The SEIS-II should consider keeping waste at generator sites.	SEIS-II	3.2
38	Instead of waiting for WIPP or another solution, the priority should be to stabilize the waste where it is currently being stored (Cited "Plutonium Vulnerability Study").	SEIS-II	3.2
39	The SEIS-II should examine transmutation as an alternative to WIPP.	SEIS-II	3.3
40	Monitored retrievable storage is the best option for the disposal of TRU waste.	SEIS-II	3.2
41	The SEIS-II should analyze the cost of monitored retrievable storage at the waste generator sites.	SEIS-II	3.2, 5.0
42	DOE should conduct more research on aboveground retrievable storage at the generator sites.	SEIS-II	3.2
43	Has DOE considered other storage sites for the TRU waste such as the Nevada Test Site?	SEIS-II	3.2
44	The SEIS-II should consider the impacts of WIPP on Rocky Flats, including the capacity and integrity of Rocky Flats. Rocky Flats is waiting for WIPP to open.	SEIS-II	5.0
45	Will the SEIS-II address radiological and hazardous wastes in WIPP?	SEIS-II	3.1, 5.0
46	In the event WIPP's capacity cannot hold anticipated waste volume or in the event it never opens, the DOE must look at reasonable alternatives for storing the waste, such as leaving the waste at their current sites for several decades.	SEIS-II	3.2

Comment Number	Comment Summary	Proposed Disposition	
47	Since WIPP is not able to handle many kinds of wastes, other alternative solutions must be studied in parallel to the WIPP approach.	SEIS-II	3.2
48	The waste should be kept at the generator sites and, stored aboveground and monitored with state of the art equipment.	SEIS-II	3.2
49	All N-plants should be closed immediately and the waste fuel stored at the generator site until we have a real solution.	SEIS-II	3.2
50	More research should go into what is now being called the "no action alternative" but would go a long way towards a saner solution to this crisis.	SEIS-II	3.2
51	Disposal is completely the wrong frame of mind from which to address the problem of nuclear waste. We need to be able to know exactly what is happening with these substances at all times.	SEIS-II	3.0, 5.0
52	Do not think in terms of disposal - the earth is not a garbage dump.	SEIS-II	3.2
53	Please reconsider the WIPP until further environmental impact studies have been made. Because of the latest problems with the site including discovery of groundwater and the possible unstable nature of the test chamber, the only safe alternative is to do more studies and to make sure that the proposed area will be completely stable and unchanging for the next 240,000 years since that is the amount of time the plutonium remains radioactive.	SEIS-II	3.2
54	Why can't research be done on safer ways to store nuclear waste in the state it was created?	SEIS-II	3.0
55	Review all of the SEIS-II options/alternatives before implementing WIPP.	SEIS-II	3.0
56	Don't move the waste from the generator sites.	SEIS-II	3.2
57	More research should be done to determine better ways to store existing waste at the generator sites.	SEIS-II	3.2
58	Efforts should be directed toward research to minimize the radioactivity of the waste (some form of neutralization no matter how difficult), monitored storage, and stopping production of more waste that there is no effective way of dealing with.	SEIS-II	3.2
59	Existing waste should be kept where it is until adequate measures are available to responsibly deal with the environmental mess that is continuing to be produced.	SEIS-II	3.2
60	The best solution is state-of-the-art storage of nuclear waste of all types at the Rocky Flats site until such time as there exists the technology to safely transform nuclear waste. This, of course, means that the waste must be retrievable.	SEIS-II	3.2, 3.3
61	Other storage possibilities should be examined in the SEIS-II as the WIPP site is not totally secure due to water seepage that would create brine and accelerate erosion.	SEIS-II	3.2
62	Responsible long-term storage must be found, not underground or sea disposal.	SEIS-II	3.2
63	The best way to contain these severely hazardous fluids is by using state-of-the-art containers at the sites where the waste is produced.	SEIS-II	3.2
64	Aboveground storage is the best way to handle this dangerous substance.	SEIS-II	3.2

Comment Number	Comment Summary	Proposed Disposition	
65	All reasonable alternatives to WIPP must be assessed in the SEIS-II.	SEIS-II	3.2
66	Building an underground tunnel to transport the waste may take time and money, but wouldn't you rather save the lives of humans and animals?	SEIS-II	3.3
67	I would like to see a full study of the alternatives to WIPP. Particularly, avoiding transport, but addressing the radiation coming from Rocky Flats' waste.	SEIS-II	3.2, 5.0
68	I'd like to see state-of-the-art aboveground storage with monitoring as an alternative analyzed in the SEIS-II.	SEIS-II	3.2
69	If we maintain waste at the generator sites it would (in most cases) be safer, allow for more frequent monitoring, and allow more nuclear plant shut downs.	SEIS-II	3.2
70	I think that some investigating should be done before WIPP is implemented.	SEIS-II	5.0
71	The SEIS-II should analyze aboveground storage with proper monitoring.	SEIS-II	3.2
72	The SEIS-II should analyze the alternative of leaving waste at the generator sites and taking precautions to eliminate accidents.	SEIS-II	3.2
73	WIPP appears to be more dangerous than aboveground storage at the generator sites.	SEIS-II	3.0, 5.0
74	There are better ways of dealing with these chemicals than placing them in the ground and forgetting about them.	SEIS-II	3.0
75	I am for aboveground safe, proven storage.	SEIS-II	3.2
76	The SEIS-II needs to address the effects of long-term storage at these facilities and how we plan to educate future generations regarding this plan.	SEIS-II	3.2
77	Storage of nuclear waste at the site it was created seems to be a better solution than trucking waste around the country increasing the average citizens chances of coming in contact with it.	SEIS-II	3.2
78	Leave the waste at the generator sites. Put it in storage containers that are state-of-the-art, qualified, and monitored.	SEIS-II	3.2
79	The SEIS-II must examine reasonable alternatives to WIPP.	SEIS-II	3.2
80	DOE should create or maintain aboveground monitored contaminant areas.	SEIS-II	3.2
81	I think that the waste should not be moved and it should also be kept aboveground so it can be monitored properly.	SEIS-II	3.2
82	Instead of WIPP DOE should take advantage of the state-of-the-art technological advances we worked so hard to achieve.	SEIS-II	3.2
83	Aboveground temporary storage and monitoring should exist at the point of origin until an effective and appropriate technology is developed.	SEIS-II	3.2
84	I would like to see this waste stored using a more effective method that is based on research.	SEIS-II	3.2
85	We need to improve our knowledge of storage technologies, rather than moving this poison around.	SEIS-II	3.2

Comment Number	Comment Summary	Proposed Disposition	
86	Before we commit nuclear waste irrevocably to the earth we should undertake a concerted research effort into alternative waste treatment and/or neutralization technologies.	SEIS-II	3.3
87	The SEIS-II should consider all reasonable alternatives.	SEIS-II	3.2
88	The task force vehemently objects to DOE's proposal to include in the SEIS-II an assessment of the impacts of disposing non-defense TRU wastes at WIPP.	SEIS-II	1.0, 3.0
Comment Category: GENERAL HEALTH AND SAFETY			
1	Economic development seems to take priority over health and safety.	SEIS-II	5.0
2	Engineered barriers should be emplaced for basic safety.	SEIS-II	3.0
3	The Skeen Bill takes away a lot of the environmental oversight from the EPA and from separate entities not related to the government. This would compromise more safety at WIPP.	SEIS-II	1.0
4	Engineered barriers should be emplaced for basic safety measures, even if they are not required by EPA.	SEIS-II	3.0
5	What happens to 65 percent of our food that comes from the lower Rio Grande Valley if this waste leaks?	SEIS-II	5.0
6	There are birth defects that are attributed to the water from the Rio Grande.	SEIS-II	5.0
7	Changes to the existing plans, preparations, and facilities must be weighed against delays required to implement these proposed changes. Delays in implementing the final disposal could degrade safety programs already in place.	SEIS-II	5.0
8	Existing transportation and training systems developed for the WIPP program are adequate to protect the citizens of Utah.	SEIS-II	3.1, 5.0
9	The storage method used at WIPP is safe.	SEIS-II	5.0
10	The material DOE wants to place in WIPP will remain a potential hazard for aeons. What precautions will be made to insure monitoring and safeguarding of the WIPP site while the waste is potentially hazardous?	SEIS-II	3.1, 5.1
11	WIPP is by far the safest, most environmentally conscious, and over regulated operation I have ever worked at or heard of.	SEIS-II	1.0, 5.0
12	The SEIS-II needs a low-level radiation effects study from both a health impacts from shipping standpoint and low-level radiation in general.	SEIS-II	5.0
13	Is DOE monitoring the communities surrounding WIPP? How long will the monitoring continue?	SEIS-II	4.1, 5.0
14	DOE should maintain database of waste to allow the future generations to understand the what, why, where and how much.	SEIS-II	3.1
15	The SEIS-II should examine remote monitoring technologies for the waste after it is emplaced at WIPP.	SEIS-II	3.1
16	A monitoring system should be installed to remedy any nuclear catastrophe that might occur.	SEIS-II	4.1, 5.0
17	Aboveground storage is a less expensive way both in terms of our health and our finances.	SEIS-II	3.2, 5.0

Comment Number	Comment Summary	Proposed Disposition	
18	The SEIS-II should address the dangers to humans.	SEIS-II	5.0
19	How will the WIPP site be monitored for leakage?	SEIS-II	4.1
20	The SEIS-II should analyze impacts for the 240,000 years that the waste would be harmful.	SEIS-II	5.0
21	Stop producing nuclear waste because we have no way to guarantee safety.	SEIS-II	5.0
22	The SEIS-II should address how to educate and inform the public at large on the best way to live with nuclear waste.	SEIS-II	5.0
23	How can you even think about storing the waste without putting monitoring equipment in place?	SEIS-II	5.0
24	A monitoring system based on groundwater contamination is inadequate. The monitoring system must be based more on proactive technology than on reactive means.	SEIS-II	4.1, 5.0
25	WIPP is not a solution for nuclear waste. There are too many potential problems and severe dangers in entombing nuclear waste in salt beds underground.	SEIS-II	5.0
26	WIPP will put our environment and human lives at risk.	SEIS-II	5.0
27	More research should be done on aboveground monitoring.	SEIS-II	3.2, 5.0
28	There should be monitoring wells at the site, to sample groundwater in the immediate area around the WIPP site.	SEIS-II	4.1, 5.0
29	WIPP is structurally faulty and poses risks to the humans and animals of today and tomorrow.	SEIS-II	4.1, 5.0
30	The likelihood of leakage of liquid waste as well as gas generated in the waste is substantial enough that to go ahead with WIPP would be a blatant disregard for human health for the sake of waste disposal.	SEIS-II	5.0
31	The WIPP site is not a viable alternative because of the leakage possibility.	SEIS-II	5.0
32	The waste site should be monitored to prevent accidents not tested by its seepage into rivers and land.	SEIS-II	5.0
33	Underground storage without monitoring is also a bad idea.	SEIS-II	4.1, 5.0
34	The SEIS-II should analyze the hazards of leakage of TRU waste into rivers, food, the environment in general, and the effects on wildlife and civilization in general.	SEIS-II	5.0
35	Will residents in the WIPP area be monitored for any increase in diseases?	SEIS-II	5.0
36	You would pollute water tables and damage other parts of the underground environment and subsequently the overall environment if nuclear waste was stored in this way.	SEIS-II	5.0
37	I am concerned with the long-term maintenance considerations involved in this type of storage.	SEIS-II	5.0
38	Radioactive leakage into the water table must be monitored.	SEIS-II	4.1, 5.0

Comment Number	Comment Summary	Proposed Disposition	
39	WIPP isn't safe for us, the environment and the animals that have direct relations to the waste.	SEIS-II	5.0
40	Underground storage is unsafe and would not allow for proper monitoring.	SEIS-II	5.0
41	The SEIS-II should address the health concerns associated with low doses of radiation.	SEIS-II	5.0
42	The SEIS-II should address the half-life of radioactive waste.	SEIS-II	2.1
43	Equip the waste storage areas with monitoring devices for the safety of everyone.	SEIS-II	5.0
44	Burying these devices in salt beds will corrode the containers, and harmful waste will be exposed to everyone.	SEIS-II	5.0
45	Nuclear waste sites should have an aboveground monitoring systems to insure the integrity of the waste site is intact.	SEIS-II	4.1, 5.0
46	Monitoring should be done before contamination occurs and actions taken should contamination occur.	SEIS-II	4.1, 5.0
47	The leakage that could occur at this burial site is deadly.	SEIS-II	5.0
48	If materials are stored at WIPP, we need a detection system to alert us to leakage of these wastes (due to container breakage, container corrosion, etc.) before these materials reach nearby water supplies, then there must be a plan of action in the case that leakage occurs.	SEIS-II	4.1, 5.0
49	Monitoring of the WIPP site should be considered a high priority.	SEIS-II	4.1, 5.0
50	I am very concerned with this toxic nuclear waste being stored underground using inappropriate methods that could affect people's health.	SEIS-II	5.0
51	The SEIS-II should consider public safety.	SEIS-II	5.0
Comment Category: GEOLOGY AND HYDROLOGY			
1	Why are results from some wells considered an anomaly and therefore not considered?	SEIS-II	4.1
2	What kinds of tracers are used in tracer tests?	SEIS-II	4.1
3	What is the discharge point of the aquifer and can tracers be used to find the discharge point?	SEIS-II	4.1
4	The SEIS-II should provide information regarding the brine aquifer/reservoir?	SEIS-II	4.1
5	I've heard (from a site worker) that connectivity was found at the ERDA 1 well.	SEIS-II	4.1
6	What has the history of natural brine migration shown?	SEIS-II	4.1
7	Technical issues such as gas generation and hydrological models, need to be thoroughly discussed in the SEIS-II. Discuss what uncertainties remain from the technical issues.	SEIS-II	4.1, 5.0
8	Has water flowed from the Rustler aquifer into the air intake shaft?	SEIS-II	4.1
9	Does current rainfall recharge the Rustler aquifer?	SEIS-II	4.1
10	The SEIS-II should provide a full characterization of water flow.	SEIS-II	4.1

Comment Number	Comment Summary	Proposed Disposition	
11	The SEIS-II should consider Karst at the site and nearby areas.	SEIS-II	4.1
12	The SEIS-II should consider where the Salt Lake comes from and why the level varies so much.	SEIS-II	4.1
13	The SEIS-II should discuss the rising water levels south of the WIPP site and at WIPP.	SEIS-II	4.1
14	The Hartland oil well phenomenon and the injection phenomenon should be discussed in the SEIS-II.	SEIS-II	4.1
15	Where does the Dewey red bed water go? Analysis of the area's rainfall records should be included in the SEIS-II.	SEIS-II	4.1
16	The SEIS-II should analyze aerial photos for water flow patterns.	SEIS-II	4.1
17	The SEIS-II should consider raw data and analyses that show the brine pockets are discontinuous.	SEIS-II	4.1
18	How many boreholes have been drilled into the Castille?	SEIS-II	4.1
19	Why did DOE acquire mineral rights down to 6,000 feet?	SEIS-II	4.1
20	Discuss brine seepage in the SEIS-II.	SEIS-II	4.1
21	The salt formation will experience creep which will crush the waste containers releasing their contents.	SEIS-II	4.1, 5.0
22	Have you considered the effects when it (brine) breaks into the repository?	SEIS-II	4.1, 5.0
23	The SEIS-II should discuss the well-bore integrity in the 16-section area and the possible cross-contamination of groundwater.	SEIS-II	4.1, 5.0
24	How has DOE factored in increased earthquake activity and how has the site been reinforced to withstand earthquakes?	SEIS-II	4.1, 5.0
25	The former SEIS does not fully address the geological effects of the increased seismic activities that are currently occurring here.	SEIS-II	4.1, 5.0
26	The New Mexico Environment Department DOE Oversight Bureau at WIPP requests that DOE include wellbore and seal integrity information on all boreholes penetrating the 16-section Land Withdrawal Boundary in the next edition of the SEIS.	SEIS-II	4.1, 5.0
27	What assessments independent of DOE and its contractors have been made on the stability of the WIPP site?	SEIS-II	4.1
28	The SEIS-II needs to address the questions of the possible migration of radionuclides toward the Rustler aquifer or toward other underground or surface water, possible problems of gas generation, and the relation to the brine reservoir.	SEIS-II	4.1, 5.0
29	The SEIS-II must fully examine the potential for wastes to leave WIPP through migration in groundwater or other means over the hazardous life of the waste.	SEIS-II	4.1, 5.0
30	The SEIS-II should examine the migration of wastes to the aquifers surrounding WIPP and the brine reservoir underneath the site.	SEIS-II	4.1, 5.0
31	The SEIS-II should consider the migration of plutonium and other materials from the site.	SEIS-II	4.1, 5.0

Comment Number	Comment Summary	Proposed Disposition
32	Will there be a study of organic activity in the salt?	SEIS-II 4.1, 5.0
33	The risk of contamination to nearby water supplies is a gamble not worth its consequences.	SEIS-II 4.1, 5.0
34	The Rustler aquifer should be monitored for contamination.	SEIS-II 4.1, 5.0
35	The SEIS-II must evaluate the potential contamination of the Rustler aquifer and the Pecos River over the half-life of the waste stored at WIPP.	SEIS-II 5.0, 6.0
36	I'm concerned about the safety of water sources in the area.	SEIS-II 4.1, 5.0
37	The SEIS-II should address the dangers to watersheds.	SEIS-II 4.1, 5.0
38	The SEIS-II should analyze the potential for WIPP to contaminate the Rustler aquifer.	SEIS-II 4.1, 5.0
39	The water that has been found on the site and the fracturing rock inside the chamber are obviously problems that need to be seriously considered in the SEIS-II.	SEIS-II 4.1, 5.0
40	WIPP is a threat to the Rustler aquifer.	SEIS-II 4.1, 5.0
41	The SEIS-II should examine potential pollution to Rustler aquifer, Pecos River, and the Gulf of Mexico.	SEIS-II 5.0, 6.0
42	I am concerned with the proximity of the cavern to aquifers and other sources of water.	SEIS-II 4.1, 5.0
43	The SEIS-II must analyze the potential for WIPP to contaminate the Rustler aquifer.	SEIS-II 4.1, 5.0
44	It is amazing and outlandish that this site is located so near an aquifer.	SEIS-II 4.1, 5.0
45	Potential contamination of the Rustler aquifer must be examined in the SEIS-II.	SEIS-II 4.1, 5.0
46	The SEIS-II must examine the potential for WIPP to contaminate the Rustler aquifer, Pecos River, and ultimately the Gulf of Mexico.	SEIS-II 4.1, 5.0
47	WIPP could potentially interfere with the planet's ability to cleanse itself and leach into the underground aquifers and poison people, animals and plants.	SEIS-II 5.0
48	The SEIS-II should contain evaluations of groundwater and containment methods.	SEIS-II 5.0
49	The SEIS-II should discuss the potential for earthquakes and mass movement.	SEIS-II 4.1, 5.0
50	WIPP threatens the Rustler aquifer.	SEIS-II 4.1, 5.0
Comment Category: NEPA PROCESS		
1	What is the relationship between the SEIS-II and compliance application?	SEIS-II 1.5, 11.0
2	Suggestions for the public scoping meetings have been ignored. -- A court reporter is needed. -- Some people do not attend because of informality. -- Stakeholders are interested in an exchange of ideas. -- It is not clear how serious DOE is about the public scoping process. -- The informal public scoping meeting format was over used.	IP 4.2.5

Comment Number	Comment Summary	Proposed Disposition	
3	It was a mistake to scope only in New Mexico, Colorado, and Idaho. Important issues will be overlooked by conducting public scoping meetings.	IP	4.2.5
4	Suggestions for soliciting comment on the Draft SEIS-II. -- Provide adequate time for public comments in Albuquerque and Santa Fe. -- Seek advice from stakeholders in advance. -- Recognize these public meetings/hearings are "events". -- Combine the formal and informal public meeting formats. -- Allow opportunities for interaction between stakeholders and DOE in the formal setting. These interactions should be part of the official meeting record.	IP	4.2.5
5	The comment period on the Draft SEIS-II should be 120 days.	IP	4.2.5
6	There is concern that the amount of public involvement and debate regarding remote-handled waste is not as extensive as that for contact-handled waste.	SEIS-II	2.2
7	Acceptance or rejection of WIPP by local citizens is questionable because of conflicts of interest.	SEIS-II	2.2
8	How does DOE plan to document the history of the WIPP and its impacts?	SEIS-II	1.3, 3.1
9	How does DOE evaluate its stakeholder involvement program?	SEIS-II	2.2
10	DOE should provide "Modules" for use in schools and establish "Control Groups" for comparison.	SEIS-II	2.2
11	The "pilot plant" concept doesn't get applied to education and other "non-technical" issues.	SEIS-II	2.2
12	The DOE should use the NEPA process for education rather than "propaganda."	SEIS-II	2.2
13	The leaders, legislators, and community have been informed about the project.	SEIS-II	2.2
14	How can you have a "proposed action" when the project is already 1/8 done?	SEIS-II	1.3, 3.0
15	Who decides whether the SEIS-II is adequate?	IP	1.3.3
16	If someone doesn't like the Draft SEIS-II, what recourse do they have?	SEIS-II	2.2
17	Were the SEIS-II contractors required to live in Carlsbad?	IP	3.4
18	There was insufficient public notice for the Santa Fe public scoping meetings.	IP	4.2.5
19	Many of the comments brought forward during the 1990 SEIS have not been addressed.	SEIS-II	2.2
20	This public hearing should be a forum.	IP	4.2.5
21	Excluding some sites from scoping meeting such as the Savannah River, Hanford, Livermore, and Oak Ridge sites that will be impacted by WIPP, is a denial of due process to those citizens.	IP	4.2.5
22	Many elements of the DOE's environmental assessment process, at least as they have been executed in the Los Alamos Area, have been unsatisfactory.	IP	4.2.5
23	What is the American Nuclear Society's participation in the public scoping meetings?	IP	4.2.5

Comment Number	Comment Summary	Proposed Disposition	
24	Your program is a great way not only to get feedback from the local populace but also to educate them. It could help motivate students through changing their attitude and become better prepared.	IP	4.2.5
25	Meaningful public participation cannot be obtained under the circumstances of multiple meetings on the same day and poor publicity about the meetings.	IP	4.2.5
26	We have requested that the DOE schedule another meeting in Denver on a better day with adequate publicity and lead-time.	IP	4.2.5
27	DOE must complete its NEPA documentation before submitting a compliance certification application.	IP	4.2.5
28	Pending completion of a record of decision, DOE should take the No Action Alternative as constituting an irrevocable commitment with respect to any engineered alternative.	SEIS-II	2.1
29	Preparation of the SEIS-II should be coordinated with the development of the site treatment plans being prepared by generator sites under the Federal Facility Compliance Act of 1992 (FFCA) and the Waste Management Programmatic Environmental Impact Statement (PEIS). Activities developed in the FFCA process should be factored into the formulation of alternatives for the SEIS-II.	SEIS-II	1.5
30	Public hearings on the SEIS-II must be held in all states through which the waste shipments may be routed, as well as sites in New Mexico and in Washington, D.C. for the many national groups interested in this with offices in the nation's capital.	IP	4.2.5
31	Please approve the second WIPP Supplemental Environmental Impact Statement in a way that will allow WIPP to open. I object that a second statement was done - this is the politicians' way of delaying WIPP's opening.	SEIS-II	1.0
32	DOE should respond to each individual's comments in writing to ensure concerns of the public are not overlooked.	SEIS-II	2.2
33	DOE should hold a hearing on the Draft SEIS in the Denver metro area when the document is released.	IP	4.2.5
34	The Rocky Mountain Peace Center would appreciate a response to our comments at your earliest convenience outlining how our recommendations have been factored into the SEIS-II.	IP	4.2.5
35	The Department of Energy should hold a follow-up meeting to address any concerns raised during the scoping of the SEIS-II.	IP	4.2.5
36	DOE should hold a hearing in Colorado on the Draft SEIS-II when it is released.	IP	4.2.5
37	Does improvement of the human environment count in an environmental impact statement?	SEIS-II	5.0
38	I am uncomfortable with the meeting format because there is no recording device present.	IP	4.2.5
39	Will DOE respond individually to commentors?	SEIS-II	2.2
40	DOE should hold a public hearing on the Draft WIPP SEIS-II in the Denver area.	IP	4.2.5
41	This public scoping meeting does not adequately represent the community's interest in the WIPP project.	SEIS-II	2.2

Comment Number	Comment Summary	Proposed Disposition	
42	It's important that the people of New Mexico have a vote regarding the site's future, not just the DOE.	SEIS-II	2.2
43	The SEIS-II should be reviewed and made available to the public.	SEIS-II	2.2
44	If there is one lesson the U.S. needs it would be this: think and examine the consequences of what you do, before you do it.	SEIS-II	5.0
45	I would like to see more potential for public comments.	SEIS-II	2.2
46	It is imperative DOE base its decision about WIPP's continuing development on sound technical analyses using the most current, accurate information available. This should be kept foremost in mind when preparing the SEIS-II.	SEIS-II	5.0
Comment Category: WASTE CHARACTERIZATION			
1	How will DOE deal with remote-handled waste issues?	SEIS-II	3.0
2	What percentages and quantities of waste will be filled by different types and generations of waste?	SEIS-II	2.1, 3.0
3	If only 30 percent of wastes destined for WIPP have been generated, and no new nuclear weapons are being designed or built, what else does DOE plan to put in WIPP? Where has recent 20 percent increment (to 50%) come from?	SEIS-II	2.1, 3.0
4	What volume of contact-handled and remote-handled wastes are ready to be shipped to WIPP?	SEIS-II	3.0
5	Which sites generate remote-handled wastes?	SEIS-II	2.1, 3.0
6	What do we mean by waste characterization?	SEIS-II	2.1
7	What is the plan for learning what wastes are in the barrels, especially at sites where no capabilities for characterization exist?	SEIS-II	2.1, 3.0
8	Does DOE have a load management plan for wastes going to WIPP (readiness of waste, how long it takes to characterize)? This should be discussed in the SEIS-II.	SEIS-II	2.1, 3.0
9	The DOE's current plan for remote-handled waste issues has been, and will continue to be, inadequate.	SEIS-II	2.1, 3.0
10	The SEIS-II should discuss the quality control of waste.	SEIS-II	2.1, 3.1
11	Will the waste from DOE decommissioning and decontamination activities be similar to that from weapons production?	SEIS-II	2.1, 3.1
12	Will the SEIS-II evaluate the shipment of pre-1970 DOE-ID buried waste?	SEIS-II	2.1, 3.1
13	Is DOE/Idaho pit 9 waste, currently being remediated under Superfund, likely to be considered "newly generated" waste that would be shipped to WIPP?	SEIS-II	2.1
14	The SEIS-II should define the EPA's and the State of Idaho's responsibilities on CERCLA waste becoming RCRA waste. When does CERCLA waste become RCRA waste?	SEIS-II	2.1
15	The SEIS-II should include an analysis of the waste characterization activities and an inventory of waste currently coming to WIPP, as well as waste which is buried.	SEIS-II	2.1, 3.1

Comment Number	Comment Summary	Proposed Disposition
16	The SEIS-II should indicate what methods are reliable and safe for obtaining accurate volume and curie content estimates for remote-handled TRU waste.	SEIS-II 2.1, 3.1
17	What would be the source of future waste if there is no longer any production?	SEIS-II 2.1
18	The SEIS-II should consider starting out with strictly TRU waste, then the goal could become mixed waste.	SEIS-II 2.1, 3.1
19	The SEIS-II must evaluate the development of credible waste characterization methods and facilities.	SEIS-II 2.1, 3.1
20	What waste will go to WIPP from what sources?	SEIS-II 2.1
21	The SEIS-II should contain a full waste inventory broken down according to site of origin.	SEIS-II 2.1
22	Does DOE intend to seek a variance to allow the Rocky Flats residues to be shipped to WIPP? What is entailed? What are the concentrations of radionuclides (particularly plutonium) in these residues? To what specifications was WIPP designed and built? What justification exists for a variance? What barriers to getting a variance exist?	SEIS-II 2.1, 3.0
23	The SEIS-II should provide a site-by-site breakdown of the waste inventory as well as totals. How much TRU and TRU-mixed waste is expected to be generated by sites in the future?	SEIS-II 3.0
24	If the waste totals exceed WIPP's capacity, what criteria does DOE employ in deciding which waste goes to WIPP and which does not?	SEIS-II 2.1, 3.0
25	The SEIS-II must clearly outline by type what wastes will go to WIPP.	SEIS-II 2.1, 3.0
26	The SEIS-II should provide details of waste inventories (origin and types) at all sites.	SEIS-II 2.1, 3.0
27	What will be done with the residues from operations at Rocky Flats?	SEIS-II 2.1, 3.0
28	What is the composition and absorbed moisture content of the waste in drums?	SEIS-II 2.1, 3.0
29	How much gas is generated in the drums and are the drums explosive?	SEIS-II 3.0, 5.0
30	The SEIS-II should define the characteristics of the Rocky Flats waste.	SEIS-II 2.1
31	The SEIS-II should discuss the amount of Rocky Flats waste that will be packaged and shipped to WIPP.	SEIS-II 2.1, 3.0
32	Will the waste at Rocky Flats need to be repackaged before it is shipped to WIPP?	SEIS-II 2.1, 3.1
33	Are the Rocky Flats residues part of TRU waste totals?	SEIS-II 3.0
34	The waste destined for WIPP needs to be inspected on a regular basis.	SEIS-II 3.1
35	Do the Land Disposal Restrictions address the radioactive portion of the waste?	SEIS-II 2.1
36	What type of materials are considered part of a remote-handled waste package?	SEIS-II 2.1
37	The SEIS-II should provide a precise definition of TRU waste.	SEIS-II 2.1
38	Is absorbed moisture likely to react with radionuclides in the waste and cause performance problems?	SEIS-II 5.0

Comment Number	Comment Summary	Proposed Disposition	
39	The SEIS-II should explore how much waste will come from which location over what period of time.	SEIS-II	2.1, 3.0
40	The DOE needs to fully understand the consequences of gas generation and other hazards that may occur as the waste decays.	SEIS-II	5.0
41	The SEIS-II should include a schedule of what wastes will go to WIPP, and from where.	SEIS-II	3.0
42	The SEIS-II should address the types of wastes we've created.	SEIS-II	2.1
43	The SEIS-II should discuss how much waste there is, where is it located, and the conditions of storage.	SEIS-II	2.1, 3.0
44	The SEIS-II must examine what wastes go to WIPP.	SEIS-II	2.1, 3.0, 5.0
45	The SEIS-II should include detailed, specific information on, and a comprehensive assessment of, how WIPP may be affected by implementation of Site Treatment Plans both individually and collectively.	SEIS-II	2.1, 3.0, 5.0
46	DOE should take appropriate action to ensure that the full range of waste certification, treatment, and transportation activities being considered at small-quantity generator/storage sites is adequately evaluated with respect to their corresponding impact on WIPP, its workers and the affected public.	SEIS-II	5.0
Comment Category: WIPP DESIGN			
1	How does WIPP compare with other underground repositories around the world?	IP	4.2.6
2	What kind of containers will be used to dispose of the waste?	SEIS-II	3.1
3	Engineered barriers to be used at WIPP should be evaluated in the SEIS-II. The document should also discuss barriers which were rejected by DOE.	SEIS-II	3.0
4	Has the entire WIPP facility been excavated?	SEIS-II	2.1, 3.1
5	The SEIS-II should discuss the impacts of a loss of capacity if contact-handled waste is emplaced before remote-handled waste is ready for disposal. Will the WIPP repository design be reconfigured to allow for increased remote-handled waste storage?	SEIS-II	3.1
6	How is excavation at WIPP done? Does excavation cause disturbances sufficient to destabilize waste?	SEIS-II	2.1, 3.1
7	What if a safer disposal technology is developed following closure of WIPP?	SEIS-II	3.1
8	What is the current total capacity at WIPP?	SEIS-II	2.0, 3.0
9	What types of waste are expected?	SEIS-II	2.1, 3.0
10	Why was the WIPP aboveground perimeter reduced from a larger area down to the current 16 square miles?	SEIS-II	2.1, 3.1
11	The SEIS-II should consider the effects of gas and water acting on the waste containers.	SEIS-II	3.1, 5.0
12	How long will the WIPP be operational?	SEIS-II	3.0

Comment Number	Comment Summary	Proposed Disposition
13	Passive markers (size, durability over long periods of time, understandability to future generations) should be considered in the SEIS-II.	SEIS-II 3.1
14	What about the change in the operational life of WIPP?	SEIS-II 3.1, 3.2
15	The SEIS-II should carefully consider the scientific and technical problems which are identified and unresolved at WIPP.	SEIS-II 2.1, 3.1
16	The SEIS-II must evaluate WIPP's current design.	SEIS-II 2.1, 3.1, 5.0
17	The SEIS-II should discuss existing waste inventories (retrievably stored and buried); past, present and anticipated future sources of different waste types; and past, present, and anticipated future treatment, storage, and disposal facilities.	SEIS-II 2.1, 3.0
18	The SEIS-II must examine the unresolved technical issues that face the WIPP project, such as the evaluation and adoption of engineered alternatives.	SEIS-II 2.1, 3.2
19	The SEIS-II should consider the full range of engineered alternatives, including cementation, shredding, supercompaction, incineration, vitrification, improved waste canisters, grout and bentonite backfill, melting of metals, alternative configurations of waste placement in the disposal system, and alternative disposal system dimensions.	SEIS-II 3.2
20	What is the capacity of WIPP and how does this capacity compare to the already existing total of TRU- and TRU-mixed waste at DOE sites around the country?	SEIS-II 2.1, 3.0
21	The SEIS-II should identify, to the extent practical, the quantity of wastes generated by past production, future research, development and production, and future environmental restoration and decontamination and decommissioning activities that will exceed WIPP's capacity.	SEIS-II 2.1, 3.0
22	The SEIS-II must analyze the adequacy of engineered and institutional barriers of WIPP.	SEIS-II 3.1
23	The SEIS-II must examine how wastes will be removed from WIPP in the event of a problem and where the waste would go.	SEIS-II 3.1, 5.7
24	The SEIS-II should discuss the capacity of WIPP versus the existing and expected waste.	SEIS-II 3.1
25	How much time will it take to open WIPP and reach its design capacity?	SEIS-II 3.1, 3.2
26	Will it be possible to remove the waste from WIPP if a problem arose requiring waste removal?	SEIS-II 5.7
27	The WIPP SEIS-II should include a contingency plan in case there is an accident in WIPP and discuss the options for the removal and storage of waste elsewhere.	IP 4.2.6
28	The SEIS-II should analyze where the waste will go once the WIPP disposal limit is reached. The current TRU waste inventory plus the new TRU waste generated by environmental restoration, decontamination and decommissioning, and research and development activities will exceed the capacity of WIPP.	SEIS-II 3.1
29	The SEIS-II should discuss the engineered and institutional barriers which will be used to ensure WIPP is not breached in the future.	SEIS-II 3.1
30	Should cleanup be necessary at WIPP, it would be costly and questionable if it could be done at all.	SEIS-II 3.1, 5.0

Comment Number	Comment Summary	Proposed Disposition	
31	Waste should be retrievable in case a better solution is found in the future.	SEIS-II	5.7
32	The SEIS-II should address the durability of the storage containers. How long will they last? They should last for tens of thousands of years.	SEIS-II	3.1
33	What restorative measures could be taken in an event of a leak at the WIPP site?	SEIS-II	3.1
34	WIPP lacks the precautionary monitoring systems needed in order to detect leakage immediately rather than waiting until after seepage into groundwater or surrounding area. I'm urging that WIPP be put on hold until a more sound design is accomplished.	SEIS-II	3.1
35	The SEIS-II should analyze the adequacy of current plans and examine how the wastes will be removed in the event of a problem.	SEIS-II	3.1, 5.7
36	The SEIS-II should examine measures for removing wastes immediately should problems arise.	SEIS-II	3.1, 5.7
37	Ironclad precautions must be taken at the WIPP site to assure the safety (if such a thing is possible, given the nature of the toxins) of the repository including monitoring equipment and emergency plans.	SEIS-II	3.1, 5.0
38	How will water leakage into the waste chamber be prevented?	SEIS-II	3.1, 4.1
39	Integrity of the waste barrels must be assessed into the SEIS-II.	SEIS-II	3.1, 5.0
40	How will barrels be removed if the need arises and where will they be taken to?	SEIS-II	3.1, 5.7
41	The SEIS-II should analyze the adequacy of current plans for institutional and engineered barriers to WIPP.	SEIS-II	3.1
42	The SEIS-II should examine how waste will be removed from WIPP in the event of an emergency.	SEIS-II	3.1, 5.7
43	I am very concerned about the lack of complete storage and contingency planning for WIPP.	SEIS-II	3.1
44	The SEIS-II must examine safe removal of waste in the event of problems.	SEIS-II	3.1, 5.7
45	The SEIS-II should analyze the potential impacts of the most promising options being considered by DOE (including changes in repository design) to allow for disposal of the full projected inventory of RH-TRU wastes. The analysis should utilize and build upon to a significantly greater degree the work contained in two recent DOE reports: 1) *Remote-Handled Transuranic Waste Study*, DOE/CAO 95-1095, October 1995; and 2) *WIPP Remote-Handled Transuranic Waste Disposal Strategy*, DOE/WIPP 95-1090, March 31, 1995.	SEIS-II	5.0
Comment Category: GENERAL ENVIRONMENTAL CONCERNS			
1	The 2nd SEIS ROD must be completed before the compliance package is submitted.	SEIS-II	1.5, 11.0
2	The SEIS-II should include everything required in the compliance application.	SEIS-II	1.5, 11.0
3	What cumulative impacts will DOE look at in the SEIS-II?	SEIS-II	6.0
4	Environmental protection "compliance" was compromised in the past. Now, because of other DOE priorities, budget constraints may compromise environmental compliance.	SEIS-II	11.0

Comment Number	Comment Summary	Proposed Disposition	
5	The site should be monitored by an agency other than that which operates it for the simple reason that no one should be a judge in his own case.	SEIS-II	11.0
6	I'm interested in solving the storage of waste in an acceptable manner.	SEIS-II	1.0
7	The SEIS-II should analyze the relationship among waste management activities and their integration with defense and energy research, environmental restoration, decontamination and decommissioning, pollution prevention, and technology development.	SEIS-II	5.0
8	The SEIS-II must address the completion of experimental activities necessary for a compliance demonstration.	SEIS-II	1.0
9	The DOE waste minimization and source reduction program should be analyzed in detail in the SEIS-II as to all relevant waste types and waste generating sites.	SEIS-II	5.0
10	Issues to be examined in the SEIS-II include waste source reduction, land use planning assumptions related to waste management (including institutional controls and site dedication), general categories of decontamination and decommissioning, and alternative waste treatment technologies.	SEIS-II	5.0
11	I am extremely confident that there will be next to no additional environmental degradation in relation to the operation of the WIPP. I know that the operation of the WIPP has actually improved the local and world environment.	SEIS-II	5.0
12	I know that the closure of the land around WIPP has increased the wildlife populations, improved the natural habitat, prevented bovine erosion, saved cultural and archeological resources, and has kept our country and half of the planet safe from aggression.	SEIS-II	4.1
13	The SEIS-II should evaluate the effects of gas generation.	SEIS-II	5.0
14	Removing waste from the generator sites frees up more room to generate waste.	SEIS-II	2.1, 3.0
15	Will the SEIS-II analyze hazardous waste disposal?	SEIS-II	3.0, 5.0
16	The SEIS-II should analyze the potential environmental restoration activities, especially those activities associated with buried TRU waste, at Rocky Flats and other sites.	SEIS-II	2.1, 5.0
17	Is simply meeting the compliance standards sufficient?	SEIS-II	11.0
18	All production of nuclear waste should be stopped.	SEIS-II	1.0
19	The SEIS-II should examine bacteria (anaerobic and aerobic) interactions in the repository.	SEIS-II	4.2, 5.0
20	We vigorously oppose any degradation of the environment.	SEIS-II	5.0
21	There should be a full analysis of the potential for contamination of the environment adjacent to WIPP.	SEIS-II	5.0
22	The SEIS-II should address the dangers to wildlife and the environment in general.	SEIS-II	5.0
23	Before transportation plans can be considered, the waste must be stored and monitored properly at the generator sites. This is not happening.	SEIS-II	3.0
24	How will the SEIS-II address issues concerning wildlife?	SEIS-II	4.0, 5.0

Comment Number	Comment Summary	Proposed Disposition
25	Keep wastes away from already polluted environments.	SEIS-II 4.0, 5.0
26	I would like to see independent third party monitoring of toxin levels at WIPP.	SEIS-II 5.1
27	There are many foreseeable problems with WIPP. Transportation, accidents, removal from the WIPP site if necessary, and the aquifer.	SEIS-II 5.1
28	WIPP creates many possible hazards that will not be monitored or prevented with quick and safe actions.	SEIS-II 5.1
29	Wastes should be contained and carefully monitored under the guidance and supervision of an independent agency. These are the best solutions at the present time.	SEIS-II 3.0, 11.0
30	The SEIS-II should consider environmental consequences.	SEIS-II 5.0
31	The SEIS-II should address pollution prevention and waste minimization.	SEIS-II 4.0, 5.0
32	The SEIS-II should address the potential effects on air and water quality -- particularly underground water sources in and around the WIPP site, as well as other environmental consequences of normal operations and potential accidents.	SEIS-II 5.0
33	The SEIS-II should address the potential cumulative effects of WIPP site operations, including relevant impacts from other past, present, and prospective activities within the 10,240-acre land withdrawal area.	SEIS-II 6.0
34	The SEIS-II should address the potential effects on threatened or endangered species, other species of concern, and cultural resources.	SEIS-II 5.0
35	The SEIS-II should address unavoidable adverse environmental effects.	SEIS-II 5.0
36	The SEIS-II should address the issue of short-term uses of the environment versus long-term productivity.	SEIS-II 5.0
37	The SEIS-II should address the potential irretrievable and irreversible commitment of resources.	SEIS-II 10.0
Comment Category: WIPP JUSTIFICATION		
1	The WIPP mission must be clarified before the NEPA process can go forward.	SEIS-II 1.0
2	Alternative missions should be evaluated, such as, restoration of waste, plutonium pits, uranium isotopes not previously fully considered for WIPP, and currently classified high level wastes at Hanford.	SEIS-II 1.0
3	Now is the time to open the WIPP site.	SEIS-II 1.0
4	I urge DOE to get the WIPP facility open.	SEIS-II 1.0
5	How is WIPP a part of an overall plan for disposal/treatment of radioactive waste?	SEIS-II 1.5
6	DOE has met all the technical requirements and has proven that WIPP is a safe place to dispose of TRU wastes.	SEIS-II 5.0, 11.0
7	The SEIS-II must articulate what WIPP's new mission is.	SEIS-II 1.0

Comment Number	Comment Summary	Proposed Disposition	
8	The SEIS-II should examine in depth the disposal mission of WIPP now that the cold war has ended, weapons production has been curtailed, and the DOE is facing the issue of decontamination and decommissioning of numerous facilities.	SEIS-II	1.0
9	If the current waste totals exceed WIPP's capacity, why is there an urgency to open an inadequate facility?	SEIS-II	1.0
10	The waste bins (full of real waste) which were destined for the canceled bin testing program at the WIPP, are now sitting in the parking lot at TA-50 (at LANL) across the street from here. They belong underground! At the WIPP! Safe and Dry!	SEIS-II	1.0, 2.1
11	Nuclear energy is not cost effective.	SEIS-II	1.0
12	Using a deep geologic repository for the disposal of TRU waste is irresponsible.	SEIS-II	3.0, 5.0
13	The disposal of nuclear waste is an immanent problem that needs immediate attention.	SEIS-II	1.0
14	The WIPP site should be regarded as an extreme solution to a serious problem, not a means to storing future waste, and thus a means to continuing the production of nuclear weapons.	SEIS-II	2.1
15	All toxic waste should be stored at the WIPP site in a high-tech facility, and no more waste should be created.	SEIS-II	2.1
16	We need to stop producing waste so we can think about how to dispose of it.	SEIS-II	1.0
17	Is it smart and safe to even continue to consider this site as a possible waste dump site?	SEIS-II	5.0
18	Let's stop producing nuclear waste.	SEIS-II	1.0
19	The waste should not be relocated.	SEIS-II	1.0
20	Please do not let WIPP happen.	SEIS-II	1.0
21	Have we created a monster to be buried without responsible considerations?	SEIS-II	5.0
22	I don't see any justifications for transporting the nuclear waste across the major highways and interstates spreading hazardous radiation across the country.	SEIS-II	5.0
23	I don't really like that the government is transporting wastes through rivers.	SEIS-II	5.0
24	The benefit of nuclear energy does not come close to exceeding the damages it produces.	SEIS-II	1.0
25	Please do not transport hazardous materials. It is too dangerous.	SEIS-II	5.0
26	I do not support having these chemicals on the roads that I may be traveling on.	SEIS-II	1.0, 5.0
27	I object to having nuclear wastes dumped in the west - isn't it about time that Eastern cities started dealing with their problems?	SEIS-II	1.0
28	I would like this country to stop producing dangerous wastes and start financing proven environmentally safe energy-producing projects like wind and solar power.	SEIS-II	1.0
29	Why transport this waste and take the chance of spillage and wreckage?	SEIS-II	5.0

Comment Number	Comment Summary	Proposed Disposition	
30	It is unfair to the people of our country to suffer the consequences of this shipping and storage.	SEIS-II	5.0
31	Further exploration and assessment needs to be performed in relation to geologic concerns that may prove adverse to hazardous waste containment. Although expensive, a more appropriate site may be found that will have more stable containment characteristics.	SEIS-II	4.1, 5.1
32	I don't think we should risk transporting the waste or burying it.	SEIS-II	5.0
33	I am opposed to the continuation of the WIPP project in its present form.	SEIS-II	1.0
34	I do not think transporting highly toxic nuclear waste through a highly populated interstate corridor (I-25) is a very smart idea.	SEIS-II	1.0, 5.0
35	I am strongly against the Waste Isolation Pilot Plant (WIPP).	SEIS-II	1.0
Comment Category: LONG-TERM PERFORMANCE OR CONTROL			
1	The SEIS-II should evaluate the continuity of institutional regulatory controls (financial, legal, and political).	SEIS-II	3.1, 5.0
2	Passive institutional controls should be taken for granted and not be used to justify any reduction in the anticipated drilling rate.	SEIS-II	3.1, 5.0
3	Can this site be assured for 10,000 years, especially with water above and below the site?	SEIS-II	4.1, 5.0
4	DOE should include in the SEIS-II the long-term dosage estimates showing the time of maximum risk, shown in Vol. 1 of the 1980 Final Environmental Impact Statement, to be 1.2 million years.	SEIS-II	5.0
5	The SEIS-II should examine the ability of WIPP to isolate and contain wastes over a time period of 240,000 years, not 10,000 years.	SEIS-II	5.0
6	The SEIS-II should consider the fact that the waste remains dangerous for 240,000 years and analyze the performance of the facility and impacts from human intrusion over this period of time.	SEIS-II	5.0
7	The SEIS-II should analyze the migration of the TRU waste for a period of 240,000 years.	SEIS-II	5.0
8	The SEIS-II analysis should include a method for monitoring the repository without effecting the integrity of the site.	SEIS-II	5.0
9	The DOE should change its premise to reflect the actual duration of the radiation longevity: Waste destined for WIPP will remain radioactive for 240,000 years yet the DOE is only attempting to protect the waste for 10,000 years.	SEIS-II	5.0
10	Putting waste in the ground without being able to guarantee its safety for as long as it remains harmful is a core fault with WIPP.	SEIS-II	5.0
11	The SEIS-II should demonstrate that the Rustler aquifer and other water supplies as well as the environment in general will be protected from contamination for 240,000 years.	SEIS-II	5.0
12	The DOE must develop a plan that will prevent future generations, or even future governments and cultures, from encroaching onto the WIPP site.	SEIS-II	5.0

Comment Number	Comment Summary	Proposed Disposition
13	The SEIS-II should address how we can be custodians of the wastes for the 240,000 years that this materials will be active.	SEIS-II 5.0
14	Permanent enclosure underground is absolutely not guaranteed. The earth can shift, and leakage will always be a possibility.	SEIS-II 4.1, 5.0
15	Information about WIPP should be publicly accessible so future generations know how big this problem is and exactly what they are dealing with.	SEIS-II 4.1
16	The SEIS-II should analyze the impacts from the WIPP project for the 240,000-year life of the product.	SEIS-II 5.0
17	WIPP imposes a danger upon future generations as well as our own and further steps need to be taken to provide a more solid, secure waste site.	SEIS-II 5.0
18	The SEIS-II should describe the terrorist prevention precautions to be taken at WIPP.	SEIS-II 3.1
Comment Category: WORKER - PUBLIC HEALTH AND SAFETY		
1	Will the Carlsbad Environmental Monitoring and Research Center do an epidemiological study?	SEIS-II 5.0
2	The SEIS-II should compare and analyze the risks of leaving the waste where it is versus moving it to WIPP. The SEIS-II should use 100 years as the baseline for comparison.	SEIS-II 5.0
3	What kind of emergency response training will be afforded to state and county workers?	SEIS-II 3.1
4	New Mexico does not have the Federal track inspection program in place.	SEIS-II 3.2
5	Provide community information training sessions about what would happen in the event of a release or evacuation.	SEIS-II 3.1, 3.2
6	DOE, DOT, and the Federal government should mandate emergency response training for city and county responders and nurses.	SEIS-II 3.1, 3.2
7	Haz-mat training of local responders needs to begin.	SEIS-II 3.1, 3.2
8	The SEIS-II should analyze the risks to the public and the workers of leaving those wastes at the sites versus the risks of transportation, handling, and emplacement at WIPP.	SEIS-II 5.0
9	The alternatives in the SEIS-II must include evaluation of the risks to workers and populations due to storage, treatment, transportation, and other waste management activities.	SEIS-II 5.0
10	Since DOE has deleted worker accident doses for inhalation in the latest Safety Analysis Report (SAR), they should be included in the SEIS-II.	SEIS-II 5.0
11	Is the health of the miners (exposure to salt, non-radiological impacts, pH and electrolytes) at WIPP being monitored? A baseline health profile should be established for the workers.	SEIS-II 3.1, 5.1
12	The DOE needs to investigate further the ability of emergency crews and hospitals to perform in the event of an accident in which there is contamination of people and/or the environment.	SEIS-II 3.1, 5.0
13	The SEIS-II should address the danger of exposure of workers to radioactivity.	SEIS-II 5.0

Comment Number	Comment Summary	Proposed Disposition
14	The SEIS-II must include a plan for the close monitoring of the TRUPACT-II to ensure nuclear waste is actually being contained.	SEIS-II 3.1, 5.0
15	Transporting waste by truck is grossly unsafe and even under optimal circumstances (i.e. barring unforeseen accidents) would expose drivers and others on road to hazardous radiation.	SEIS-II 5.0
16	The SEIS-II should address the safety of the transport casks, exposure to the driver and people en route.	SEIS-II 5.0
17	The SEIS-II should address the potential health and safety effects on WIPP site workers and the public if radioactive and other hazardous materials were released during normal operations or in postulated credible accident scenarios.	SEIS-II 5.0
Comment Category: ENVIRONMENTAL JUSTICE		
1	The SEIS-II should consider cultural facilities.	SEIS-II 4.0, 5.0
2	The SEIS-II should consider the decisionmaking structure.	SEIS-II 5.0
3	The SEIS-II should consider the demand for new goods and services.	SEIS-II 4.0, 5.0
4	Does WIPP alter satisfaction with existing services?	SEIS-II 5.1
5	Does WIPP have a negative influence on traditional mores?	SEIS-II 4.1, 5.1
6	What impacts does WIPP have on the families of employees who move into the area?	SEIS-II 5.1
7	What impacts does WIPP have on ethnic minorities and women who lived here before WIPP and those who are brought in?	SEIS-II 5.1
8	The SEIS-II should consider the impacts to the decision-makers who are women and minorities.	SEIS-II 5.1
9	The SEIS-II should consider what steps are needed to mitigate environmental justice issues.	SEIS-II 5.1
10	The SEIS-II should consider the impacts of extra community actors on decision making.	SEIS-II 5.1
11	How does DOE (CAO & HQ) weigh relative influence of northern New Mexico sentiments on WIPP?	SEIS-II 5.1
12	The SEIS-II should analyze our generation's social responsibilities and consider future generations and the legacy we will be leaving them if WIPP becomes operational.	SEIS-II 5.0
13	If you want to find Native American land you look for a nuclear waste dump - don't make it true in this case.	SEIS-II 2.0
14	The cultural needs of the Mescalero Apache need to be fully analyzed in the SEIS-II.	SEIS-II 5.0
15	I strongly oppose WIPP being placed in an environment that is sacred such as Carlsbad or any other place.	SEIS-II 4.1, 5.1

Comment Number	Comment Summary	Proposed Disposition	
Comment Category: FUNDING AND COST			
1	Costs and schedules for the proposed action and alternatives have to be included in the SEIS-II.	SEIS-II	5.0
2	Do a comprehensive comparison of costs for disposal at WIPP and safe long-term storage at the generator sites.	SEIS-II	5.0
3	The total costs change tremendously as the life cycle increases. These costs should be considered in the SEIS-II.	SEIS-II	5.0
4	What is the cost per cubic foot of disposal of wastes at WIPP?	SEIS-II	5.0
5	How much verification is needed for waste characterized by process knowledge? This will be key to the overall cost.	SEIS-II	5.0
6	Too much money is spent on bureaucratic procedures. This money is better spent on waste disposal.	SEIS-II	5.0
7	Cost projections and timelines for resolving the problems associated with WIPP should be included in the SEIS-II.	SEIS-II	3.0, 5.0
8	The SEIS-II should supply estimates or historical values of the annual amount of Gross Receipts Taxes paid to state and local governments as a result of the WIPP project.	IP	4.2.13
9	Why has $1 billion been spent on WIPP?	SEIS-II	2.0
10	What is the cost of the repackaging the Rocky Flats' waste?	SEIS-II	5.1
11	The SEIS-II should consider the overall financial burden.	SEIS-II	5.1
Comment Category: DOE CREDIBILITY			
1	Has a conversation taken place between DOE and Rep. Joe Skeen regarding the "Skeen Bill"?	IP	4.2.14
2	I would like to feel confident that DOE and EPA would be my ombudsman. The average citizen does not possess the level of technical knowledge necessary to make these decisions but should be involved in the decision making process.	IP	4.2.14
3	The Carlsbad Chamber of Commerce totally trusts the Carlsbad Department, the Carlsbad Area Office, and the Department of Energy in what they are trying to accomplish here in Carlsbad.	IP	4.2.14
4	DOE has fostered animosity between Los Alamos and surrounding communities with the "stakeholder" process rather than recognizing the powers, duties, and responsibilities that our democratic form of government leaves to local governments.	IP	4.2.14
5	The stability of the WIPP site should be assessed by someone other than DOE or its contractors.	IP	4.2.14
6	I do not trust DOE or this process.	IP	4.2.14
7	How can I trust your plan when you have contaminated my drinking water?	IP	4.2.14
8	WIPP could be a major breach of public trust as well as their health.	IP	4.2.14
9	How can we have faith in our government if they bury the waste?	IP	4.2.14

Comment Number	Comment Summary	Proposed Disposition	
10	The "Skeen Bill" should not be passed.	IP	4.2.14
Comment Category: SCHEDULE			
1	What is status of the programmatic EIS?	SEIS-II	1.5
2	What are the cutoff dates for data input for the performance assessment?	SEIS-II	1.5
3	The SEIS must analyze the deadlines projected by DOE to determine if they are arbitrary and capricious.	SEIS-II	1.5
4	Please open WIPP on schedule so we can clean up Rocky Flats.	IP	1.3.3
5	Don't strangle the workers with more unnecessary regulations or demoralize them with further delays!	SEIS-II	1.0
6	How will the "Skeen Bill" affect the SEIS-II?	SEIS-II	1.0
7	What is DOE's position on the potential change (if the Skeen Bill passes) in the EPA's role and the WIPP schedule.	SEIS-II	1.0
Comment Category: ACCIDENTS AND RISK OF ACCIDENTS			
1	Will DOE look at incidents as well as accidents?	SEIS-II	5.0
2	The risk is reduced moving the transuranic waste to WIPP without increasing the risk to anyone else.	SEIS-II	5.0
3	What provisions has the DOE made for dealing with a major accident or natural catastrophe at WIPP?	SEIS-II	5.0
4	The SEIS-II should examine the possibility of a chemical reaction between the salt and the plutonium leading to criticality.	SEIS-II	5.0
5	The risk of leaving the waste at the generator sites should be weighed against the risk of transportation to WIPP, handling and emplacement at WIPP.	SEIS-II	5.0
6	The risks associated with WIPP outweigh the benefits.	SEIS-II	5.0
Comment Category: WASTE ACCEPTANCE CRITERIA			
1	When will the final waste acceptance criteria (WAC) be determined?	SEIS-II	2.1
2	The SEIS-II should evaluate WIPP's current waste acceptance criteria.	SEIS-II	2.1
3	The WIPP WAC needs to be clearly defined (upper and lower limits) and remain fixed.	SEIS-II	2.1
4	Would Rocky Flats' residues exceed the WIPP WAC?	SEIS-II	2.1
Comment Category: SOCIOECONOMICS			
1	Provide a socioeconomic analysis in the SEIS-II.	SEIS-II	5.0
2	What is the economic impact of the No-Action Alternative?	SEIS-II	5.5, 5.6
3	The 1980 FEIS and 1990 SEIS did not deal adequately with socioeconomic and sociocultural impacts of WIPP.	SEIS-II	1.5, 5.0
4	How does CAO plan to assess the effectiveness of its programs to educate staff on the needs of minorities and tribal groups?	SEIS-II	2.2

Comment Number	Comment Summary	Proposed Disposition	
5	The SEIS-II should consider the potential socioeconomic impacts on surrounding communities and counties, including environmental justice considerations.	SEIS-II	5.0
Comment Category: DRILLING AND MINING			
1	The scope of the SEIS must cover oil and gas drilling, potash mining, water, and other topics yet to be defined.	SEIS-II	4.1, 5.0
2	The SEIS-II should address the frequency of oil and gas drilling after active controls end.	SEIS-II	5.0
3	Does DOE plan to use the State of New Mexico as the primary enforcement agency regarding drilling?	SEIS-II	5.0
4	The 16 square miles at the site is not a "buffer zone" that would prevent slant drilling.	SEIS-II	5.0
Comment Category: LAND WITHDRAWAL ACT			
1	How will the SEIS-II meet the legal requirements of the WIPP Land Withdrawal Act of 1992?	SEIS-II	3.0

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APPENDIX D
DISCLOSURE STATEMENTS

NEPA DISCLOSURE STATEMENT FOR THE PREPARATION OF THE
WASTE ISOLATION PILOT PLANT
SECOND SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE U.S. DEPARTMENT OF ENERGY
CARLSBAD AREA OFFICE

The Council of Environmental Quality (CEQ) Regulations at 40 CFR 1506.5(c), which has been adopted by the Department of Energy (DOE) (10 CFR 1021), requires contractors that will prepare an Environmental Impact Statement (EIS) to execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for purposes of this disclosure is defined in the March 23, 1981, guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 18026-18028 at Questions 17a and b.

"Financial or other interest in the outcome of the project" includes "any financial benefit such as a promise of future construction or design work on the project, as well as indirect benefits the consultant is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients)," 46 FR 18026-18038 at 18031.

In accordance with these regulations, Battelle Memorial Institute, hereby certifies that it has no financial or other interest in the outcome of the project.

Certified by:

Kathleen A. Whelan
Signature

Kathleen A. Whelan
Name

Contracts, Team Lead
Title

02/26/96
Date

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In accordance with these regulations, Lechel, Inc., hereby certifies that it has no financial or other interest in the outcome of the project.

Certified by: David Lechel
Signature
David Lechel
Name
Vice President
Title
2-27-96
Date

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