
**Title 40 CFR Part 191
Compliance Certification
Application
for the
Waste Isolation Pilot Plant**

Appendix BECR



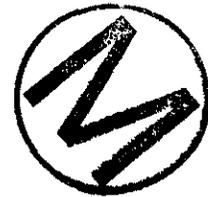
**United States Department of Energy
Waste Isolation Pilot Plant**

**Carlsbad Area Office
Carlsbad, New Mexico**

Biennial Environmental Compliance Report



Waste Isolation Pilot Plant Biennial Environmental Compliance Report

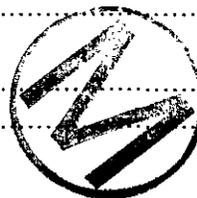


October 1996

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

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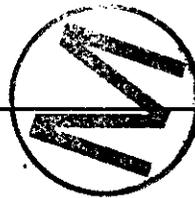
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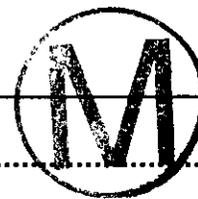
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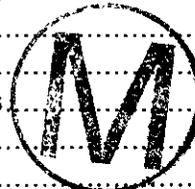
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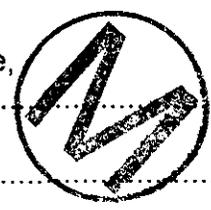
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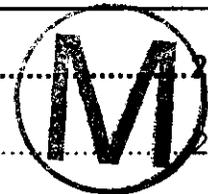
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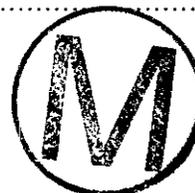
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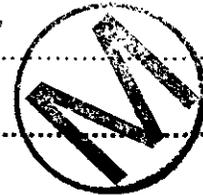
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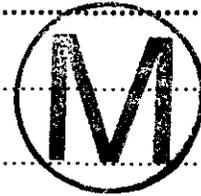
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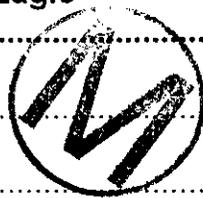
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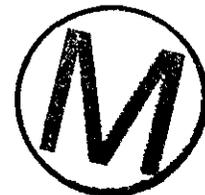
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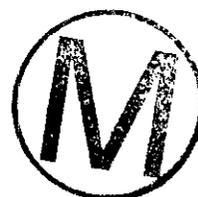


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ACRONYMS AND ABBREVIATIONS

AEA	Atomic Energy Act
AEC	Atomic Energy Commission
AHERA	Asbestos Hazard Emergency Response Act
AMR	Annual Mitigation Action Plan Report
AQCR	Air Quality Control Regulation
ASTM	American Society of Testing and Materials
BECR	Biennial Environmental Compliance Report
BLM	Bureau of Land Management
BMP	best management practice
BTU	British thermal unit
C of C	Certificate of Compliance
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAM	continuous air monitor
CAO	Carlsbad Area Office
CAS	Chemical Abstract Service
CC	common conditions
CCDF	complementary, cumulative distribution function
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CH	contact-handled
CMR	Central Monitoring Room
CWA	Clean Water Act
DCCA	Draft Compliance Certification Application
DMR	Discharge Monitoring Report
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOT	U.S. Department of Transportation
DP	Discharge Plan
DWR	Drinking Water Regulations
EA	Environmental Assessment
ECAP	Environmental Compliance Assessment Program
EDE	effective dose equivalent
EEG	Environmental Evaluation Group
EHS	extremely hazardous substance
EIA	Environmental Impact Assessment; Environmental Improvement Act



EIB	Environmental Improvement Board
EID	Environmental Improvement Division
EIS	Environmental Impact Statement
EMA	Emergency Management Act
EMS	Emergency Management System
EMTF	Emergency Management Task Force
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FAR	Federal Acquisition Regulation
FEIS	Final Environmental Impact Statement
FFCA	Federal Facility Compliance Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRST	Facility Inspection and Repair Service Team
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
FR	<i>Federal Register</i>
FSAR	Final Safety Analysis Report
FSM	Facility Shift Manager
FWS	U.S. Fish and Wildlife Service
GET	General Employee Training
gpd	gallons per day
GR	general requirement
GSA	Government Service Administration
HAP	hazardous air pollutant
hbfc	hydrobromofluorocarbon
HCIA	Hazardous Chemicals Information Act
HMT	hazardous materials training
HMTA	Hazardous Materials Transportation Act
HMTUSA	Hazardous Materials Transportation Uniform Safety Act
HPD	Historic Preservation Division
HSWA	Hazardous and Solid Waste Amendments of 1984
HWA	Hazardous Waste Act
HWMR	Hazardous Waste Management Regulation
IAEA	International Atomic Energy Agency
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICV	inner containment vessel
L	liter
LDR	land disposal restriction
LEPC	Local Emergency Planning Committee (or Coordinator)
LMIP	Land Management Implementation Plan

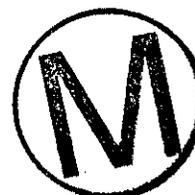


LMP	Land Management Plan
LWA	(Waste Isolation Pilot Plant) Land Withdrawal Act
MAP	Mitigation Action Plan
MCL	maximum contaminant level
MOU	Memorandum of Understanding
mg/L	milligrams per liter
mrem	millirem
MSDS	Material Safety Data Sheet
MVAC	motor vehicle air conditioner
NAAQS	National Ambient Air Quality Standard
NAR	North Access Road
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NMAAQS	New Mexico Ambient Air Quality Standard
NMAC	New Mexico Administrative Code
NMD	No-Migration Determination
NMDG&F	New Mexico Department of Game and Fish
NMED	New Mexico Environment Department
NMSA	New Mexico Statutes Annotated
NMVP	No-Migration Variance Petition
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRC	U.S. Nuclear Regulatory Commission
NRCr	National Response Center
NSPS	New Service Performance Standards
NuPac	Nuclear Packaging Inc.
NWPA	Nuclear Waste Policy Act
OCA	outer containment assembly
OCV	outer containment vessel
ODS	ozone-depleting substance
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PEIS	Programmatic Environmental Impact Statement
PL	Public Law
PM	particulate matter
ppm	parts per million
ppmw	parts per million by weight
PPP	Pollution Prevention Plan



PSD	Prevention of Significant Deterioration	
PV	proposed variance	
PWR	plant work request	
QA	Quality Assurance	
QAP	Quality Assurance Program	
QAPD	Quality Assurance Program Description	
QAPP	Quality Assurance Program Plan	
QAPjP	Quality Assurance Project Plan	
QC	Quality Control	
Q&RA	Quality and Regulatory Assurance group	
QSL	Qualified Supplier List	
RCRA	Resource Conservation and Recovery Act	
RH	remote-handled	
ROD	Record of Decision	
RQ	reportable quantity	
RTR	real-time radiography	
SAA	satellite accumulation area	
SARA	Superfund Amendments and Reauthorization Act of 1986	
SARP	Safety Analysis Report for Packaging	
SDWA	Safe Drinking Water Act	
SEIS	Supplement Environmental Impact Statement	
SERC	State Emergency Response Commission	
SHPO	State Historic Preservation Officer (or Office)	
SIC	Standard Industrial Classification	
SLO	State Land Office	
SOP	standard operating procedure	
SPCC	Spill Prevention, Control, and Countermeasures Plan	
SPDV	Site and Preliminary Design Validation	
SR	specific requirement	
SS	standard stipulations	
SWA	Solid Waste Act	
SWB	standard waste box	
SWDA	Solid Waste Disposal Act	
SWMR	Solid Waste Management Regulation	
SWMU	solid waste management unit	
TAP	toxic air pollutant	
TDOP	10-drum overpack	
TDS	total dissolved solid	
TLD	thermoluminescent dosimeter	
TPQ	Threshold Planning Quantity	
tpy	tons per year	
TRANSCOM	Transportation Tracking and Communications System	

TRAMPAC	TRUPACT-II Authorized Methods for Payload Control
TRI	Toxic Chemical Release Inventory
TRU	transuranic
TRUCON	TRUPACT-II content codes
TRUPACT-II	Transuranic Package Transporter Model II
TSCA	Toxic Substances Control Act
TSDF	treatment/storage/disposal facility
USFWS	U.S. Fish and Wildlife Service
UIC	underground injection control
UN	United Nations
USC	United States Code
USDW	underground storage of drinking water
UST	underground storage tank
USTR	Underground Storage Tank Regulation
VOC	volatile organic compound
WAC	Waste Acceptance Criteria
WID	Westinghouse Waste Isolation Division
WIPP	Waste Isolation Pilot Plant
WQA	New Mexico Water Quality Act
WQCC	Water Quality Control Commission



1.0 INTRODUCTION

This *Biennial Environmental Compliance Report* (BECR) addresses regulatory compliance at the Waste Isolation Pilot Plant (WIPP), a research and development facility designed to demonstrate the safe disposal of transuranic (TRU) radioactive waste. As required by the WIPP Land Withdrawal Act (LWA) (Public Law [PL] 102-579), the BECR documents WIPP's compliance with applicable federal laws implemented by the U.S. Environmental Protection Agency (EPA) and applicable New Mexico laws, regulations, and permit conditions.

The BECR also addresses compliance with some federal laws implemented by other United States agencies including the Council on Environmental Quality, Department of Energy (DOE), Nuclear Regulatory Commission, Department of Transportation, Department of Interior Bureau of Land Management and Fish and Wildlife Service, and the Advisory Council on Historic Preservation.

1.1 Background of the Waste Isolation Pilot Plant (WIPP)

The WIPP Project was authorized by the DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (PL 96-164). This legislation mandated that DOE provide a research and development facility to demonstrate the safe disposal of radioactive waste resulting from U.S. defense activities and programs. Initially, the WIPP mission was to include experimentation with high-level wastes, but subsequent legislation has restricted the radioactive waste to TRU waste. TRU waste is radioactive waste that contains alpha-emitting radionuclides of atomic number greater than 92 with half-lives longer than 20 years which are present in concentrations greater than 100 nanocuries per gram of waste. Most of this waste is generated from plutonium reprocessing and fabrication.

In January 1981, the DOE announced its decision to proceed with a phased development of the WIPP, to be located in Eddy County in southeastern New Mexico, 26 miles east of the city of Carlsbad. The decision called for the WIPP to be designed to accommodate approximately 6.2 million cubic feet of contact-handled (CH) TRU waste and 0.25 million cubic feet of remote-handled (RH) TRU waste. The WIPP LWA has limited the total WIPP capacity to 6.2 million cubic feet of transuranic waste.

After completing a site and preliminary design validation (SPDV) phase, the construction phase at the WIPP began in 1983. At present, surface and underground facilities to support waste handling and emplacement operations have been constructed. Of the nine surface buildings, the largest structure is the Waste Handling Building, which includes areas for the receipt, inventory, inspection, and transfer of waste to the underground. The WIPP underground facility, which is 2,150 feet below the land surface in a 2,000-foot-thick bedded salt formation, consists of four shafts, the waste disposal area, the experimental area (for repository safety and mine performance



studies), an equipment and maintenance facility, and connecting tunnels. Only a few waste disposal rooms have been mined at present because of the natural phenomenon of salt creep, which causes eventual room closure. Additional waste disposal rooms will be mined prior to permanent waste emplacement.

Originally, the construction phase was to have been followed by the pilot plant phase. Following the preparation of the Supplement Environmental Impact Statement (SEIS) in 1990, the DOE decided that the construction phase was to be followed by the test phase, during which tests with TRU waste would have been conducted underground at the WIPP. However, on October 21, 1993, the DOE announced its decision not to conduct TRU waste tests underground at the WIPP facility, but to conduct enhanced laboratory tests at existing DOE facilities elsewhere. Thus no TRU or TRU-mixed waste (radioactive waste with hazardous constituents) will be sent to WIPP until after the initiation of the disposal phase. The disposal phase will be followed by the decontamination and decommissioning phase.

More detailed information on the background of the WIPP project can be found in the DOE's *Final Environmental Impact Statement, Waste Isolation Pilot Plant* (FEIS; DOE, 1980); the DOE's 1981 Record of Decision (ROD) to the FEIS (DOE, 1981); the 1990 *Final Supplement Environmental Impact Statement, Waste Isolation Pilot Plant* (SEIS; DOE, 1990a); and the 1990 ROD to the SEIS (DOE, 1990b).

A second supplemental environmental impact statement (SEIS-II) is presently being prepared to address information that has become available since 1990. Further information is also available in documents referenced by the SEIS-II.

1.2 Biennial Environmental Compliance Report under the WIPP Land Withdrawal Act

This BECR provides the documentation required by the 1992 LWA. The LWA specifies that :

The Secretary shall, not later than 2 years after the date of the enactment of this Act, and biennially thereafter, submit documentation of continued compliance with the laws, regulations and permit requirements described in paragraph (1) to the Administrator, and, with the law described in paragraph (1)(C), to the State [§ 9(a)(2)].

Paragraph (1) requires that the WIPP comply with Subpart A of 40 *Code of Federal Regulations* (CFR) Part 191; the Clean Air Act; the Solid Waste Disposal Act (SWDA); the Safe Drinking Water Act; the Toxic Substances Control Act; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); "all other applicable Federal laws pertaining to public health and safety or the environment;" and "all regulations promulgated, and all permit requirements" under these laws.

1.3 Regulatory Requirements Hierarchy

The first step in documenting regulatory compliance is the identification of all applicable regulatory requirements. This section describes the interrelationships among laws, regulations, and permit conditions and identifies the origins of the detailed regulatory requirements discussed in this report.

1.3.1 Federal/State Laws

Laws result from legislative processes at either the federal, state, or local level. This report will summarize the purpose of each relevant law and discuss its applicability and importance to the WIPP.

1.3.2 Implementing Regulations

Once a law has been enacted, it must be implemented. Authority for implementation of each new act is usually assigned to a particular agency. That agency is responsible for developing regulations to implement the act. At the federal level, these regulations are first published in the *Federal Register* (FR) as "proposed" for comment from interested groups and individuals. The implementing agency must then respond appropriately to the comments and prepare the final regulations. These final regulations are again published in the *Federal Register*, along with a discussion of the comments, and are inserted into the appropriate part(s) of the Code of Federal Regulations (CFR).

New Mexico agencies use a similar process in the promulgation of regulations, with the proposed and final regulations published in the *New Mexico Register*. Many state environmental laws evolve from federal statutes, many of which allow that the state become authorized to administer and enforce its own regulatory program in lieu of the federal program as long as the state regulations are no less stringent than the federal requirements. In these cases, the state must send its "final" regulations to the governing agency, such as the EPA, for approval. The governing agency may approve all, part, or none of the final regulations. After agency approval, notification of the agency's authorization of the state program is published in the *Federal Register*.

Local laws or ordinances that apply to the WIPP are limited to those under the authority of the county commission. The only local laws or ordinances applicable to the facility are zoning ordinances. These do not affect the facility's ability to protect human health and the environment. Therefore, these laws and ordinances are not included in this report.

This report identifies specific requirements from federal/state implementing regulations that apply to the WIPP facility. In some cases where implementing regulations have not been promulgated or where a particular statute requirement is not covered by the implementing regulations, this report identifies specific requirements directly from the statute.





1.3.3 Permit Conditions

A number of federal/state implementing regulations include permit programs. Because many implementing regulations are couched in general terms, permits and permit programs allow the regulatory agency to regulate individual facilities and stipulate site-specific conditions that must be met by a specific facility to meet the statutory goals of protection of the public and the environment. Thus, permits are used to regulate discharges and activities (construction, modifications, and/or operations) of a facility. This report identifies site-specific permit conditions that apply to the WIPP.

1.4 Regulatory Compliance at the WIPP

The DOE and the Westinghouse Electric Corporation's Waste Isolation Division (WID), the Prime Contractor for the WIPP, are fully committed to conducting operations at the WIPP in a way that achieves and demonstrates compliance with applicable regulations and permit conditions. Both organizations have implemented plans and procedures to achieve and maintain compliance with the regulations and have established aggressive assessment programs to validate continued successful implementation of these activities.

In a number of areas throughout this document, it is noted that procedures and manuals are in place to guide and direct WIPP personnel in the performance of specific job tasks which have or could have a direct impact on the compliance status in a given situation. These procedures and manuals are in place to supplement personnel training, education, and qualifications and to promote the operation of the WIPP facility in a safe and environmentally sound manner. Because this is the intended purpose of these documents, they are continually evaluated and revised to ensure that they are effective and current with respect to both regulatory and operational changes. For this reason, specific procedures and manuals are not referenced in the body of this document.

In addition, a number of reports (especially those reports which are a result of regulatory requirements) are referenced throughout the document. Due to the continual update and revision requirements for reports of this nature, they are referenced only by the report title or by the citation that requires their submittal rather than by document numbers.

1.4.1 Organizational Structure

The organizational structure of the DOE Carlsbad Area Office (CAO) and WID reflect the importance of regulatory compliance at the WIPP and the commitment of both organizations to achieving and maintaining full compliance.

The CAO's organizational structure consists of the Area Manager, who oversees three major branches: the Office of Program Support and Assurance, the Office of

Regulatory Compliance, and the Office of National TRU Waste Operations. These branches function together to ensure that the WIPP's day-to-day and long-term environmental compliance programs remain exemplary. The Office of Program Support and Assurance interprets environment, safety, health, and quality assurance requirements applicable to WIPP. The Office of Regulatory Compliance develops the overall strategy and criteria to demonstrate and validate long-term compliance for the disposal of TRU waste. The Office of National TRU Waste Operations manages the day-to-day operation of the WIPP facility.

WID's commitment to compliance is also represented in their organizational structure, consisting of the General Manager, the Deputy General Manager, and eight department managers. The department manager of Environment, Safety, and Health reports directly to the General Manager and manages the WID's environmental compliance activities including document preparation, monitoring, analysis, and oversight. The department manager for Quality and Regulatory Assurance provides support to ensure that compliance activities are managed and performed in a manner consistent with WID's commitment to compliance.

1.4.2 Compliance Assurance

Compliance includes a wide range of activities, ranging from the preparation of plans, procedures, reports, or permit applications to hands-on actions such as record keeping, monitoring, sampling and analysis, performing assessments or audits, and housekeeping.

There are three programs to assess WIPP programs and activities that have an impact on the WIPP's environmental compliance status. These include the WID Environmental Compliance Assessment Program (ECAP), the WID Quality Assurance Programs, and the CAO Assurance Plan.

The ECAP provides a comprehensive system to appraise compliance with applicable environmental laws and regulations, and identifies environmentally sound corrective action measures for any findings or observations identified. The ECAP assessments are used to identify and eliminate deficiencies that could lead to the following unacceptable events:

- Permit violations
- Regulatory noncompliance
- Safety and health risks to WIPP site workers and/or the general public
- Spills, releases, or discharges of environmental pollutants



Complimenting the ECAP are the CAO and WID Quality Assurance Programs. Quality Assurance Program surveillances, audits, and assessments of WIPP activities are designed to verify compliance with quality assurance requirements and determine the adequacy and effectiveness of the activities. Elements of these oversight activities include:

- Monitoring work in progress
- Documenting compliance or non-compliance with established requirements and procedures
- Identifying actual and potential conditions adverse to quality
- Obtaining timely corrective action commitments from cognizant managers.
- Providing notification to responsible managers of the status and performance of work under assessment
- Verifying timely implementation of corrective actions.



1.5 Organization of and Reporting Period for the Report

The organization of and reporting period for the BECR are discussed in the following subsections.

1.5.1 Organization of the Report

This report organizes the pertinent regulatory requirements into 14 parts, each of which corresponds to a federal or state agency that is authorized to administer regulatory programs. Under each agency, separate chapters identify and discuss each law administered by the agency that is relevant to the WIPP facility. For example, the first part contains pertinent regulatory programs administered by the EPA. Within this part, ten chapters correspond to the ten environmental laws and sets of regulations that apply to the WIPP for which the EPA is responsible (Chapters 2 through 11).

Each of the following 37 chapters summarizes a law and its implementing regulations and briefly describes its applicability to the WIPP. For ease in identifying compliance status, summary tables in each chapter provide a synopsis of WIPP's compliance with each specific requirement and a cross-reference to the more detailed discussion in the text. Each section of the text summarizes a requirement and addresses its compliance status.

The WIPP is subject to oversight by a number of regulatory agencies. The scope of the BECR chapters includes the documentation of occasions in which the WIPP may have received a notice of violation by a regulatory agency. Audits, appraisals, and

assessments conducted by regulatory agencies did not result in notices of violation during this reporting period.

Within the BECR summary tables the compliance status is identified as "achieved," "up to date," or "not applicable."

ACHIEVED

Items with the status of "achieved" are requirements that have been met and do not require any further action. They are essentially "one-time" occurrences.

Example: As a generator of hazardous waste, WIPP must obtain an EPA ID number; this requirement has been achieved.

UP TO DATE

Items with the status of "up to date" are requirements that require some type of ongoing activity to maintain compliance.

Example: The DOE must file a biennial hazardous waste report; these reports are up to date.

NOT APPLICABLE Items with the status of "not applicable" were evaluated and determined not to be applicable to the WIPP either during this reporting period or throughout the duration of the project.



Example: Since the WIPP disposes of its construction and demolition debris at a landfill located on DOE property and in accordance with the applicable regulations, the requirement for obtaining a permit is not applicable.

Following the list of references, Appendix A presents an index of the specific requirements discussed in the report by regulating agency. Appendix B indexes the specific requirements in terms of their technical subject areas (for example, waste management requirements, water quality requirements, historic preservation requirements).

1.5.2 Reporting Period

The first BECR, issued October 24, 1994, addressed the status of WIPP compliance programs and activities for the period from the congressional approval of the WIPP LWA on October 30, 1992 to March 31, 1994. This BECR addresses the compliance status of WIPP programs and activities for the reporting period beginning April 1, 1994, and ending on March 31, 1996.

2.0 RESOURCE CONSERVATION AND RECOVERY ACT AND SOLID WASTE DISPOSAL ACT

2.1 Summary of the Law

The Resource Conservation and Recovery Act (RCRA; 42 United States Code [USC] §§ 6901 et seq.) is a statute designed to provide "cradle-to-grave" control of hazardous waste by imposing management requirements on generators and transporters of hazardous wastes and on the owners and operators of treatment/storage/disposal facilities (TSDFs). RCRA applies primarily to active facilities; abandoned and inactive sites are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund; see Chapter 3).

The legislative history of RCRA was initiated in 1965 when Congress enacted the Solid Waste Disposal Act (SWDA; PL 89-72; 42 USC §§ 3251 et seq.). This law dealt with solid waste disposal and gave the states the responsibility for developing solid waste management plans. In 1970, Congress passed the Resource Recovery Act (PL 91-12) to provide the EPA with funding for resource recovery programs. The Resource Conservation and Recovery Act of 1976 (PL 94-580) completely replaced the SWDA and incorporated the intent of the Resource Recovery Act. A number of minor amendments were added during the next few years. The Hazardous and Solid Waste Amendments of 1984 (HSWA; PL 98-616) reauthorized RCRA, expanded its scope significantly, and altered many of its provisions. The term "RCRA" will be used throughout this document to refer to the reauthorized law as amended.

There are two major objectives of RCRA. The first is to promote the protection of health and the environment and to conserve material and energy resources. This objective is to be accomplished through such means as ensuring that hazardous waste management practices are conducted so as to protect human health and the environment, minimizing the generation of hazardous waste, prohibiting open dumping on the land, and requiring existing open dumps to be converted to facilities that pose no danger to the environment or health. The second objective of RCRA is to set national policy to reduce or eliminate the generation of hazardous waste as expeditiously as possible and to ensure that any hazardous waste generated be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.

The EPA implements RCRA primarily through the 40 CFR Part 260-280 series: 40 CFR Parts 260-270 consist of requirements and standards pertaining to solid waste, particularly hazardous waste; 40 CFR Parts 280-281 pertain to the management of underground storage tanks (USTs) containing petroleum products or hazardous chemicals.

Congress intended for the RCRA program to be implemented by the states. Consequently the EPA has defined a process through which states may apply for and



receive authorization to administer the RCRA program. New Mexico received authorization for the base RCRA program in January 1985 and for its mixed-waste program in July 1990. The EPA granted authorization for the HSWA program to the state of New Mexico in a notice that appeared in the *Federal Register* on October 17, 1995 (effective date: January 2, 1996). New Mexico administers its program through Chapters 4 and 5 of Title 20 of the New Mexico Administrative Code (20 NMAC 4.1, 4.2, and Chapter 5). By virtue of this authorization, New Mexico has primary authority for most aspects of the RCRA program.

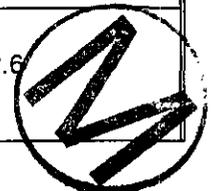
The Federal Facility Compliance Act of 1992 (FFCA; 42 USC 6961) subjects the DOE to the requirements of federal RCRA or state hazardous waste programs. DOE is fulfilling the requirements of the FFCA for a federal inventory of sites handling mixed waste through the preparation of the Waste Management Programmatic Environmental Impact Statement (PEIS), in which the DOE sites managing mixed waste are discussed. Notice was made to the public regarding the availability of this document on September 22, 1995 (60 FR 49264). The individual generator/storage sites have prepared site-specific treatment plans to fulfill the requirement of site-specific plans under the FFCA. However, WIPP is not currently subject to the requirements for fees, inventory reporting, reporting the status of treatment capacity and technology (site treatment plans), or other FFCA requirements. Even though WIPP is subject to the Land Disposal Restrictions (LDRs) (and, as such, DOE has opted to request a variance from treatment standards prior to disposal), the WIPP will not treat mixed waste subject to the requirements of the FFCA during operation. It is possible that some "derived waste" will be generated at WIPP from the mixed waste from the generator sites (e.g., used personal protective equipment, swipes, and tools; i.e., any waste derived from contact with TRU mixed waste to be received at WIPP). As indicated in the WIPP RCRA Part B Permit Application for disposal, written procedures that direct normal operations at the facility will be implemented to minimize the possibility of generating new TRU mixed wastes. Any derived wastes that are generated will be contained in standard containers, the design of which has been approved by the Department of Transportation (DOT); this waste will be managed like the rest of the TRU/TRU mixed waste. Since there are no plans to treat mixed waste at WIPP, there is no need for a WIPP-specific treatment plan, and there are no requirements of the FFCA as currently written that apply to WIPP. Therefore, since the FFCA requirements are not applicable to WIPP, they are not addressed further in this report.

Table 2-1 is presented to assist the reader because of the complexity of the regulations and requirements under RCRA. This table shows the location of the RCRA-related requirements in this BECR by section and table numbers. The federal requirements are presented in this chapter; the state RCRA-related requirements are incorporated in Chapter 25, under the New Mexico Environment Department (NMED). The first BECR included the EPA's conditions and requirements from the conditional No-Migration Determination (NMD) issued for the test phase. Although DOE made the decision that no testing of radioactive waste would be conducted at WIPP, the conditions and requirements of the NMD have been implemented to the extent applicable to WIPP.

Therefore, this section is included in this revision of the BECR. It will be modified when the EPA issues a new no-migration determination for WIPP for the disposal phase. The conditions and requirements from the EPA's NMD are also included in this table.

TABLE 2-1. Index of Requirements Pertaining to RCRA in the BECR

Citation	Title	BECR Section
The Resource Conservation and Recovery Act (RCRA), 42 USC §§ 6901 et seq.		
RCRA, § 3016	Inventory of federal hazardous waste facilities	2.2.1
Regulations Implementing RCRA		
40 CFR Part 262 and 20 NMAC 4.1, Part III	Standards Applicable to Generators of Hazardous Waste	25.2.2
40 CFR Part 263; 20 NMAC 4.1, Part IV	Standards Applicable to Transporters of Hazardous Waste	25.2.3
40 CFR Part 264; 20 NMAC 4.1, Part V	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities	Not applicable
40 CFR Part 265; 20 NMAC 4.1, Part VI	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities	25.2.4
40 CFR Part 268	Land Disposal Restrictions	2.2.2
40 CFR Part 270; 20 NMAC 4.1, Part IX	EPA Administered Permit Programs: the Hazardous Waste Permit Program	25.2.5
Requirements for and Registration of Underground Storage Tanks (USTs)		
40 CFR Part 280; 20 NMAC 5.1-5.17	New Mexico underground storage tank regulations	25.2.6



Citation	Title	BEER Section
NMSA 74-6B-1 through 74-6B-14	New Mexico Ground Water Protection Act	25.2.2 and Chapter 28

RCRA provides direction for the management of solid and hazardous waste. It should be noted that waste defined as hazardous under RCRA (40 CFR Part 261, *Identification and Listing of Hazardous Waste*) does not include radionuclides. Thus, mixed waste, which consists of radioactive waste with hazardous constituents, is regulated under both the Atomic Energy Act (for the radionuclides) and RCRA (for the hazardous constituents).

Requirements and conditions related to the EPA's land-disposal restrictions are codified in 40 CFR Part 268 and are applicable to the WIPP facility. Under the 1984 HSWA, the land disposal of hazardous wastes not meeting EPA-imposed treatment standards is prohibited unless it can be demonstrated "to a reasonable degree of certainty" that there will be "no migration of hazardous constituents from the disposal unit . . . for as long as the wastes remain hazardous" (RCRA § 3004[d][1]). Section 40 CFR 268.6 allows for a variance from the land disposal restrictions when the applicant can make the required demonstration of no migration.

The DOE submitted a petition to EPA headquarters for a no-migration variance for the test phase in March 1989. On April 6, 1990, the EPA published the proposed variance for WIPP (EPA, 1990a). The EPA's decision to grant the final Conditional NMD was published on November 14, 1990 (EPA, 1990b). The DOE submitted a second petition for a variance addressing disposal in June 1996.

DOE has submitted a RCRA permit application to the NMED for the disposal phase at WIPP (see Chapter 25).

One section of RCRA governs the management of underground storage tanks (USTs). This portion of RCRA and the regulations specified under 40 CFR Parts 280 and 281 address USTs containing petroleum products or hazardous chemicals. (Requirements for tanks containing hazardous wastes are specified under Subpart J of 40 CFR Parts 264 and 265.) Requirements for UST management pertain to the design, construction, installation, and operation of USTs as well as notification and corrective action requirements in the event of a release and actions required for out-of-service USTs.

The NMED has been authorized by the EPA to regulate USTs. Therefore, the state UST requirements and the compliance status for each requirement are presented in Chapter 25 of this report.

2.2 Status of Compliance with the Regulatory Requirements

This section provides information on requirements of RCRA and of the EPA's regulations implementing this act. Each subsection contains a summary table with the requirement and the compliance status, and more detailed information is provided in the text.

2.2.1 Compliance with the Resource Conservation and Recovery Act

Nearly all of the requirements specified in RCRA are covered in more detail in the implementing regulations. The exception is § 3016 of the act, which requires each federal agency to provide a biennial inventory of its TSDFs (see Table 2-2). Also included in this table is a brief summary of the requirements of a new set of implementing regulations for the management of "universal waste" (40 CFR Part 273), which apply to three post-consumer use wastes. The universal waste regulations established management requirements for spent lead acid batteries, recalled and unused pesticides, and mercury-containing thermostats. These new regulations allow these items to be regulated as hazardous waste. There is no requirement to notify the EPA of universal waste handling activities (40 CFR 273.12) or to track shipments of universal waste (40 CFR 273.19) under this program. The state of New Mexico has not yet adopted these regulations. After the regulations have been adopted by the state, WIPP personnel will evaluate compliance alternatives. The universal waste regulations provide alternatives to managing three categories of waste; the regulations are not mandatory requirements. Until these regulations become part of the NMED regulations, WIPP will continue to manage its universal waste as required under the RCRA regulations, 40 CFR Part 262. Since all spent acid lead batteries generated at WIPP are sent to reclamation facilities, these batteries are essentially exempt from regulation under RCRA, as indicated in 40 CFR 266.80. The mercury-containing thermostats are currently sent to an EPA-approved TSDF.

Regulations have been promulgated with respect to organic emissions from containers, tanks, and surface impoundments. WIPP has been exempted from these because the wastes of concern are stored in DOT-approved containers that are less than 119 gallons in capacity. However, new regulations pertaining to organic emissions were published in the *Federal Register* on February 9, 1996, and may impact WIPP. Since the effective date of these new regulations falls outside the period of concern for this report, possible impacts to WIPP will be examined in the next BECR and will not be addressed here.

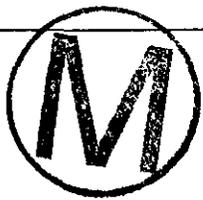
Other new regulations that do not currently apply to WIPP are the universal treatment standards and the treatment standards for organic toxicity characteristic wastes and newly listed wastes under the LDRs. When the EPA issues a variance determination in response to the submittal of the final No-Migration Variance Petition (NMVP) for disposal, no treatment of the wastes to be received from the generator sites will be necessary.

More detail about compliance with the biennial inventory and the universal waste management regulations is provided in Section 2.2.1.1 and Sections 2.2.1.2 through 2.2.1.9, respectively.

TABLE 2-2. The RCRA Requirements That Are Not Covered by Implementing Regulations and New Regulations Not Yet Implemented by the NMED - Compliance Status

Citation	Requirement	Compliance Status
RCRA Requirements That Are Not Covered by Implementing Regulations		
§ 3016	Inventory of federal hazardous waste facilities	<p style="text-align: center;">UP TO DATE</p> <p>Report filed biennially in even-numbered years</p> <p>[Section 2.2.1.1]</p>
New Regulations Not Yet Implemented by the NMED		
40 CFR Part 273, Subpart B	Standards for universal waste, small quantity handlers (general)	<p style="text-align: center;">NOT APPLICABLE</p> <p><5000 kg of universal waste at any time; no universal waste program at WIPP as yet</p> <p>[Section 2.2.1.2]</p>
40 CFR 273.11	Prohibitions	<p style="text-align: center;">NOT APPLICABLE</p> <p>No universal waste program at WIPP at present. Thermostats currently managed under 40 CFR Part 262 at WIPP; batteries managed under 40 CFR 266.80.</p> <p>[Section 2.2.1.3]</p>
40 CFR 273.13	Waste management	<p style="text-align: center;">NOT APPLICABLE</p> <p>No universal waste program at WIPP at present. Thermostats currently managed under 40 CFR Part 262 at WIPP; batteries managed under 40 CFR 266.80.</p> <p>[Section 2.2.1.4]</p>

Citation	Requirement	Compliance Status
40 CFR 273.14	Labeling/markings	<p>NOT APPLICABLE</p> <p>No universal waste program at WIPP at present. Thermostats currently managed under 40 CFR Part 262 at WIPP; batteries managed under 40 CFR 266.80.</p> <p>[Section 2.2.1.5]</p>
40 CFR 273.15	Accumulation time limits	<p>NOT APPLICABLE</p> <p>No universal waste program at WIPP at present. Thermostats currently managed under 40 CFR Part 262 at WIPP; batteries managed under 40 CFR 266.80.</p> <p>[Section 2.2.1.6]</p>
40 CFR 273.16	Employee training	<p>NOT APPLICABLE</p> <p>Should the WIPP opt to use the provision of the universal waste regulations, information will be made available to appropriate employees upon implement of universal waste program</p> <p>[Section 2.2.1.7]</p>
40 CFR 273.17	Responses to releases	<p>NOT APPLICABLE</p> <p>Thermostats currently managed under 40 CFR Part 262 at WIPP; batteries managed under 40 CFR 266.80.</p> <p>[Section 2.2.1.8]</p>
40 CFR 273.18	Off-site shipments	<p>NOT APPLICABLE</p> <p>Batteries sent for reclamation, thermostats sent to TSDF.</p> <p>[Section 2.2.1.9]</p>



2.2.1.1 Inventory of Federal Hazardous Waste Facilities, § 3016

Each federal agency shall compile, publish, and submit to the EPA Administrator (and the state, if its hazardous waste program has been authorized by the EPA) an inventory of each site which the agency owns or operates at which hazardous waste is stored, treated, or disposed of at any time. The inventory shall be submitted every 2 years beginning January 31, 1986.



The DOE files its hazardous waste inventory report (Form 0336-EPA-B1) for WIPP with the EPA and the NMED in even-numbered years as required by § 3016 of RCRA. DOE transmitted the latest report, the *1996 Inventory of Federal Hazardous Waste Activities at Currently Owned or Operated Federal Facilities--WIPP*, to the EPA before the due date.

2.2.1.2 Standards for Universal Waste, Small Quantity Handlers, 40 CFR Part 273, Subpart B

Small-quantity handlers are those who accumulate less than 5000 kg of universal waste at any one time.

As indicated in Section 2.2.1, universal waste consists of spent lead acid batteries, pesticides, and mercury-containing thermostats. WIPP generates such batteries and thermostats. Since the quantity of universal waste present on site at any one time is believed to be less than 5000 kg, WIPP will probably be a small-quantity handler of these wastes. However, since the NMED has not yet codified these new regulations, WIPP is still managing lead acid batteries under the exemption described in 40 CFR 266.80 for batteries sent to a reclamation facility, and mercury-containing thermostats are being managed as hazardous waste.

2.2.1.3 Prohibitions, 40 CFR 273.11

Universal waste management is a recycling program. Universal waste is not to be disposed of or diluted or treated to render it less hazardous (except in the possible case of releases from universal waste).

WIPP currently manages its spent acid lead batteries under the exemption specified under 40 CFR 266.80 and manages its waste mercury-containing thermostats as hazardous waste.

2.2.1.4 Waste Management, 40 CFR 273.13

Universal waste must be properly contained so as to prevent releases and must lack evidence of leakage, spillage, etc.

Spent acid lead batteries and mercury-containing thermostats at WIPP are still managed under 40 CFR 266.80 and the hazardous waste regulations, respectively. After the universal waste regulations have been adopted by the state of New Mexico, WIPP personnel will determine whether it will be more feasible to continue to manage these wastes as is currently being done or to implement a universal waste program at WIPP.

2.2.1.5 Labeling/Marking, 40 CFR 273.14

Universal waste must be labeled or marked appropriately (e.g., universal waste--batteries).

Spent lead acid batteries and waste mercury-containing thermostats are labeled as required under RCRA. If a universal waste program should be implemented at WIPP, the appropriate types of universal waste will be labeled as specific WID procedures and the universal waste requirements dictate.

2.2.1.6 Accumulation Time Limits, 40 CFR 273.15

A small-quantity universal waste handler may accumulate universal waste for up to 1 year from the date the waste was generated. A log or inventory should be used to show the date that each item of universal waste was placed in the universal waste collection container in a specific accumulation area.

WIPP currently meets the accumulation time limits for hazardous waste for the spent lead acid batteries and waste mercury-containing thermostats generated on site.

2.2.1.7 Employee Training, 40 CFR 273.16

Employees who handle or are responsible for managing universal waste should be provided with the appropriate information needed with respect to proper handling and appropriate emergency procedures for the type of universal waste being managed at the facility.



This requirement is currently inapplicable because the spent lead acid batteries and the waste mercury-containing thermostats at WIPP are managed under 40 CFR 266.80 and as fully regulated hazardous waste, respectively. When a universal waste program

is implemented at WIPP, the WIPP employees who work with these types of waste will receive the appropriate training.

2.2.1.8 Responses to Releases, 40 CFR 273.17

All releases of universal wastes and residues from such wastes must be contained immediately; any material resulting from the release must be assessed to determine if it is hazardous waste; if so, it must be managed in compliance with all applicable RCRA regulations.



This requirement is not applicable because spent lead acid batteries and waste mercury-containing thermostats generated at WIPP are already being managed in compliance with applicable RCRA regulations. Should a decision be made in the future to adopt a universal waste program at WIPP, procedures will be put in place for responding appropriately to releases of hazardous wastes such as battery acid and mercury. Any such releases from spent batteries and/or waste thermostats will subsequently be sampled and analyzed to determine if the materials released are hazardous waste. If so, they will be handled as fully regulated hazardous waste.

2.2.1.9 Off-Site Shipments, 40 CFR 273.18

A small-quantity universal waste generator may send its universal waste only to another universal waste handler, a destination facility, or a foreign destination.

Since WIPP has not yet implemented a universal waste program, the spent lead acid batteries are sent to a reclamation facility, and the waste mercury-containing thermostats are sent to an approved TSDF as required under 40 CFR 266.80 and 40 CFR Part 262, respectively.

2.2.2 Compliance with the Land Disposal Restrictions (LDRs), 40 CFR Part 268

This section is limited to those EPA regulations implementing RCRA that are directly applicable to the WIPP. Regulations implementing other portions of RCRA for which the state of New Mexico is authorized are found in Chapter 25.

The compliance status of WIPP with respect to each of the applicable land-disposal restrictions of 40 CFR Part 268 is summarized in Table 2-3. Detailed information is provided in the text.

TABLE 2-3. RCRA Land-Disposal Restrictions - Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 268.1	Purpose, scope, and applicability	<p style="text-align: center;">ACHIEVED</p> <p>No-Migration Determination for the test phase (NMD); <i>WIPP No-Migration Variance Petition (NMVP)</i> for disposal</p> <p>[Section 2.2.2.1]</p>
40 CFR 268.6(a)	Submittal of petitions to allow land disposal of a waste prohibited under Subpart C of 40 CFR Part 268	<p style="text-align: center;">ACHIEVED</p> <p>NMVP for disposal submitted to the EPA</p> <p>[Section 2.2.2.2]</p>
40 CFR 268.6(b)	Requirements of demonstration of no-migration in petition	<p style="text-align: center;">ACHIEVED</p> <p>NMVP for disposal</p> <p>[Section 2.2.2.3]</p>
40 CFR 268.6(c)	Contents of petition	<p style="text-align: center;">ACHIEVED</p> <p>NMVP for disposal</p> <p>[Section 2.2.2.4]</p>
40 CFR 268.6(d)	Submittal of petition to EPA Administrator	<p style="text-align: center;">ACHIEVED</p> <p>NMVP for disposal</p> <p>[Section 2.2.2.5]</p>
40 CFR 268.6(e)	Consistency of activities with those described in the petition and notification of EPA of changes in conditions at the unit and/or in the environment	<p style="text-align: center;">NOT APPLICABLE</p> <p>WID procedure based on NMD inactivated</p> <p>[Section 2.2.2.6]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 268.6(f)	Activities required if hazardous constituents are found to have migrated from the repository	<p>NOT APPLICABLE</p> <p>No waste emplaced at WIPP</p> <p>[Section 2.2.2.7]</p>
40 CFR 268.6(g)	Certification in petition	<p>ACHIEVED</p> <p>Final NMVP for disposal certification signature</p> <p>[Section 2.2.2.8]</p>
40 CFR 268.6(h)	Additional information requested by Administrator	<p>UP TO DATE</p> <p>Final NMVP for disposal</p> <p>[Section 2.2.2.9]</p>
40 CFR 268.6(k)	Terms of variance	<p>UP TO DATE</p> <p>NMD for test phase; up to November 14, 2000</p> <p>[Section 2.2.2.10]</p>
40 CFR 268.6(n)	Non-exemption of liquid hazardous wastes containing ≥ 500 ppm polychlorinated biphenyls (PCBs)	<p>UP TO DATE</p> <p>Prohibition of PCBs > 50 ppm and of liquids by WAC</p> <p>[Section 2.2.2.11]</p>
40 CFR 268.7	Waste analysis and record-keeping	<p>UP TO DATE</p> <p>WID procedures</p> <p>[Section 2.2.2.12]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 268.8	Landfill and surface impoundment disposal restrictions	<p>UP TO DATE</p> <p>WIPP-generated LDR waste treated prior to disposal at TSDF</p> <p>[Section 2.2.2.13]</p>
40 CFR 268.9	Special rules regarding wastes that exhibit a characteristic	<p>UP TO DATE</p> <p>Hazardous waste code for waste determined; no approved technologies for mixed waste</p> <p>[Section 2.2.2.14]</p>
40 CFR 268.10-12	Identification of waste to be evaluated by August 8, 1988; by June 8, 1989; and by May 8, 1990	<p>NOT APPLICABLE</p> <p>No treatment technology for mixed waste approved to meet treatment standard; NMD received for test phase</p> <p>[Section 2.2.2.15]</p>
40 CFR 268.30	Waste-specific prohibitions—solvent wastes	<p>UP TO DATE</p> <p>WIPP-generated solvent wastes treated prior to TSDF land disposal at TSDF, incinerated, or recycled</p> <p>[Section 2.2.2.16]</p>
40 CFR 268.31	Waste-specific prohibitions—dioxin-containing wastes	<p>NOT APPLICABLE</p> <p>No dioxins at WIPP; none expected from generator sites</p> <p>[Section 2.2.2.17]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 268.32	Waste-specific prohibitions—California-listed wastes	<p>UP TO DATE</p> <p>WIPP-generated California-listed wastes treated prior to land disposal at TSDf, incinerated, or recycled</p> <p>[Section 2.2.2.18]</p>
40 CFR 268.33	<p>Waste prohibitions—first-third wastes</p> 	<p>UP TO DATE</p> <p>WIPP-generated first-third wastes treated prior to land disposal at TSDf, incinerated, or recycled</p> <p>[Section 2.2.2.19]</p>
40 CFR 268.34	Waste prohibitions—second-third wastes	<p>UP TO DATE</p> <p>WIPP-generated second-third wastes treated prior to land disposal at TSDf, incinerated, or recycled</p> <p>[Section 2.2.2.20]</p>
40 CFR 268.35	Waste prohibitions—third-third wastes	<p>UP TO DATE</p> <p>WIPP-generated third-third wastes treated prior to land disposal at TSDf, incinerated, or recycled</p> <p>[Section 2.2.2.21]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 268.41	Treatment standards expressed as concentrations in waste extract	<p>UP TO DATE</p> <p>WIPP treatment standards on notification/certification forms accompanying shipments of LDR wastes; no treatment at WIPP for site-generated hazardous wastes</p> <p>[Section 2.2.2.22]</p>
40 CFR 268.42	Treatment standards expressed as specified technologies	<p>UP TO DATE</p> <p>WIPP treatment standards on notification/certification forms accompanying shipments of LDR wastes; no treatment at WIPP for site-generated hazardous wastes</p> <p>[Section 2.2.2.23]</p>
40 CFR 268.43	Treatment standards expressed as waste concentrations	<p>UP TO DATE</p> <p>WIPP treatment standards on notification/certification forms accompanying shipments of LDR wastes; no treatment at WIPP of site-generated hazardous wastes</p> <p>[Section 2.2.2.24]</p>
40 CFR 268.44	Variance from a treatment standard	<p>NOT APPLICABLE</p> <p>No technologies approved for treatment of mixed waste</p> <p>[Section 2.2.2.25]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 268.50	Prohibitions on storage of restricted wastes	<p style="text-align: center;">UP TO DATE</p> <p>Addressed in WID procedures and manuals [Section 2.2.2.26]</p>



2.2.2.1 Purpose, Scope, and Applicability, 40 CFR 268.1

The hazardous wastes restricted from land disposal are specified in this section. Limited circumstances are described under which an otherwise prohibited waste may continue to be land disposed.

The requirements of 40 CFR Part 268 apply to generators and to the owners and operators of hazardous waste TSDFs. Therefore, WIPP is subject to 40 CFR Part 268 both as a generator of hazardous waste and as a TSDF for mixed waste. WID procedures are in place for identifying and characterizing hazardous waste generated at the facility.

With respect to WIPP as a TSDF, restricted waste may be placed in a salt-bed formation when an exemption from the prohibition pursuant to a petition under 40 CFR 268.6 has been granted. WIPP obtained such an exemption for the test phase, during which TRU mixed waste was to have been tested at WIPP (i.e., the EPA's NMD dated November 14, 1990). In spite of DOE's decision not to conduct tests using TRU and TRU mixed waste at WIPP, the relevant conditions specified in the EPA's NMD are still being implemented and are discussed in this document (see Section 2.3 of this chapter). Conditions and requirements specified by the EPA under any new no-migration determination that may be issued for the disposal phase at WIPP, based on the new WIPP NMVP for disposal, will be discussed in later revisions of the BECR after the EPA issues a new NMD for disposal at WIPP.

2.2.2.2 Submittal of Petitions to Allow Land Disposal of Prohibited Waste, 40 CFR 268.6(a)

A petition may be submitted to the Administrator requesting land disposal of a waste that is prohibited under Subpart C of Part 268. The petition must demonstrate, with a reasonable degree of certainty, that there will be no migration of hazardous constituents from the unit as long as the wastes remain hazardous.

The NMVP for the test phase was submitted to the EPA in March 1989, and a revised version was submitted in March 1990 (DOE, 1990f). The EPA granted the NMD for the test phase in November 1990 (EPA, 1990b). The DOE submitted the final NMVP for disposal to the EPA in June 1996. EPA approval in the form of a second no-migration determination must be obtained, and all conditions stipulated for receipt of waste must be met before TRU mixed waste may be received at WIPP.

2.2.2.3 Criteria for the Demonstration of No-Migration in Petition, 40 CFR 268.6(b)

A number of criteria for demonstrating no migration in the petition are specified.

Since the NMVP and the NMD pertained only to the testing of TRU and TRU mixed waste at WIPP during the test phase, a new NMVP for disposal was submitted to the EPA in June 1996. One of the requirements that must be completed prior to the implementation of the disposal phase is the EPA's publication of a variance from the LDRs for this phase at WIPP.

All criteria specified in 40 CFR 268.6(b) are addressed in the WIPP NMVP for disposal and are being included in the final NMVP for disposal, which was sent to the EPA in June 1996.

2.2.2.4 Contents of Petition, 40 CFR 268.6(c)

Each petition must include a monitoring plan for the monitoring program required to verify continued compliance with the conditions of the variance; baseline monitoring prior to receipt of the prohibited waste; submittal of the monitoring data to the Administrator; retention of the data on site in the operating record; and the Administrator's approval of all sampling, testing, and analytical data as well as approval of all estimation and monitoring techniques and the quality assurance and quality control plan for the monitoring program.

Compliance with this requirement has been addressed in the NMVP for disposal that was submitted to the EPA in June 1996. DOE continues to report monitoring results annually in compliance with an EPA/DOE agreement concerning the applicable conditions of the NMD, which had been issued by the EPA in November 1990 for the test phase.

2.2.2.5 Submittal of Petition to EPA Administrator, 40 CFR 268.6(d)

Each petition must be submitted to the EPA Administrator.



In March 1989, the DOE submitted the NMVP for the test phase to the EPA. In response to requests for additional information from the EPA, the DOE submitted two addenda to the NMVP for the test phase, one on October 1, 1989, the other on January 22, 1990. For the convenience of reviewers and other readers of this document, the various portions of the petition and addenda were consolidated and reprinted as a single eight-volume document dated March 1990.

The EPA published its *Notice Proposing to Grant a Conditional Variance to the Department of Energy Waste Isolation Pilot Plant (WIPP) for Land Disposal Restrictions* in the *Federal Register* on April 6, 1990 (EPA, 1990a); the *Conditional No-Migration Determination for the Department of Energy Waste Isolation Pilot Plant (WIPP)* (the NMD) was published on November 14, 1990 (EPA, 1990b). This variance was for test phase activities only. The final NMVP for disposal was submitted to the EPA in June 1996.

2.2.2.6 Consistency of Activities with Those Described in the Petition and Notification of EPA of Changes in Conditions, 40 CFR 268.6(e)



After a petition has been approved, any changes in conditions at the unit or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the unit must be reported.

A WID procedure was prepared and implemented for reviewing changes (either planned or unplanned) in conditions at WIPP and/or the surrounding environment that may significantly depart from conditions described in the NMVP and in the NMD issued by the EPA that may affect the demonstration of no migration of hazardous constituents beyond the unit boundary. This procedure was based upon the NMD for the test phase and therefore has been inactivated. A new procedure will be issued after a variance for the disposal phase is obtained.

2.2.2.7 Activities Required If Hazardous Constituents Migrate, 40 CFR Part 268.6(f)

If hazardous constituents are found to have migrated from the repository, receipt of prohibited waste at the unit must be suspended immediately, and the Administrator must be notified in writing within 10 days of the determination that a release occurred. Within 60 days of the receipt of the notification, the Administrator will determine whether the facility may continue receiving prohibited waste in the unit, whether the variance is to be revoked, and whether further examination of any migration is warranted under applicable provisions of 40 CFR Part 264 or 265.

Any activities required if hazardous constituents are found to have migrated from the unit during the disposal phase will depend upon those conditions specified in any no-migration determination for disposal to be issued by the EPA. The activities required will be reflected in appropriate WID documents, which will include methods for informing the appropriate DOE and EPA personnel.

2.2.2.8 Certification in Petition, 40 CFR 268.6(g)

Each petition must include a signed certification statement indicating the completeness and accuracy of the information included.

A signed certification accompanied the submittal of the final NMVP for disposal to the EPA (Chapter 10).

2.2.2.9 Additional Information Requested by the Administrator, 40 CFR 268.6(h)

The Administrator may request additional information to evaluate the demonstration.

Additional information was requested by the EPA after the DOE submitted the original NMVP for the test phase in March 1989. The additional information was provided to the EPA on October 1, 1989. Additional requests for information from the EPA resulted in the preparation of a second addendum, which was submitted on January 22, 1990. (See also response in Section 2.2.2.5.)

2.2.2.10 Length of Variance, 40 CFR 268.6(k)

The term of a variance granted by the EPA will be no longer than the term of the RCRA permit or up to 10 years from the date of approval for an interim-status TSDF.

The NMD for the test phase provided for a 10-year term for the variance (i.e., through November 14, 2000). Any NMD for disposal from the EPA will likewise specify the duration of the variance.

2.2.2.11 Non-exemption of Liquid Hazardous Wastes Containing PCBs, 40 CFR 268.6(n)

Liquid hazardous wastes containing \geq 500 ppm of polychlorinated biphenyls (PCBs) are not eligible for an exemption under this section.



The *Waste Acceptance Criteria for the Waste Isolation Pilot Plant* (WAC; DOE, 1996) document allows no liquid waste forms, only residual liquids that are not allowed to exceed 1 percent of the volume of the container, and prohibits PCBs in concentrations exceeding 50 ppm. Furthermore, there are no plans to accept PCBs or PCB-containing wastes equal to or above the WAC limit of 50 ppm at WIPP. The WIPP RCRA permit application for disposal that was submitted to the NMED also prohibits the acceptance of PCB- and PCB-containing waste in excess of 50 ppm at WIPP.

2.2.2.12 Waste Analysis and Record-keeping, 40 CFR 268.7

Waste analysis and record-keeping requirements include the retention of any notices and certifications from the generator site that the waste meets the treatment standards of Subpart D and the results of the testing of the waste or of an extract of the waste to ensure that the wastes are in compliance with the treatment standards. The testing must be performed in accordance with the facility's waste analysis plan.



Although treatment standards exist for mixed waste, there is no approved technology for treating mixed waste. Therefore, no such notices and certifications are anticipated from the generator sites. The DOE has submitted the final variance petition for disposal at WIPP to the EPA. The final petition was sent to the EPA in June 1996. When the EPA grants a variance for the disposal phase, the DOE will be allowed to ship untreated TRU mixed waste to WIPP upon completion of all other predisposal-phase requirements.

Sampling and analysis will be conducted at the generator sites as addressed in the *Waste Analysis Plan* (DOE, 1996), the *Transuranic Waste Characterization Quality Assurance Program Plan* (DOE, 1995), and the *Transuranic Waste Characterization Sampling and Analysis Methods Manual* (DOE, 1995). Sampling consists of visual examination, real-time radiography, and headspace gas sampling of the drums. Samples of homogeneous solids and soil/gravel wastes are analyzed for both organic and inorganic constituents. Acceptable knowledge will also be used as appropriate to supplement sampling and analysis.

As a generator of land-disposal restricted waste that is not related to the TRU mixed waste to be received, WIPP provides the appropriate notification and/or certification forms to the TSDf accepting the waste with each shipment. WID procedures provide guidance regarding compliance with the requirements for generators under this part. (See also Chapter 25 on compliance with 40 CFR 262.40.)

2.2.2.13 Landfill and Surface Impoundment Disposal Restrictions, 40 CFR 268.8

Specific disposal restrictions apply to landfills and surface impoundments. Generators must make a good faith effort to locate and contract with treatment and recovery facilities prior to disposing of hazardous waste in landfills and surface impoundments.



As a generator, WIPP has provisions in place for shipping its hazardous waste to treatment and/or recovery facilities. The hazardous waste generated at WIPP is either recycled, incinerated, or treated at the TSDF to meet the LDR standards prior to being landfilled if appropriate. Surface impoundments are not used.

WIPP will not manage TRU mixed waste using surface impoundments or landfills. Thus, the disposal restrictions for landfills and surface impoundments do not apply to WIPP as a TSDF.

2.2.2.14 Special Rules Regarding Wastes Exhibiting a Characteristic, 40 CFR 268.9

Special rules have been promulgated regarding wastes that exhibit a characteristic. The generator of the waste must determine the EPA Hazardous Waste Number for the waste to ascertain the applicable treatment standard under Subpart D of 40 CFR Part 268.

WIPP personnel determine the appropriate EPA hazardous waste code and the effective date of the applicable treatment standard for all hazardous waste generated at WIPP in accordance with WID procedures. This information is included on the manifest that is sent to the TSDF that will receive the waste.

Waste generated at WIPP will be handled in accordance with WID procedures. These procedures provide guidance regarding compliance with the generator requirements. (See also Chapter 25 on compliance with 40 CFR 262.40.)

The requirements of 40 CFR 268.9 are not applicable to WIPP as a TSDF. Although treatment standards now exist for mixed waste, there are no approved technologies for treating this type of waste. A variance from these requirements similar to the NMD for the test phase at WIPP will be needed for the disposal phase.

2.2.2.15 Identification of Waste to Be Evaluated, 40 CFR 268.10-12

Wastes to be evaluated for land-disposal prohibition and establishment of treatment standards were divided into three thirds. Mixed waste, which was to have been evaluated by May 8, 1990, was included in the "third third."

Appropriate technology has not yet been approved to meet the treatment standards devised for mixed waste. Therefore, the emplacement of any mixed waste at WIPP will require a variance from the requirement for treatment prior to shipment to WIPP. The mixed wastes expected to be received at WIPP for disposal are listed in Part A of the RCRA permit application for the disposal phase. Revision 6 of the RCRA permit application for WIPP was submitted to the NMED on April 12, 1996, in response to the NMED's Notice of Deficiency (NOD) that was issued to WID. (See also Chapter 25.)

2.2.2.16 Waste-Specific Prohibitions--Solvent Wastes, 40 CFR 268.30

Solvent wastes are prohibited from land disposal unless they are treated in accordance with the treatment standards of Subpart D.



WIPP-generated solvent wastes are either incinerated, recycled, or treated to meet the applicable treatment standards at the TSDF (i.e., Safety Kleen or Chemical Waste Management) prior to land disposal.

The final NMVP for disposal was submitted to the EPA in June 1996. When the EPA grants a variance from the treatment standards for the disposal phase, treatment of the TRU mixed wastes to be received from the generator sites will not be required. Since the WAC for WIPP prohibits liquid wastes (except for liquid residues), only minor amounts of solvent-containing wastes are anticipated from the generator sites.

2.2.2.17 Waste-Specific Prohibitions--Dioxin-Containing Wastes, 40 CFR 268.31

Dioxin-containing wastes are prohibited from land disposal unless they are treated in accordance with the treatment standards of Subpart D.

No dioxin-containing wastes are generated at or will be managed at WIPP.

2.2.2.18 Waste-Specific Prohibitions--California-Listed Wastes, 40 CFR 268.32

California-listed wastes are prohibited from land disposal unless they are treated in accordance with the treatment standards of Subpart D.

WIPP-generated, California-listed wastes are either recycled, incinerated, or treated to meet the applicable treatment standards at a contracted TSDF prior to land disposal.

2.2.2.19 Waste Prohibitions--First-Third Wastes, 40 CFR 268.33

First-third wastes are prohibited from land disposal unless they are treated in accordance with the treatment standards of Subpart D.

WIPP-generated first-third wastes are either recycled, incinerated, or treated to meet the applicable treatment standards at a contracted TSDf prior to land disposal.

When the EPA grants a variance from the treatment standards for the disposal phase, treatment of the TRU mixed wastes to be received from the generator sites will not be required.

2.2.2.20 Waste Prohibitions--Second-Third Wastes, 40 CFR 268.34

Second-third wastes are prohibited from land disposal unless they are treated in accordance with the treatment standards of Subpart D.

WIPP-generated second-third wastes are either recycled, incinerated, or treated to meet the applicable treatment standards at a contracted TSDf prior to land disposal.

When the EPA grants a variance from the treatment standards for the disposal phase, treatment of the TRU mixed wastes to be received from the generator sites will not be required.

2.2.2.21 Waste Prohibitions--Third-Third Wastes, 40 CFR 268.35

Third-third wastes are prohibited from land disposal unless they are treated in accordance with the treatment standards of Subpart D.

WIPP-generated third-third wastes are either recycled, incinerated, or treated to meet the applicable treatment standards at a contracted TSDf prior to land disposal.

When the EPA grants a variance from the treatment standards for the disposal phase, treatment of the TRU mixed wastes to be received from the generator sites will not be required.

2.2.2.22 Treatment Standards Expressed as Concentrations in Waste Extract, 40 CFR 268.41

Treated waste must meet the treatment standards expressed as concentrations in waste extract for the waste to be land disposed.



When the EPA grants a variance from the treatment standards for the disposal phase, treatment of the TRU mixed wastes to be received from the generator sites will not be required.

The hazardous wastes generated at WIPP that are subject to the land-disposal restrictions are not treated at WIPP but at the TSDFs to which they are sent. WIPP personnel identify all EPA hazardous waste codes that apply to the waste shipments as well as the applicable performance-based treatment standards for each code listed on the notification/certification form.

2.2.2.23 Treatment Standards Expressed as Specified Technologies, 40 CFR 268.42

Certain wastes must be treated with the technologies specified in this section for the wastes to be land disposed.



When the EPA grants a variance from the treatment standards for the disposal phase, treatment of the TRU mixed wastes to be received from the generator sites will not be required.

Hazardous waste generated at WIPP that is subject to the LDRs is not treated at WIPP but at the TSDF to which it is sent.

2.2.2.24 Treatment Standards Expressed as Waste Concentrations, 40 CFR 268.43

The waste concentrations specified in this section may not be exceeded for wastes to be land disposed.

When the EPA grants a variance from the treatment standards for the disposal phase, treatment of the TRU mixed wastes to be received from the generator sites will not be required.

Hazardous waste subject to the LDRs that is generated at WIPP is treated at the TSDF to which it is sent rather than being treated at WIPP. WIPP personnel identify all EPA hazardous waste codes that apply to the waste shipment(s) as well as the applicable performance-based treatment standards for each code listed on the notification/certification form.

2.2.2.25 Variance from a Treatment Standard, 40 CFR 268.44

A variance from a treatment standard may be granted by the EPA.

Although treatment standards now exist for mixed waste, no technology has been approved as yet for treating these kinds of wastes.

2.2.2.26 Prohibitions on Storage of Restricted Wastes, 40 CFR 268.50

A number of prohibitions and requirements relating to the storage of restricted wastes are specified in this section. They include storing accumulated hazardous/mixed waste for no longer than 1 year and prohibiting liquid hazardous/mixed wastes that contain PCBs at concentrations greater than or equal to 50 ppm unless the facility meets the requirements of 40 CFR 761.65(b) of the Toxic Substances Control Act (TSCA).



As a generator of hazardous waste, programs have been implemented at WIPP that demonstrate compliance with the storage prohibitions for restricted waste. WID procedure manuals contain the procedures by which waste is characterized, accumulated, stored, manifested, and transported off site for disposal.

This requirement does not apply to waste covered by a variance granted under 40 CFR 268.6. During the disposal phase, small amounts of TRU mixed waste may be generated at WIPP from managing the TRU waste shipped from the generator sites (i.e., "derived waste"). All such derived waste will be managed as TRU mixed waste. (See also Chapter 25.) At present, the DOE has no plans to accept PCB-containing waste at WIPP. Furthermore, the WAC (DOE, 1996) precludes the receipt of liquid waste forms, allowing only liquid residues that are less than 1 percent of the volume of the container.

2.3 Compliance with the Conditional NMD

On April 6, 1990, the EPA published its *Notice Proposing to Grant a Conditional Variance to the Department of Energy Waste Isolation Pilot Plant (WIPP) from Land Disposal Restrictions* in the *Federal Register* (EPA, 1990a). This was followed by the publication of the EPA's final *Conditional No-Migration Determination for the Department of Energy Waste Isolation Pilot Plant (WIPP)* in the *Federal Register* on November 14, 1990 (EPA, 1990b). The NMD specified eight conditions for placement of hazardous constituents at WIPP during the test phase. In addition, four general conditions were established. The NMD also stipulated that the conditions pertaining to the VOC monitoring program that were discussed in detail in the proposed variance published in April be adopted by reference and that compliance with these conditions is also mandatory.

The compliance status of each of these conditions was provided in the first version of the BECR. In spite of DOE's change in position regarding the decision not to conduct test phase activities at WIPP, they are still being implemented to the extent applicable to WIPP. Therefore, these conditions are still included in this revision of the BECR and are summarized in Table 2-4; the text provides more detailed information. Conditions 1 through 8 from the NMD are presented in Sections 2.3.1 through 2.3.10. The general

conditions from the NMD are discussed in Sections 2.3.11 through 2.3.14, and the specific conditions that pertain to the VOC monitoring program are contained in Sections 2.3.15 through 2.3.40.

A new NMVP for the disposal phase at WIPP was sent to the EPA in June 1996. When the EPA issues a new no-migration determination for disposal, the conditions will be incorporated in the appropriate revisions of the BECR.

TABLE 2-4. The Conditional No-Migration Determination and the Proposed Variance - Compliance Status



CITATION	REQUIREMENT	COMPLIANCE STATUS
EPA's Conditional No-Migration Determination (NMD), <i>Federal Register</i> , November 14, 1990, pp. 47700-47721 (55 FR 47700)		
Condition 1, IV.B.1 and VI(1)	Only testing for the purpose of determining the long-term acceptability of WIPP to be performed during the test phase	<p style="text-align: center;">NOT APPLICABLE</p> DOE decision to discontinue test phase at WIPP [Section 2.3.1]
Condition 2, IV.B.2 and VI(2)	Wastes not to exceed 8,500 drums or 1 percent of repository's total capacity	<p style="text-align: center;">NOT APPLICABLE</p> DOE decision to discontinue test phase at WIPP [Section 2.3.2]
Condition 3, IV.B.3 and VI(3)	Retrieval of waste if noncompliance with 40 CFR 268.6	<p style="text-align: center;">NOT APPLICABLE</p> DOE decision to discontinue test phase at WIPP [Section 2.3.3]
Condition 4, IV.B.4 and VI(4)	Readily retrievable placement of waste	<p style="text-align: center;">NOT APPLICABLE</p> DOE decision to discontinue test phase at WIPP [Section 2.3.4]

CITATION	REQUIREMENT	COMPLIANCE STATUS
Condition 5, IV.B.5 and VI(5)	Installation of carbon adsorption device	<p>NOT APPLICABLE</p> <p>Removed because bin-scale tests no longer planned for WIPP</p> <p>[Section 2.3.5]</p>
Condition 6, IV.B.6 and VI(6)	Implementation of air monitoring plan for VOCs	<p>UP TO DATE</p> <p>Draft Air Pathway Baseline Monitoring Plan (Draft APBMP); WID procedures (see also Sections 2.3.15-2.3.40)</p> <p>[Section 2.3.6]</p>
Condition 7(a), IV.B.7(a) and VI(7)(a)	Waste analysis: flammable mixtures of gases	<p>NOT APPLICABLE</p> <p>DOE decision to discontinue test phase at WIPP</p> <p>[Section 2.3.7]</p>
Condition 7(b), IV.B.7(b) and VI(7)(b)	Waste analysis: comparison of analytical results with estimated compositions	<p>UP TO DATE</p> <p>Waste Analysis Plan; WID procedure</p> <p>[Section 2.3.8]</p>
Condition 7(c), IV.B.7(c) and VI(7)(c)	Waste analysis: maintenance of records	<p>UP TO DATE</p> <p>Records maintained by WID</p> <p>[Section 2.3.9]</p>
Condition 8, IV.B.8 and VI(8)	Annual report	<p>UP TO DATE</p> <p>Annual reports submitted as required</p> <p>[Section 2.3.10]</p>



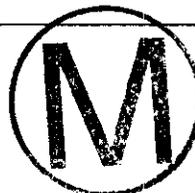
General Conditions for Compliance with the NMD (EPA, 1990b)		
General condition (GC) 1, IV.B.1	Correlation between wastes received and those described in the NMVP	<p>NOT APPLICABLE</p> <p>DOE decision to discontinue test phase at WIPP</p> <p>[Section 2.3.11]</p>
GC 2, VI	Notification of EPA of changes in conditions	<p>UP TO DATE</p> <p>Implementation of WID procedure for identification of relevant changes</p> <p>[Section 2.3.12]</p>
GC 3, VI	Suspension of receipt of restricted wastes and notification of EPA in the event of migration of hazardous constituents from the repository	<p>NOT APPLICABLE</p> <p>Implementation of WID procedures for identification of relevant changes</p> <p>[Section 2.3.13]</p>
GC 4, VI	Term of petition approval	<p>NOT APPLICABLE</p> <p>No term specified yet for disposal</p> <p>[Section 2.3.14]</p>
Additional Requirements for Air Monitoring under the Proposed Variance (PV) Published in the <i>Federal Register</i> on April 6, 1990 (EPA, 1990a)		
PV 1, IV.K	Monitoring in the exhaust shaft	<p>UP TO DATE</p> <p>Draft APBMP; monitoring implemented July 1991</p> <p>[Section 2.3.15]</p>

<p>PV 2, IV.K</p>	<p>Monitoring of bin-scale experiment rooms</p>	<p>UP TO DATE Draft APBMP; monitoring implemented July 1991 [Section 2.3.16]</p>
<p>PV 3, IV.K</p>	<p>Monitoring of alcoves</p>	<p>NOT APPLICABLE DOE decision to discontinue test phase at WIPP [Section 2.3.17]</p>
<p>PV 4, IV.K.1</p>	<p>Measurement of the leakage rate of sealed alcoves</p>	<p>NOT APPLICABLE DOE decision to discontinue test phase at WIPP [Section 2.3.18]</p>
<p>PV 5, IV.K.1</p>	<p>Weekly collection of air samples</p>	<p>UP TO DATE Draft APBMP; weekly samples, 1991-1994; monthly samples, 1995-present [Section 2.3.19]</p>
<p>PV 6, IV.K.1</p>	<p>Weekly/monthly monitoring at the exhaust shaft and air intake locations</p>	<p>UP TO DATE Draft APBMP; weekly, then monthly, monitoring by exhaust shaft sampler [Section 2.3.20]</p>
<p>PV 7, IV.K.1</p>	<p>Monitoring frequency for the bin discharge system</p>	<p>NOT APPLICABLE DOE decision to discontinue test phase at WIPP [Section 2.3.21]</p>



PV 8, IV.K.1	Increased monitoring frequency due to increased variability	NOT APPLICABLE Weekly monitoring, 1991-1994 [Section 2.3.22]
PV 9, IV.K.2	Routine quantification of any VOC 	UP TO DATE Draft APBMP; VOC Monitoring Quality Assurance Project Plan (QAPjP) [Section 2.3.23]
PV 10, IV.K.2	Standard operating procedures to identify certain other VOCs	ACHIEVED Draft APBMP; VOC Monitoring QAPjP; WID procedure [Section 2.3.24]
PV 11, IV.K.3	Use of the average response factor for each target analyte	ACHIEVED Draft APBMP; VOC Monitoring QAPjP [Section 2.3.25]
PV 12, IV.K.4	Use of standard operating procedures to ensure the validity of the monitoring data	ACHIEVED VOC Monitoring QAPjP; WID manual and procedures [Section 2.3.26]
PV 13, IV.K.4	Recalibration of instruments	UP TO DATE VOC Monitoring QAPjP [Section 2.3.27]
PV 14, IV.K.4	Establishment and annual evaluation of the method limit of quantification for each target analyte	UP TO DATE Draft APBMP; VOC Monitoring QAPjP [Section 2.3.28]

<p>PV 15, IV.K.4</p>	<p>Separate determination of the method limit of quantification for the bin, alcove, and exhaust shaft monitoring locations</p>	<p>ACHIEVED Draft APBMP; VOC Monitoring QAPjP Section 2.3.29]</p>
<p>PV 16, IV.K.4</p>	<p>Collection and analysis of recovery samples</p>	<p>UP TO DATE Draft APBMP; VOC Monitoring QAPjP [Section 2.3.30]</p>
<p>PV 17, IV.K.4</p>	<p>Collection and analysis of duplicate samples</p>	<p>UP TO DATE Draft APBMP; VOC Monitoring QAPjP; WID procedures [Section 2.3.31]</p>
<p>PV 18, IV.K.4</p>	<p>Validation of the completeness of the data</p>	<p>UP TO DATE VOC Monitoring QAPjP [Section 2.3.32]</p>
<p>PV 19, IV.K.4</p>	<p>Tracking and evaluation of accuracy, precision, and completeness of the data</p>	<p>UP TO DATE VOC Monitoring QAPjP [Section 2.3.33]</p>
<p>PV 20, IV.K.4</p>	<p>Performance of systems audits</p>	<p>UP TO DATE VOC Monitoring QAPjP [Section 2.3.34]</p>
<p>PV 21, IV.K.4</p>	<p>Corrective action required for improper conditions or practices</p>	<p>ACHIEVED VOC Monitoring QAPjP [Section 2.3.35]</p>
<p>PV 22, IV.K.4</p>	<p>Establishment of specific quality assurance objectives for data acceptability</p>	<p>ACHIEVED VOC Monitoring QAPjP [Section 2.3.36]</p>



<p>PV 23, IV.K.4</p>	<p>Corrective action required</p>	<p>NOT APPLICABLE VOC Monitoring QAPjP [Section 2.3.37]</p>
<p>PV 24, IV.K.5</p>	<p>Annual averaging of concentrations of targeted constituents</p>	<p>ACHIEVED Implementation of WID procedures; annual reports [Section 2.3.38]</p>
<p>PV 25, IV.K.5</p>	<p>Submittal of annual data summaries and summaries of data accuracy, precision, and completeness for each monitoring location</p>	<p>ACHIEVED Implementation of WID procedures; annual reports, VOC-1 [Section 2.3.39]</p>
<p>PV 26, IV.K.5</p>	<p>Maintenance of documentation on all aspects of quality assurance/quality control (QA/QC)</p>	<p>ACHIEVED Implementation of WID procedures [Section 2.3.40]</p>



2.3.1 Condition 1, Testing Only of Long-Term Acceptability of WIPP

Only testing for the purpose of determining WIPP's long-term acceptability is to be performed during the test phase.

Due to DOE's decision to discontinue plans for radioactive waste tests in the WIPP underground, this condition is no longer applicable.

2.3.2 Condition 2, Wastes Not to Exceed 8,500 Drums, or 1 Percent of the Repository's Total Capacity

Waste to be emplaced during the test phase at WIPP will not exceed 8,500 drums or 1 percent of repository's total capacity.

Due to DOE's decision to discontinue plans for radioactive waste tests in the WIPP underground, this condition is no longer applicable.

2.3.3 Condition 3, Retrieval of Waste in the Event of Noncompliance with 40 CFR 268.6

If the DOE cannot demonstrate compliance with the standards of 40 CFR 268.6, all wastes emplaced in WIPP must be removed.

Due to DOE's decision to discontinue plans for radioactive waste tests in the WIPP underground, this condition is no longer applicable.

2.3.4 Condition 4, Readily Retrievable Placement of Waste

All wastes emplaced at WIPP during the test phase must be placed in a readily retrievable manner.

Due to DOE's decision to discontinue plans for radioactive waste tests in the WIPP underground, this condition is no longer applicable.

2.3.5 Condition 5, Installation of a Carbon Adsorption Device

The DOE must install and operate a carbon adsorption device designed to achieve a control efficiency of 95 percent in the discharge system of the bin experiment rooms.

Due to DOE's decision to discontinue plans for radioactive waste tests in the WIPP underground, this condition is no longer applicable.

2.3.6 Condition 6, Implementation of the Air Monitoring Plan for VOCs

The DOE must implement the air monitoring plan for VOCs described in Section IV.K of the proposed variance. (See also BECR Sections 2.3.15 through 2.3.40.) Requirements include weekly monitoring of the five targeted VOCs, QA/QC, collection of a matrix spike and a concurrent matrix duplicate to adjust for background VOC concentrations, ± 10 -percent accuracy of the concentration data, a quarterly check on the calibration of the ventilation exhaust fans, and annual calibration. The five target compounds are carbon tetrachloride; methylene chloride; trichloroethylene; 1,1,1-trichloroethane; and 1,1,2-trichloro-1,2,2-trifluoroethane.



The EPA required that the VOC program be implemented 30 days prior to the first receipt of TRU waste at WIPP. The VOC monitoring program described in the addendum to the NMVP was implemented at WIPP during July and August 1991.

Weekly monitoring was conducted at the VOC-1 location (i.e., at the exhaust shaft) from July 1991 and into November 1994; a semi-monthly monitoring schedule was implemented in November 1994 and continued until September 1995. Monthly sampling has been conducted from September 1995 through the present, with occasional monitoring being conducted at other locations. Records relating to VOC air monitoring are maintained in the WIPP operating record and will be retained for the term of the NMD (i.e., until November 14, 2000) or for 3 years, whichever is longer, as required by this condition.

The DOE has committed to a full dynamic calibration of the exhaust fans annually, with quarterly checks. The quarterly checks consist of a Pitot tube traverse, comparing the measured value from the reference method with that of the system being tested. If the system is outside tolerance, a full dynamic calibration will be performed. The quarterly checks are performed in accordance with WID preventive maintenance procedures.

The VOC monitoring plan designed for use during the test phase and its companion quality assurance project plan have been replaced by the draft *Air Pathway Baseline Monitoring Plan for Volatile Organic Compounds at the Waste Isolation Pilot Plant* (WID, 1996; referred to subsequently as the "Air Pathway Baseline Monitoring Plan"), which incorporates guidelines received from the EPA that resulted from DOE's decision to conduct no underground tests at WIPP involving radioactive wastes during the test phase. This document will continue to be used until the EPA issues a no-migration variance for disposal.

2.3.7 Condition 7(a), Waste Analysis: Flammable Mixtures of Gases

Three conditions were imposed relating to waste analysis. The first of these conditions is that the DOE ensure that each waste container emplaced underground at WIPP has no layer of confinement in containers that contain flammable mixtures of gases. This prohibition must be implemented by analytical testing of headspace gases from each drum/container. (The other two conditions relating to waste analysis are described in Sections 2.3.8 and 2.3.9.)



This condition from the NMD for the test phase was based upon the assumption that sealed containers of waste would be managed during the test phase at WIPP. During the disposal phase, however, all of the containers will be continuously vented, as reflected in the WIPP Waste Analysis Plan (Chapter C of the WIPP RCRA Permit Application, Revision 6). Therefore, this condition is no longer applicable.

2.3.8 Condition 7(b), Waste Analysis: Comparison of Analytical Results with Estimated Compositions

The second condition pertaining to waste analysis is that the DOE must analyze representative samples of the headspaces of containers and compare the results with the estimated compositions provided in the WIPP NMVP.

Due to DOE's decision to discontinue plans for conducting radioactive waste tests in the WIPP underground, the condition is not currently applicable.

2.3.9 Condition 7(c), Waste Analysis: Maintenance of Records

The third condition relating to waste analysis is that waste analysis records must be maintained for the term of the NMD or for 3 years after generation, whichever is longer. Records must also be maintained during the course of any enforcement action for which they are relevant.



Due to DOE's decision to discontinue plans to test radioactive mixed waste underground at WIPP during the test phase, this condition is no longer applicable.

2.3.10 Condition 8, Annual Report

The DOE must provide annual written reports to EPA Region VI on the status of DOE's performance assessment during the test phase.

The Office of Solid Waste at EPA headquarters and EPA's Region VI office have been provided with several annual written reports to date. Personnel from the EPA and WIPP have agreed that abbreviated reports be submitted under the NMD until the EPA's issuance of a no-migration variance for disposal. Therefore, the latest annual report, which was submitted to DOE in October 1995 and to the EPA in early November 1995, contained reference to the waste characterization data from the draft NMVP for disposal, a brief summary of DOE's experimental program for confirming parameters to be used in performance-assessment models, and a summary of the VOC monitoring data obtained since the submittal of the last VOC annual report in 1994.

2.3.11 General Condition (GC) 1, Correlation between the Wastes Emplaced by DOE at WIPP and DOE's Activities with Those Described in the NMVP

The wastes to be emplaced by the DOE at WIPP and the experiments and tests conducted during the test phase must be consistent with those described in the NMVP and in the DOE's performance assessment test plan.

Due to DOE's decision to discontinue plans for conducting tests on radioactive waste in the WIPP underground, this condition is no longer applicable.

2.3.12 General Condition 2, Notification of EPA of Changes in Conditions

The DOE must notify the EPA of any changes in conditions at the unit and/or environment that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the unit..." If the change is planned, the EPA must be notified in writing 30 days before the change; if it is unplanned, the EPA must be notified within 10 days.



Due to DOE's decision to discontinue plans for conducting tests on radioactive waste in the WIPP underground, this condition is no longer applicable.

2.3.13 General Condition 3, Suspension of Receipt of Restricted Wastes and Notification of EPA within 10 Days in the Event of Migration of Hazardous Constituents from the Repository

In the event of the migration of hazardous constituents from the repository, the DOE will suspend receipt of restricted wastes and will notify the EPA (Office of Solid Waste and EPA Region VI) within 10 days.

Due to DOE's decision to discontinue plans for conducting tests on radioactive waste in the WIPP underground, this condition is no longer applicable.

2.3.14 General Condition 4, Term of Petition

The term of the petition approval specified in the NMD is 10 years (i.e., until November 14, 2000).

The NMD pertains to the test phase only. Since the test phase will no longer involve the testing of TRU mixed waste at WIPP, the term specified is not directly applicable. When the EPA grants a variance determination in response to the submittal to the NMVP for disposal, it is likely that the term will also be for 10 years, subject to complying with any conditions set by the EPA and with other requirements.

2.3.15 Proposed Variance Condition (PV) 1, Monitoring in the Exhaust Shaft

Monitoring in the exhaust shaft must begin 30 days prior to the emplacement of any experimental wastes underground.

This requirement was originally stipulated in Section 3.3 of the *VOC Monitoring Plan for the Bin-Scale Tests* and was met during July and August of 1991, when VOC monitoring was initiated at WIPP. Weekly monitoring in the exhaust shaft continued from July 1991 into November 1994; semi-monthly monitoring was performed beginning in November 1994 and continued until September 1995, when monthly monitoring was implemented, as described in the draft Air Pathway Baseline Monitoring Plan, which will continue to be used until the EPA issues a no-migration variance for disposal at WIPP.

It should be noted that this and the rest of the requirements in this section would have been applicable only to the performance of tests on TRU mixed waste at WIPP if they had been conducted. However, the DOE has chosen to maintain the programs necessary for compliance with a number of these requirements in accordance with a guidance letter received from the EPA regarding compliance with the 1990 NMD conditions.

2.3.16 Proposed Variance Condition 2, Monitoring of Bin-Scale Experiments

Monitoring of bin-scale experiment rooms must commence prior to emplacement of any bins containing TRU waste.

Due to DOE's decision to discontinue plans to conduct tests on radioactive waste underground at WIPP during the test phase, this condition is no longer applicable because there are no longer any plans to conduct bin-scale tests at WIPP.

2.3.17 Proposed Variance Condition 3, Monitoring of Alcoves

Monitoring of alcoves must commence prior to initiation of alcove experiments, after alcoves are sealed, and prior to purging of alcove atmosphere.



Due to DOE's decision to discontinue plans to conduct tests on TRU waste in the WIPP underground, this condition is no longer applicable.

2.3.18 Proposed Variance Condition 4, Leakage Rate of the Sealed Alcoves

The leakage rate of the sealed alcoves must be measured by means of injecting tracer gases into the atmosphere within each alcove and monitoring the tracer gas levels.

Due to DOE's decision to discontinue plans to conduct tests on radioactive wastes in the WIPP underground, this condition is no longer applicable.

2.3.19 Proposed Variance Condition 5, Weekly Collection of Air Samples

Air samples must be collected at least weekly.

A weekly schedule for collecting air samples for the subsequent analysis of VOCs was used at the exhaust shaft location at WIPP from July 1991 into November 1994, as indicated in Section 7.2.1 of the *VOC Monitoring Quality Assurance Project Plan* (WID, 1991a). Due to DOE's decision to discontinue plans to conduct tests on radioactive waste in the WIPP underground, the sample collection schedule was changed to a bi-monthly basis from November 1994, which continued until September 1995, when sampling was performed on a monthly basis, as described in the draft Air Pathway Baseline Monitoring Plan.

2.3.20 Proposed Variance Condition 6, Weekly Monitoring at the Exhaust Shaft and Air Intake Locations

Exhaust shaft and air intake locations must be monitored weekly. A weekly schedule for collecting air samples for the subsequent analysis of VOCs was being used at the WIPP, as indicated in Section 7.2.1 of the VOC Monitoring Quality Assurance Project Plan.



Weekly collection of air samples was performed at the exhaust shaft from July 1991 into November 1994. Due to DOE's decision to discontinue plans to test radioactive waste in the WIPP underground, the sample collection schedule was changed to a semi-monthly basis in November 1994, which continued until September 1995, when sampling was performed on a monthly basis, as described in the draft Air Pathway Baseline Monitoring Plan.

2.3.21 Proposed Variance Condition 7, Monitoring Frequency

In no event shall the monitoring frequency for the bin discharge system be reduced to less than 20 percent of the minimum time required for the consumption of the total working capacity of the carbon adsorption system.

This condition was reflected in Section 3.3.1 of the *VOC Monitoring Plan for the Bin-Scale Tests* and in Section 7.2.1 of the *VOC Monitoring Quality Assurance Project Plan*. Due to the DOE's decision to discontinue plans to conduct bin-scale tests for radioactive waste in the WIPP underground, this condition is no longer applicable.

2.3.22 Proposed Variance Condition 8, Increased Monitoring Due to Increased Variability

In the event that the results of weekly air monitoring exhibit increased variability, daily air sampling must be resumed if the calculated relative standard deviation in the preceding 4-week period at the monitoring locations exceeds 75 percent for any targeted constituent.

Due to DOE's decision to discontinue plans for testing radioactive waste in the WIPP underground, this condition is no longer applicable.

2.3.23 Proposed Variance Condition 9, Routine Quantification of Any VOC

Any VOC must be targeted for routine quantification if the average estimated concentration at the point of sampling is 1 ppm or more during any 4-month period and the compound is detected in at least 10 percent of the samples collected from the gas discharge system from either the room containing bins or from 50 percent of the samples collected from any alcove.

Section 3.2 of the draft Air Pathway Baseline Monitoring Plan indicates that 13 VOCs have been initially identified and that the presence of other compounds will be investigated. This requirement is also reflected in Section 9.4.2 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.24 Proposed Variance Condition 10, Standard Operating Procedures to Identify Certain Other VOCs

The DOE must implement standard operating procedures to provide positive identification of the following compounds: perchloroethylene (i.e., tetrachloroethylene), chloroform, bromoform, dichloroethane, dichloroethylene, toluene, and chlorobenzene.

This requirement is reflected in Section 3.2 of the draft Air Pathway Baseline Monitoring Plan and in Sections 9.2.1.6 and 9.2.1.7 of the *VOC Monitoring Quality Assurance Project Plan*. To implement these plans, a standard operating procedure (SOP) is in place at the contract laboratory to provide positive identification of these non-targeted VOCs as well as the targeted compounds.

2.3.25 Proposed Variance Condition 11, Use of the Average Response Factor for Each Target Analyte

The average response factor for each target analyte, as determined by five-point instrument calibration, must be used for quantification in high-resolution gas chromatography.



The generation of the relative response factor for each target compound is described in the draft Air Pathway Baseline Monitoring Plan. This requirement is also reflected in Sections 9.2.1.5 and 9.2.2.4 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.26 Proposed Variance Condition 12, Standard Operating Procedures to Ensure the Validity of Monitoring Data

Standard operating procedures must be adopted by the DOE to ensure the validity of the monitoring data.

This requirement is reflected in Section 12.0 of the *VOC Monitoring Quality Assurance Project Plan*. A number of procedures have been issued to implement this requirement.

2.3.27 Proposed Variance Condition 13, Recalibration of Instruments

Consistent with EPA's Method 8240 of SW-846, instruments must be recalibrated by a full five-point calibration if the response factor from the calibration check differs by more than 25 percent of the average or expected response factor.



This requirement is reflected in Section 4.5.4 of the draft Air Pathway Baseline Monitoring Plan and in Section 9.2.1.5 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.28 Proposed Variance Condition 14, Establishment and Annual Evaluation of the Method Limit of Quantification for Each Target Analyte

The method limit of quantification for each target analyte must be established prior to the initiation of the monitoring program and must be reevaluated annually thereafter in accordance with EPA/530-SW-90-021, "Quality Assurance and Quality Control," dated August 1990.

This requirement is reflected in Section 9.3.2.6 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.29 Proposed Variance Condition 15, Separate Determination of the Method Limit of Quantification for the Bin, Alcove, and Exhaust Shaft Monitoring Locations

The method limit of quantification must be determined separately for the bin, alcove, and exhaust shaft monitoring locations.

This requirement is reflected in Section 9.3.2.6 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.30 Proposed Variance Condition 16, Collection and Analysis of Recovery Samples

Recovery samples must be collected from audit cylinders and analyzed at a frequency of 10 percent at each monitoring location.

This requirement is reflected in Section 9.3.1.4 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.31 Proposed Variance Condition 17, Collection and Analysis of Duplicate Samples

Duplicate samples must be collected and analyzed at a frequency of 10 percent in each monitoring location, including the exhaust shaft.

This requirement is reflected in Section 9.3.1.3 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.32 Proposed Variance Condition 18, Validation of the Completeness of the Data

Data completeness must be evaluated by data validation audits at a frequency not less than 5 percent.

This requirement is reflected in Sections 9.3.2.10 and 12.4 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.33 Proposed Variance Condition 19, Tracking and Evaluation of Accuracy, Precision, and Completeness

To ensure that any sampling analysis problems that may occur are detected and corrected, accuracy, precision, and completeness must be tracked and evaluated after every 10 quality control analyses.

The evaluation and tracking of precision, accuracy, and completeness are discussed in Sections 5.11 through 5.1.3, respectively, in the draft Air Pathway Baseline Monitoring Plan. This requirement is also reflected in Section 9.3.2.9 of the *VOC Monitoring Quality Assurance Project Plan*.



2.3.34 Proposed Variance Condition 20, Performance of Systems Audits

Systems audits must be performed, not only prior to the initiation of the monitoring program, but also semi-annually thereafter to be consistent with good operating practice.

This requirement is reflected in Section 12.3 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.35 Proposed Variance Condition 21, Corrective Action Required for Improper Conditions or Practices

Corrective action must be taken whenever a condition or practice is found that is outside systems specifications or SOPs or that could reasonably be expected to compromise the ability of the monitoring program to meet established quality assurance objectives for data acceptability.



This requirement is reflected in Section 11.0 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.36 Proposed Variance Condition 22, Establishment of Specific Quality Assurance Objectives

Specific quality assurance objectives must be established for data acceptability for the WIPP air monitoring program consistent with method capability and good operating practice.

This requirement is reflected in Section 5.1 of the draft Air Pathway Baseline Monitoring Plan and in Section 9.3.2 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.37 Proposed Variance Condition 23, Corrective Action Required

Corrective action must be taken whenever quality assurance objectives for data acceptability are not being met.

This requirement is reflected in Section 11.0 of the *VOC Monitoring Quality Assurance Project Plan*.

2.3.38 Proposed Variance Condition 24, Annual Averaging of Concentrations of Targeted Constituents

To determine whether migration has occurred, concentrations of targeted constituents must be averaged over an annual time period.

The VOC Operating Procedures Manual (WP 12-VC) includes all the operating procedures used to support the VOC monitoring program. In addition, the draft Air Pathway Baseline Monitoring Plan presents information about the program, and WP 12-7, the *VOC Monitoring Quality Assurance Project Plan*, presents information pertaining to quality assurance requirements. Average concentrations of the five targeted constituents were included as part of the annual reports issued to the EPA during this reporting period, including the report submitted by WID to the DOE in October 1995, as required by Condition 8 of the NMD. (See also Section 2.3.10.)

2.3.39 Proposed Variance Condition 25, Submittal of Annual Data Summaries and Summaries of Data Accuracy, Precision, and Completeness for Each Monitoring Location

Annual data summaries and summaries of data accuracy, precision, and completeness for each monitoring location, together with calculated concentrations at the exhaust shaft and documentation of the actual method limit of detection achieved for each targeted analyte, must be submitted to the EPA.

The VOC Operating Procedures Manual (WP 12-VC) includes all the operating procedures used to support the VOC monitoring program. In addition, the draft Air Pathway Baseline Monitoring Plan presents information about the program, and WP 12-7, the *VOC Monitoring Quality Assurance Project Plan*, presents information pertaining to quality assurance requirements. Data summaries were provided to the EPA in the last annual report, which was submitted to DOE in October. In accordance with guidelines from the EPA, summaries of data accuracy, precision, and completeness were not required and were not included since this is baseline information, and a significant amount of baseline data have already been gathered in accordance with the draft Air Pathway Baseline Monitoring Plan.



2.3.40 Proposed Variance Condition 26, Maintenance of Documentation on All Aspects of QA/QC

Documentation on all aspects of QA/QC as described in EPA/530-SW-90-021 must be maintained at WIPP.

Auditable records pertaining to the VOC Monitoring Program have been examined and were found to be satisfactory. The EPA performed an unannounced audit during the reporting period in which such functions as chain of custody and QA parameters were examined. The findings were satisfactory.



3.0 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

3.1 Summary of the Law

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; 42 USC §§ 9601 et seq.), or "Superfund," and the Superfund Amendments and Reauthorization Act of 1986 (SARA) establish a comprehensive Federal strategy for responding to, and establishing liability for, releases of hazardous substances from a facility to the environment. The Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted as a stand-alone portion under SARA. It is described in further detail in Chapter 4.

Any spills of reportable quantities of hazardous substances must be reported to the National Response Center (NRCr) under the provisions of § 103 of CERCLA, *Notices, Penalties, and the implementing regulations in 40 CFR Part 302, Designation, Reportable Quantities, and Notification*. Because the WIPP is not a CERCLA remediation site and is not expected to become one, most of the requirements of this act do not apply.

The WIPP is responsible to report and manage any release of hazardous substances as defined in § 101 of CERCLA, *Definitions*, in quantities equal to or greater than the reportable quantities outlined in § 102, *Reportable Quantities and Additional Designations*, and specified in 40 CFR Part 302. In the event of a release of a hazardous substance to the environment in an amount that meets or exceeds the reportable quantity for that substance, a notification of the release will be made to the appropriate agencies by WIPP personnel as required by § 103 of CERCLA.

Section 120(c) of CERCLA, *Federal Agency Hazardous Waste Compliance Docket*, establishes a docket that provides information regarding federal facilities that manage hazardous waste or from which hazardous substances may be or have been released. This is information to be submitted to the EPA by other federal agencies under § 103 of CERCLA or under §§ 3005, 3010, or 3016 of RCRA. Facilities listed under the docket must prepare a Preliminary Assessment and submit it to the EPA within 18 months of the date of publication in the *Federal Register*. If deemed necessary, a site inspection report is also due to the EPA within the same time frame.

Under 40 CFR Part 300, *National Oil and Hazardous Substances Pollution Contingency Plan (NCP)*, the organizational structures and procedures are provided for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants. The NCP is required by § 105 of CERCLA.

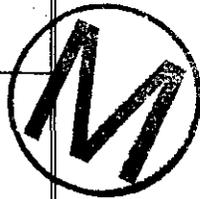


3.2 Compliance Status of the Regulatory Requirements

Table 3-1 summarizes each applicable requirement and its compliance status under CERCLA. The text provides more detail on the compliance status of each requirement.

TABLE 3-1. Comprehensive Environmental Response, Compensation, and Liability Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
§ 120, Federal Facilities, of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)		
CERCLA, § 120(d)	Assessment and evaluation	<p style="text-align: center;">UP TO DATE</p> <p>Preliminary assessment submitted August 24, 1994, to EPA</p> <p>[Section 3.2.1]</p>
40 CFR Part 300, National Oil and Hazardous Substances Pollution Contingency Plan		
40 CFR 300.215(b)	Emergency planning requirements	<p style="text-align: center;">ACHIEVED</p> <p>WIPP representative on LEPC</p> <p>[Section 3.2.2]</p>
40 CFR 300.215(e)	Material safety data sheet (MSDS) and inventory form	<p style="text-align: center;">UP TO DATE</p> <p>List of hazardous chemicals; Emergency and Hazardous Chemical Inventory Report (Tier II Report)</p> <p>[Section 3.2.3]</p>



40 CFR Part 302, Designation, Reportable Quantities, and Notification		
40 CFR 302.4	Designation of hazardous substances	ACHIEVED Spills of ethylene glycol identified as hazardous [Section 3.2.4]
40 CFR 302.5	Determination of reportable quantities (RQs)	ACHIEVED Spills of ethylene glycol that exceeded current RQ [Section 3.2.5]
40 CFR 302.6(a)	Notification requirements	ACHIEVED Ethylene glycol spills reported to NRCr [Section 3.2.6]
40 CFR 302.6(b)(1)	Release of mixtures or solutions	ACHIEVED RQ for mixture of hazardous constituents determined - see Section 3.2.5 [Section 3.2.7]
40 CFR 302.6(b)(2)	Notification of releases of radionuclides	NOT APPLICABLE Applicable upon receipt of TRU waste [Section 3.2.8]
40 CFR 302.6(d)	Notification of the release of heavy metals	NOT APPLICABLE No release of heavy metals at WIPP [Section 3.2.9]



3.2.1 Assessment and Evaluation of Federal Facilities, § 120 of CERCLA

A preliminary assessment and, if warranted, a site inspection must be submitted to the EPA by each Federal facility that is included on the docket of Federal facilities that manage hazardous waste or from which hazardous substances have been released. The preliminary assessment or preliminary assessment/site inspection for a facility must be submitted to the EPA within 18 months of the publication of the notice that includes the facility on the Federal Agency Hazardous Waste Compliance docket.

On February 5, 1993, WIPP was included as a new facility in the additions made to the Federal Agency Hazardous Waste Compliance Docket in the *Federal Register* (58 FR 7298). A preliminary assessment for WIPP was submitted to the EPA August 24, 1994.

3.2.2 Emergency Planning Requirements, 40 CFR 300.215(b)

A facility is subject to emergency planning requirements if an extremely hazardous substance [as defined in 40 CFR Part 355] is present at the facility in an amount equal to or in excess of the threshold planning quantity established for the substance. A Governor may designate additional facilities that will also be subject to these planning requirements. Facility owners or operators should name a facility representative who will participate in the planning process as a facility Emergency Coordinator.



WIPP is subject to the emergency planning requirements. A WIPP representative has been designated to serve on the Local Emergency Planning Committee (LEPC). The WIPP representative is part of the WID Emergency Management Section. Emergency Management is responsible for WIPP's emergency response and preparedness programs.

3.2.3 Material Safety Data Sheet and Inventory Form, 40 CFR 300.215(e)

Each facility required to prepare or have available a material safety data sheet (MSDS) will submit either an MSDS for each hazardous chemical or a list of hazardous chemicals to the appropriate State Emergency Response Commission (SERC), LEPC, and local fire department in accordance with 40 CFR Part 370.

Each facility will also submit an inventory form to the SERC, LEPC, and local fire department. This inventory form must contain an estimate of the maximal amount of hazardous chemicals present at the facility during the preceding year, an estimate of the average daily amount of hazardous chemicals at the facility, and the location of those chemicals.

In lieu of MSDSs, the WIPP submits a list of those hazardous chemicals which are present at WIPP in amounts that exceed their respective reportable quantities.

The requirement to submit the Emergency and Hazardous Chemical Inventory report to the SERC, LEPC, and local fire department has been met. These requirements are also discussed in Chapter 4.

3.2.4 Designation of Hazardous Substances, 40 CFR 302.4

Hazardous substances released to the environment must be identified.

During this reporting period, there were two antifreeze spills at the WIPP facility which exceeded the RQ. The major ingredient of antifreeze is ethylene glycol (Chemical Abstract Service [CAS 107-21-1]). This substance is designated as a hazardous substance under § 302.4 of CERCLA.

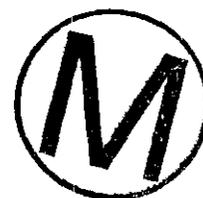
3.2.5 Determination of Reportable Quantities, 40 CFR 302.5

Reportable quantities (RQs) are established for each substance listed in Table 302.4 or in Appendix B.

Each of the spills was determined to have exceeded the RQ for ethylene glycol at that time; one pound. This determination was based upon the concentration of the ethylene glycol/water mixture, the data obtained from the MSDS, and the current RQ for the substance. The EPA raised the RQ for ethylene glycol from 1 pound to 5000 pounds on June 12, 1995.

3.2.6 Notification Requirements, 40 CFR 302.6(a)

Any release of a hazardous substance in a quantity equal to or exceeding the reportable quantity determined in 40 CFR 302.5 or in 40 CFR Part 117 in any 24-hour period shall immediately be reported to the NRCr at (800) 424-8802.



The ethylene glycol spills were reported to the NRCr as required. (See also the WIPP NPDES Storm Water Pollution Prevention Plan [WID, 1993b]).

3.2.7 Releases of Mixtures or Solutions, 40 CFR 302.6(b)(1)

If a mixture or solution is released and the quantity of all hazardous constituents is known, notification is required when a quantity that meets or exceeds the RQ of any hazardous constituent has been released. If the quantity of one or more of the hazardous constituents is not known, notification is required when the total amount of the mixture or solution released equals or exceeds the RQ for the hazardous constituent with the lowest RQ.

The determination of the RQs for hazardous constituents of a mixture was discussed in Section 3.2.5.

3.2.8 Notification of Releases of Radionuclides, 40 CFR 302.6(b)(2)

Radionuclides are subject to these notification requirements only under the following circumstances:

- *If the identity and quantity of each radionuclide in a released mixture or solution is known and the sum of the ratios (quantity released in curies/RQ for the radionuclide) for the radionuclides in the mixture or solution is equal to or greater than 1, or*
- *If the quantity of each radionuclide in a released mixture or solution is known but the quantity released (in curies) of one or more of the radionuclides is unknown and the total quantity (in curies) of the mixture or solution is equal to or greater than the lowest RQ of any individual radionuclide in the mixture or solution, or*
- *If the identity of one or more radionuclides in a released mixture or solution is unknown and the total quantity (in curies) released is equal to or greater than either 1 curie or the lowest RQ of any known individual radionuclide in the mixture or solution, whichever is lower.*



This requirement will become applicable when WIPP receives TRU waste.

3.2.9 Notification of the Release of Heavy Metals, 40 CFR 302.6(d)

Notification of the release of an RQ of solid particles of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, or zinc is not required if the mean diameter released is larger than 100 micrometers except for releases of radionuclides.

There have been no releases of heavy metals above an RQ from the WIPP facility to date.



4.0 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

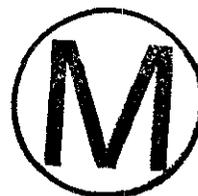
4.1 Summary of the Law

Title III of the Superfund Amendments and Reauthorization Act (SARA), otherwise known as the Emergency Planning and Community-Right-to-Know Act of 1986 (EPCRA; 42 USC §§ 11001 et seq.), authorizes a nationwide program of emergency planning as protection against accidents involving extremely hazardous substances (EHSs). The act also requires a comprehensive body of information about hazardous substances to be submitted to various State and local groups. Under Subtitle A, *Emergency Planning and Notification*, facilities such as WIPP are required to make various notifications to the State Emergency Response Commission (SERC) and the Local Emergency Planning Committee (LEPC). These notifications include notification of applicability under EPCRA, designation of a facility Emergency Coordinator, and notification of extremely hazardous substance releases to the environment. Subtitle B, *Reporting Requirements*, requires the submittal of information such as inventories of specific hazardous chemicals used or stored within a facility to the SERC, LEPC, and the fire department that has jurisdiction over the facility. Within Subtitle B, the following sections outline specific reporting requirements: (1) Section 311, *Material Safety Data Sheets*, directs the submission of an MSDS for each hazardous chemical present or a list of hazardous chemicals present that require an MSDS; (2) Section 312, *Emergency and Hazardous Chemical Inventory Forms*, directs the annual submission of an inventory of hazardous chemicals present during the preceding year; and (3) Section 313, *Toxic Chemical Release Forms*, outlines requirements for facilities to submit a toxic chemical release report to the EPA and the resident state if toxic chemicals are used at that facility in excess of established threshold amounts.

The regulations under 40 CFR Part 355, *Emergency Planning and Notification*, established the list of EHSs, the threshold planning quantities, and facility notification responsibilities necessary for the development and implementation of State and local emergency response plans.

The regulations of 40 CFR Part 370, *Hazardous Chemical Reporting: Community Right-to-Know*, established reporting requirements that provide the public with vital information on the hazardous chemicals in their communities, with the intent of ensuring enhanced community awareness of chemical hazards and facilitating the development of state and local emergency response plans.

In 40 CFR Part 372, *Toxic Chemical Release Reporting: Community Right-to-Know*, requirements are established for the submission of information relating to the release of toxic chemicals under Section 313.



4.2 Compliance Status of the Regulatory Requirements

Table 4-1 summarizes the applicable requirements and their compliance status under EPCRA. The text provides more detail on the compliance status of each requirement.

TABLE 4-1. Emergency Planning and Community Right-to-Know Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR Part 355, Emergency Planning Notification		
40 CFR 355.30(a)-(b)	Emergency planning	ACHIEVED Notification submitted to SERC [Section 4.2.1]
40 CFR 355.30(c)	Facility Emergency Coordinator	UP TO DATE WIPP Emergency Coordinator on the LEPC [Section 4.2.2]
40 CFR 355.30(d)	Provision of information	ACHIEVED Information provided to LEPC as required [Section 4.2.3]
40 CFR 355.40	Releases of EHSs	NOT APPLICABLE No EHS releases [Section 4.2.4]
40 CFR Part 370, Hazardous Chemical Reporting: Community Right-to-Know		
40 CFR 370.21	Submission of MSDS or chemical list	UP TO DATE Revised list submitted in March 1995 and March 1996 [Section 4.2.5]



CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 370.25	Submission of hazardous chemical inventory form	<p style="text-align: center;">UP TO DATE</p> <p>Inventory submitted in March 1995 and March 1996</p> <p>[Section 4.2.6]</p>
40 CFR Part 372, Toxic Chemical Release Reporting: Community Right-to-Know		
40 CFR 372.30	Submission of the Toxic Chemical Inventory Report	<p style="text-align: center;">NOT APPLICABLE</p> <p>Toxic chemical inventory reporting not required due to certain exemptions</p> <p>[Section 4.2.7]</p>

4.2.1 Emergency Planning, 40 CFR 355.30(a)-(b)

A facility must notify the SERC that it is subject to the emergency planning requirements if there are extremely hazardous substances equal to or in excess of the threshold planning requirements.

DOE has notified the SERC that emergency planning requirements are applicable to the WIPP facility.

4.2.2 Facility Emergency Coordinator, 40 CFR 355.30(c)

The facility shall designate a facility representative who will participate in the local emergency planning process as a facility emergency response coordinator.

WID has appointed a WIPP representative to the LEPC that began in 1994. The LEPC meets once a month.

4.2.3 Provision of Information, 40 CFR 355.30(d)

The facility will inform the LEPC of any changes occurring at the facility that may be relevant to emergency planning.



WIPP provides information to the LEPC regarding changes at the facility which may be relevant to emergency planning.

4.2.4 Releases of Extremely Hazardous Substances, 40 CFR 355.40

For releases of extremely hazardous substances under SARA Title III (40 CFR Part 355, Appendix A), the owner or operator must notify the National Response Center of any area that is likely to be affected by the release.

There have been no releases of extremely hazardous substances from the WIPP.

4.2.5 Submission of a Material Safety Data Sheet or List of Chemicals, 40 CFR 370.21

Facilities must submit either an MSDS for each hazardous chemical present at the facility according to established minimum threshold schedules or a list of the hazardous chemicals for which the MSDS is required.

The WIPP submits a list of hazardous chemicals to the SERC, the LEPC, and the local fire department whenever additional hazardous substances are received at WIPP or if significant new information is received about an item for which a list was provided. In March 1995 and March 1996, a revised list of hazardous chemicals was submitted to the appropriate organizations. The listing was comprised of EHSs present in amounts equal to or greater than the threshold planning quantity (TPQ) or 500 pounds, whichever was less, and all substances classified as hazardous under the Occupational Safety and Health Act Hazard Communication Standard with site inventories equal to or greater than 10,000 pounds.

4.2.6 Submission of a Hazardous Chemical Inventory, 40 CFR 370.25

On or before March 1 of each year, facilities must submit an inventory form containing Tier I information on hazardous chemicals present during the preceding year, or Tier II information in lieu of Tier I, with respect to any specific hazardous chemical at the facility. This inventory must be submitted to the State Emergency Response Commission, the Local Emergency Planning Committee, and the local fire department.

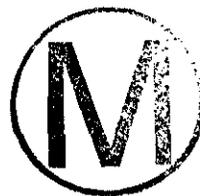


The WIPP submitted the Emergency and Hazardous Chemical Inventory Report (Tier II) on February 1, 1995, and January 16, 1996, to the SERC, LEPC, and local fire departments.

4.2.7 Submission of a Toxic Chemical Release Inventory Report, 40 CFR 372.30

For each toxic chemical on site in excess of the reporting threshold level, the owner or operator must submit a completed EPA Form R to the EPA and the State.

During this reporting period, the WIPP was exempt from Section 313 reporting under 40 CFR 372.38, *Exemptions*. Products in excess of 10,000 pound threshold are either contained in enclosed systems or fall under the Motor Vehicle Use exemption.



5.0 ATOMIC ENERGY ACT AND THE ENVIRONMENTAL PROTECTION AGENCY (EPA)

5.1 Summary of the Law

The Atomic Energy Act of 1954, as amended (AEA; 42 USC §§ 2011 et seq.), initiated a national program for research, development, and use of atomic energy for both national defense and domestic civilian purposes. In § 161 of the AEA, the Atomic Energy Commission (succeeded by the DOE for national defense purposes) was authorized to prescribe regulations and Orders to:

[G]overn any activity authorized pursuant to [the AEA], including standards, and restrictions governing the design, location, and operation of facilities used in the conduct of such activity, in order to protect health and to minimize danger to life or property.

The AEA authorized the DOE to develop policies, issue Orders, and promulgate regulations to address the environmental, safety, and health protection aspects of radioactive waste and nuclear materials. The AEA also authorized the U.S. Nuclear Regulatory Commission (NRC) to serve a similar function for civilian nuclear facilities.

Much of the waste to be emplaced at the WIPP is mixed (i.e., radioactive waste with hazardous constituents). This waste is subject to dual regulation: the radioactive constituents of the waste are regulated under the AEA, whereas the hazardous constituents are regulated under RCRA.

The authority of the EPA to establish standards for the protection of the public and the environment from radiation is derived from the AEA, as amended; Reorganization Plan No. 3 of 1970; and the Nuclear Waste Policy Act (NWPA) (Public Law 97-425). The protection standards found in 40 CFR Part 191 apply to both spent nuclear fuel and high-level radioactive waste as defined by the NWPA, and to TRU waste, which contains more than 100 nanocuries per gram of waste of alpha-emitting TRU isotopes with half-lives greater than 20 years. The standards of 40 CFR Part 191 consist of three subparts: Subpart A; *Environmental Standards for Management and Storage*, Subpart B; *Environmental Standards for Disposal*, and Subpart C; *Environmental Standards for Ground-Water Protection*. Since § 9(a)(1)(A) of the Land Withdrawal Act (LWA) requires documentation of compliance with only Subpart A of 40 CFR Part 191 in the BECR, the section relating to this subpart is the only one addressed here.

Subpart A, *Standards for Management and Storage*, sets the operational term requirements limiting annual doses to members of the public from management and storage operations at disposal facilities that are operated by the DOE and are not regulated by either the NRC or by agreement states. The annual dose equivalent to

any member of the public in the general environment may not exceed 25 millirem (mrem) to the whole body and 75 mrem to any critical organ.

DOE has implementation authority for Subpart A of 40 CFR Part 191. However, since these regulations were promulgated by the EPA, they are discussed in this chapter rather than in Chapter 13, Atomic Energy Act and the U.S. Department of Energy. A discussion of compliance with the disposal-related portions of 40 CFR Part 191 (i.e., Subparts B and C) are not included in this BECR as indicated in the LWA (§ 9[a][1][A]).

5.2 Compliance Status with the Regulatory Requirements

The compliance status of each of the applicable requirements is summarized in Table 5-1. More detail is provided in the text under Section 5.2.1 for the environmental radiation protection disposal standards.

5.2.1 Radiation Protection Standards, 40 CFR Part 191

The requirements of Subpart A of 40 CFR Part 191, *Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level, and Transuranic Radioactive Waste*, do not currently apply to WIPP since no TRU waste has been received at this facility to date. Therefore, only the standard set for any member of the public is included in this revision of the BECR.



TABLE 5-1. Atomic Energy Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR Part 191, <i>Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level, and Transuranic Radioactive Waste</i>		
Subpart A, 40 CFR 191.03-191.04	Standard: Annual dose equivalent of 25 mrem to whole body and 75 mrem to any critical organ	<p style="text-align: center;">NOT APPLICABLE</p> <p>Will become applicable when waste receipt begins</p> <p>[Sections 5.2.1.1 and 6.2.2]</p>

5.2.1.1 Standard, Subpart A of 40 CFR 191.03-191.04

A standard of an annual dose equivalent of 25 mrem to the whole body and 75 mrem to any critical organ of any member of the public has been set for 40 CFR Part 191.

In the Second Modification to the Agreement for Consultation and Cooperation (dated August 4, 1987), the DOE and the State of New Mexico agreed that the WIPP will comply with the standards of Subpart A upon the initial receipt of waste and thereafter.

However, since the only credible pathway for releases from the facility during operations is air, the applicable NESHAPs standard under 40 CFR Part 61, Subpart H (i.e., an annual effective dose equivalent of 10 mrem), is more restrictive. See also the report prepared by the S.M. Stoller Corporation, *Verification of the Station A Alpha CAM Alarm Set Point at the Waste Isolation Pilot Plant* (dated January 17, 1991) and the later report prepared by Stoller (dated November 2, 1992) that amended the 1991 report.



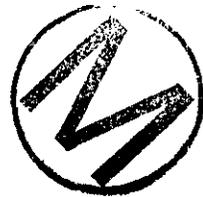
6.0 CLEAN AIR ACT

6.1 Summary of the Law

The Clean Air Act (CAA), as amended, establishes a national regulatory strategy and program to protect and enhance air quality in the United States. The CAA includes a number of standards, requirements, and permit programs to protect the quality of air in attainment areas (areas in which air pollutant emissions do not exceed the appropriate standards) and to improve it in nonattainment areas (areas that do not meet the national primary or secondary ambient air-quality standard for an air pollutant).

Congress enacted the Clean Air Act Amendments of 1990 (CAAA; PL 101-549) on November 15, 1990. The 11 titles in this public law are:

- I. Provisions for Attainment and Maintenance of National Ambient Air Quality Standards
- II. Provisions Relating to Mobile Sources
- III. Hazardous Air Pollutants
- IV. Acid Deposition Control
- V. Permits
- VI. Stratospheric Ozone Protection
- VII. Provisions Relating to Enforcement
- VIII. Miscellaneous Provisions
- IX. Clean Air Research
- X. Disadvantaged Business Concerns
- XI. Clean Air Employment Transition Assistance



The 11 titles of the CAAA resulted in numerous changes to the CAA and other acts and established six titles in the CAA:

- I. Air Pollution Prevention and Control
- II. Emission Standards for Moving Sources
- III. General Provisions
- IV. Acid-Deposition Control (i.e., control of acid rain)
- V. Operating Permits
- VI. Stratospheric Ozone Protection

6.1.1 **Title I, *Air Pollution Prevention and Control***

Title I of the CAA contains requirements and standards for a number of programs that govern air pollutant emissions from stationary sources. These include the National Ambient Air Quality Standards (NAAQSs), the New Source Performance Standards (NSPS), the National Emission Standards for Hazardous Air Pollutants (NESHAPs), the Prevention of Significant Deterioration (PSD) program, and requirements for nonattainment areas. Most of these programs are requirements for proposed new



construction or for modifications of existing sources. In addition, Titles VII and IX of the CAAA established provisions relating to enforcement and requirements for CAA-related research programs, respectively.

6.1.1.1 National Ambient Air Quality Standards (NAAQS)

This program was established by Title I of the CAA (and revised by Title I of the CAAA) for the six "criteria" pollutants: sulfur dioxide, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead. These standards establish the maximum levels of each pollutant allowed in the air within a particular area. The federal NAAQSs are specified in 40 CFR 50.4 through 50.12, and the program is implemented under 40 CFR Part 51. The EPA has authorized the New Mexico Environment Department (NMED) to administer the NAAQS program. The federal NAAQSs have been superseded by the New Mexico Ambient Air Quality Standards (NMAAQSSs) for the six criteria pollutants. Therefore, the two backup diesel electrical power-supply generators at WIPP are regulated under New Mexico regulations, and compliance with these regulations is discussed in Chapter 29 under the New Mexico Air Quality Act.

After consultation with the NMED Air Quality Bureau, a determination was made that the WIPP was required to obtain a permit under 20 New Mexico Administrative Code (NMAC) 2.72 for the operation of two back-up diesel electrical power-supply generators. A state permit is required when criteria pollutants exceed the state threshold levels of 10 pounds per hour or 25 tons per year (tpy). For compliance status with the state permit programs, see Chapter 29.

6.1.1.2 New Source Performance Standards (NSPS)

The NSPS program regulates emissions from operating facilities and specifies emission standards and test methods for analyzing the emissions. This program, which was initiated by § 111 of the CAA and is implemented by 40 CFR Part 60, *Standards of Performance for New Stationary Sources*, specifies standards of performance for air pollutant emissions from different types of facilities and equipment. Pollutants that are regulated under the NSPS include sulfur dioxide, nitrogen oxides, particulate matter, visible emissions (opacity), carbon monoxide, volatile organic compounds (VOCs), and lead. Since the EPA has authorized the NMED to administer the NSPS program, the NMED requirements supersede the federal requirements. Therefore, emissions from the backup generators at WIPP are regulated under the state program, which is discussed in Chapter 29.

6.1.1.3 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

Hazardous air pollutant emissions are regulated under § 112 of the CAA (Title III of the CAAA) as implemented by 40 CFR Part 61, *National Emission Standards for Hazardous Air Pollutants (NESHAPs)*. Before the CAA was amended in 1990, Subpart A of NESHAPs listed only eight hazardous air pollutants (HAPs). These pollutants are

asbestos, benzene, beryllium, coke oven emissions, inorganic arsenic, mercury, radionuclides, and vinyl chloride. The CAAA (§ 301) added 181 HAPs, bringing the list of HAPs regulated under Subpart A to 189. De minimis levels for all the HAPs have been proposed under § 112(g) as referenced by the proposed rule *Hazardous Air Pollutants: Proposed Regulations Governing Constructed, Reconstructed or Modified Major Sources* dated April 1, 1994 (59 FR 15504).

In 1995, WID completed the *Air Emissions Inventory Report for Calendar Year 1994* (WID, 1995). This inventory report was developed to calculate maximum potential hourly and annual emissions of criteria pollutants, the regulated NESHAP pollutants, and the New Mexico toxic air pollutants (TAPs) specified under 20 NMAC 2.72 and 2.78. Emission estimates were used to determine if the WIPP is required to obtain air permits under state regulations.

Based on the inventory calculations, WIPP operations are significantly below the 10-tpy emission limit for any individual HAP or the 25-tpy limit for combined HAPs emissions established in Subpart A. Thus, the WIPP does not have any NESHAP Subpart A permitting or reporting requirement at this time. However, 40 CFR 61.09(a)(1) requires that the EPA be notified of WIPP's anticipated date of initial startup of the source no more than 60 days or less than 30 days before that date. This will be required because radionuclide emissions are regulated as HAPs under the NESHAPs program.

The inventory is updated annually to evaluate regulatory changes and to monitor the use of HAPs and TAPs at the site. The WIPP Chemical Inventory Database is used to evaluate chemical use at the site. Using chemical inventory data, WIPP personnel evaluate potential replacement chemicals and minimize the use of materials regulated under NESHAPs as much as possible.

With regard to radionuclide emissions at the WIPP, only Subpart H of NESHAPs applies due to the nature of wastes to be received at the WIPP. No radium-containing TRU wastes are currently identified for disposal at the WIPP. Subpart H of 40 CFR Part 61, *National Emission Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities*, pertains to non-radon radionuclide emissions from DOE facilities. The NESHAP for radionuclides is an effective dose equivalent (EDE) of 10 millirem (mrem) per year to any member of the public. A NESHAPs application must be filed if the anticipated EDE will exceed 1 percent of the standard. The DOE and the EPA have agreed that the WIPP will be regulated under NESHAPs through the disposal phase at the WIPP (see the final NESHAPs Memorandum of Understanding [MOU] between the EPA and the DOE, draft #6, dated May 16, 1995).

Analyses for the expected levels of radionuclide emissions were performed and reported in a data package submitted to the EPA (i.e., the NESHAPs data package). The emissions were calculated to be less than 1 percent of the allowable EDE of 10 mrem per year to any one member of the public. In the *Waste Isolation Pilot Plant*

Safety Analysis Report (SAR) (DOE, 1995), doses from radionuclide emissions anticipated from WIPP under normal operations were calculated to be undetectable. An emissions sampling system was installed to comply with NESHAPs and to meet periodic confirmatory measurement requirements. Emissions sampling test results will be used to verify compliance after receipt of TRU waste at WIPP.

6.1.1.4 Prevention of Significant Deterioration (PSD) Program

The PSD program, like many of the other programs under the CAA, is designed for proposed new construction or the modification of existing facilities. It pertains to any proposed new or modified facility to be located in an attainment area, particularly if the facility could impact the air quality in a national park, wilderness area, monument, seashore, or other areas of special national or regional natural, recreational, scenic, or historic value. Because the WIPP does not emit over 100 tpy of any criteria pollutant, the WIPP is not categorized as a major source, and the PSD program does not apply.

6.1.2 Title II, *Emission Standards for Mobile Sources*

Although most of the requirements under the CAA pertain to stationary sources, the requirements under Title II of the CAA and the CAAA pertain to mobile sources and establish standards for motor vehicles and fuel. Many of these requirements are aimed at automobile manufacturers and petroleum companies (e.g., Part A of Title II, *Motor Vehicle Emission and Fuel Standards*). Federal agency fleets are covered in § 248 of the CAA. Federal agencies that operate fleets in nonattainment areas for ozone and/or carbon monoxide are required to use clean-fuel vehicles and must use clean alternative fuels when operating in the nonattainment area. Indeed, DOE published its new Alternative Fuel Transportation Program (10 CFR Part 490) in the *Federal Register* on March 14, 1996. However, since it must be adopted only by federal agencies that operate a fleet with at least 20 light-duty vehicles in a metropolitan statistical area or a consolidated metropolitan statistical area with a 1980 population of at least 250,000 people, these new regulations do not apply to Carlsbad, which is the closest population center to WIPP. In addition, most of the requirements for federal agency fleets under Title II are not applicable to the WIPP because this facility is not located in a nonattainment area. However, a recent addition to the regulations (61 FR 3832, 40 CFR Part 80) makes the purchaser/consumer of gasoline products or his/her agent liable for using gasoline containing lead (i.e., more than 0.05 gram of lead per gallon) or lead additives for highway use after December 31, 1995. This new provision is now incorporated into this chapter (see Section 6.2.3.3). Regulations have also been promulgated for diesel fuel; however, they impact vehicles/equipment using diesel fuel that are used on highways and do not impact non-road vehicles and equipment. Therefore, they are not applicable to WIPP because the diesel fuel dispensed at this facility is used only in non-road vehicles and equipment, such as the backup diesel generators.



6.1.3 Title III, *General Provisions*

Title III of the CAA provides general provisions for the administration of the CAA and pertains to all titles. The provisions stipulated under Title III include administration, federal procurement, suits, audits, and air-quality monitoring and modeling. It does not add additional programs. Title III of the CAA (VIII of the CAAA) also requires that the EPA perform a comprehensive analysis of the impact of the CAAA.

6.1.4 Title IV, *Acid Deposition Control*

Title IV of both the CAA and the CAAA is aimed primarily at utilities and power plants that emit large quantities of sulfur dioxide and/or nitrogen oxides. It seeks to reduce emissions of sulfur dioxide and nitrogen oxides to decrease the acid-rain problem in the United States. It is not applicable to WIPP.

6.1.5 Title V, *Permits*

Most of the other permitting programs under the CAA are designed primarily for proposed new construction or the modification of existing facilities. Title V of both the CAA and the CAAA, as promulgated in 40 CFR Part 70, *State Operating Permit Programs*, identifies the operating permit requirements for major stationary sources. Those facilities required by the state or by the EPA to have an operating permit will be expected to submit an operating permit application, a compliance plan, and periodic compliance reports.

The EPA promulgated its interim final approval of the state of New Mexico operating permit program on November 18, 1994 (59 FR 59656), effective as of December 19, 1994. The state's program will be valid until November 18, 1996, unless it has been granted full final approval by the EPA by that time. The state's program was established in Air Quality Control Regulations 770, *Operating Permits*, and 771, *Operating Permit Emission Fees*; in the wake of the reformatting of the NMED regulations, these regulations are now available as 20 NMAC 2.70 and 2.71, respectively. The operating-permit program is now discussed in Chapter 29, the *New Mexico Air Quality Control Act*.

The federal program (40 CFR Part 70) regulates and requires permits for both area and major sources. At this time, emission limits for those area sources required to have an operating permit have not been established; therefore, the major-source emission thresholds are used to determine which facilities require operating permits for both area and major sources under 40 CFR Part 70 and 20 NMAC 2.70 and 2.71. The inventory was also used to determine if the WIPP is a major source as defined in 40 CFR Part 70 and 20 NMAC 2.71. A facility is considered a "major source" and is required to obtain an operating permit if the facility emits at least 100 tpy of criteria pollutants, 10 tpy of any single HAP, or 25 tpy of any combination of HAPs. Based on inventory emission

calculations, WIPP is not a major source and is not currently required to obtain a federal CAA operating permit. (See also Section 6.3.1).

6.1.6 Title VI, *Stratospheric Ozone Protection*

Title VI of both the CAA and the CAAA places restrictions on and phases out the use of ozone-depleting chemicals, particularly chlorofluorocarbons (CFCs). It is implemented by 40 CFR Part 82, *Protection of Stratospheric Ozone*. These regulations are designed to phase out the use of Class I and Class II substances. Class I substances are CFCs, halons, carbon tetrachloride, methyl chloroform, hydrobromofluorocarbons (HBFCs), and methyl bromide. Class II substances are hydrochlorofluorocarbons, which generally have a lower ozone-depleting potential than do CFCs. The production of most Class I substances was prohibited as of January 1, 1996 (methyl bromide will be prohibited as of January 1, 2001, as indicated in 58 FR 69235). Proposed legislation indicates that, effective January 1, 2010, the use of Class II substances will be prohibited unless the substance has been used, recovered, and recycled; is used and entirely consumed in producing other chemicals; or is used as a refrigerant in appliances manufactured prior to January 1, 2020 (58 FR 15014). By January 1, 2030, the manufacture of all Class II substances will also be prohibited (58 FR 65018).

Implementing regulations pertaining to labeling requirements and the use and disposal of Class I substances during the service, repair, or disposal of appliances and industrial process refrigeration have been published in the *Federal Register*. Recycling equipment registrations and training certifications have been received from all WIPP refrigerant recycling contractors. Effective February 16, 1993, the distribution or sale of any Class I substance identified as nonessential was implemented. Nonessential products include safety horns, wall-mounted alarms, CFC-containing cleaning fluids for electronic or photographic equipment, and CFC-containing aerosol products or other pressurized dispensers.

Most of the requirements pertaining to ozone-depleting substances (ODSs) such as CFCs are applicable primarily to manufacturers of the chemicals, products containing the chemicals, or products in which ODSs are used during the manufacturing process. However, these regulations are applicable to WIPP in that these products will no longer be available after the time specified in the regulations. Therefore, replacement products must be found. Any container in which Class I or Class II substances (including waste) will be transported must have a warning label as required by 40 CFR 82.106, *Warning Statement Requirements*. However, the *Waste Acceptance Criteria for the Waste Isolation Pilot Plant* (WAC; DOE, 1996) require that each generator site document that all aerosol cans included in the waste packages intended for WIPP have been punctured (because the WAC allows no pressurized containers to be transported in the TRUPACT-II containers) and that all such containers are empty. Therefore, wastes destined for the WIPP will not include containers with Class I or Class II substances, and the labeling requirements for Class I and Class II substances are not applicable to TRU wastes destined for WIPP.

6.2 Compliance Status with the Regulatory Requirements

Table 6-1 summarizes each applicable requirement and its compliance status under the CAA. Following the table, the text provides more detail on the compliance status of each requirement.

TABLE 6-1. Clean Air Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
Clean Air Act as amended, § 118, <i>Control of Pollution from Federal Facilities</i>		
§ 118	Control of pollution from federal facilities	See the rest of Chapter 6. See also Chapter 29. [Section 6.2.1]
Subpart H of 40 CFR Part 61, <i>National Emission Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities, and § 112 of the CAA</i>		
40 CFR 61.96	NESHAPs application for radionuclides	ACHIEVED <i>Radionuclide Emission Data Package for the WIPP</i> [Section 6.2.2.1]
40 CFR 61.93(a), (b)	EPA approval of any alternative methods for monitoring/sampling for radionuclide emissions and air flow rate that differ from those specified under NESHAPs	NOT APPLICABLE WIPP is not a major emitter and thus is not required to use a reference standard sampling method or obtain approval of an alternative sampling method [Section 6.2.2.2]
40 CFR 61.93(b) and Appendix B, Method 114, § 4.10	NESHAPs Quality Assurance Project Plan (QAPjP)	ACHIEVED NESHAPs QAPjP to be revised and submitted to EPA for approval [Section 6.2.2.3]



CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 61.09(a)(1)	EPA notification under NESHAPs, pre-startup	<p>UP TO DATE</p> <p>Notifications: June 1991; update required before receipt of TRU waste</p> <p>[Section 6.2.2.4]</p>
40 CFR 61.09(a)(2)	EPA notification under NESHAPs, post-startup	<p>NOT APPLICABLE</p> <p>Will be required after receipt of TRU waste</p> <p>[Section 6.2.2.5]</p>
40 CFR 61.94	NESHAPs annual report	<p>NOT APPLICABLE</p> <p>Will be required prior to receipt of TRU waste at WIPP</p> <p>[Section 6.2.2.6]</p>
40 CFR 61.95	Record-keeping requirements	<p>UP TO DATE</p> <p>Will be required prior to receipt of TRU waste at WIPP. Records currently being kept.</p> <p>[Section 6.2.2.7]</p>
CAA, § 112(r)(6)(K)	Risk management plan/hazard assessment, if applicable	<p>NOT APPLICABLE</p> <p>Low levels of emissions and exemptions (air emissions inventory, Tier II report)</p> <p>[Section 6.2.2.8]</p>
National Emission Standards for Hazardous Air Pollutants for Non-Radionuclides		
40 CFR Part 61, Subpart A	General NESHAPs requirements	See Chapter 29. (See also Section 6.2.2 for NESHAPs requirements for radionuclides for which the NMED is not authorized.)

40 CFR Part 70, State Operating Permit Programs, if applicable¹		
40 CFR 70.3(a)(3)	Operating permit application from area sources under NESHAPs	<p style="text-align: center;">NOT APPLICABLE</p> <p>No area-source thresholds established yet by the EPA or NMED. No definition of "major source" (or area-source thresholds) for radionuclide emissions by the EPA.</p> <p>[Section 6.2.3.1]</p>
40 CFR Part 80, Mobile Sources, Prohibition on Gasoline Containing Lead or Lead Additives for Highway Use		
40 CFR 80.7	Reporting information about gasoline represented to be unleaded if requested by the EPA	<p style="text-align: center;">NOT APPLICABLE</p> <p>Unleaded gasoline dispensed at WIPP</p> <p>[Section 6.2.3.2]</p>
40 CFR 80.22	Prohibition against dispensing gasoline with lead or lead additives	<p style="text-align: center;">UP TO DATE</p> <p>Unleaded gasoline dispensed at WIPP</p> <p>[Section 6.2.3.3]</p>
40 CFR 80.23	Liability for violations	<p style="text-align: center;">NOT APPLICABLE</p> <p>No instances are known of violations at WIPP</p> <p>[Section 6.2.3.4]</p>
40 CFR Part 82, Protection of Stratospheric Ozone		



¹ Applicability of 40 CFR Part 70: "A state program with whole or partial approval under this part must provide for permitting of at least the following sources: ... (3) Any source, including an area source, subject to a standard or other requirement under section 112 of the Act..." (40 CFR 70.3[a]).

<p>40 CFR 82.40</p>	<p>Restrictions on repairing and servicing motor vehicle air conditioners (MVACs)</p>	<p>ACHIEVED Off-site certified service technicians used on all Government Service Administration (GSA) vehicles [Section 6.2.4.1]</p>
<p>40 CFR 82.54(c) and 82.104(a)</p>	<p>Prohibition of nonessential Class I ozone-depleting substances (ODSs)</p>	<p>UP TO DATE Non-essential ODSs removed from purchase lists; substitute products being evaluated and used to replace ODSs [Section 6.2.4.2]</p>
<p>40 CFR 82.66</p>	<p>Ban on nonessential products containing Class I substances</p>	<p>UP TO DATE Substitute products [Section 6.2.4.3]</p>
<p>40 CFR 82.84</p>	<p>Federal procurement requirements</p>	<p>NOT APPLICABLE Substitute products [Section 6.2.4.4]</p>
<p>40 CFR 82.86</p>	<p>Reporting requirements</p>	<p>NOT APPLICABLE Substitute products [Section 6.2.4.5]</p>
<p>40 CFR Part 82, Subpart E</p>	<p>Labeling of products and containers containing Class I or Class II ODSs</p>	<p>NOT APPLICABLE Aerosol cans in waste packages punctured and containers drained to less than 1% residual liquid; label requirement not applicable [Section 6.2.4.6]</p>
<p>40 CFR 82.102</p>	<p>Applicability</p> 	<p>NOT APPLICABLE Manufacturers; see also Section 6.2.4.6 [Section 6.2.4.7]</p>

40 CFR 82.106	Required warning statements	<p>NOT APPLICABLE</p> <p>Manufacturers; see also Section 6.2.4.6</p> <p>[Section 6.2.4.8]</p>
40 CFR 82.108 and 82.112	Placement of warning statement and prohibition of removal of the label bearing the warning statement	<p>NOT APPLICABLE</p> <p>Manufacturers; see also Section 6.2.4.6</p> <p>[Section 6.2.4.9]</p>
40 CFR 82.122	Certification, record-keeping, and notice requirements	<p>UP TO DATE</p> <p>Labels applied to containers as required</p> <p>[Section 6.2.4.10]</p>
40 CFR 82.150	Service, maintenance, and repair of appliances using refrigerants	<p>ACHIEVED</p> <p>EPA certification requirements met by contractors' recycling appliances at WIPP</p> <p>[Section 6.2.4.11]</p>
40 CFR 82.154	Prohibitions	<p>ACHIEVED</p> <p>Contractors responsible for management of appliances; no appliances sold at WIPP</p> <p>[Section 6.2.4.12]</p>
40 CFR 82.156	<p>Required practices</p> 	<p>UP TO DATE</p> <p>Certified contractors and equipment; self-contained equipment; same-day repair of leaks</p> <p>[Section 6.2.4.13]</p>

6.2.1 Control of Pollution from Federal Facilities, CAA § 118

Each department of the executive, legislative, and judicial branches of the federal government having jurisdiction over any property or facility or engaged in any activity resulting in or that may result in the discharge of air pollutants and each

employee thereof is subject to and must comply with all federal, state, interstate, and local requirements respecting the control and abatement of air pollution in the same manner and to the same extent as any nongovernmental entity.

The DOE complies with all federal and state requirements pertaining to the release of air pollutants that apply to WIPP. Compliance with federal and state air-quality requirements are described in this chapter and in Chapter 29, respectively.

6.2.2 National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart H

The NESHAP for radionuclides other than radon from DOE facilities is an effective dose equivalent (EDE) of 10 mrem/year to any member of the public.



Subpart H, *National Emission Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities*, of 40 CFR Part 61 requires that facilities owned or operated by the DOE that emit any radionuclides other than radon-222 and radon-220 into the air are subject to this regulation.

Based on the final MOU between the EPA and DOE, WIPP is subject to the emissions standard that specifies that no member of the public may receive an EDE of 10 mrem/year in any year. In May 1994, modeling was performed for NESHAPs compliance using the CAP-88 code, which resulted in an estimated EDE of 4.04E-04 mrem/year. These calculated values are well below 1 percent of the regulatory limit of 10 mrem/year. In November 1995, DOE issued the *WIPP Safety Analysis Report (SAR)* (DOE, 1995). The SAR indicates that normal operations at WIPP are not expected to entail any releases of airborne radioactive materials, thus the EDE to the public would be undetectable. Since no source term exists at or is planned for WIPP that could cause normal operations to exceed the 1-percent emission limit, only confirmatory sampling will be required to comply with Subpart H.

6.2.2.1 NESHAPs Application for Radionuclides, 40 CFR 61.96

The submittal of a NESHAPs application is required prior to construction or modification of any DOE facility that will emit radionuclides to the air.

An application under NESHAPs would ordinarily be required prior to receipt of radioactive waste at WIPP. However, if the estimated annual EDE is less than 1 percent of the standard, no application is required. Since the estimated EDE is well below this number, no application was required for compliance with Subpart H of NESHAPs at WIPP. Therefore, the application that had been prepared was converted

to a data package (*Radionuclide Emission Data Package for the Waste Isolation Pilot Plant*) in November 1990 and transmitted to the EPA for their information in February 1991 (WID, 1990). An application will be required only if confirmatory monitoring reveals that the emissions may have reached or exceeded 1 percent of the standard.

6.2.2.2 EPA Approval of Any Alternative Methods Used, 40 CFR 61.93(a),(b)

EPA approval is required for any alternative methods for monitoring/sampling for radionuclide emissions and air-flow rate that differ from those specified under NESHAPs.

The WIPP employs a single-point, anisokinetic sampling technology for performing required periodic confirmatory measurements. The technology being used more accurately measures potential emissions in the WIPP mine atmosphere. This technology is not an EPA standard reference sampling method as defined in NESHAPs; however, since the DOE is not a major emitter, i.e., the WIPP's calculated emissions are less than 1 percent of the 10-mrem standard, the WIPP is not required to use a reference sampling method, and thus not required to obtain approval to use an alternative sampling method. This position is reflected in the May 1995 *Memorandum of Understanding Between the U.S. Environmental Protection Agency and the U.S. Department of Energy concerning The Clean Air Act Emission Standards for Radionuclides 40 CFR 61 Including Subparts H, I, Q, & T*. This regulatory citation does not apply to WIPP.

6.2.2.3 NESHAPs Quality Assurance Project Plan, 40 CFR 61.93(b) and Appendix B, Method 114, Section 4.10

A NESHAPs Quality Assurance Project Plan (QAPjP) is required for facilities subject to Subpart H of NESHAPs.

The *Quality Assurance Project Plan for Sampling Emissions of Radionuclides to the Ambient Air at the Waste Isolation Pilot Plant* (NESHAPs QAPjP; DOE/WIPP 03-04), which was completed in 1993, will be revised before the end of the calendar year and will include a protocol for periodic confirmatory measurements. Since the NESHAPs QAPjP must be approved by the EPA and implemented at WIPP prior to the receipt of TRU waste, it will then be sent to the EPA with a request for approval.

6.2.2.4 NESHAPs Pre-Startup Notification, 40 CFR 61.09(a)(1)

The EPA will be notified of planned startup between 30 and 60 days prior to startup.



On June 10 and June 26, 1991, DOE sent pre-startup notification letters to the EPA Administrator and the EPA Region VI office, respectively, to inform them of the pending

startup of WIPP, which was anticipated between July 17 and August 2, 1991. When startup was delayed, another letter of notification (not dated) was sent from DOE to the EPA Region VI office, indicating that the window for startup had shifted from August 30 to September 30, 1991. Again, startup was delayed. Because of the DOE's agreement to comply with NESHAPs requirements until closure of WIPP, notification of the EPA will be required prior to receipt of TRU waste at WIPP.

6.2.2.5 NESHAPs Post-Startup Notification, 40 CFR 61.09(a)(2)

The EPA will be notified of actual startup of WIPP within 15 days after that date.

After the DOE opens WIPP for emplacement of radioactive waste, it will notify the EPA within 15 days after startup. Until that time, this requirement does not apply to WIPP.

6.2.2.6 NESHAPs Annual Report, 40 CFR 61.94

A NESHAPs annual report must be submitted by June 30th for facilities subject to Subpart H of NESHAPs.

After DOE opens WIPP for the emplacement of radioactive waste, it will file a NESHAPs report by June 30 every year as long as the facility is subject to these regulations. If the WIPP were found not to be in compliance with the emission limits of 40 CFR 61.92, the WIPP would be required to commence reporting to the Administrator on a monthly basis. These requirements will no longer be applicable after closure of WIPP, when the radiation protection standards of Subpart B (40 CFR Part 191) will go into effect.

6.2.2.7 Record-keeping Requirements, 40 CFR 61.95

All facilities must maintain records documenting the source of input parameters, including the results of all measurements upon which they are based, the calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determine effective dose equivalent. This documentation should be sufficient to allow an independent auditor to verify the accuracy of the determination made concerning the facility's compliance with the standard. These records must be kept at the site of the facility for at least 5 years and, upon request, be made available for inspection by the EPA Administrator or his/her authorized representative.



Monitoring for airborne radioactive emissions has been performed at WIPP for years. Two emission monitoring stations sample exhaust from underground operations. All

applicable records are maintained on site for at least 5 years and are available for examination if requested by the EPA Administrator or an authorized representative. The results of the measurements, supporting calculations, analytical methods, and procedure used to determine effective dose equivalent are all included in the records.

6.2.2.8 Risk Management Plan/Hazard Assessment, CAA, § 112(r)

A risk management plan/hazard assessment must be prepared, if applicable.



The list of regulated substances for accidental release prevention under § 112(r) of the CAA and the threshold quantities for these substances have been finalized in 40 CFR Part 68, *Chemical Accident Prevention Provisions* (59 FR 4478). However, the requirements for evaluating the need for and the preparation of a risk management plan were published separately as a proposed rule (Subpart B of 40 CFR Part 68) in October 1993 (*Risk Management Programs for Chemical Accidental Release Prevention*, 58 FR 54190). Since the requirements for risk management programs have not yet been finalized, they do not currently apply to WIPP. However, in order to take a proactive approach with Subpart B of 40 CFR Part 68 when these regulations became finalized, two documents were used to determine whether emissions from WIPP exceed the regulatory threshold level of any of the chemicals listed in the final rule. The two documents are the Air Emissions Inventory Report Calendar Year - 1994 for WIPP (WID, 1995) and the *WIPP Tier II Emergency and Hazardous Chemical Inventory Report* required under the Emergency Planning and Community Right-to-Know Act (EPCRA). It was found that, of the 162 substances and gases listed in the final rule, none meets or exceeds the final threshold levels. Sulfuric acid, which was included in the proposed list, is not included in the final list, and the final threshold quantity for sulfur dioxide (SO₂) is 5,000 pounds, which is considerably greater than the SO₂ emissions released as a combustion byproduct from the operation of the backup diesel generators and the emergency diesel fire pump. Therefore, WIPP is not currently required to develop a risk management plan to evaluate accidental releases from the site.

6.2.3 State Operating Permit Programs, 20 NMAC 2.70 and 2.71

The new requirements for operating permits include a provision that state programs must provide for permitting of "any source, including an area source (i.e., a source of the pollutant that is not a major source), subject to a standard or other requirement under § 112 of the [Clean Air] Act." (See Section 70.3[a][3], which is the section on NESHAPs.) Based on emission calculations in the 1994 inventory, emissions at the WIPP are below "major source" and NESHAP emission limits. Thus, the permitting and reporting requirements contained in 20 NMAC 2.70 and 2.71 are not applicable at this time. The inventory is updated annually to evaluate regulatory changes and to monitor the use of HAPs and TAPs (defined in 20 NMAC 2.72 and 2.78) at the site. The WIPP Chemical Inventory Database is used to evaluate chemical use at the site.

Using chemical inventory data, WIPP personnel evaluated potential replacement chemicals to minimize the use of materials regulated under the NESHAPs and TAP programs.

Since the state now has an operating permit program in place, most of the requirements for an operating-permit program are now discussed in Chapter 29. However, federal requirements for an operating permit program and those still under development are summarized here.

6.2.3.1 Operating Permit Application, 40 CFR 70.3(a)(3)

The state may require the submittal of operating permit applications from area sources under NESHAPs.

Based on the 1994 WIPP inventory, HAP emissions from the facility are below current operating-permit threshold levels, and an operating permit is not required for WIPP. Submittal of an application is not applicable at this time. The state does not currently require the submittal of operating-permit applications from area sources under NESHAPs and is awaiting EPA's decision on emission thresholds from area sources that will trigger the need for an area source to submit such an application.

In addition, the EPA has not yet defined "major source" with respect to radionuclides. Until such a definition is provided, or until the EPA specifies the quantity of radionuclide emissions released from a facility that will trigger the need to submit an operating-permit application (as a major or an area source), no operating permit should be needed for WIPP based on radionuclide emissions alone.

6.2.3.2 Reporting Information about Gasoline Represented as Being Unleaded at the Request of the EPA, 40 CFR 80.7

If the Administrator, the Regional Administrator, or a delegate has reason to believe that a violation of the Clean Air Act or the regulations implementing with respect to the use of prohibited fuel (e.g., leaded) has occurred, he/she may require that any wholesale purchaser/consumer report information regarding receipt, transfer, delivery, or sale of gasoline represented to be unleaded and to allow the reproduction of such information at all reasonable times. The purchaser/consumer is also required to provide any other information to the EPA representative as requested to enable him/her to ensure that the purchaser/ consumer acted in compliance with the applicable provisions of the CAA and the implementing regulations.



No known instances are known to have occurred in which the gasoline contained in one of the two underground storage tanks at WIPP has contained lead.

6.2.3.3 Prohibition against Dispensing Gasoline Containing Lead or Lead Additives, 40 CFR 80.22

After December 31, 1995, no person shall dispense or supply any gasoline produced with the use of lead additives or that contains more than 0.05 gram of lead per gallon, nor shall he/she supply or dispense gasoline represented to be unleaded unless it meets the criteria specified in 40 CFR 80.2(g) or allow gasoline other than unleaded to be dispensed into any motor vehicle that is equipped with a gasoline tank filler inlet designed for the introduction of unleaded gasoline.



There are no known instances in which the gasoline dispensed at WIPP has contained lead in concentrations exceeding 0.05 gram per gallon.

6.2.3.4 Liability for Violations, 40 CFR 80.23

In any case in which a wholesale purchaser-consumer or his/her employee or agent introduces gasoline other than unleaded into a motor vehicle equipped with a gasoline tank filler inlet designed for the introduction of unleaded gasoline, only the wholesale purchaser-consumer shall be deemed in violation.

There are no known instances in which a violation of these regulations has occurred at WIPP.

6.2.4 Protection of Stratospheric Ozone, 40 CFR Part 82

A number of requirements have been imposed that relate to CFCs and other ODSs. Most of these requirements pertain directly to manufacturers; however, because of the planned phaseout of these materials, the regulations will also impact users of these materials.

6.2.4.1 Restrictions on Repairing and Servicing Motor Vehicle Air Conditioners (MVACs), 40 CFR 82.40

Effective August 13, 1992, no person repairing or servicing motor vehicles for consideration may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for the air conditioner without using approved

refrigerant recycling equipment and unless he/she has been properly trained and certified by a technician certification program approved by the Administrator.

No government vehicles are serviced, repaired, or maintained by WIPP employees.

All equipment owned or used by the vendors that service these vehicles has been approved, and all the service technicians who perform such work are certified to work on MVACs.

6.2.4.2 Prohibition of Nonessential Class I Ozone-Depleting Substances (ODSs), 40 CFR 82.54(c) and 82.104(a)

Nonessential Class I ODSs are being phased out and will no longer be sold or distributed in the United States as of January 17, 1994. The Class I ODSs currently consist of the chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform.



A list of the ODSs used at WIPP is included in the current WIPP emissions inventory. The major ODS used at WIPP is methyl chloroform (i.e., 1,1,1-trichloroethane). According to the estimated emissions from the 1993 and the 1994 HAPs inventories, use of this material at WIPP has decreased to approximately 4 percent of the usage in 1993 (based on estimated emissions of 0.67 lb/hr in 1993 vs. 0.027 lb/hr in 1994). As WIPP personnel continue to define the actual use of products containing ODSs, waste minimization personnel will continue to obtain substitute products to reduce ODS emissions from WIPP.

6.2.4.3 Ban on Nonessential Products Containing Class I Substances, 40 CFR 82.66

The following products that release a Class I substance were identified as being nonessential and are subject to the prohibitions specified under 40 CFR 82.64:

- *Personal safety horns;*
- *Wall-mounted alarms used in factories or other work areas;*
- *Any plastic flexible or packaging foam product which is manufactured with or contains a CFC;*
- *Any aerosol product or other pressurized dispenser that contains a CFC including but not limited to household, industrial, automotive, and pesticide uses except lubricants, coatings, or cleaning fluids for electrical or*

electronic equipment that contain no CFCs other than CFC-11, CFC-12, or CFC-113 for solvent purposes; and

- *Document preservation sprays that contain no other CFC than CFC-113.*

The deadlines set under 40 CFR 82.64 pertain to selling or distributing nonessential products. However, the items have been listed because no purchase of nonessential products may be made by government entities after October 24, 1994. An inventory of ODSs on site, dated June 1995, was reviewed. No personal safety horns, wall-mounted alarms, or plastic flexible or packaging foam was listed on the inventory list.

A number of aerosol products appears on the WIPP inventory of products used at the site. Substitute products are being investigated.

A number of cleaning fluids used at the site are listed on the inventory list. An inventory list dated October 26, 1992, shows that substitute products are being identified and are replacing ODSs, and that the use of 1,1,1-trichloroethane (the ODS with the greatest use at WIPP) has been reduced to about 4 percent of the 1993 levels.

No document preservation sprays are used at WIPP.

6.2.4.4 Federal Procurement Requirements, 40 CFR 82.84

Each department, agency, and instrumentality of the United States shall conform its procurement regulations to the requirements and policies of Title VI of the CAA by October 24, 1994. Each such regulation shall provide, at a minimum, the following:

- *In place of Class I or Class II substances or of products made with or containing such substances, safe alternatives identified under 42 USC § 7671(k) (or products made with or containing such alternatives) shall be substituted to the maximum extent practicable.*
- *Consistent with the phaseout schedules for ODS, no purchase shall be made of Class II substances, or products containing Class II substances, for the purpose of any use prohibited under 42 USC § 7671(d)(c).*



- *All active or new contracts involving the performance of any service or activity subject to 42 USC § 7671(g) or 7671(h) or regulations promulgated thereunder include, or be modified to include, a condition requiring the contractor to ensure compliance with all requirements of those sections and regulations.*
- *No purchase shall be made of products whose sale is prohibited under 42 USC § 7671(h), except when they will be used by persons certified under § 609 to service vehicles, and no purchase shall be made of nonessential products as defined under 42 USC § 7671(i).*
- *Proper labeling under 42 USC § 7671(j) shall be a specification for the purchase of any product subject to that section.*



For agencies subject to the Federal Acquisition Regulation (FAR), 48 CFR Part 1, amendment of the FAR, consistent with this subpart, shall satisfy the requirement of this section.

A comparison of the inventory lists prepared to date (1993 and 1994) indicates that efforts are being made to identify substitute products to replace ODSs. In addition, proper labeling of ODSs is one of the criteria that must be met in the procurement of these materials. Furthermore, requests for the procurement of any new chemicals at WIPP are screened by personnel in one of the environment, safety, and/or health organizations before the chemicals are ordered to ensure that the applicable regulations are being met.

6.2.4.5 Reporting Requirements, 40 CFR 82.86

No later than 1 year after October 22, 1993, each agency, department, and instrumentality of the United States shall certify to the Office of Management and Budget (OMB) that its procurement regulations have been amended in accordance with this section.

Certification by the GSA that the FAR has been amended in accordance with this section shall constitute adequate certification for purposes of all agencies subject to the FAR.

The procurement regulations, which became effective on October 24, 1994, have been amended as required, and a report to that effect was made to the OMB. (See also the response to Section 6.2.4.4.)

6.2.4.6 Labeling of Products and Containers Containing Class I or Class II Ozone-Depleting Substances, 40 CFR Part 82, Subpart E

Warning statements are required on containers of and products containing or manufactured with certain ODSs.

Federal procurement regulations require that proper labeling be a specification for the purchase of any product. WIPP requires that all chemicals purchased, including those containing an ODS be properly labeled.

6.2.4.7 Applicability, 40 CFR 82.102

These requirements apply to substances designated as Class I or Class II substances as of February 11, 1993, beginning on May 15, 1993. The requirements of this subpart apply to the following containers and products except those products manufactured prior to May 15, 1993, provided that the manufacturer submits documentation to the EPA upon request showing that the product was manufactured prior to that date. The requirements apply to:

- *All containers in which a Class I or Class II substance is stored or transported,*
- *All products containing a Class I substance, or*
- *All products directly manufactured with a process that uses a Class I substance, unless otherwise exempted.*

Beginning on January 1, 2015, or 1 year after any determination between May 15, 1993 and January 1, 2015, if suitable substitute products or manufacturing processes are found, the requirements of this subpart shall apply to the following:

- *All products containing a Class II substance or*
- *All products manufactured with a process that uses a Class II substance*

Federal procurement regulations require that proper labeling shall be a specification for the purchase of any product. WIPP requires any chemical products including those containing ODSs be properly labeled as a prerequisite for purchase.



6.2.4.8 Required Warning Statements, 40 CFR 82.106

Unless otherwise exempted by this subpart, each container or product identified in § 82.102(a) or (b) shall bear the following warning statement, meeting the requirements of this subpart for placement and form:



“WARNING: Contains [or Manufactured with, if applicable] [insert name of substance], a substance which harms public health and environment by destroying ozone in the upper atmosphere.”

Exemptions from the warning label requirement include:

- *Products in which trace quantities of a controlled substance remain as a residue or impurity*
- *Waste containing controlled substances or blends of controlled substances bound for discard*
- *Products that are manufactured using methyl chloroform or CFC-113 by persons who can demonstrate and certify a 95-percent reduction in overall usage from their 1990 calendar year usage of methyl chloroform or CFC-113 as solvents during a 12-month period ending within 60 days of such certification or during the most recently completed calendar year*
- *Products that are otherwise not subject to the requirements of this subpart that are being repaired, using a process that uses a controlled substance.*

Federal procurement regulations require that proper labeling be a specification for the purchase of any product. Proper labeling is now one of the specifications used in the purchase of products containing an ODS at WIPP.

6.2.4.9 Placement of Warning Statement and Prohibition on Removal of the Label Bearing the Warning Statement, 40 CFR 82.108 and 82.112

The warning statement shall be “clearly legible and conspicuous.” The manner in which the label may be placed on the container is described. Removal of the label bearing the warning statement is prohibited. When purchasers of the product cannot view it at the time of purchase, the promotional printed material prepared for

display or distribution may contain the warning statement or the statement may be placed such that it is clearly legible and conspicuous at the time of product delivery so that the purchaser may return the product.

The warning statement is primarily the responsibility of the manufacturer. The prohibition on removing the label bearing the warning statement applies primarily to the manufacturer and subsequent wholesalers. However, the purchaser also has the obligation to review products being ordered to avoid the procurement of all but essential ODS-containing materials. Furthermore, the purchaser is obliged to maintain the label on the container. It is WIPP policy that warning labels not be removed or tampered with. If a label is damaged, it is replaced.

6.2.4.10 Certification, Record-keeping, and Notice Requirements, 40 CFR 82.122

Procedures are provided for persons claiming an exemption under 40 CFR 82.106(b)(2) for seeking an exemption for containers containing a controlled substance in which trace quantities of that substance remain as a residue or impurity.

These requirements no longer apply to WIPP. The only exemption from the labeling requirements here that could apply to WIPP pertains to waste containing ODSs, as described in 40 CFR 82.106(b)(3); no certification, record-keeping, or notice requirements are stipulated for use of this exemption from the labeling requirements. Therefore, unless the requirements change within the next 2-year period, this section will be omitted in subsequent revisions of the BECR.

6.2.4.11 Prohibitions, 40 CFR 82.124(a)(4)

On or after May 15, 1993, no person may modify, remove, or interfere with any warning statement required by this subpart, except as described in § 82.112.

Every appliance and product containing CFCs should have a label from the manufacturer. It is WIPP policy that warning labels not be removed or tampered with. If a label is damaged, it is replaced.

6.2.4.12 Service, Maintenance, and Repair of Appliances Using Refrigerants, 40 CFR 82.150

This subpart applies to any person servicing, maintaining, or repairing appliances except for MVACs. This subpart also applies to persons disposing of appliances, including MVACs. In addition, this subpart applies to refrigerant



reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment.

Although no WIPP employees service, maintain, or repair appliances, these regulations apply to WIPP because the facility owns appliances and is responsible for the disposal of appliances. WIPP policy is that appliances will be sold intact or refrigerants must be removed from all appliances by a certified recycling contractor.

6.2.4.13 Prohibitions Regarding Maintenance, Service, Repair, or Disposal of Appliances, 40 CFR 81.154

Prohibitions are specified for persons who maintain, service, repair, or dispose of appliances who may vent or otherwise release into the environment any Class I or Class II substance used as refrigerant in such equipment. De minimis releases associated with good faith attempts to recycle or recover refrigerants are not subject to this prohibition. No person may dispose of appliances except for small appliances, MVACs, and MVAC-like appliances unless the required practices described in 40 CFR 82.156 are observed and equipment that is certified for that type of appliance is used. Prohibitions are also specified regarding recycling or recovery equipment.



Prohibitions also exist for the sale of Class I or Class II substances consisting wholly or in part of used refrigerants.

It is a violation of this subpart to accept a signed statement pursuant to 40 CFR 82.156(f)(2) if the person knew or had reason to know that such a signed statement is false.

No WIPP employees service, repair, or maintain appliances on site. Before appliances are disposed of, refrigerant is evacuated by a contractor/technician. No WIPP employees perform work on regulated appliances, and no recycling or recovery equipment is owned by the facility. Only small appliances have been disposed of by WIPP personnel since the regulation took effect on July 13, 1993. All contractors have submitted a signed statement to the EPA that ensures compliance with and knowledge of applicable regulations and is included in the equipment certification form. Recycling and reclamation appliances containing refrigerants used at the WIPP are owned by certified contractors. Recycling and reclamation appliances containing refrigerants used at the WIPP are owned by certified contractors. No recycling or reclamation appliances have been altered since their certification.

No Class I or II substances are sold or distributed from WIPP.

The technician writes and signs all "Work Performed" narratives on the work order at WIPP. The technician is always accompanied by an electrician who is responsible for the verification of the "Work Performed" statements.

6.2.4.14 Required Practices, 40 CFR 82.156

Effective July 13, 1993, any person opening appliances other than MVACs must evacuate the refrigerant to a system receiver or to a recovery or recycling machine as specified. At least one piece of certified, self-contained recovery equipment must be available at his/her place of business.

Leaks in appliances containing refrigerant must be repaired as specified.

The contractors have indicated that this is done; Work Orders verify that this requirement is met. All recovery equipment owned/used by the contractors at WIPP is certified. All maintenance, service, and repair on applicable appliances is performed by one of the certified contractors, who have verified on the equipment certification form that they have complied with these regulations.

All equipment owned/used by the contractors at WIPP is self contained. All applicable requirements of this section are being met.

No leaks in the refrigeration units on site have been detected in this reporting period.

6.3 Compliance Status of Permit Conditions

Table 6-2 summarizes the applicable permits and the status of the permit conditions. Currently, only the permit for the backup diesel electrical power-supply generators and a permit for open burning are required for WIPP under the CAA; those permits are discussed in Chapter 29.

The requirement to have an operating permit will ultimately be extended to include area sources of HAPs as well as all major sources, where area sources are those sources that emit less than 10 tons/year of any single HAP or less than 25 tons/year of any combination of HAPs. (It should be noted that radioactive emissions are regulated as a HAP; however, no definition of a major source of radionuclide emissions has been promulgated by the EPA as yet.) The EPA must promulgate threshold limits to determine which area sources will be subject to the operating-permit requirements. To date, no such limits for HAPS emitted from area sources have been published by the EPA, even as a proposed rule. Since WIPP is an area source for several HAPs and could emit small quantities of radionuclides after TRU waste is accepted at the facility, it is possible that an operating permit may eventually be required for WIPP. However,

the need for such a permit is unlikely because of the low levels of HAPs emissions possible from this facility.

TABLE 6-2. Permits Required Under the Clean Air Act - Status of Compliance with Permit Conditions

CITATION	REQUIREMENTS	COMPLIANCE STATUS
§ 109	NAAQS permit	See Chapter 29
40 CFR Part 70	Operating permit conditions to be determined, if applicable	<p style="text-align: center;">NOT APPLICABLE</p> <p>Threshold values for area sources requiring operating permits not yet established by EPA or NMED</p> <p>[See Section 6.3.1]</p>

6.3.1 Applicability of Operating Permit Requirements, 40 CFR Part 70

The EPA has not yet defined "major source" with respect to radionuclide emissions, since neither the 10-tpy limit for a single HAP nor the 25-tpy limit for combined HAPs emissions are applicable to such emissions. The EPA and the state are required to establish a threshold value for area sources that emit HAPs in amounts that are less than the appropriate major source designation and that will be required to file an operating permit application. Those facilities that emit HAPs at rates that meet or exceed the threshold values will be regulated under the operating permit program; those area sources with emissions that are lower than the threshold values will not be required to file an operating permit application. Until the threshold values are promulgated, area sources are considered to be exempt from the operating permit requirements. Specific operating permit conditions for a given facility will be specified in the individual permit.

7.0 FEDERAL WATER POLLUTION CONTROL ACT OF 1972 ("CLEAN WATER ACT")



7.1 Summary of the Law

The Federal Water Pollution Control Act of 1972 (33 USC §§ 1251 et seq.) is usually referred to as the "Clean Water Act" (CWA). The major program under this act is the National Pollutant Discharge Elimination System (NPDES). This program, discussed in § 402 of the CWA, regulates the discharge of pollutants into navigable waters of the United States. The regulations implementing the NPDES that are relevant to the WIPP Project are found in 40 CFR Part 122, *EPA Administered Permit Programs: the National Pollutant Discharge Elimination System*, which contains definitions and basic application requirements, standard permit conditions, and monitoring and reporting requirements for the NPDES program. However, because there are no point-source discharges into navigable waters at WIPP, the facility is not required to obtain a standard NPDES permit.

In 1990, a NPDES storm water permit program was added to the CWA (§ 402[p]) to govern the discharge of pollutants into precipitation runoff. The EPA has determined that the NPDES storm water regulations found in 40 CFR 122.26 are applicable to WIPP because a potential exists for storm water runoff to contact regulated pollutants. The NPDES storm water permit program involves three types of permits: general, individual, and group. To obtain a permit, a facility submits either a Notice of Intent (NOI) for a general permit, an individual application for an individual permit, or an application as part of a group of applicants for a group permit. The EPA planned to cover most industrial discharges under general permits and issued the *Final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity* in the *Federal Register* on September 9, 1992. These general permits cover facilities that discharge effluents associated with industrial activities in 11 states that do not have authorized NPDES programs, including New Mexico.

Of the other regulations that implement the NPDES program, only 40 CFR 122.21, *NPDES Permit Assessment for Sewage Sludge*, and 40 CFR Part 459, *Photographic Point Source Category*, could apply to WIPP. In order to meet the requirements of 40 CFR 122.21(c)(2), the DOE filed a NPDES sewage sludge information package with EPA Region VI, requesting a determination as to whether the facility will be required to obtain a NPDES sewage-sludge discharge permit. Based on the determination made by the Regional Director, the DOE may be required to submit an NOI to obtain a sludge-discharge permit. However, WIPP is exempt from regulation under 40 CFR Part 459 because photographic wastes are collected and transported off site to a licensed facility for disposal.

Another implementing regulation under the CWA applicable to the WIPP Project is 40 CFR Part 112, *Oil Pollution Prevention*, which includes criteria and guidelines for the

preparation and implementation of a facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan.

7.2 Compliance Status of the Regulatory Requirements

Table 7-1 summarizes the regulatory requirements and their compliance status under the CWA. The text gives more detail on the compliance status for each requirement.

TABLE 7-1. Clean Water Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR Part 112, Oil Pollution Prevention		
40 CFR 112.3	Requirements for preparation and implementation of spill prevention, control, and countermeasures (SPCC) plans	<p style="text-align: center;">ACHIEVED</p> <p>WIPP SPCC Plan [Section 7.2.1]</p>
40 CFR 112.5	Amendment of SPCC plans by owners and operators	<p style="text-align: center;">UP TO DATE</p> <p>WIPP SPCC Plan [Section 7.2.2]</p>
40 CFR Part 122, EPA-Administered Permit Programs: the National Pollutant Discharge Elimination System (NPDES)		
40 CFR 122.1(b)(1)	1004[A]NPDES permits for the discharge of pollutants from any point source into waters of the United States	<p style="text-align: center;">NOT APPLICABLE</p> <p>No NPDES permit required because of lack of process- or point-source discharges at WIPP [Section 7.2.3]</p>
40 CFR 122.21(c)(2)	NPDES permit assessment for sewage sludge	<p style="text-align: center;">ACHIEVED</p> <p>Information package submitted to the EPA for NPDES sewage-sludge permit determination by the deadline (February 19, 1994) [Section 7.2.4]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 122.26(a)	Requirement for a storm water discharge permit	<p style="text-align: center;">ACHIEVED</p> <p>General permit obtained, # NMR00A021</p> <p>[Section 7.2.5]</p>
40 CFR 122.26(c)	Application requirement for storm water discharges associated with industrial activity	<p style="text-align: center;">NOT APPLICABLE</p> <p>Requirement superseded by issuance of EPA's NPDES General Permits and filing of Notice of Intent for WIPP</p> <p>[Section 7.2.6]</p>

7.2.1 SPCC Plan Requirements, 40 CFR 112.3

Requirements for the preparation and implementation of SPCC plans are specified under the "Oil Pollution Prevention" regulations of 40 CFR Part 112.

The WIPP Spill Prevention, Control, and Countermeasures Plan was issued in November 1988.

7.2.2 Amendment of the SPCC Plan by the Owner/Operator, 40 CFR 112.5

Requirements for amending SPCC plans by the owners/operators of a facility are specified under the "Oil Pollution Prevention" regulations of 40 CFR Part 112.

The WIPP SPCC Plan undergoes an annual review and is revised as needed to reflect changes in facility activities and emergency equipment (WID, 1993a).

7.2.3 NPDES Permit Requirement, 40 CFR 122.1(b)(1)

The NPDES program requires permits for the discharge of pollutants from any point source into waters of the United States.



There are no point-source discharges into navigable water from WIPP. Therefore, the facility is not required to obtain a standard NPDES permit.

7.2.4 NPDES Permit Assessment, 40 CFR 122.21(c)(2)

Any "treatment works treating domestic sewage" commencing operations after the promulgation of an applicable standard for sewage sludge use or disposal shall submit an application to the director at least 180 days prior to the date proposed for commencing operations.



The WIPP stabilization sewage lagoon began operating in June 1985. Sludge was disposed of in 1993 during the facility expansion. This expansion included the construction of two new lined evaporation ponds and the subsequent draining and lining of the primary evaporation pond. All sludges were removed from the primary evaporation pond prior to the installation of the synthetic liner. This was the first removal of sludge in the 9-year operation of the facility, and it is anticipated that sludge removal will be necessary approximately twice prior to final facility closure.

The sewage sludge permitting regulations were promulgated on February 19, 1993, and became effective on February 19, 1994 (i.e., the submittal of a sewage sludge application was due on the latter date). WID personnel worked closely with NMED and EPA personnel in complying with these new regulations and satisfied the applicable requirements. Therefore, the 180-day prenotification period is not applicable here.

Consultation with the NMED Surface Water Bureau and the EPA Region VI Water Management Division provided a determination for land disposal of the sewage sludges. Dried sludges were removed from the primary evaporation pond and mixed with top soils at a reclamation site near the construction landfill. Sludges were used as a soil additive to implement the best management practices (BMPs) identified in the *WIPP National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention Plan (WIPP PPP)* (WID, 1993b).

7.2.5 Requirement for NPDES Permit for Storm Water Discharges, 40 CFR 122.26(a)

Storm water discharges are regulated by the EPA under the NPDES program. The EPA requires an NPDES permit for facilities that could discharge contaminated storm water runoff to waters of the United States.

The WIPP site is regulated by NPDES Storm Water General Permit # NMR00A021.

Evaluation of NPDES storm water compliance options for the WIPP began in July 1991. On April 2, 1992, the EPA published the final *NPDES Application Deadlines, General Permit Requirements and Reporting Requirements for Storm Water Discharges Associated with Industrial Activity*, which established the new general permit rules for minimal sampling and analytical requirements. The EPA published the *Final NPDES*

General Permits for Storm Water Discharges Associated with Industrial Activity (hereafter referred to as the "NPDES General Permits") in the *Federal Register* on September 9, 1992. These general permits established NOI requirements, prohibitions, requirements to develop and implement storm water pollution prevention plans, and requirements to conduct site inspections for facilities with discharges that are authorized by the permit. In addition, these permits established monitoring requirements for certain classes of facilities.

This requirement is addressed in the WIPP Pollution Prevention Plan (PPP). No sampling was required for the submittal of the NPDES General Permits NOI.

The NPDES storm water rules require compliance sampling of discharges resulting from any storm event that is greater than 0.1 inch in magnitude. The WIPP uses BMPs such as retention basins designed to contain two consecutive 24-hour storm events, the covering of material storage areas, and the reclamation of disturbed sites to eliminate storm water contact with regulated pollutants. By design, it is anticipated that regulated discharges at WIPP will be required to complete compliance sampling only if a storm event results in a discharge from a retention basin. If sampling is required, it will be conducted as required by the NPDES General Permits.

7.2.6 Application Requirement for Storm Water Discharges Associated with Industrial Activity, 40 CFR 122.26(c)

The implementing regulations in Part 122 require the submittal of an application for a storm water NPDES permit.

This requirement was superseded by the issuance of EPA's *Final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity* (57 FR 41236, September 9, 1992), which replaces the requirement for the submittal of an application with the filing of an NOI for obtaining a general permit. The NOI for WIPP was submitted to the EPA on September 26, 1992 (see Section 7.3.1).

7.3 Compliance Status of Permit Conditions

Table 7-2 summarizes specific conditions and their compliance status under the EPA's *Final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity*. These general permits were published in the *Federal Register* on September 9, 1992. All applicable requirements are specified in Part IV and Appendix B of the NPDES General Permits.

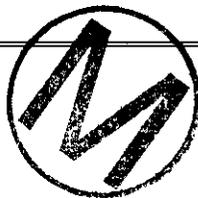


TABLE 7-2. NPDES General Permits - Summary of Permit Condition Compliance Status

CITATION	CONDITION	COMPLIANCE STATUS
<p><i>CWA, Final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity (57 FR 41236, September 9, 1992)</i></p>		
<p>IV(A); Appendix B, II(A)</p>	<p>Notice of Intent (NOI) to file for general permit</p>	<p style="text-align: center;">ACHIEVED</p> <p>Filed on September 26, 1992, with the EPA</p> <p>[Section 7.3.1]</p>
<p>IV(A)(4)</p>	<p>Notice of Termination (NOT)</p>	<p style="text-align: center;">NOT APPLICABLE</p> <p>Containment of storm water discharges not demonstrated</p> <p>[Section 7.3.2]</p>
<p>IV(B)(1); Appendix B, III(A)</p>	<p>Prohibition on non-storm water discharges</p>	<p style="text-align: center;">ACHIEVED</p> <p>Discharges: either exempt, non-regulated, or contained</p> <p>[Section 7.3.3]</p>
<p>IV(B)(2); Appendix B, III(B)</p>	<p>Releases of reportable quantities of hazardous substances and oil</p>	<p style="text-align: center;">UP TO DATE</p> <p>Two releases of ethylene glycol reported; no modification necessary to the WIPP PPP.</p> <p>[Section 7.3.4]</p>
<p>IV(C); Appendix B, Part IV</p>	<p>Storm water pollution prevention plan</p>	<p style="text-align: center;">ACHIEVED</p> <p>Identified in WIPP PPP</p> <p>[Section 7.3.5]</p>
<p>IV(C)(1); Appendix B, IV(D)(1)</p>	<p>Pollution prevention team</p>	<p style="text-align: center;">ACHIEVED</p> <p>Identified in WIPP PPP</p> <p>[Section 7.3.6]</p>



CITATION	CONDITION	COMPLIANCE STATUS
IV(C)(2); Appendix B, IV(D)(2)	Identification of potential pollution sources	ACHIEVED Contained in WIPP PPP [Section 7.3.7]
IV(C)(2); Appendix B, IV(D)	Site assessments	ACHIEVED Summarized in WIPP PPP [Section 7.3.8]
IV(C)(3); Appendix B, IV(D)(3)	Measures and controls (including record-keeping and internal reporting)	ACHIEVED Identified in WIPP PPP [Section 7.3.9]
IV(C)(4); Appendix B, IV(D)(4)	Comprehensive site compliance evaluations	UP TO DATE Initial site inspection; WIPP PPP [Section 7.3.10]
IV(D)(1); Appendix B, IV(D)(7)	Requirements for storage, processing, and handling areas for EPCRA § 313 "water priority chemicals"	NOT APPLICABLE No reporting under § 313 of EPCRA required [Section 7.3.11]
IV(D)(2); Appendix B, IV(D)(8)	Enclosure or covering of outdoor salt piles	NOT APPLICABLE Runoff diverted to evaporation basins; no discharge to waters of the U.S. possible, WIPP PPP [Section 7.3.12]
IV(D)(3); Appendix B, IV(D)(5)	Notification to municipal large and medium separate storm water systems	NOT APPLICABLE Storm water not discharged through a large or medium separate system [Section 7.3.13]



CITATION	CONDITION	COMPLIANCE STATUS
IV(E); Appendix B, Part IV and XI(C)(vi)	Monitoring and reporting requirements	<p style="text-align: center;">NOT APPLICABLE</p> <p>Required monitoring described in WIPP PPP</p> <p>[Section 7.3.14]</p>
IV(G); Appendix B, IV(A)(1)	Deadline for plan preparation and compliance	<p style="text-align: center;">ACHIEVED</p> <p>WIPP PPP issued March 31, 1993; implementation of BMP completed by October 1, 1993, compliance date</p> <p>[Section 7.3.15]</p>

7.3.1 NOI to File for a General Permit, IV(A) and Appendix B, II(A)

In the EPA's NPDES General Permit, a provision was made that a facility should file an NOI to file for a general storm water discharge permit rather than submit a formal application for the permit.

The NOI to obtain a NPDES general storm water permit was submitted to the EPA on September 26, 1992. The EPA issued a general permit to WIPP on December 31, 1992 (# NMR00A021).

7.3.2 Notice of Termination (NOT), IV(A)(4)

A facility may submit an NOT if no storm water discharges will be released.

Although the WIPP has implemented BMPs that are designed to make WIPP a zero-discharge facility, this requirement currently is not applicable because the facility has the potential to discharge storm water that could contact regulated pollutants. If WIPP can demonstrate that the storm water discharges can be contained effectively, a NOT may be filed as specified under Condition IV(A)(4) of the NPDES General Permits. If the NOT is approved by the EPA, coverage of WIPP under the *NPDES General Permits for Storm Water Discharges Associated with Industrial Activity* will cease.

7.3.3 Prohibition on Non-Storm Water Discharges, IV(B)(1) and Appendix B, III(A)

The EPA prohibits the release of non-storm water discharges under the storm water discharge NPDES permit.

All condensate discharges are collected and disposed of as wastes in accordance with the applicable regulatory criteria.

7.3.4 Releases of Reportable Quantities of Hazardous Substances and Oil, IV(B)(2) and Appendix B, III(B)

Releases of reportable quantities of hazardous substances and oil must be reported.

Two spills (ethylene glycol) at WIPP over the RQ were reported to the National Response Center during this reporting period. Both spills were contained immediately and cleaned up in accordance with the WIPP spill response procedure.

The WIPP PPP (WID, 1993b) addresses the actions that must be taken in the event of a reportable spill, including notification of the National Response Center. If the notification to the National Response Center is made in reference to a release from BMPs (retention basins, etc.), the PPP must be modified within 14 days to provide a description of the release; the circumstances leading to, and the date of the release; measures to prevent recurrence and to respond to such releases; and notification of the EPA. The ethylene glycol spills were not released from the BMPs to waters of the United States.

7.3.5 Storm Water Pollution Prevention Plan, IV(C) and Appendix B, Part IV

Regulated facilities with a general permit must have prepared and implemented a storm water pollution prevention plan.



The WIPP PPP describes how the BMPs and other requirements of the NPDES storm water regulations are being implemented at the WIPP. Requirements addressed include the identification of a pollution prevention team, the potential pollution sources, and past spills and leaks.

7.3.6 Pollution Prevention Team, IV(C)(1) and Appendix B, IV(D)(1)

A pollution prevention team is required for permitted facilities. This team must be addressed in the facility's PPP.

The WIPP Pollution Prevention Team is composed of representatives from organizations within the DOE and WID who are knowledgeable about the facility and its operations and who will provide structure and direction to the storm water management program. The members of the Pollution Prevention Team and their functional area responsibilities are identified in the PPP.

7.3.7 Identification of Potential Pollution Sources, IV(C)(2) and Appendix B, IV(D)(2)

Potential sources of pollution must be identified at the permitted facility.

A site inspection was conducted to identify illicit connections into either the WIPP sewage system or into storm water diversion swales. The four-day site inspection focused on all surface facility operations, the status of existing BMPs, material handling practices, material storage areas, and storm water flow patterns and volumes. The inspection revealed seven areas that could contribute pollutants to storm water runoff. These seven areas are identified and discussed in the PPP.

Storm water flows were evaluated using NMED and EPA methodology. Because the NMED guidelines for calculating runoff coefficients are more stringent, they were chosen to calculate storm water runoff from the WIPP. Meetings were held with the EPA Region VI Storm Water Section and with the NMED Ground Water and Surface Water Bureaus to evaluate compliance alternatives.

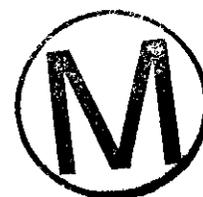
As described in the PPP, three different material inventories were used to complete the materials inventory assessment: the WIPP Stores Stock Inventory, the MSDS Inventory, and the Hazardous Air Pollutants Inventory. Several site walkarounds were then conducted to examine material storage practice and to identify the operations and storage areas with the potential to come into contact with storm water.

Non-storm water discharges, described in the PPP, are discussed in Section 7.3.3 above. The existing monitoring data are also described in the PPP, and the locations of the data are specified. An identification of potential risks from discharges was not performed because all non-storm water discharges are either exempted, contained, or not regulated.

7.3.8 Site Assessments, IV(C)(2) and Appendix B, IV(D)

A site assessment for storm water discharge sources must be included in a facility's PPP.

A summary of the site assessment is provided in the PPP. This summary identifies the potential pollutant sources that require additional controls or BMPs to ensure compliance with the requirements. (See also Section 7.3.7 above.)



7.3.9 Measures and Controls, IV(C)(3) and Appendix B, IV(D)(3)

Measures and controls (including record-keeping and internal reporting) must be addressed in the PPP.

The measures and controls for discharges are described in the PPP. BMPs and implementation of these practices are specified for eight management areas, which include the seven areas identified in Section 7.3.7 and the solid waste management units (SWMUs) located in the rest of the 16-section withdrawal area. Included in the discussion are sections on good housekeeping, maintenance, and visual inspections; the WIPP SPCC Plan; management of runoff and of sediment and erosion controls; employee training; compliance reporting; annual site compliance evaluations; and record-keeping.

7.3.10 Comprehensive Site Compliance Evaluations, IV(C)(4) and Appendix B, IV(D)(4)



Comprehensive site compliance evaluations are mandatory for a permitted facility and must be discussed in the facility's PPP.

Comprehensive site inspections are discussed in the PPP. The initial internal site assessment is described, as is the periodic site compliance evaluation. The CWA Coordinator is responsible for conducting quarterly site compliance evaluations. The NPDES program, including site operation and materials management, is reviewed annually. In addition, the NPDES storm water permit program is evaluated periodically as part of the WIPP Environmental Compliance Assessment Program. The PPP will be reviewed quarterly to reflect changes in compliance strategy, regulations, team members, etc.

During the inspections, material handling and storage areas and other potential sources of pollution are visually inspected for evidence of actual or potential pollutant discharges. Guidelines for housekeeping, maintenance, and visual inspections are provided in a Westinghouse manual. WID personnel conduct self-assessments in accordance with a WIPP procedure, which outlines the requirements for evaluating good housekeeping practices and for making visual inspections. In addition, WID personnel conduct quarterly walkarounds to assess compliance with the storm water regulations at the site and develop corrective action plans to mitigate any issues that may arise from these assessments.

7.3.11 Requirements for Storage, Processing, and Handling Areas for EPCRA § 313 "Water Priority Chemicals," IV(D)(1) and Appendix B, IV(D)(7)

The EPA specifies requirements for storage, processing, and handling areas for EPCRA § 313 "water priority chemicals."

This section is not applicable because WIPP has not been required to submit a report under § 313 of EPCRA during this reporting period due to certain exemptions (see Chapter 4.0).

7.3.12 Enclosure or Covering of Outdoor Salt Piles, IV(D)(2) and Appendix B, IV(D)(8)

The EPA's NPDES General Permit requires that outdoor salt piles be enclosed or covered. This requirement applies only to storage pile runoff discharged to waters of the United States.



The outdoor salt piles at WIPP are situated on a compacted, caliche liner which eliminates potential discharge to waters of the United States. Any storm water runoff is diverted to the caliche-lined evaporation basin. Storm water that collects in the evaporation basin usually evaporates within 24 hours. Furthermore, the moisture contained in the mined salt quickly forms a hard crust over the surface of the pile, which reduces wind-borne particulates. As rain falls on the salt pile, this protective crust becomes thicker, which further reduces salt particulate discharges. Because no waters are diverted to waters of the United States, closure or enclosure of the salt piles is not required.

7.3.13 Notification to Municipal Large and Medium Separate Storm Water Systems, IV(D)(3) and Appendix B, IV(D)(5)

The NPDES General Permits require that the permitted facility notify the owners/operators of any municipal large and medium separate storm water systems that service the facility in the event of a discharge.

This requirement is not applicable at WIPP because storm water is not discharged through a large or medium separate storm water system.

7.3.14 Monitoring and Reporting Requirements, IV(E) and Appendix B, Part IV and XI (C)(vi)

Monitoring and reporting requirements required are described in the NPDES General Permits and differ for different types of facilities.

As discussed in the PPP, all regulated storm water discharges are or will be contained within retention basins or controlled by practices such as diversion berms, reclamation, or material covers. Therefore, the need for compliance sampling at WIPP is not anticipated.

As indicated by the PPP, a Discharge Monitoring Report (DMR) is required only if a discharge has occurred. In the event of a discharge, the DMR, along with sampling results, will be submitted to the EPA on the appropriate DMR form by October 28 of the appropriate year.

7.3.15 Compliance Deadlines, IV(G) and Appendix B, IV(A)(1)

The NPDES General Permits require that the permitted facility complete the development of the Pollution Prevention Plan by the regulatory deadline of April 1, 1993, and require compliance with the terms of the plan by October 1, 1993.

As required by the NPDES General Permit for WIPP, the WIPP PPP was issued on March 31, 1993 (WID, 1993b). As described in Chapter 5 of the PPP, the implementation of BMPs such as retention basins, reclamation of disturbed sites in Zone 1, and the covering of material storage areas was completed by the regulatory deadline of October 1, 1993. The BMPs are inspected on a quarterly basis.



8.0 SAFE DRINKING WATER ACT

8.1 Summary of the Law

The Safe Drinking Water Act of 1974 (SDWA; 42 USC §§ 300f et seq.), as amended, provides the regulatory strategy for protecting public water supply systems and underground sources of drinking water. As defined in the implementing regulations in 40 CFR Part 141, *National Primary Drinking Water Regulations*, these are systems that provide water for human consumption and that have at least 15 connections or regularly serve at least 25 people.

The SDWA also protects underground sources of drinking water from underground injection of contaminated fluids. Underground injection, defined as "subsurface emplacements of fluids by well injections" in § 1421(d) of the SDWA, is governed by the Underground Injection Control (UIC) program described in Subpart C of 40 CFR Part 144.

The EPA delegated authority for ensuring compliance with the SDWA's National Primary Drinking Water Standards by approving the New Mexico Environment Drinking Water Regulations. These regulations now occupy Section 7.1 of Title 20 of the New Mexico Administrative Code (20 NMAC 7.0). (See Chapter 31, New Mexico Drinking Water Regulations.)

8.2 Compliance Status of the Regulatory Requirements

The WIPP LWA specifically requires compliance with the SDWA. The relevant requirements from the SDWA are summarized in Table 8-1, along with the compliance status of each. More detail is presented in the text.

The NMED has authority to administer the SDWA in New Mexico. The state compliance criteria and general operating requirements for the owners and operators of water-supply systems are described in 20 NMAC 7.1. These regulations and the compliance status at WIPP are covered in Chapter 31.



TABLE 8-1. Safe Drinking Water Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR Part 142, National Primary Drinking Water Regulations Implementation		
40 CFR 142.4	State program requirements	See Chapter 31, New Mexico Water Supply Regulations [Section 8.2.1]
40 CFR Part 144, Underground Injection Control		
40 CFR 144	UIC	NOT APPLICABLE No TRU waste or other disposal at WIPP using UIC [Section 8.2.2]

8.2.1 State Program Requirements, 40 CFR 142.4

All applicable requirements in this section are covered in the state program for the SDWA. (See Chapter 31, which addresses the New Mexico Water Supply Regulations.)

8.2.2 Underground Injection Control, 40 CFR 144

The EPA has established a number of requirements for facilities that dispose of wastes by means of underground injection.

None of the hazardous waste currently generated at WIPP is injected underground, nor will TRU waste be disposed of by underground injection at WIPP. Therefore, the EPA's requirements for UIC do not apply to WIPP.

9.0 TOXIC SUBSTANCES CONTROL ACT

9.1 Summary of the Law

Prior to the passage of the Toxic Substances Control Act (TSCA; 15 USC §§ 2601 et seq.), significant gaps existed in the federal government's authority to test and regulate problem chemicals. The CAA, the CWA, and other laws deal with chemical substances only when they entered the environment as wastes (e.g., as emissions to the air or discharges into the water). In many cases, controls could not be easily fashioned or required without severe economic consequences. Other statutes, such as the Occupational Safety and Health Act and the Consumer Product Safety Act, deal only with one phase of the chemical's existence (worker exposure or direct consumer exposure) and have no authority to address environmental hazards. Whereas both of these statutes were needed, the life cycle of a chemical, from production to ultimate disposal, provides many opportunities for release to the environment, resulting in human exposure; and federal authority to deal with the overall cycle was fragmented. The TSCA legislation imposed on new toxic substances, which requires testing before the chemicals reach the production phase, helped to overcome this difficulty.

TSCA has two main features: it regulates (1) the production, use, distribution, and disposal of new, potentially toxic chemical substances, where necessary, and (2) potential hazards from toxic chemicals. TSCA requires that tests be conducted on new chemical substances before significant human or environmental exposure can occur.

The act applies primarily to commercial manufacturers, importers, and processors of toxic chemicals. The WIPP is not a manufacturer or a processor of chemical products; therefore, most of the provisions of TSCA do not apply. However, three sections of this act pertain to existing commercial toxic substances, rather than to the development of new chemicals. These sections deal with asbestos, indoor radon abatement, and polychlorinated biphenyls (PCBs).

9.1.1 Asbestos Hazard Emergency Response Act of 1986

Because of the potential for serious health hazards associated with asbestos, Congress amended TSCA in 1986 by adding Title II, *The Asbestos Hazard Emergency Response Act (AHERA)*. AHERA requires the EPA to establish a comprehensive regulatory framework of inspection, management, planning, operations and maintenance activities, and appropriate abatement responses for controlling asbestos-containing materials in schools. Under AHERA, EPA promulgated its "AHERA-in-Schools Rule" on October 17, 1987. The 1988 AHERA amendments provided additional time for local educational agencies to submit asbestos management plans to the state governors and begin the implementation of these plans.

Under AHERA, the EPA was also required to conduct a study to determine the extent of danger to human health posed by asbestos in public and commercial buildings and the means to respond to such danger. This study has been submitted to Congress. At the present time, the EPA does not recommend a regulatory program modeled on AHERA for public and commercial buildings.

9.1.2 Indoor Radon Abatement

The Title III TSCA amendment, *Indoor Radon Abatement*, was added to address the national long-term goal "with respect to radon levels in buildings, that the air within the buildings in the United States should be as free of radon as the ambient air outside of buildings." One of the goal-driven requirements that Title III sets forth in § 309, *Study of Radon in Federal Buildings*, directs each Federal department or agency that owns a Federal building to conduct a study to determine the extent of radon contamination in such buildings. The WIPP has responded to this requirement.

9.1.3 Polychlorinated Biphenyls (PCBs)

Section 6(e) of TSCA, *Polychlorinated Biphenyls*, directed the EPA to phase out PCB manufacture and use according to a mandated timetable. This timetable directed the EPA to promulgate rules for the disposal and marking of PCBs within six months of the enactment of TSCA: by one year after the passage of this act, no one was allowed to manufacture, process, distribute, or use any PCB in the United States except in "a totally enclosed manner." Furthermore, unless the EPA did not find any unreasonable risk of injury to public health or the environment, no one was allowed to manufacture PCBs at all after two years, or to distribute them after two and one-half years after TSCA's passage.

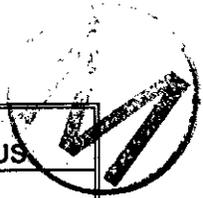
The regulations in 40 CFR Part 761, *Environmental Protection Agency Regulations for Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions for Polychlorinated Biphenyls under the Toxic Substances Control Act*, implement the PCB provisions of TSCA. This part applies to all parties who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB items. The purpose of these regulations is to establish prohibitions of, and requirements for, the manufacture, processing, distribution in commerce, use, disposal, storage, and marking of PCBs and PCB items. DOE policy now prohibits the use of PCB items or equipment in DOE-installed equipment at facilities such as WIPP. However, prior to the enactment of TSCA prohibiting PCBs, these chemicals were used in fluids of electrical systems all over the country, including DOE sites. Therefore, surveys have been done at DOE sites to identify any PCB or PCB-containing equipment and to eliminate the fluids and equipment in accordance with EPA standards. Requirements for storage and disposal of PCBs have also been established under TSCA (e.g., see 40 CFR 761.60, *Disposal Requirements*, and 40 CFR 761.65, *Storage for Disposal*).

9.2 Compliance Status of the Regulatory Requirements

Table 9-1 summarizes the applicable regulatory requirements and their compliance status under TSCA. The text gives more detail on the compliance status of each requirement.

TABLE 9-1. Toxic Substances Control Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
Title II, Asbestos Hazard Emergency Response Act		
TSCA, §§ 201 et seq.	Hazards of friable asbestos-containing material	<p style="text-align: center;">ACHIEVED</p> Asbestos-containing material restricted at WIPP [Section 9.2.1]
Title III, Indoor Radon Abatement		
TSCA, § 309	Study of radon in federal buildings	<p style="text-align: center;">ACHIEVED</p> Study conducted [Section 9.2.2]
40 CFR Part 761, EPA Regulations for Manufacturing Processing, Distribution in Commerce, and Use Prohibitions for Polychlorinated Biphenyls under the Toxic Substances Control Act		
40 CFR 761.20	Prohibition of PCBs	<p style="text-align: center;">ACHIEVED</p> Survey and removal of PCB-contaminated equipment; PCBs prohibited at WIPP [Section 9.2.3]
40 CFR 761.60	Disposal requirements for PCBs	<p style="text-align: center;">NOT APPLICABLE</p> PCB-contaminated TRU waste above the regulatory threshold of 50 ppm prohibited from disposal at WIPP [Section 9.2.4]



9.2.1 Hazards of Friable Asbestos-Containing Materials, TSCA, §§ 201 et seq.

Because of the hazards to human health inherent in friable asbestos-containing materials, Congress specified a number of requirements pertaining to asbestos specified in Title II of TSCA.



Asbestos is a restricted material at the WIPP. Therefore, in accordance with WIPP's Hazard Communication Program, asbestos-free insulating material must be used throughout the facility when insulation is being replaced or installed. The removal of any previously installed material that might contain asbestos requires the coordination of WID safety and compliance personnel.

9.2.2 Study of Radon in Federal Buildings, TSCA, § 309

Each Federal agency that owns a building must conduct a study of radon contamination in the building(s).

The DOE conducted an indoor radon study in response to this requirement and submitted the findings in *Results of the U.S. Department of Energy Indoor Radon Study* (DOE, 1990e).

9.2.3 Prohibition of PCBs, 40 CFR 761.20

No person may use any PCB or any PCB item regardless of concentration in any way other than in a totally enclosed manner within the United States.

The DOE has conducted surveys of electrical equipment, such as transformers, that could house PCB-containing fluids. Such a survey was conducted at WIPP. Any equipment containing PCBs was identified and has been replaced by non-PCB-containing equipment. All PCB-containing equipment identified was disposed of in accordance with the regulations described in Section 9.2.4.

9.2.4 Disposal Requirements for PCBs, 40 CFR 761.60

In most circumstances, PCBs must be incinerated as stipulated in 40 CFR 761.70 or placed in chemical-waste landfills that meet the requirements of 40 CFR 761.75 and that have been approved as a landfill for PCBs by the EPA.

Any DOE equipment identified at WIPP that contained PCB fluids was decontaminated as described in the regulations and disposed of as required.

The WIPP WAC states that only those wastes identified in the RCRA Part A and Part B applications as acceptable for emplacement at WIPP may be shipped to WIPP. As indicated in Chapter K of the *WIPP RCRA Permit Application* (Rev. 6), there are currently no plans to ship PCB-contaminated wastes above the regulatory threshold of 50 ppm from the generator sites to WIPP.



10.0 FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

10.1 Summary of the Law

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA; 7 USC §§ 136 et seq.) authorizes the EPA to regulate the registration, certification, use, storage, disposal, transportation, and recall of pesticides. Section 18 of FIFRA authorizes the EPA to exempt state and federal agencies from any provision of the act if emergency conditions requiring an exemption have been determined to exist, and the regulations of 40 CFR Part 166, *Exemption of Federal and State Agencies for Use of Pesticides under Emergency Conditions*, provide guidelines for urgent, nonroutine situations that require the use of pesticides and for which exemptions may be authorized. Sections 19(a) and 25(a) of FIFRA authorize the EPA to establish regulations and procedures regarding the disposal or storage of packages and containers of pesticides and the disposal or storage of excess amounts of such pesticides. The regulations of 40 CFR Part 165, *Regulations for the Acceptance of Certain Pesticides and Recommended Procedures for the Disposal and Storage of Pesticides and Pesticides Containers*, established procedures for the acceptance, disposal, or storage of packages and containers of pesticides and for the disposal or storage of excess amounts of such pesticides. The standards of FIFRA are considered mandatory for DOE facilities. All uses and applications of restricted-use pesticides at WIPP are conducted only by commercial pesticide applicators who are under contract with WID and are required to meet federal and state standards. (See also Chapter 38.)

10.2 Compliance Status of the Regulatory Requirements

The two major requirements of FIFRA and the compliance status of each are summarized in Table 10-1. More detail is provided in the text.

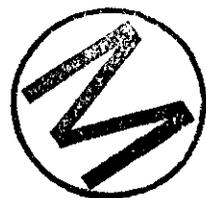


TABLE 10-1. Federal Insecticide, Fungicide and Rodenticide Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 152.15	Registration of pesticide products	<p>NOT APPLICABLE</p> <p>Pesticide applications done by contractors; pesticides and contracts reviewed by WID safety and regulatory compliance personnel</p> <p>[Section 10.2.1]</p>
40 CFR 165.8-.11	Recommended procedures for disposal or storage of pesticides	<p>UP TO DATE</p> <p>General-use product stored at WIPP complies with storage instructions on label</p> <p>[Section 10.2.2]</p>

10.2.1 Registration of Pesticide Products, 40 CFR 152.15

No person may distribute or sell any pesticide product that is not registered under FIFRA. The pesticide must be registered if the person who distributes or sells the substance knows that it will be used as a pesticide.



Restricted-use pesticides are neither stored at WIPP, nor are they applied by WIPP personnel. All applications of restricted-use pesticides are conducted according to existing contract(s) negotiated with pesticide applicators, and WID safety and regulatory compliance personnel review all pesticide application contracts before they are awarded. The DOE requires that any pesticide contractor be licensed with the state as a certified pesticide applicator and submit a list of pesticides used and their respective EPA numbers to WID prior to awarding the contract. The current agreement requires that the applicator perform scheduled quarterly applications and respond to unscheduled "special situations" such as occurrences of wasp swarming and ant infestation. Before an application is performed, the contractor submits information consisting of the application date, location, method of application, the generic pesticide name, and an MSDS for review by WID, which confirms that adequate protective equipment is available and that the pesticides to be used are not on the EPA restricted-

pesticide list. After the application, the contractor must submit such information to WID as the type and amount of pesticide used and the dilution factor.

CINCH, a general-use wasp and hornet killer used on site by WIPP personnel, is properly registered with the state of New Mexico.

10.2.2 Recommended Procedures for the Disposal or Storage of Packages and Containers of Pesticides, 40 CFR Part 165

Recommendations for the storage and disposal of pesticides are specified in 40 CFR 165.8 through 165.11.

WIPP currently makes a general-use wasp and hornet killer available to its personnel. The product is stored in the warehouse according to label instructions. Used, empty cans are discarded by WIPP personnel into satellite accumulation area containers and managed as hazardous waste.

Because WIPP personnel do not use, store, or dispose of restricted-use pesticides on site, the majority of these requirements are not applicable. All restricted-use pesticide applications are made by contractors, who are responsible for storing and disposing of pesticides off site.

The WIPP site is inspected annually by the New Mexico Department of Agriculture, Division of Agriculture and Environmental Services Bureau of Pesticide Management. The purpose of the inspection is to determine compliance with FIFRA, as amended and/or the New Mexico Pesticide Control Act. The inspection routinely includes an overview of the site warehouse, where consumer product pesticides are stored, and records pertaining to pesticides applied by the site pest control subcontractor. The site was inspected in March of 1995 and February of 1996. A Notice of Pesticide Inspection was generated following each inspection. No violations were noted.

All applications of restricted-use pesticides at WIPP are performed by commercial, state-licensed applicators. The DOE requires applicators under contract to comply with the requirements of the New Mexico Pesticide Control Act and the implementing regulations set forth by the New Mexico State University Board of Regents. More information on the state requirements is provided in Chapter 38.



11.0 NOISE CONTROL ACT OF 1972

11.1 Summary of the Law

In the Noise Control Act of 1972 (42 USC §§ 4901 et seq.), the EPA declared its policy of promoting an environment for all Americans that is free from noise jeopardizing public health or welfare. According to the act's policy clause in § 2(a)(3), the primary responsibility for noise control is vested in state and local governments. Federal regulation is deemed essential only for commercial noise sources requiring national uniformity of treatment (e.g., aircraft noise). However, federal agencies are directed to carry out the programs within their control in a manner that furthers the act's policy. Each agency having jurisdiction over any property or facility, or engaged in any activity resulting or which may result in the emission of noise, shall comply with federal, state, interstate, and local requirements regarding the control and abatement of environmental noise to the fullest extent consistent with their authority." Facilities under the DOE are required to comply with the Occupational Safety and Health Administration (OSHA) regulations that address occupational noise exposure standards under 29 CFR Part 1910, *Occupational Safety and Health Standards*.

The regulations under 29 CFR 1910.95, *Occupational Noise Exposure*, define the permissible noise exposure levels to which employees may be subjected. The regulations also include requirements for the development and implementation of a monitoring program, the establishment and maintenance of an audiometric testing program, the measurement of noise, the provision of personal hearing-protection equipment when necessary, and the administration of a hearing conservation program.

11.2 Compliance Status of the Regulatory Requirement

Table 11-1 summarizes the applicable requirement and its compliance status. More information is provided in the text.



TABLE 11-1. Noise Control Act of 1972 - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
<i>29 CFR 1910, Occupational Safety and Health Standards</i>		
29 CFR 1910.95	Compliance with hearing protection standards	<p style="text-align: center;">ACHIEVED</p> <p>Testing, controls, equipment, training, procedures, and contracted specialist in place; Hearing Conservation Program</p> <p>[Section 11.2.1]</p>

11.2.1 Compliance with Hearing Protection Standards, 29 CFR 1910.95

Employers must take measures to protect the hearing of employees.

The DOE administers a full program in accordance with the Noise Control Act and the implementing regulations. Program activities include the following: a hearing conservation program; an audiometric testing program; administrative and engineering controls (e.g., noise mufflers in the area of underground exhaust fans; posted signs); noise measurement (e.g., sound meters, dosimetry); and the provision of personal hearing-protection equipment (e.g., ear plugs, ear muffs). Furthermore, the DOE maintains a certified ear, nose, and throat specialist on contract, requires hearing protection training for WIPP employees, and has developed procedures such as the Hearing Conservation Program. The *WIPP Safety Manual* and the *Occupational Health Manual* and their implementing procedures address the requirements of and activities conducted under this program.



12.0 NATIONAL ENVIRONMENTAL POLICY ACT

12.1 Summary of the Law

The National Environmental Policy Act (NEPA; 42 USC §§ 4321 et seq.) establishes policy, sets goals, and provides means for carrying out the policy. Congress created the Council on Environmental Quality (CEQ) to administer the NEPA program. Within NEPA are "action-forcing" provisions to ensure that federal agencies act according to the letter and spirit of the act and NEPA requirements for identifying reasonable courses of action, along with the environmental consequences of all proposed actions, for all major Federal actions under consideration. The purpose of NEPA is not to generate paperwork but to foster action. The NEPA process is intended to help public officials make decisions based on understanding possible environmental consequences to actions and take the appropriate steps to protect, restore, and improve the environment. Because public involvement in the decision-making process is mandated, NEPA has often been referred to as a "public disclosure law."

The CEQ's regulations in 40 CFR Parts 1500 through 1508 implement § 102(2) of NEPA, informing Federal agencies about what they must do to comply with the procedures and to achieve the goals of NEPA. These regulations outline specific requirements for the early integration of the NEPA process, the preparation of environmental impact statements (EISs) or environmental assessments (EAs), public review and solicitation of comments on EISs, decisions with respect to an EIS or EA, and the implementation of the decisions.

12.2 Compliance Status of the Regulatory Requirements

Table 12-1 summarizes the regulatory requirements and their compliance status under NEPA. Additional information is provided in the text.



TABLE 12-1. National Environmental Policy Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR Parts 1500-1508	Provision of environmental information to public officials and private citizens; use as a decision-making tool; need for EISs, EAs, and categorical exclusions.	<p style="text-align: center;">UP TO DATE</p> 1980 Final Environmental Impact Statement (FEIS) issued. 1981 FEIS Record of Decision (ROD) issued. 1990 Final Supplement Environmental Impact Statement (SEIS) and SEIS ROD issued. 1995 Bureau of Land Management Environmental Assessment adopted by the DOE for the Sand Dunes to Ochoa Power Line Project. 1996, draft SEIS-II under preparation. Several categorical exclusions granted.



12.2.1 Provision of Environmental Information to Public Officials and Private Citizens, 40 CFR Parts 1500-1508.

Environmental information must be made available to the public before decisions are made and actions are taken and must include a detailed statement on environmental impacts of major Federal actions significantly affecting the quality of the human environment.

Pursuant to the requirements of NEPA, the DOE published the *Final Environmental Impact Statement* (FEIS) for the WIPP in 1980 (DOE, 1980). The FEIS analyzed and compared the environmental impacts of various alternatives for demonstrating the safe disposal of TRU waste resulting from national defense activities. Based on the environmental analyses in the FEIS, the DOE published a Record of Decision (ROD) to the FEIS in 1981 to proceed with the phased development of the WIPP (DOE, 1981). This ROD noted that the FEIS would be supplemented as appropriate if new environmental data resulted from the SPDV program or from other WIPP activities.

Consistent with this commitment, the DOE prepared additional NEPA documentation to address changes in the proposed action and the development of new geologic and hydrologic information.

Changes addressed in the 1990 *Final Supplement Environmental Impact Statement* (SEIS) (DOE, 1990a) included alterations in the composition of the waste inventory, the transportation of waste to the WIPP, conducting a test phase at WIPP, and management of mixed waste (TRU waste with hazardous constituents). The DOE published a ROD to the SEIS in 1990 (DOE, 1990b). One of the commitments made in this second ROD was that the DOE will prepare another Supplemental Environmental Impact Statement (and ROD) prior to initiating the disposal phase at WIPP.

On August 23, 1995, the DOE issued a Notice of Intent (NOI) to prepare the WIPP's second SEIS for the disposal phase. Some of the information being analyzed in the SEIS-II includes the identification of additional generator sites, changes in known waste volume and form, acquisition of new data from the experimental program, and changes to the WAC.

On May 19, 1995, the DOE adopted an EA and a Finding of No Significant Impact issued by the Bureau of Land Management (BLM) which addressed potential impacts of the construction of the sand dunes to Ochoa Power Line Project and a new WIPP substation. The BLM prepared the EA since the construction of the power line took place on BLM-owned land.

Numerous categorical exclusions have been used at WIPP. WID maintains a procedure to direct the evaluation of potential environmental impacts associated with proposed WIPP projects and activities. The plan provides information regarding the screening of these activities to determine if additional NEPA documentation is required.



13.0 ATOMIC ENERGY ACT AND THE U.S. DEPARTMENT OF ENERGY

13.1 Summary of the Law

The Atomic Energy Act of 1954 as amended (AEA; 42 USC §§ 2011 et seq.) established a national program for research, development, and use of atomic energy for national defense and civilian purposes. Section 161 of the AEA authorized the Atomic Energy Commission (AEC) to establish rules, regulations, and orders to govern any activity regulated under the AEA to protect health and minimize hazards to life or property. Activities included standards and restrictions pertaining to the design, location, and operation of facilities.

The AEC has been succeeded by two organizations: DOE for national defense and the U.S. Nuclear Regulatory Commission (NRC) for domestic civilian purposes (see Chapter 15 for the compliance status of NRC-related requirements). Thus, the AEA gave the DOE its authority to develop policies, issue Orders, and promulgate regulations that address environmental, safety, and health protection aspects of radioactive waste and nuclear materials. The radioactive constituents of the transuranic¹ (TRU) waste to be shipped to WIPP are regulated under the AEA by a DOE system of Orders, notices, and directives which carries out the AEA mandate to implement effective and consistent programs to protect the public, the environment, and workers from adverse consequences from DOE operations. Thus, TRU waste is regulated under the AEA and, by extension, by DOE. Regulation of mixed waste (i.e., radioactive waste with hazardous constituents) is more complex. Radioactive wastes and constituents are excluded by statute from regulation under RCRA: in fact, RCRA specifically excludes "source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended" (§ 1004[27]) of RCRA; see also § 1006[a]). Therefore, TRU mixed waste is subject to dual regulation under the AEA and RCRA: the radioactive constituents are regulated under the AEA, whereas the hazardous constituents are regulated under RCRA. According to the EPA's policy statement that was published in the *Federal Register* on August 29, 1991 (56 FR 42730), "The hazardous waste components of mixed wastes are subject to RCRA management standards for hazardous wastes, whereas the regulation of the radionuclides (and their radiological hazards) are addressed under AEA authority."

¹The AEA defined "transuranic waste" as

...material contaminated with elements that have an atomic number greater than 92, including neptunium, plutonium, americium, and curium, and that are in concentrations greater than 10 nanocuries per gram, or in such other concentrations as the Nuclear Regulatory Commission may prescribe to protect the public health and safety (AEA, § 11[ee]).

In 1982, TRU waste was redefined as having a half life greater than 20 years and a concentration greater than 100 nanocuries per gram of waste. Wastes with concentrations of radioactivity that are less than 100 nanocuries per gram of waste are classified as low-level waste.



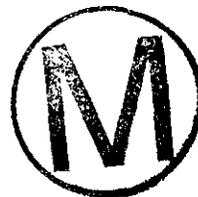
13.2 Compliance Status with the Regulatory Requirements

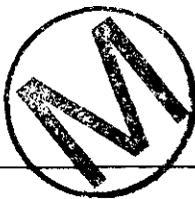
As indicated in the previous section, the DOE has used a system of Orders, notices, and directives to implement its programs under the AEA and to ensure compliance with other statutes and regulations. These implementing documents are not considered to be at the same levels as are those in the Code of Federal Regulations. Those DOE Orders that are most relevant to the management of TRU waste under the AEA are listed and summarized in Table 13-1.

Table 13.1 Summary of the Major DOE Orders Relating to the Management of TRU Wastes under the Atomic Energy Act

DOE Order/ Notice Number	Title of Order and Previous Orders Incorporated ¹	Summary
N-441.1	<p><i>Radiological Protection for DOE Activities</i> Order 5480.11, <i>Radiation Protection for Occupational Workers</i> Order 5480.15, <i>DOE Laboratory Accreditation Program for Personnel Dosimetry</i> Notice 5400.13, <i>Sealed Radioactive Source Accountability</i> Notice 5480.11, <i>Extension of Radiological Control Manual, Rev. 1</i></p>	<p>Establishes radiological protection program requirements that, combined with 10 CFR Part 835 and its associated implementation guidance, form the basis for a comprehensive program for protecting individuals from the hazards of ionizing radiation in controlled areas.</p> 
O-151.1	<p><i>Comprehensive Emergency Management System</i> Order 5500.1B, <i>Emergency Management System</i> Order 5500.2B, <i>Emergency Categories, Classes, and Notification and Reporting Requirements</i> Order 5500.3A, <i>Planning and Preparedness for Operational Emergencies</i> Order 5500.4A, <i>Public Affairs Policy and Planning Requirements for Emergencies</i> Order 5500.5A, <i>Public Affairs Policy</i></p>	<p>Establishes the following:</p> <ul style="list-style-type: none"> • Overall policy and requirements for the DOE Emergency Management System (EMS) • DOE emergency categories, classes, and notification and reporting requirements to facilitate the communication and reporting of emergency events. • Requirements for planning and preparedness for operational emergencies involving the DOE or requiring DOE assistance. • Requirements of the Emergency Readiness Assurance Program to ensure that the DOE EMS is ready to respond promptly, efficiently, and effectively to any emergency involving DOE facilities or requiring DOE assistance.

DOE Order/ Notice Number	Title of Order and Previous Orders Incorporated ¹	Summary
O-151.1 (Cont.)	<p><i>and Planning Requirements for a Fuel Supply Disruption Emergency</i></p> <p><i>Order 5500.7B, Emergency Operating Records Protection Program</i></p> <p><i>Order 5500.8A, Energy Emergency Planning and Management</i></p> <p><i>Order 5500.9A, Emergency Planning, Preparedness, and Response to Continuity of Government Emergencies</i></p> <p><i>Order 5500.10, Emergency Readiness Assurance Program</i></p>	
O-154.3	<p><i>Radiological Assistance Program</i></p> <p><i>Order 5000.3A, Occurrence Reporting and Processing of Operations Information</i></p> <p><i>Order 5400.1, General Environmental Protection Program</i></p> <p><i>Order 5500.1B</i></p> <p><i>Order 5500.2B</i></p> <p><i>Order 5500.3A</i></p> <p><i>Order 5500.4A</i></p> <p><i>Order 5500.10</i></p> <p><i>Order 5530.1A, Accident Response Group</i></p> <p><i>Order 5530.2, Nuclear Emergency Search Team</i></p> <p><i>Order 5530.4, Aerial Measuring System</i></p> <p><i>Order 5635.4, Protection of Unclassified Controlled Nuclear Information</i></p> <p><i>Order 5650.2B, Identification of Classified Information</i></p>	Establishes DOE policy, procedures, authorities, and responsibilities for its Radiological Assistance Program (RAP).



DOE Order/ Notice Number	Title of Order and Previous Orders Incorporated ¹	Summary
O154.5	<p><i>Federal Radiological Monitoring and Assessment Center</i></p> <p>Order 5000.3A Order 5400.1 Order 5500.1B Order 5500.2B Order 5500.3A Order 5500.4A Order 5500.10 Order 5530.1A Order 5530.2 Order 5530.3, <i>Radiological Assistance Program</i> Order 5530.4 Order 5635.4 Order 5650.2B</p>	<p>Establishes DOE policy, procedures, authorities, and requirements for the establishment of a Federal Radiological Monitoring and Assessment Center (FRMAC) as set forth in the <i>Federal Radiological Emergency Response Plan (FRERP)</i> described in 50 FR 46542.</p> 
O-231.1	<p><i>Environment, Safety, and Health Reporting</i></p> <p>Order 5400.1 (portions) Order 5400.2A, <i>Environmental Compliance Issue Coordination</i> (portions) Order 5400.5, <i>Radiation Protection of the Public and the Environment</i> (portion) Order 5440.1E, <i>National Environmental Policy Act Compliance Program</i> (portions) Order 5480.3, <i>Safety Requirements for the Packaging and Transportation of Hazardous Materials, Hazardous Substances and Hazardous Wastes</i> (portion) Order 5480.26, <i>Trending and Analysis of Operations Information Using Performance Indicators</i> (portion)</p>	<p>Ensures collection and reporting of information on environment, safety, and health that is required by law or regulation to be collected or that is essential for evaluating DOE operations and identifying opportunities for improvement needed for planning purposes within the DOE.</p>

DOE Order/ Notice Number	Title of Order and Previous Orders Incorporated ¹	Summary
O-231.1 (Cont.)	Order 5483.1A, <i>Occupational Safety and Health Program for DOE Contractor Employees at Government-Owned Contractor-Operated Facilities</i> (portions) Order 5484.1, <i>Environmental Protection, Safety, and Health Protection Information Reporting Requirements</i> (portions) Order 5630.12A, <i>Safeguards and Security Inspection and Assessment Program</i> (portions) Order 5634.1B, <i>Facility Approvals, Security Surveys, and Nuclear Materials Surveys</i> (portion)	
O-231.2	<i>Environmental Protection, Safety and Health Protection Information Reporting Requirements</i> Order 5484.1	Establishes the requirements and procedures for the reporting of information having environment, safety, and health (ES&H) significance for DOE operations.
O-241.1	<i>Scientific and Technical Information Management</i> Order 1360.4B, <i>Scientific and Technical Computer Software</i> Order 1430.1C, <i>Management of Scientific and Technical Information</i> Order 1430.2B, <i>Scientific and Technical Information Management Program</i> Order 1430.3A, <i>Policy for the Dissemination of and Access to Departmental Unclassified Scientific and Technical Information</i>	Establishes DOE policy and requirements to ensure the integration of scientific and technical information management into applicable DOE programs and activities, including provisions for disseminating scientific and technical information to promote scientific progress and public understanding.
O-326.1	<i>Suitability, Position Sensitivity Designations, and Related Personnel Matters</i> Order 3735.1, <i>Dissemination of the Departmental Conduct of Employees Regulations</i> Order 3750.1, <i>Work Force Discipline</i> Order 5631.B, <i>Personnel Security Program</i>	Identifies the interrelationships among suitability, security, and access authorizations; establishes guidance and policy regarding position sensitivity designations, certain background investigations, and suitability determinations; and establishes the policies and procedures regarding waivers of preemployment investigations. Implements the section of the Atomic Energy Act [Section 145(b)] that describes access requirements.
O-416.1	<i>Quality Assurance</i> Order 5700.6B, <i>Quality Assurance</i>	Establishes QA requirements for the DOE.

DOE Order/ Notice Number	Title of Order and Previous Orders Incorporated ¹	Summary
O-421.3	<p><i>Nuclear Safety Analysis Reports</i> Order 5480.5, <i>Safety of Nuclear Facilities</i> (portions) Order 5480.6, <i>Safety of Department of Energy-Owned Reactors</i> (portions) Order 5481.1B, <i>Safety Analysis and Review Systems</i></p>	<p>Establishes requirements for contractors responsible for the design, construction, operation, decontamination, or decommissioning of nuclear facilities to develop safety analyses that establish and evaluate the adequacy of the safety basis of the facilities.</p>
O-435.1	<p><i>Radioactive Waste Management</i> Order 5820.2A, <i>Radioactive Waste Management</i></p>	<p>Establishes policies, guidelines, and minimal requirements by which the DOE manages its radioactive and mixed waste and contaminated facilities.</p>
O-440.1	<p><i>Worker Protection Management for DOE Federal and Contractor Employees</i> Order 3790.1B, <i>Federal Employee Occupational Safety and Health Program</i> (portions) Order 5480.b, <i>Environmental Protection, Safety, and Health Protection Standards</i> (portions) Order 5480.7A, <i>Fire Protection</i> Order 5480.8A, <i>Contractor Occupational Medical Program</i> Order 5480.9A, <i>Construction Project Safety and Health Management</i> Order 5480.10, <i>Contractor Industrial Hygiene Program</i> Order 5480.16A, <i>Firearms Safety</i> Order 5483.1A</p>	<p>Establishes the framework for an effective worker protection program that will reduce or prevent accidental losses, injuries, and illnesses by providing DOE federal and contractor workers with a safe and healthful workplace.</p>
O-460.1	<p><i>Packaging and Transportation Safety</i> Order 1540.2, <i>Hazardous Material Packaging for Transport--Administrative Procedures</i> Order 5480.3</p>	<p>Establishes safety requirements for the proper packaging and transportation of DOE off-site shipments and on-site transfers of hazardous materials and for modal transport.</p>



DOE Order/ Notice Number	Title of Order and Previous Orders Incorporated ¹	Summary
O-460.2	<i>Departmental Materials Transportation and Packaging Management</i> Order 1540.1A, <i>Materials Transportation and Traffic Management</i> Order 1540.2 Order 1540.3A, <i>Base Technology for Radioactive Material Transportation Packaging Systems</i>	Establishes DOE's policies and requirements to supplement rules, regulations, and other DOE Orders for material transportation and packaging operations. 
P-450.1	<i>Environment, Safety and Health Policy for the Department of Energy Complex</i>	Lists DOE's guiding principles for protecting the worker and the environment.
5400.1	<i>General Environmental Protection Program</i>	Establishes environmental protection program requirements, authorities, and responsibilities for DOE operations for ensuring compliance with federal, state, and local environmental laws and regulations, Executive Orders, and internal DOE policies.
5400.3	<i>Hazardous and Radioactive Mixed Waste Program</i>	Establishes DOE hazardous and radioactive mixed waste policies and requirements and implements the requirements of RCRA within the framework of the environmental programs established under DOE Order 5400.1.
5400.5 ²	<i>Radiation Protection of the Public and the Environment</i>	Establishes standards and requirements for operations of the DOE and DOE contractors with respect to protecting members of the public and the environment against undue risk from radiation.
5480.4 ³	<i>Environmental Protection, Safety, and Health Protection Standards</i> Order 5480.1A, <i>Environmental Protection, Safety, and Health Protection Program for DOE Operations</i> (portion)	Specifies and provides requirements for the application of the mandatory ES&H standards applicable to all DOE and DOE contractor operations; provides a listing of reference ES&H standards; and identifies the sources of the mandatory and reference ES&H standards.

DOE Order/ Notice Number	Title of Order and Previous Orders Incorporated ¹	Summary
5480.5	<p><i>Safety of Nuclear Facilities</i></p> 	<p>Establishes a nuclear facility safety program requirements to ensure that:</p> <ul style="list-style-type: none"> • Nuclear facilities are sited, designed, constructed, modified, operated, maintained, and decommissioned in accordance with generally uniform standards, guides, and codes that are consistent with those applied to comparable licensed nuclear facilities; • Radioactive and fissionable materials are managed in such a manner that the probability of an accident is acceptably low; • An ES&H program is established in accordance with the requirements stipulated in this Order; • ES&H matters are addressed comprehensively and receive an objective review, with all identifiable risks reduced to acceptably low levels, and management authorization of the operation is documented; • Consideration is given to all potential criticality hazards associated with fissionable material operations outside nuclear reactors; and • Government property and essential operations are protected from the effects of potential accidents.

¹ Titles of any previous DOE Order is provided only the first time it is cited.

²To be replaced by O-441.1, which has not yet been issued.

³To be replaced by O-440.3, which has not yet been issued.

In addition to the regulations that pertain to NEPA (see Chapter 14), the DOE has also issued other regulations in the 10 CFR series. On December 14, 1993, 10 CFR Part 835, *Occupational Radiation Protection*, was published in the *Federal Register*. These regulations became effective on January 13, 1994. A number of programs are in place at WIPP to meet the requirements of 10 CFR Part 835 prior to receipt of TRU waste. It should be noted that these regulations describe occupational exposure limits resulting from normal DOE activities for general DOE employees. These limits are an annual total effective dose equivalent of 5 rems (0.05 sievert), a dose equivalent of 15 rems (0.15 sievert) to the lens of the eye, 50 rems (0.5 sievert) from the sum of the deep dose equivalent for external exposures and the committed dose equivalents to any other organs and tissues, and a shallow dose equivalent of 50 rems (0.5 sievert) to the skin or to any extremity (10 CFR 835.202[a]). All such requirements and limits will become applicable at WIPP upon the receipt of radioactive waste at the facility.

Proposed DOE regulations entitled *Radiation Protection of the Public and the Environment* (10 CFR Part 834) were published in the *Federal Register* on

March 25, 1993. These regulations will become applicable to WIPP when they have been finalized and when waste has been received at the facility.

The DOE has promulgated a new set of regulations, 10 CFR Part 830 (*Nuclear Safety Management*), which was published in the *Federal Register* on April 5, 1994. Compliance with the relevant portions of these regulations is discussed in the following sections and is summarized in Table 13-2. At present, only Subpart A (*General Provisions*) of 10 CFR Part 830 has been issued. Subpart A deals with the scope of the regulations and QA. Other subparts will be issued in the future that will address design (Subpart B), operations (Subpart C), and material management (Subpart D).

TABLE 13.2 Nuclear Safety Management (10 CFR Part 830) - Summary of Regulatory Compliance Status

Citation	Requirement	Compliance Status
10 CFR 830.4(a)	Taking action(s) inconsistent with the requirements of 10 CFR Part 830	<p style="text-align: center;">UP TO DATE</p> <p>No person known to have taken such action</p> <p>[Section 13.2.1]</p>
10 CFR 830.4(b)	Implementation and compliance with requirements of 10 CFR Part 830	<p style="text-align: center;">UP TO DATE</p> <p><i>WID Quality Assurance Program Description (QAPD), Rev. 15</i></p> <p>[Section 13.2.2]</p>
10 CFR 830.4(c)	Plan or program required by this part as the basis for determining compliance	<p style="text-align: center;">ACHIEVED</p> <p>QAPD, Rev. 15</p> <p>[Section 13.2.3]</p>
10 CFR 830.6	Records to substantiate compliance	<p style="text-align: center;">UP TO DATE</p> <p>QAPD, Rev. 15, Chapter 4</p> <p>[Section 13.2.4]</p>
10 CFR 830.7	Use of a graded approach	<p style="text-align: center;">UP TO DATE</p> <p>QAPD, Rev. 15; Procedure WP 13-QA3501</p> <p>[Section 13.2.5]</p>



Citation	Requirement	Compliance Status
10 CFR 830.120(a)	Development and implementation of contractor's Quality Assurance Program (QAP) in accordance with 10 CFR 830.120(c) to be approved by DOE and conduct of work	<p style="text-align: center;">UP TO DATE</p> <p>QAPD, Rev. 15; manuals, programs, and procedures; DOE approval of QAPD</p> <p>[Section 13.2.6]</p>
10 CFR 830.120(b)	Application of the appropriate QA criteria in the QAP; original submittal of QAPD to DOE; annual submittal of substantive changes in QAP to DOE	<p style="text-align: center;">UP TO DATE</p> <p>QAPD, Rev. 15; submittal to DOE and DOE approval; several submittals of substantive changes to DOE</p> <p>[Section 13.2.7]</p>
10 CFR 830.120(c)	QA criteria to be included in the QAP	<p style="text-align: center;">UP TO DATE</p> <p>QAPD, Rev. 15; other WID plans, procedures, and manuals (Attachment II)</p> <p>[Section 13.2.8]</p>



13.2.1 Taking Action(s) Inconsistent with the Requirements of 10 CFR Part 830, 10 CFR 830.4(a)

No person shall take or cause to be taken any action inconsistent with the requirements of this part or any program, plan, schedule, or other process established by this part.

No person is known to have taken action (or caused to take action) that is inconsistent with the requirements of 10 CFR Part 830 or with any of the program, plan, schedule, or other process established by these regulations.

13.2.2 Implementation and Compliance with Requirements of 10 CFR Part 830, 10 CFR 830.4(b)

The contractor responsible for the design, construction, operation, or decommissioning of the facility is responsible for implementing and complying with the requirements of this part.

WID has implemented and is complying with the requirements of 10 CFR Part 830 in Revision 15 of the *WID Quality Assurance Program Description* (QAPD; WP 13-1), which was issued in January 1995. The manager of Quality and Regulatory Assurance is responsible for verifying effective implementation of the QAPD and for ensuring that an internal self assessment of the quality program is performed annually.

13.2.3 Plan or Program Required by This Part as the Basis for Determining Compliance, 10 CFR 830.4(c)

If a section of this part expressly requires a plan, program, or implementation plan (approved by DOE), the provisions of the plan or program will be the basis used to determine compliance with the relevant nuclear safety requirements in the section.

This part specifies that a Quality Assurance Program (QAP) will be developed and implemented (10 CFR 830.120[a][ii]-[iii]). This required QAP is described in the WID QAPD (Rev. 15). The provisions of this QAP provide the basis used to determine compliance with the relevant nuclear safety requirements in the section. The WID QAPD was approved by DOE in January 1995.

13.2.4 Records to Substantiate Compliance, 10 CFR 830.6

Complete and accurate records will be maintained as needed to substantiate compliance with the requirements of this part.

WID personnel maintain complete and accurate records as necessary to substantiate compliance with the requirements of this part. Record keeping is described in more detail in Chapter 4 of the QAPD (Rev. 15).

13.2.5 Use of a Graded Approach, 10 CFR 830.7

Where indicated in a subpart, a graded approach will be utilized to comply with the requirements. When such an approach is applied, the bases for selecting an action shall be documented.



According to 10 CFR 830.120(b)(1), the criteria of 10 CFR 830.120(c) shall be applied using a graded approach. (See also Section 1.3.2.8.) Risk factors and the graded approach to quality assurance (QA) are discussed in Section 1.5.1.2 of the QAPD (Rev. 15). Assignment of a specific quality code to an item or activity is commensurate with the associated risk classification; the resulting levels of control provide effective program management and incorporate due regard for the health and safety of the public and plant personnel, complexity, consequences of failure, environmental

impacts, cost, and the safe and reliable operation of WIPP and the TRU transport packaging program.

WID has also issued a procedure (WP 13-QA3501, *Graded Approach*) to implement the graded approach to the application of the criteria described in 10 CFR 830.120(c).

A graded approach of quality measures to software QA requirements is also described in the QAPD. The extent to which specific programmatic controls are implemented will be appropriate to the specific application and will also be sufficient to ensure the quality of the software for its intended use. Several criteria are described that are to be considered in the software evaluation process.

13.2.6 Development and Implementation of Contractor's QAP to Be Approved by DOE and Conduct of Work in Accordance with 10 CFR 830.120(a) and 10 CFR 830.120(c)

The contractor responsible for the DOE nuclear facility shall develop a Quality Assurance Program (QAP) and submit it to DOE for approval. After the QAP has been approved by DOE, the contractor must implement it and must conduct its work in accordance with the criteria described in 10 CFR 830.120(c).



WID developed a QAP as described in the QAPD (Rev. 15). Quality-related work is conducted in accordance with the criteria specified in 10 CFR 830.120(c) and described in the QAPD. Attachment 1 to the QAPD consists of a table, the WID Implementing Document Matrix, that shows how WID manuals, programs, and procedures implement the criteria specified in 10 CFR 830.120(c). DOE approved the QAPD in January 1995.

13.2.7 Application of the Appropriate QA Criteria in the QAP and Annual Submittal of Substantive Changes in the QAP to DOE, 10 CFR 830.120(b)

The contractor shall develop a QAP by applying the QA criteria described in 10 CFR 830.120(c) and indicating how the criteria will be satisfied. The contractor will use a graded approach in applying the criteria and shall use appropriate standards where applicable to develop and implement the QAP. Within 180 days after May 5, 1994, the contractor shall submit the current QAP to DOE, along with an implementation plan, for approval. Substantive changes made to the QAP over the previous year shall be submitted annually to DOE for review.

WID has developed a QAP as described in the QAPD (Rev. 15) using the criteria specified in 10 CFR 830.120(c) (see Section 1.3.2.8). The QAPD includes a discussion of how the criteria of paragraph (c) of 10 CFR 830.120 are met. The "graded approach" used was described in more detail in Section 13.2.5.

Attachment 1 to the QAPD consists of a table, the WID Implementing Document Matrix, that shows how WID manuals, programs, and procedures implement the criteria specified in 10 CFR 830.120.

The QAPD was submitted to DOE, and DOE approved it in January 1995. Several substantive changes have been made to the QAPD since that time; each time, the changes were submitted to and approved by DOE.

13.2.8 QA Criteria to Be Included in the QAP, 10 CFR 830.120(c)

A written quality assurance program (QAP) shall be developed. The QA criteria to be included in the QAP are specified and include the management program, personnel training and qualification, quality improvement, documents, and records. The QA criteria also must address performance (i.e., work processes, design, procurement, inspection, and acceptance testing) and assessment (i.e., management assessment and independent assessment).



WID developed and implemented Revision 15 of the WID QAPD to comply with the requirement to prepare a written quality assurance program, which has recently been replaced with Revision 16. The management program is described in Subsection 1.1 of this document. As required, the organization structure, functional responsibilities and authorities, and interfaces are described in the QAPD and includes a description of planning considerations.

Personnel training and qualifications are described in Subsection 1.2. Subsection 1.3 pertains to quality improvement and includes a description of the requirements and responsibilities for ensuring that appropriate methods are used to enhance quality, to detect and prevent quality problems, and to take corrective actions when necessary when "conditions adverse to quality" have been detected.

Requirements pertaining to documents and records are described in Subsections 1.4 and 1.5 of the QAPD. The discussion in Subsection 1.4 addresses the preparation, review, and approval of documents. The discussion in Subsection 1.5 deals with the generation; classification; indexing; receipt; storage; preservation; disposition; retrieval; and correction of information in quality records.

Section 2 of the QAPD encompasses the general area of performance QA requirements. Work processes are addressed in Subsection 2.1, including work,

implementing procedures; item identification and control; special processes; and handling, storage, and shipping. Subsection 2.2, *Design Control*, presents a discussion of the design control requirements, including design input, process, analyses, interfaces, verification, and change. Subsection 2.3, *Procurement*, describes the requirements pertaining to procurement planning, documents, evaluation of supplier performance, and commercial grade items. Subsection 2.4, *Inspection and Testing*, provides information pertaining to the requirements and responsibilities for the inspection of Quality Code 1, 2, and 3 items or activities affecting the quality of those items to verify conformance to specified criteria. This subsection also describes requirements and responsibilities for the control of measuring and test equipment.

Section 3, *Quality Assurance Assessment Requirements*, is comprised of two subsections: *Management Assessment* (Subsection 3.1) and *Independent Assessment* (Subsection 3.2). Subsection 3.1 describes how managers should assess their management processes and identify, correct, and track problems that impede achievement of the organization's objectives. Subsection 3.2 describes how independent assessments are planned and conducted to evaluate compliance with the applicable QA requirements and the implementing procedures, as well as to evaluate the effectiveness of the overall quality program.

Section 4, *Sample Control and Quality Assurance Requirements*, deals with sample control and identification; handling, storing, and shipping samples; disposition of nonconforming samples; and environmental data operation samples. Section 5 addresses QA requirements for scientific investigations, whereas Section 6 deals with requirements for software.

Attachment 1 to the QAPD consists of a table, "WID Quality Requirement Implementing Documents," that shows how WID manuals, programs, and procedures implement the criteria specified in 10 CFR 830.120.

This discussion of the organization of the QAPD is based on Revision 16 of this document. This new revision was approved by WID on December 1, 1995; CAO approval was obtained on April 24, 1996, with a May implementation date.



14.0 NATIONAL ENVIRONMENTAL POLICY ACT AND THE U.S. DEPARTMENT OF ENERGY

14.1 Summary of the Law

As discussed in Chapter 12, NEPA establishes policy, sets goals, and provides a process for carrying out the policy. The NEPA process requires the identification of reasonable courses of action, along with the environmental consequences of all proposed actions, for all major Federal actions under consideration. The NEPA process is intended to help public officials make decisions based on understanding possible environmental consequences of proposed actions and to take the appropriate steps to protect, restore, and improve the environment. The establishment of this national policy ensures that consideration is given to environmental values and factors in federal planning and decision making. The DOE's policy is to comply fully with the letter and spirit of NEPA.

The Council on Environmental Quality (CEQ) regulations in 40 CFR Parts 1500-1508 implement § 102(2) of NEPA and inform Federal agencies as to what they must do to comply with the procedures and achieve the goals of NEPA. These parts provide regulations applicable to and binding on all Federal agencies for implementing the procedural provisions of NEPA. The DOE adopted the CEQ regulations and established 10 CFR Part 1021, *National Environmental Policy Act Implementing Procedures*, to implement the procedural provisions of NEPA. By issuing its guidelines as regulations published in the CFR, the DOE ensures that its NEPA procedures are more accessible to the public.

The implementing procedures in 10 CFR Part 1021 detail requirements for the preparation and circulation of NEPA documents, including EISs, supplemental EISs, Records of Decision (RODs), Mitigation Action Plans (MAP), and Environmental Assessments (EAs). The DOE requires that a MAP be prepared for the implementation of any commitments made in an EIS/ROD or supplement for mitigation of environmental impacts associated with an action. A MAP is also required of any Finding of No Significant Impact (FONSI) to an EA that contains mitigative actions prior to initiating the proposed action.

Subpart D, *Typical Classes of Actions*, of this part lists typical types of actions that require NEPA documentation and those which are typically categorically excluded from the need to prepare an EIS or an EA. Classes of actions that the DOE has determined do not individually or cumulatively have a significant effect on the human environment are *categorical exclusions*. The classes of actions identified in Subpart D are: (1) *Categorical Exclusions Applicable to General Agency Actions*, such as routine administrative actions; (2) *Categorical Exclusions Applicable to Specific Agency Actions*, such as installation of data-processing equipment; (3) *Classes of Actions That Normally Require EAs but Not Necessarily EISs*, such as field demonstration projects

for wetlands mitigation; and (4) *Classes of Actions That Normally Require EISs*, such as the siting, construction, and operation of a facility, such as the WIPP, for the disposal of TRU waste.

14.2 Compliance Status of the Regulatory Requirements

Table 14-1 summarizes the regulatory requirements and their compliance status under the DOE's *National Environmental Policy Act Implementing Procedures* in 10 CFR Part 1021. Additional detail is presented in the text.

TABLE 14-1. DOE's National Environmental Policy Act Implementing Procedures, 10 CFR Part 1021 - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
<i>10 CFR Part 1021, Implementing Procedures</i>		
10 CFR Part 1021	Supplements and clarifies the requirements contained in 40 CFR Parts 1500-1508; adds requirement for MAPs; delineates specific categorical exclusions for use by the DOE. <div style="text-align: center; margin-top: 20px;">  </div>	<p style="text-align: center;">UP TO DATE</p> 1980 FEIS and 1981 FEIS ROD issued. 1990 SEIS and SEIS ROD issued. 1995 BLM EA adopted by the DOE for the Sand Dunes to Ochoa Power Line Project. 1996, draft SEIS-II under preparation. MAP issued in July 1991, with annual MAP reports submitted in July 1992, 1993, 1994, and 1995. Several categorical exclusions granted. [Section 14.2.1]

14.2.1 Implementing Procedures, 10 CFR Part 1021

DOE's regulations that implement NEPA (10 CFR Part 1021) supplement and clarify the requirements contained in 40 CFR Parts 1500-1508 (see also Chapter 12). The DOE regulations add a requirement for Mitigation Action Plans (MAPs) for EISs, supplemental EISs, and RODs. They also delineate specific categorical exclusions for DOE facilities.

In 1980, the DOE published the FEIS (DOE, 1980) which analyzed and compared the environmental impacts of various alternatives for demonstrating the safe disposal of

TRU waste resulting from DOE national defense-related activities. The FEIS for the WIPP Project includes responses to the comments received in writing and at the public hearings, as is required.

Based on the environmental analyses presented in the FEIS, the DOE published a ROD in 1981 to proceed with the phased development of the WIPP. The ROD was published in the *Federal Register* on January 28, 1981 (DOE, 1981). A number of mitigative commitments were specified.

Since publication of the FEIS in 1980, new geological and hydrological information led to changes in the understanding of the hydrogeological characteristics of the WIPP site as they relate to the long-term performance of the underground waste repository. In addition, there have been changes in the information and assumptions used to analyze the environmental impacts in the FEIS. Consequently, the SEIS, which updated the environmental record established in 1980 by evaluating the environmental impacts associated with new information, new circumstances, and proposal modifications, was published in 1990 (DOE, 1990a).

Based on the analysis presented in the SEIS, the SEIS ROD accepted the proposed action to proceed with the phased WIPP development. The DOE published the SEIS ROD in the *Federal Register* on June 22, 1990 (DOE, 1990b). A number of mitigative commitments were specified in the ROD, including the commitment to prepare another supplemental EIS prior to the initiation of the disposal phase at WIPP.

On August 23, 1995, the DOE issued a NOI to prepare the WIPP's SEIS-II. Some of the information being analyzed in the SEIS-II include the identification of additional generator sites, changes in known waste volume and form, acquisition of new data from the experimental program, and changes to the WAC.

On May 19, 1995, the DOE adopted an EA and FONSI issued by the BLM which addressed potential impacts of the construction of the sand dunes to Ochoa Power Line Project and a new WIPP substation. The new 115 KV transmission line and WIPP substation were necessary to provide a redundant electrical power source to the WIPP. The BLM prepared the EA since the construction of the power line took place on BLM-owned land.

The DOE issued the *Mitigation Action Plan for the Records of Decision for the Waste Isolation Pilot Plant* (DOE, 1991e) on July 10, 1991. This document addresses the mitigative commitments stated in the RODs to the 1980 FEIS and the 1990 SEIS and discusses mitigative actions, organizations responsible for implementing these actions, and the status of each commitment. The Annual Mitigation Report (AMR) is prepared annually to track the status of each commitment that has not yet been closed. To date, AMRs have been issued in July 1992, July 1993, July 1994, and July 1995. The 1996 AMR is currently in preparation.

Numerous categorical exclusions have been used at WIPP in accordance with 10 CFR Part 1021. The WID maintains a procedure to direct the evaluation of potential environmental impacts associated with proposed WIPP projects and activities. The plan provides information regarding the screening of these activities to determine if additional NEPA documentation is required.



15.0 ATOMIC ENERGY ACT AND THE U.S. NUCLEAR REGULATORY COMMISSION

15.1 Summary of the Law

As discussed in Chapter 13, the Atomic Energy Act of 1954 as amended (AEA; 42 USC §§ 2011 et seq.) gives the U.S. Nuclear Regulatory Commission (NRC) its authority to develop policies, issue orders, and promulgate regulations that address environmental, safety, and health protection aspects of radioactive waste and nuclear materials in the civilian sector. Regulations promulgated by the NRC under the AEA appear in the first portion of Title 10 of the Code of Federal Regulations (CFR) and establish standards for the management of nuclear material and the protection of the public against radiation. Additional NRC requirements apply to the licensing, packaging, preparation, and transportation of radioactive materials.

15.2 Compliance Status of the Regulatory Requirements

Generally, the NRC does not have regulatory authority over the DOE. The only portion of the NRC's implementing regulations that applies to WIPP is 10 CFR Part 71, *Packaging and Transportation of Radioactive Material*. These regulations pertain to the NRC's certification of packaging such as the Transuranic Package Transporter Model II (TRUPACT-II) shipping container designed to transport contact-handled (CH) TRU wastes from the generator sites to WIPP. The current plans are to use the 72B cask to transport remote-handled (RH) TRU waste to WIPP. DOE plans to send a copy of the 72B cask Safety Analysis Report for Packaging (SARP) to the NRC during this calendar year to initiate the Certificate of Compliance (C of C) process for this cask.

It should be noted that the NRC revised 10 CFR Part 71 to make it more consistent with the regulations of the International Atomic Energy Agency (IAEA). The new rules, which appeared in the *Federal Register* on September 28, 1995 (60 FR 50248), do not impact WIPP's compliance status with the applicable requirements, nor will the impact certification requirements for either the TRUPACT-II container or the proposed 72B cask. Therefore, they are not addressed further in this document.

The compliance status of each of the applicable NRC regulatory requirements is summarized in Table 15-1. Details are provided in the text.



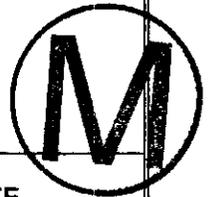
TABLE 15-1. Atomic Energy Act and the U. S. Nuclear Regulatory Commission (NRC) - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
10 CFR Part 71, Packaging and Transportation of Radioactive Material		
10 CFR 71.12 	NRC-approved package	ACHIEVED <i>TRUPACT-II Certificate of Compliance (C of C, Rev. 7, dated 3/25/96) Section 14.</i> [Section 15.2.1]
10 CFR 71.31-71.39	Contents of application and package description, evaluation, and QA	ACHIEVED <i>TRUPACT-II Safety Analysis Report for Packaging (SARP)</i> [Section 15.2.2]
10 CFR 71.41	Demonstration of compliance	ACHIEVED TRUPACT-II SARP, Section 1.2 [Section 15.2.3]
10 CFR 71.43 and 71.45	Requirements for all packages	ACHIEVED TRUPACT-II SARP, Sections 2.4 and 2.5 [Section 15.2.4]
10 CFR 71.47	External radiation standards for all packages	ACHIEVED TRUPACT-II SARP, Section 5.0 [Section 15.2.5]
10 CFR 71.51	Additional requirements for Type B packages	ACHIEVED TRUPACT-II SARP, Section 4.0 [Section 15.2.6]

CITATION	REQUIREMENT	COMPLIANCE STATUS
10 CFR 71.55-71.61	Requirements for all fissile material packages	<p>ACHIEVED</p> <p>TRUPACT-II SARP, Section 6.0</p> <p>[Section 15.2.7]</p>
10 CFR 71.63	Special requirements for plutonium shipments in excess of 20 Ci/shipment	<p>ACHIEVED</p> <p>TRUPACT-II SARP, Section 1.2 and Appendix 1.3.7</p> <p>[Section 15.2.8]</p>
10 CFR 71.71	Tests under normal conditions of transport	<p>ACHIEVED</p> <p>TRUPACT-II SARP, Section 2.6</p> <p>[Section 15.2.9]</p>
10 CFR 71.73	Tests under hypothetical accident conditions	<p>ACHIEVED</p> <p>TRUPACT-II SARP, Section 2.7</p> <p>[Section 15.2.10]</p>
10 CFR 71.81	Compliance with general requirements (71.00-.6a), operating controls and procedures (71.81-.99), and QA requirements (71.101-.137)	<p>ACHIEVED</p> <p>TRUPACT-II SARP, Sections 7.0, 8.0, and 9.0</p> <p>[Section 15.2.11]</p>
10 CFR 71.83	Assumptions as to unknown properties: assume credible values that will cause the maximum nuclear reactivity	<p>ACHIEVED</p> <p>TRUPACT-II SARP, Appendix 1.3.7</p> <p>[Section 15.2.12]</p>
10 CFR 71.85	Preliminary determinations of integrity of packaging, pressure testing, and marking	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Section 8.1</p> <p>[Section 15.2.13]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
10 CFR 71.87	Routine determinations prior to each shipment	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Section 7.0</p> <p>[Section 15.2.14]</p>
10 CFR 71.89	Any special opening instructions for the consignee	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Section 7.2</p> <p>[Section 15.2.15]</p>
10 CFR 71.91	Records to be kept at least 3 years after shipment	<p>UP TO DATE</p> <p>WID record-keeping procedures in place for TRUPACT-II containers</p> <p>[Section 15.2.16]</p>
10 CFR 71.93	Inspections and tests to be performed or allowed to be performed by the NRC	<p>UP TO DATE</p> <p>NRC inspections during and after fabrication</p> <p>[Section 15.2.17]</p>
10 CFR 71.95	Reports regarding (1) any decreased effectiveness of an authorized packaging during use and (2) details of any defects with safety significance	<p>UP TO DATE</p> <p>Records maintained by TRUPACT-II Maintenance Engineer; no reports to date</p> <p>[Section 15.2.18]</p>
10 CFR 71.97	Advance notification of shipment of nuclear waste as described	<p>UP TO DATE</p> <p>TRANSCOM satellite tracking system for advance notification</p> <p>[Section 15.2.19]</p>
10 CFR 71.101-71.137	NRC QA requirements	<p>ACHIEVED</p> <p>NRC inspection of WID's QA program</p> <p>[Section 15.2.20]</p>



15.2.1 General License, 10 CFR 71.12

A general license is issued to any licensee of the NRC to transport licensed material in a package for which a license, certificate of compliance, or other approval has been issued by the NRC.

A general license is not required for WIPP. However, each type of packaging to be used to transport either CH or RH TRU waste is required to have a C of C.

The TRUPACT-II container has been approved for use in transporting CH TRU waste under the general license provisions of 10 CFR 71.12 (C of C No. 9218, Revision 7, dated March 25, 1996, Section 14). The DOE is registered with the NRC as a user. The NRC's reissuance of Revision 7 of C of C No. 9218 confirms that the TRUPACT-II packaging design continues to meet the applicable requirements of 10 CFR 71.12. The TRUPACT-II C of C was reissued on March 30, 1995, and will expire on June 30, 1999.

15.2.2 Contents of Application and Package Description/Evaluation, 10 CFR 71.31-71.39

The required contents of an application are described. The application must include a package description/evaluation and description of the packaging and proposed contents as described in 10 CFR 71.33 and must demonstrate that the package meets the appropriate NRC standards. In addition, the quality assurance (QA) program for the design, fabrication, assembly, testing, maintenance, repair, modification, and use of the package must be described, along with established codes and standards. Any additional information requested by the NRC must be provided.

The SARP for the TRUPACT-II packaging describes the design, specifications, and safety evaluation in accordance with the NRC's requirements (DOE, 1989a). The NRC's reissuance of Revision 7 of C of C No. 9218 confirms that the TRUPACT-II is in compliance with all applicable requirements of 10 CFR 71.31-71.39.

15.2.3 Demonstration of Compliance, 10 CFR 71.41

The tests specified in 10 CFR 71.71 and 71.73 must be performed on the package to demonstrate compliance under normal conditions and hypothetical accident conditions, respectively.

Section 1.2 of the TRUPACT-II SARP describes the analysis and testing to demonstrate compliance with both normal and hypothetical accident conditions of

transport. The NRC's reissuance of C of C No. 9218 (Revision 7) confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.41.

15.2.4 Standards for All Packages, 10 CFR 71.43 and 71.45

Standards for all packages must be met. These include general standards such as size, seals and fastening devices, materials and construction of the package, valves, temperature, and prohibition of continuous venting during transport as well as lifting and tie-down standards.



Sections 2.4 and 2.5 of the TRUPACT-II SARP describe the packaging features, including tie-downs. The NRC's reissuance of C of C No. 9218 (Rev. 7) confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.43 and 71.45.

15.2.5 External Radiation Standards for All Packages, 10 CFR 71.47

A package must be designed and prepared for shipment so that the radiation level at any external surface of the package does not exceed 200 millirem per hour and the transport index does not exceed 10.

Section 5.0 of the TRUPACT-II SARP discusses the fact that the TRUPACT-II has no special shielding; the contents are limited to less than 200 millirem per hour at the surface of the payload containers. The NRC's reissuance of C of C No. 9218 (Rev. 7) confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.47.

15.2.6 Additional Requirements for Type B Packages, 10 CFR 71.51

Type B packages must be designed, constructed, and prepared for shipment so as to prevent loss or disposal of radioactive material, significant increase in external radiation levels, or substantial reduction in the effectiveness of the packaging (see also Section 15.2.1.9) during normal transport. In addition, release of krypton-85 may not exceed 10,000 curies in 1 week, release of other radioactive material may not exceed a total amount A_2 in 1 week, and no external radiation dose rate may exceed 1 rem per hour at 1 meter from the external surface of the package during hypothetical accident conditions. Compliance with these requirements must not be predicated upon the use of filters or of a mechanical cooling system.

Section 4.0 of the TRUPACT-II SARP discusses containment design and an acceptance criterion (a leak rate of less than 1×10^{-7} standard cubic centimeters per second). The NRC's reissuance of C of C No. 9218 (Rev. 7) confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.51.

15.2.7 Requirements for All Fissile Material Packages, 10 CFR 71.55-71.61

All packages used to ship fissile material must be designed and constructed in accordance with 10 CFR 71.41 through 71.51. In addition, each package must be designed and constructed and its contents so limited that the contents will remain subcritical during normal and accident transportation conditions and that the packaging will remain effective during normal transportation conditions. Specific standards for Fissile Class I, II, and III packages are described in 10 CFR 71.57, 71.59, and 71.61, respectively. A Fissile Class I package must be designed and constructed and its contents so limited that (1) any number of undamaged packages would be subcritical in any arrangement and with optimal interspersed hydrogenous moderation and (2) 250 packages, if each were subjected to the tests specified in 10 CFR 71.73, would be subcritical if stacked together in any arrangement, closely reflected on all sides by water, and with optimal interspersed hydrogenous moderation.



Section 6.0 of the TRUPACT-II SARP discusses criticality; the contents are controlled to limit the amount of fissile material that may be shipped. The TRUPACT-II is a Fissile Class I package. The NRC's reissuance of C of C No. 9218 (Rev. 7) confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.55-71.61.

15.2.8 Special Requirements for Plutonium Shipments, 10 CFR 71.63

Plutonium in excess of 20 curies per package must be shipped as a solid and must be packaged in a separate inner container placed within outer packaging that meets the requirements of 10 CFR 71.41 through 71.77. In addition, the restrictions limiting plutonium under normal and accident conditions must be met.

Section 1.2 of the TRUPACT-II SARP describes the double containment feature of the TRUPACT-II; Appendix 1.3.7 of the TRUPACT-II SARP requires the contents to be in a nondispersable form. The NRC's reissuance of C of C No. 9218 (Rev. 7) confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.63.

15.2.9 Tests under Normal Conditions of Transport, 10 CFR 71.71

The behavior of each package design under tests and conditions simulating normal transportation conditions must be evaluated. The tests include thermal insulation for both heated and cold conditions, increased and reduced external pressure, vibration, water spray, free drop, corner drop, compressive loading, and penetration.

Section 2.6 of the TRUPACT-II SARP describes the analyses and/or tests performed to demonstrate compliance with the normal conditions of transport. The NRC's reissuance of C of C No. 9218 (Rev. 7) confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.71.

15.2.10 Tests under Hypothetical Accident Conditions, 10 CFR 71.73

Evaluation of a package for hypothetical accident conditions is based upon the sequential application of tests in the order specified to determine their cumulative effect on a package or array of packages. Tests include free drop, puncture, thermal, and immersion as specified in 10 CFR 71.73.

Section 2.7 of TRUPACT-II SARP describes the analyses and/or tests performed to demonstrate compliance with the hypothetical accident conditions of transport. The NRC's reissuance of Revision 7 of C of C No. 9218 confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.73.

15.2.11 Compliance with Operating Controls and Procedures, 10 CFR 71.81

A licensee who is subject to this part and who transports licensed material must comply with requirements of the general provisions (71.00-71.6a), operating controls and procedures (71.81-71.99), and quality assurance requirements (71.101-71.137).

Sections 7.0, 8.0, and 9.0 of the TRUPACT-II SARP describe acceptance and maintenance, operating instructions, and QA. The NRC's reissuance of Revision 7 of C of C No. 9218 confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.81.

15.2.12 Assumptions Regarding Unknown Properties, 10 CFR 71.83

When the isotopic abundance, mass, concentration, degree of irradiation, degree of moderation, or other relevant property of fissile material in a package is not known, the

fissile material will be packaged as if the unknown properties have credible values that will cause the maximum nuclear reactivity.

Section 6.0 of the TRUPACT-II SARP assumes the worst case for the criticality assumptions; Appendix 1.3.7 limits the amount of fissile material that may be shipped in the TRUPACT-II packaging. The NRC's reissuance of Revision 7 of C of C No. 9218 confirms that the TRUPACT-II continues to meet the applicable requirements of 10 CFR 71.83.

15.2.13 Preliminary Determination of Integrity of Packaging, Pressure Testing, and Marking, 10 CFR 71.85

Prior to the first use of any packaging for shipment of licensed material, the licensee shall verify the structural integrity of the containment system by conducting a pressure test and shall mark the package appropriately as specified by 10 CFR 71.85.

Prior to the first use of the TRUPACT-II packaging for the shipment of TRU waste, the integrity of the packaging will be ensured, pressure testing will be conducted as required, and the packagings will be marked with the TRUPACT-II model number, gross weight, and the package identification number assigned by the NRC. Section 8.1 of the TRUPACT-II SARP describes preliminary determinations.

15.2.14 Routine Determinations Prior to Each Shipment, 10 CFR 71.87

Prior to each shipment of licensed material, the licensee must ensure that the package and its contents satisfy the applicable requirements of this part and the license. These routine determinations include appropriateness and integrity of packaging; closure devices; liquid containment; pressure relief devices; loading and closure procedures; moderator/neutron absorbers, if appropriate; lift/tie-down devices; external radiation levels (on external surfaces of the package and around vehicle); and accessible package surface temperatures.



Routine WID procedures and operating and maintenance instructions are in place to ensure that these requirements are met. Section 7.0 of the TRUPACT-II SARP describes routine determinations.

15.2.15 Special Opening Instructions, 10 CFR 71.89

Any special opening instructions must be sent or otherwise made available to the consignee prior to delivery of a package.

WIPP personnel are also responsible for training personnel at the generator sites in these methods and performing assessments and audits to ensure that the WIPP-generated methods are being applied correctly at the generator sites.

15.2.16 Maintenance of Records, 10 CFR 71.91

A record of each shipment of licensed material must be kept at least 3 years after shipment. The records to be kept include identification of the packaging by model number, verification of integrity of the packaging, coolant information, type and quantity of licensed material, specific information regarding irradiated fissile material, date of shipment, any special controls, name and address of transferee and of recipient, and results of the determinations required by 10 CFR 71.87. Records demonstrating the quality of packaging must also be retained.

Each WID procedure pertaining to the TRUPACT-II identifies the specific records required for retention. Retention times are also identified for each record. Records are retained at the working location and submitted to the WIPP Records Center for safe and retrievable storage.

15.2.17 NRC Inspections and Tests, 10 CFR 71.93

The licensee or certificate holder shall allow the NRC to inspect the licensed material, packaging, premises, and facilities in which the material or packaging is used, provided, constructed, listed, stored, or shipped; perform (and allow the NRC to perform) tests deemed necessary by the NRC; and notify the NRC at least 45 days prior to the fabrication of a package to be used to ship licensed material that exceeds the allowed heat load (5 kilowatts) or the maximal normal operating pressure (15 psi gauge).



The DOE has allowed, and will continue to allow, the NRC to inspect and/or conduct tests, or will perform those tests deemed necessary by the NRC, on TRU waste transportation packages. The TRUPACT-II C of C requires DOE to meet Subpart G requirements (see Sections 15.2.11 through 15.2.19). Currently there are no

TRUPACT-II packages in production. At least 45 days prior to the resumption of construction, the DOE will notify the NRC as required by the TRUPACT-II C of C.

15.2.18 Reports Regarding Decreased Effectiveness or Defects with Safety Significance, 10 CFR 71.95

Within 30 days, the licensee will report the following to the NRC: (1) any instance in which there was decreased effectiveness of any authorized packaging during use and (2) details of any defects with safety significance in packaging after first use and the means used to prevent recurrence.

The packaging maintenance program is defined and detailed in a WID procedure that addresses such topics as control of material, spare parts, and nonconformance reports. Maintenance records are maintained by the TRUPACT-II maintenance engineer. No conditions causing decreased effectiveness have occurred to date. An audit of the TRUPACT-II maintenance program, conducted in November 1995 by members of the WID Quality and Regulatory Assurance (Q&RA) Department, determined that all the programmatic requirements for maintaining the TRUPACT-II packagings were being met adequately.

15.2.19 Advance Notification of Shipment of Nuclear Waste, 10 CFR 71.97

Advance written notification of a shipment of nuclear waste will be provided to the governor of any state to be traversed by the shipment. Notification must be provided at least 7 days or 4 days before the beginning of the 7-day period during which departure of the shipment is expected if notification is by mail or by messenger, respectively. The information required by 10 CFR 71.97(d) will be provided. It should be noted that a revised list of governors' designees was published in the Federal Register on June 30, 1995 (60 FR 34306). The annually updated list will be published in the Federal Register every year around June 30.



Advance notification to state officials will be made in writing and using the TRANSCOM satellite tracking system. Operations personnel and designated state officials will be notified regarding WIPP shipments and other selected high-visibility shipments. State officials designated for receipt of this information have been provided with the requisite TRANSCOM computer software and have been trained in its use. In addition, DOE will provide the officials with a year-long schedule of proposed shipments of TRU waste to WIPP, with updates every 6 months.

15.2.20 NRC Quality Assurance Requirements, 10 CFR 71.101-71.137

Subpart H of 10 CFR Part 71 (71.101-71.137) established the NRC quality assurance (QA) requirements for packagings. The QA requirements pertain to design, purchase, fabrication, handling, shipping, storage, cleaning, assembly, inspections, testing, operation, maintenance, repair, and modification of components of packaging that are important for safety. The requirements address the licensee's QA organization (71.103); QA program (71.105); package design control (71.107); procurement document control (71.109); instructions, procedures, and drawings (71.111); document control (71.113); control of purchased material, equipment, and services (71.115); identification and control of material parts and components (71.117); control of special processes (71.119); internal inspections (71.121); test control (71.123); control of measuring and test equipment (71.125); handling, storage, and shipping control (71.127); inspection test and operating status (71.129); non-conforming materials, parts, or components (71.131); corrective action (71.133); QA records (71.135); and audits (71.137).



The WID QA Plan for Procurement, Use, Maintenance and Repair of TRUPACT-II has addressed the 18 criteria specified within Annex 2 of the NRC's Regulatory Guide 7.10, promulgated by the Office of Nuclear Regulatory Research. The title of this document is *Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material*. The NRC has inspected the WID's QA program and found that it meets the requirements of 10 CFR 71, Subpart H.

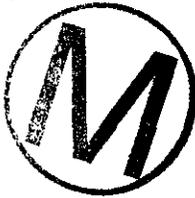
Members of the WID Q&RA Department conducted an audit regarding the transportation, receipt, and maintenance of the TRUPACT-II packagings in November 1995. The overall audit results indicated that all the programmatic requirements in these three areas were being administered adequately.

15.3 Compliance Status of the Certificate of Compliance

The NRC has issued C of C No. 9218 to the DOE for the TRUPACT-II container and registered the DOE as a user. A number of conditions are specified in the C of C. The conditions from the latest revision of the C of C (Revision 7, dated March 25, 1995) are summarized in Table 15-2. Additional detail is presented in the text.

TABLE 15-2. The U. S. Nuclear Regulatory Commission's Certificate of Compliance for the TRUPACT-II Container - Compliance Status of Conditions and Restrictions

CITATION	CONDITION OR RESTRICTION	COMPLIANCE STATUS
Description of TRUPACT-II		
C of C, p. 1, 5(2), para. 1	Overall specifications for the TRUPACT-II	<p style="text-align: center;">ACHIEVED</p> <p>TRUPACT-II SARP, Section 1.2.1.1 and Appendix 1.3.2</p> <p>[Section 15.3.1]</p>
C of C, p. 1, 5(2), para. 1	Weight specifications	<p style="text-align: center;">ACHIEVED</p> <p>TRUPACT-II SARP, Section 1.2.1.2 and Appendix 1.3.2</p> <p>[Section 15.3.2]</p>
C of C, p. 1, 5(2), para. 2	Outer containment assembly specifications	<p style="text-align: center;">ACHIEVED</p> <p>TRUPACT-II SARP, Section 1.2.1.1</p> <p>[Section 15.3.3]</p>
C of C, p. 1, 5(2), para. 3, ICV	Inner containment vessel specifications	<p style="text-align: center;">ACHIEVED</p> <p>TRUPACT-II SARP, Section 1.2.1.1.2 and Appendix 1.3.2</p> <p>[Section 15.3.4]</p>
Packaging - Drawings		
C of C, p. 2, 5(a)(3), para. 1	Packaging construction	<p style="text-align: center;">ACHIEVED</p> <p>TRUPACT-II SARP, Appendix 1.3.2</p> <p>[Section 15.3.5]</p>

CITATION	CONDITION OR RESTRICTION	COMPLIANCE STATUS
C of C, p. 2, 5(a)(3), para. 2	Positioning of contents within packaging	<p>ACHIEVED</p> <p>TRUPACT-II SARP, Appendix 1.3.2</p> <p>[Section 15.3.6]</p>
Contents - Type and Form of Material		
C of C, p. 2, 5(b)(1)	<p>Allowable materials</p> 	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Appendix 1.3.7, <i>TRUPACT-II Authorized Methods for Payload Control (TRAMPAC)</i>; WAC</p> <p>[Section 15.3.7]</p>
C of C, p. 2, 5(b)(1)	Explosives, corrosives, nonradioactive pyrophorics, and pressurized containers prohibited	<p>UP TO DATE</p> <p>TRAMPAC; WAC</p> <p>[Section 15.3.8]</p>
C of C, p. 2, 5(b)(1)	Radioactive pyrophorics not to exceed 1 percent by weight within a drum, standard waste box (SWB), or bin	<p>UP TO DATE</p> <p>TRAMPAC; WAC</p> <p>[Section 15.3.9]</p>
C of C, p. 2, 5(b)(1)	Free liquids not to exceed 1 percent by volume within a drum, SWB, or bin	<p>UP TO DATE</p> <p>TRAMPAC; WAC</p> <p>[Section 15.3.10]</p>
C of C, p. 2, 5(b)(1)	Flammable organics limited to 500 ppm in headspace of any drum, SWB, or bin	<p>UP TO DATE</p> <p>TRAMPAC; WAC</p> <p>[Section 15.3.11]</p>
Contents - Maximal Quantity of Material per Package		
C of C, p. 2, 5(b)(2), para. 1	Maximum allowable weight	<p>UP TO DATE</p> <p>TRAMPAC; WAC</p> <p>[Section 15.3.12]</p>

CITATION	CONDITION OR RESTRICTION	COMPLIANCE STATUS
C of C, p. 2, 5(b)(2), para. 2	Maximal number of payload containers per package and authorized packaging configurations	<p style="text-align: center;">UP TO DATE</p> TRAMPAC; WAC [Section 15.3.13]
C of C, p. 2, 5(b)(2), para. 3	Amount of allowable fissile material	<p style="text-align: center;">UP TO DATE</p> TRAMPAC; WAC [Section 15.3.14]
C of C, p. 2, 5(b)(2), para. 4	Allowable decay heat 	<p style="text-align: center;">UP TO DATE</p> TRUPACT-II SARP, Section 1.2.3.33; TRUPACT-II Content Codes (TRUCON) [Section 15.3.15]
Fissile Class		
C of C, p. 2, 5(c)	Fissile Class I	<p style="text-align: center;">UP TO DATE</p> TRUPACT-II SARP, Section 6.0 [Section 15.3.16]
C of C, p. 3, 6	Restrictions of form, properties, and other parameters	<p style="text-align: center;">UP TO DATE</p> TRAMPAC; WAC [Section 15.3.17]
C of C, p. 3, 7	Shipping category designations	<p style="text-align: center;">UP TO DATE</p> TRUCON [Section 15.3.18]
C of C, p. 3, 8	Labeling requirements	<p style="text-align: center;">UP TO DATE</p> TRAMPAC; WAC [Section 15.3.19]

CITATION	CONDITION OR RESTRICTION	COMPLIANCE STATUS
C of C, p. 3, 9	Preshipping venting or aspirating requirements	<p>UP TO DATE</p> <p>TRAMPAC; WAC; TRUCON</p> <p>[Section 15.3.20]</p>
C of C, p. 3, 10	Requirements of Subpart G of 10 CFR Part 71	<p>UP TO DATE</p> <p>WID QA program</p> <p>[Section 15.3.21]</p>
C of C, p. 3, 10(a)	Preparation of packages for shipment and operations	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Section 7.0</p> <p>[Section 15.3.22]</p>
C of C, p. 3, 10(b)	Testing and maintenance of packaging	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Section 8.0</p> <p>[Section 15.3.23]</p>
C of C, p. 3, 11	Contents of each package	<p>UP TO DATE</p> <p>TRAMPAC; WAC</p> <p>[Section 15.3.24]</p>
C of C, p. 3, 12	Leak testing 	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Section 8.0</p> <p>[Section 15.3.25]</p>
C of C, p. 3, 13	Removal of free-standing water	<p>UP TO DATE</p> <p>TRUPACT-II SARP, Section 7.0</p> <p>[Section 15.3.26]</p>
C of C, p. 3, 14	Approval of TRUPACT-II	<p>ACHIEVED</p> <p>NRC's C of C No. 9218, Rev. 7</p> <p>[Section 15.3.27]</p>

CITATION	CONDITION OR RESTRICTION	COMPLIANCE STATUS
C of C, p. 3, 15	Expiration date: June 30, 1999	<p style="text-align: center;">UP TO DATE</p> <p>Will submit application to the NRC for timely renewal prior to expiration</p> <p>[Section 15.3.28]</p>

15.3.1 Overall Specifications for the TRUPACT-II, C of C, p. 1, 5(2), para. 1

The TRUPACT-II consists of an unvented, 1/4-inch-thick stainless steel inner containment vessel (ICV) positioned within an outer containment assembly (OCA).

The OCA is an unvented 1/4-inch-thick stainless steel outer containment vessel (OCV) with a 10-inch-thick layer of polyurethane foam and a 1/4- to 3/8-inch-thick outer stainless steel shell.

The package is a right circular cylinder with outside dimensions of about 94 inches in diameter and 122 inches in height.

The TRUPACT-II packaging is composed of the ICV positioned within the OCA. As shown in the drawings in Appendix 1.3.2 of the TRUPACT-II SARP and discussed in Section 1.2.1.1 of that document, the ICV is unvented and is fabricated primarily of 1/4-inch Type 304 stainless steel. The OCA is also unvented and is bounded by a 1/4- to 3/8-inch-thick Type 304 stainless steel shell. Within the outer shell of the OCA is the OCV, which has a 3/16-inch-thick Type 304L stainless steel shell. Between the inner shell of the OCA and the outer shell of the OCV is a layer of polyurethane foam to provide insulation and absorb energy; this layer is up to 9-13/16 inches thick.

The configuration of the TRUPACT-II packaging is that of a right cylinder with domed heads. The OCA is 94-3/8 inches in diameter and 121-3/4 inches high (Section 1.2.1.1.1 of the TRUPACT-II SARP).

15.3.2 Overall Weight, C of C, p. 1, 5(2), para. 1

The package weighs no more than 19,250 lbs when loaded, with the maximal allowable contents of 7,265 lbs.

According to Section 1.2.1.2 of the SARP, the maximum gross shipping weight of the TRUPACT-II package is 19,250 lbs. The maximal payload weight is 7,265 lbs.



15.3.3 Outer Containment Assembly of the TRUPACT-II, C of C, p. 1, 5(2), para. 2

The OCA has a domed lid that is secured to the OCA's cylindrical body with a locking-ring mechanism.

The OCV containment seal is provided by a butyl rubber O-ring (bore seal).

The OCV is equipped with a seal test port and a vent port.

As shown and described in Section 1.2.1.1 of the TRUPACT-II SARP, the OCA has a domed lid that is secured to the body of the OCA with a locking ring assembly. The containment O-ring is made of butyl rubber. The location of the OCV seal test port and the vent port are shown in Appendix 1.3.2 of the TRUPACT-II SARP (Sheet 2 of Drawing 2077-500 SNP).

15.3.4 Inner Containment Vessel of the TRUPACT-II, C of C, p. 1, 5(2), para. 3

The ICV is a right cylinder with two domed heads. The ICV is designed and constructed to the standards of the ASME Boiler and Pressure Vessel Code, Sections III and VIII, Division I. Its outside dimensions are approximately 73 inches in diameter and 98 inches high.

The lid is secured to the ICV body with a locking ring.

The containment seal is provided by a butyl rubber O-ring (bore seal).

The ICV is equipped with a seal test port and vent port. Honeycombed aluminum spacer sections are placed in the top and bottom domed heads of the ICV during shipping. The cavity available for the contents is a cylinder of approximately 73 inches in diameter and 75 inches in height.

The ICV is a right cylinder with domed heads. According to Section 1.2.1.1.2 of the TRUPACT-II SARP, the ICV has a maximal external diameter of 76-5/16 inches, a minimal external diameter of 73-1/8 inches, and an overall external length of 99 inches when the lid is installed on the body of the ICV. The lid is secured to the body with a locking ring. Two main O-rings are enclosed between the mating lid and body of the OCV: the upper main O-ring is made of butyl rubber and serves a containment function; the lower (test) seal is made of neoprene or ethylene propylene and allows a vacuum to be established on the exterior side of the containment O-ring for helium and pressure-rise leakage-rate testing.

The locations of the ICV seal test port and the vent port are shown in Appendix 1.3.2 of the TRUPACT-II SARP (Sheet 3 of Drawing 2077-500SNP). The upper and lower aluminum spacer assemblies are shown on Sheet 6 of this same set of drawings in Appendix 1.3.2 of the SARP.

A cylindrical cavity is available for the contents to be placed in the ICV. The dimensions of the cavity are a minimal and maximal diameter of 72-7/16 and 73-7/8 inches (Section 1.2.1.1.2 of the TRUPACT-II SARP) and a height of 74-5/8 inches (Appendix 1.3.2 of the SARP, Drawing 2077-500SNP, Sheet 2).

15.3.5 Drawings Showing Construction of TRUPACT-II, C of C, p. 2, 5(a)(3), para. 1

The packaging is constructed in accordance with Nuclear Packaging Inc. (NuPac) drawing # 2077-500SNP, Sheets 1-11 (Rev. K).



The 11 sheets of Drawing #2077-500SNP are included in the TRUPACT-II SARP. The TRUPACT-II packages are constructed in accordance with these drawings.

15.3.6 Drawings Showing Position of Contents in TRUPACT-II, C of C, p. 2, 5(a)(3), para. 2

The contents are positioned within the packaging in accordance with NuPac drawings # 2077-007SNP (Rev. C) and 2077-008 SNP, Sheets 1 and 2 (Rev. C).

NuPac Drawings 2077-007SNP (one sheet) and 2077-008SNP (two sheets) are included in Appendix 1.3.8 of the TRUPACT-II SARP. The drum assemblies or standard waste boxes (SWBs) are positioned within the package as shown in these drawings.

15.3.7 Physical Form of Allowable Material and Receptacles, C of C, p. 2, 5(b)(1)

*Only dewatered, solid, or solidified TRU wastes are allowed.
They must be packaged in 55-gallon drums, SWBs, or bins.*

According to Section 3.2.1.2 of the *Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)* (DOE, 1996), standard 55-gallon metal drums, SWBs, 55-gallon drums overpacked in an SWB, and an experimental bin overpacked in an SWB are authorized for shipping CH TRU wastes in a TRUPACT-II packaging. The prohibition of free liquids is discussed in Section 15.3.10 of this BECR. (See also Section 5 of Appendix 1.3.7 to the TRUPACT-II SARP.)

15.3.8 Prohibition of Explosives, Corrosives, Nonradioactive Pyrophorics, and Pressurized Containers, C of C, p. 2, 5(b)(1)

Explosives, corrosives, nonradioactive pyrophorics, and pressurized containers are prohibited.

Section 3.3.4 of the WAC prohibits the acceptance of explosives or pressurized canisters at WIPP. The WAC stipulates that any nonradioactive pyrophoric materials must be rendered safe by mixing them with chemically stable materials (e.g., concrete, glass) or by processing them to remove their hazardous properties; thus, they will be rendered nonpyrophoric prior to shipment to WIPP (Section 3.3.3). (See also Section 5 of Appendix 1.3.7 to the TRUPACT-II SARP.)

Corrosive wastes are prohibited on two counts. They are prohibited on the basis of the definition of corrosive waste used in the WAC (i.e., aqueous materials with a pH less than 2 or higher than 12.5¹). Furthermore, since corrosive wastes are aqueous by definition, they are prohibited as free-standing liquids (see Section 15.3.10).

15.3.9 Restriction of Radioactive Pyrophorics, C of C, p. 2, 5(b)(1)

Radioactive pyrophorics must not exceed 1 percent by weight within a drum, SWB, or bin.

Section 3.3.3 of the WAC restricts pyrophoric forms of radionuclides to 1 percent by weight of the waste in each waste container with the stipulation that such waste be dispersed in the waste. (See also Section 5 of Appendix 1.3.7 to the TRUPACT-II SARP.)

15.3.10 Restriction of Free Liquids, C of C, p. 2, 5(b)(1)

Free liquids must not exceed 1 percent by volume within a drum, SWB, or bin.



Section 3.3.2 of the WAC stipulates that liquid waste will not be emplaced at WIPP and that the total liquid in a waste container will not equal or exceed 1 volume percent of the payload container. (See also Section 4 of Appendix 1.3.7 to the TRUPACT-II SARP.)

15.3.11 Restriction of Flammable Organics, C of C, p. 2, 5(b)(1)

Flammable organics are limited to 500 ppm in the headspace of any drum, SWB, or bin.

¹ The WAC definition of corrosive wastes differs from that of RCRA since the latter includes aqueous materials with a pH of 2 or of 12.5 in its definition of corrosive waste under 40 CFR 261.22(a)(i).

Section 3.4.7.2 of the WAC limits the total concentration of potentially flammable volatile organic compounds (VOCs) to 500 ppm in the headspace of a waste package; this value includes error measurement.

15.3.12 Maximal Allowable Weight, C of C, p. 2, 5(b)(2), para. 1

Contents must not exceed 7,265 pounds including shoring and secondary containers, with no more than 1,000 lbs per 55-gallon drum and 4,000 lbs per SWB.

Section 3.4.1.2 of the WAC specifies the following weight limits for waste package assemblies transported in the TRUPACT-II package:

- 1,000 lbs per drum
- 1,450 lbs per drum overpacked in an SWB
- 4,000 lbs per SWB
- 7,265 lbs per TRUPACT-II payload
- 19,250 lbs per TRUPACT-II payload, including the weight of the TRUPACT-II packaging

15.3.13 Maximal Number of Payload Containers Per Package and Authorized Configurations, C of C, p. 2, 5(b)(2), para. 2

The maximal number of payload containers per package and authorized packaging configurations are:

- 14 55-gal drums
- 2 SWBs
- 2 SWBs, each containing one bin
- 2 SWBs, each containing four 55-gal drums
- 1 10-drum overpack (TDOP) containing ten 55-gal drums
- 1 TDOP containing one SWB
- 1 TDOP containing one bin within an SWB
- 1 TDOP containing four 55-gal drums within an SWB.



According to the WAC (Section 3.2.2.2), the authorized loading configurations for shipment in the TRUPACT-II package are standard 55-gallon metal drums in two seven-pack configurations or two SWBs. Up to four drums or one experimental bin may be overpacked in a SWB. If only one seven-pack or one SWB of waste is scheduled for shipment in the TRUPACT-II, a dunnage seven-pack or SWB must be added to the package for transport, as specified in Appendix 1.3.7 of the TRUPACT-II SARP. In addition, drums, SWBs, and experimental bins may be overpacked in a TDOP for shipment within the TRUPACT-II.

15.3.14 Amount of Allowable Fissile Material, C of C, p. 2, 5(b)(2), para. 3

Fissile material must not exceed 325 grams Pu-239 equivalent, with no more than 200 grams Pu-239 equivalent per 55-gal drum or 325 grams Pu-239 equivalent per SWB (for Pu-239 equivalent, see Appendix 1.3.7 of the TRUPACT-II SARP).

Section 3.4.2.1 of the WAC specifies that the fissile or fissionable radionuclide content of CH TRU waste packages will not exceed the following values, in Pu-239 fissile-gram equivalents:

- 200 grams per 55-gallon drum
- 5 grams per cubic foot in boxes, up to a 350-gram maximum

However, the TRUPACT-II package limit for the SWB cited in the WAC is less than 325 grams. Thus, the sum of the fissile equivalents of all waste packages in the entire payload of a quantity including two times the error may not exceed 325 grams. (See the calculation methods described in Appendix 1.3.7 of the TRUPACT-II SARP.)

15.3.15 Allowable Decay Heat, C of C, p. 2, 5(b)(2), para. 4

Decay heat must not exceed the values given in Tables 6.1 through 6.3 of the TRUPACT-II Content Codes (TRUCON) (DOE, 1989b).



According to Section 3.4.6.2 of the WAC, there are two thermal limits for decay heat: the total decay heat from radioactive decay of the radioisotopes within an individual payload container and the total decay heat from all payload containers in a TRUPACT-II package. The total decay heat limits per TRUPACT-II for each shipping category are presented in Table 1.2.3.3.3 of the TRUPACT-II SARP. In determining whether or not a waste package or group of waste packages meets the limits, the error must be added to the measured value. The design limit for the TRUPACT-II is 40 watts.

15.3.16 Fissile Class, C of C, p. 2, 5(c)

The C of C identifies the TRUPACT-II as a Fissile Class I package.

The C of C identified the TRUPACT-II as a Fissile Class I packaging. Therefore, the requirements specified in 10 CFR 71.57 must be met.

15.3.17 Restrictions of Form, Properties, and Other Parameters, C of C, p. 3, 6

The physical form, chemical properties, chemical compatibility, configuration of the payload containers and contents, isotopic inventory, fissile content, decay heat, weight and center of gravity, and radiation dose rate must be determined and limited in accordance with the TRUPACT-II Authorized Methods for Payload Control (TRAMPAC) (TRUPACT-II SARP, Appendix 1.3.7).

The methods for determining and controlling the physical form of the wastes are visual examination, real-time radiography (RTR), records and data-base information, and sampling (SARP, Appendix 1.3.7, Section 4). The chemical properties of the waste (SARP, Appendix 1.3.7, Section 5) are determined by the allowable chemical constituents within a given waste type and are restricted so that all the payload containers are safe for handling and transport. Chemical compatibility (SARP, Appendix 1.3.7, Section 6; see also SARP Appendix 2.10.12) within the waste and between the waste and the packaging ensures that no chemical process will occur that might pose a threat to the safe transport of the payload in the TRUPACT-II package. The configuration of the payload container and content is controlled as described in Section 8 of the SARP's Appendix 1.3.7; this section also describes specifications for filter vents and pre-shipping venting and aspiration requirements.

The isotopic inventory for each payload container and the fissile content are discussed in Section 9 of the TRAMPAC. Decay heat is discussed in Section 10 of the TRAMPAC.

The allowable weights for individual payload containers and for the total payload are presented in Section 11 of the TRAMPAC, along with methods of determining and controlling weight. The methods for determining the center of gravity of the loaded TRUPACT-II package are also described in this section for 55-gallon drums and for SWBs.

External radiation dose rates are presented in Section 12 of the TRAMPAC. These rates may not exceed 200 mrem per hour at the surface of the payload container and 10 mrem per hour at 2 meters. (See also Section 5.0 of the TRUPACT-II SARP.)

15.3.18 Shipping Category Designations, C of C, p. 3, 7

Each drum, SWB, or bin must be assigned a shipping category in accordance with Table 5 from TRUCON (Rev. 6) or tested for gas generation and must meet the acceptance criteria in accordance with Attachment 2.0 to Appendix 1.3.7 of the TRUPACT-II SARP.



Section 1.2.3.2 of the TRUPACT-II SARP discusses the payload shipping categories developed specifically for the TRUPACT-II package. The primary difference among the categories is their potential for gas generation and internal bagging configuration. For waste with an adequate margin of safety, an analytical prediction suffices. Wastes without such a margin of safety require testing as described in Section 1.23.3.12 and Attachment 2 to Appendix 1.3.7 of the TRUPACT-II SARP.

15.3.19 Labeling Requirements, C of C, p. 3, 8

Each drum, SWB, or bin must be labeled to indicate its shipping category. All drums, SWBs, or bins within a package must be of the same shipping category.

As described in Section 3.4.8 of the WAC, each waste package will be labeled with the shipping category after all payload parameters have been verified. Furthermore, all waste packages within a single TRUPACT-II package must belong to the same shipping category (WAC, Section 3.6.1.2). (See also Section 13.1 of Appendix 1.3.7 to the TRUPACT-II SARP.)

15.3.20 Preshipment Venting or Aspirating Requirements, C of C, p. 3, 9

Each drum, SWB, bin, or TDOP must be equipped with filtered vents prior to shipment in accordance with Appendix 1.3.7 to the TRUPACT-II SARP; drums not equipped with filtered vents during storage must be aspirated before shipment; the minimal aspiration time may be determined from Tables 7.1 through 9.3 in TRUCON.



Section 3.4.7.2 of the WAC stipulates that all payload containers, including any overpacks, must be vented with filters that meet the specifications described in the TRUPACT-II SARP. At least one filter will be used per drum, two per SWB, and at least nine per TDOP. Any rigid drum liners will be filtered or punctured. (See also Section 8.1 of Appendix 1.3.7 and Appendix 3.6.11 to the TRUPACT-II SARP.)

15.3.21 Requirements of Subpart G of 10 CFR Part 71, C of C, p. 3, 10

Compliance with the requirements of Subpart G of 10 CFR Part 71 is required.

Subpart G invokes Subpart H, *Quality Assurance*. (See Section 15.2.20.)

15.3.22 Preparation of Packages for Shipment and Operations, C of C, p. 3, 10(a)

Each package must be prepared for shipment and operated in accordance with procedures described in Section 7, "Operating Procedures," of the TRUPACT-II SARP.

Section 7 of the TRUPACT-II SARP contains procedures for loading and unloading the TRUPACT-II container and for preparing an empty packaging for transport. In addition, the payload assembly criteria are presented in Section 13 of Appendix 1.3.7 to the TRUPACT-II SARP.

15.3.23 Testing and Maintenance of Packages, C of C, p. 3, 10(b)

Each package must be tested and maintained in accordance with procedures described in Section 8, Acceptance Tests and Maintenance Program, of the TRUPACT-II SARP.

The required acceptance tests and the maintenance program are included in Section 8 of the TRUPACT-II SARP. The acceptance tests are those tests that must be performed prior to the first use of the TRUPACT-II and that include visual inspection and structural, pressure, leakage, component, and thermal acceptance tests. (No shielding is provided in the TRUPACT-II container; therefore, shielding integrity tests are not appropriate.) The maintenance program consists of procedures and tests used to ensure the continuation of proper performance of the TRUPACT-II packaging. It comprises structural and pressure tests; leak tests and subsystems maintenance of fasteners; the ICV; the OCA; seal areas and grooves; and valves, rupture discs, and gaskets on the containment vessel. No shielding or thermal inspections or tests are necessary to ensure continued performance of the TRUPACT-II container.

Personnel from the WID Q&RA Department performed an audit between November 13 and November 30, 1995, on compliance with applicable regulations with respect to the training requirements and procedures relating to maintenance of the TRUPACT-II packagings. The audit team concluded that all the programmatic requirements for the maintenance of the TRUPACT-II packagings were being met.

15.3.24 Contents of Packages, C of C, p. 3, 11

The contents of each package must be in accordance with Appendix 7.4.1, "Payload Control Procedures," of the TRUPACT-II SARP.



The payload control procedure appears in Appendix 7.4.3 and is summarized in Section 13 of Appendix 1.3.7 of the TRUPACT-II SARP. Section 3.6.1.2 of the WAC specifies that the payload control procedures provided in Section 7.4.3 of the TRUPACT-II SARP will be followed for shipping CH TRU waste in the TRUPACT-II package.

15.3.25 Leak Testing, C of C, p. 3, 12

Prior to each shipment, lid and vent port seals on inner and outer containment vessels must be leak tested to 1×10^{-7} standard cubic centimeter of helium per second in accordance with Section 7 of the TRUPACT-II SARP.

The assembly verification leak test and other leak tests that must be performed on the TRUPACT-II package are described in Appendix 7.4.2 and Section 8 of the TRUPACT-II SARP. All such mandatory tests will be run on each package prior to shipment.

15.3.26 Removal of Free-Standing Water, C of C, p. 3, 13

All free-standing water must be removed from the ICV cavity and the OCV cavity before shipment.

The operating procedures of Section 7 of the TRUPACT-II package include instructions for inspecting for free-standing water and removing it from the package (i.e., Sections 7.1.2.3.2, 7.1.2.3.3, and 7.1.2.3.6 through 7.1.2.3.9). These procedures must be used for loading the TRUPACT-II container.

15.3.27 Approval of the TRUPACT-II Packaging, C of C, p. 3, 14

The TRUPACT-II packaging must be approved for use under general license provisions of 10 CFR 71.12.

See Section 15.2.1.

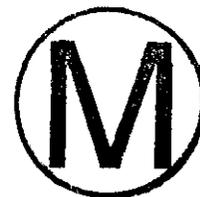


15.3.28 Expiration Date, C of C, p. 3, 15

The expiration date of this C of C is June 30, 1999.

In order to use the TRUPACT-II packaging for shipping TRU waste, the C of C must be updated prior to its expiration date of June 30, 1999. This will be accomplished by submitting an application for timely renewal to the NRC.

16.0 HAZARDOUS MATERIALS TRANSPORTATION ACT



16.1 Summary of the Law

The Hazardous Materials Transportation Act (HMTA; 49 USC §§ 1801 et seq.), as amended, is the major transportation-related statute that affects the DOE. The objective of the HMTA is "to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce." The HMTA provides for safe intra- and interstate transportation of hazardous materials (including nuclear materials).

The Hazardous Materials Transportation Uniform Safety Act (HMTUSA; PL 101-615) was enacted on November 16, 1990. This public law, which amends the HMTA, required the U.S. Department of Transportation (DOT) to set standards for designating routes for the transportation of hazardous materials that are required to be placarded, establish regulations on training standards for all hazardous materials transportation workers, issue safety permits to motor carriers for certain hazardous materials, and perform a railroad transportation safety study for certain highly radioactive materials. The DOT is also required to participate in international forums dealing with recommendations or legislation relating to mandatory standards and requirements pertaining to the transportation of hazardous materials, and to consult with interested agencies to facilitate consistency in international law with respect to hazardous materials transportation. In addition, HMTUSA requires registration and an annual registration fee for shippers and carriers of certain hazardous materials such as radioactive materials and establishes planning and training grants to the states for developing, improving, and implementing emergency plans.

In the Second Modification to the Agreement for Consultation and Cooperation, dated August 4, 1987, the DOE agreed to comply with all applicable DOT regulations and any applicable corresponding regulations of the U.S. Nuclear Regulatory Commission (NRC). The following regulations are applicable to WIPP.

Title 49 CFR Part 171, *General Information, Regulations, and Definitions*, sets forth the DOT requirements that are applicable to the transportation of hazardous materials and the packaging used in the transportation of those materials.

Title 49 CFR Part 172, *Hazardous Materials Table, Special Provisions, Hazardous Materials Communications Requirements and Emergency Response Information and Training Requirements*, lists and classifies the materials the DOT has designated as hazardous for the purpose of transportation and describes the communications regulations that apply when those materials are shipped.

In 49 CFR Part 173, *Shippers - General Requirements for Shipments and Packagings*, the DOT defines hazardous material classes for the purpose of transportation; establishes requirements in preparing materials for shipment; sets forth inspection, testing, and retesting responsibilities concerning containers built, repaired, or conditioned for use in the transportation of hazardous materials; sets forth requirements for transporting radioactive materials; classifies materials having more than one hazard; and describes criteria for instructing those responsible for preparing hazardous materials for shipment.

In 49 CFR Part 175, *Carriage by Aircraft*, the DOT prescribes additional requirements to those in Parts 171, 172, and 173 concerning the transportation of hazardous material by air.

In 49 CFR Part 177, *Carriage by Public Highway*, the DOT sets forth requirements to promote the uniform enforcement of law to minimize danger to life and property in the transportation of hazardous materials by public highway.

Title 49 CFR Part 178, *Specifications for Packagings*, describes manufacturing and testing specifications for packaging and containers used for the transportation of hazardous materials.

16.2 Compliance Status of the Regulatory Requirements

Table 16-1 summarizes the regulatory requirements and their compliance status under HMTA. The text gives more detail on the compliance status for each requirement.

TABLE 16-1. Hazardous Materials Transportation Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
49 CFR Part 171, General Information, Regulations, and Definitions		
49 CFR 171.2	General requirements 	UP TO DATE Addressed in Transportation Plan and WID procedures [Section 16.2.1]
49 CFR 171.3	Transport of hazardous waste requiring manifests, labeling, and shipper/generator and transporter identification	UP TO DATE Addressed in Transportation Plan and WID procedures [Section 16.2.2]

CITATION	REQUIREMENT	COMPLIANCE STATUS
49 CFR 171.14	Transition of new requirements based on UN recommendations	<p>UP TO DATE</p> <p>Addressed in Transportation Plan</p> <p>[Section 16.2.3]</p>
49 CFR 171.15/16	 Notice and report of hazardous material incidents	<p>UP TO DATE</p> <p>Addressed in Transportation Plan</p> <p>[Section 16.2.4]</p>
<p>49 CFR Part 172, Hazardous Materials Table, Special Provisions, Hazardous Materials Communication Requirements and Emergency Response Information Requirements</p>		
49 CFR 172.101	Hazardous materials table	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.5]</p>
Subpart C, 49 CFR 172.200-205	Shipping paper requirements	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.6]</p>
Subpart D, 49 CFR 172.300-338	Marking of hazardous materials/substances for transport	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.7]</p>
Subpart E, 49 CFR 172.400-450	Labeling of hazardous materials/substances for transport	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.8]</p>
Subpart F, 49 CFR 172.500-560	Placarding of hazardous materials/substances for transport	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.9]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
Subpart G, 49 CFR 172.600	Emergency response	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.10]</p>
Subpart H, 49 CFR 172.700-.704 	Training requirements for the transportation of hazardous materials	<p>UP TO DATE</p> <p>Addressed in Transportation Plan; training conducted and attended by appropriate personnel</p> <p>[Section 16.2.11]</p>
49 CFR Part 173, Shippers - General Requirements for Shipments and Packagings		
Subpart A, 49 CFR 173.1-.12	General requirements for shipments and packagings	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.12]</p>
Subpart B, 49 CFR 173.21-.40	Preparation of hazardous materials for transport	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.13]</p>
Subpart C, 49 CFR 173.50-.63	Definitions, classification, and packaging of Class 1 materials	<p>NOT APPLICABLE</p> <p>Class 1 materials were not packaged, or shipped from WIPP during reporting period</p> <p>[Section 16.2.14]</p>
Subpart D, 49 CFR 173.115-.156	Classification, packing group assignments, and exceptions for hazardous materials other than Classes 1 and 7	<p>UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 16.2.15]</p>
Subpart E, 49 CFR 173.158-.230	Non-bulk packaging of hazardous materials other than Classes 1 and 7	<p>UP TO DATE</p> <p>Addressed in WID procedure</p> <p>[Section 16.2.16]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
Subpart I, 49 CFR 173.401-478	Transportation of radioactive materials (including empty packaging)	<p style="text-align: center;">UP TO DATE</p> Addressed in WID procedures [Section 16.2.17]
49 CFR Part 175, Carriage by Aircraft		
49 CFR 175	Transportation of hazardous material by aircraft	<p style="text-align: center;">UP TO DATE</p> Addressed in WID Procedure [Section 16.2.18]
49 CFR Part 177, Carriage by Public Highway		
49 CFR 177.800, .816, and 397 Subpart D	Training responsibilities and requirements for Class 7 material	<p style="text-align: center;">UP TO DATE</p> Training conducted and attended by appropriate personnel [Section 16.2.19]
49 CFR Part 178, Specifications for Packagings		
49 CFR 178	Packagings and containers used for transportation of hazardous materials	<p style="text-align: center;">UP TO DATE</p> C of C for TRUPACT-II packaging [Section 16.2.20]

16.2.1 General Requirements, 49 CFR 171.2

General requirements regarding the offering or acceptance of hazardous material for transportation in commerce are described. Material to be shipped must be properly classed, described, packaged, marked, labeled, and in condition for shipment.



General requirements for the shipment of hazardous material are addressed in the WID Transportation Plan and in WID procedures. The Transportation Plan identifies the organizations and positions responsible for ensuring compliance with the HMTA. The completion and certification of several worksheets (e.g., "Shipping Request," "Shipment

Worksheet for Ground Transportation," and "Shipment Worksheet for Air Transportation") ensures compliance through careful documentation of all required actions.

16.2.2 Hazardous Waste, 49 CFR 171.3

Requirements for the shipment of hazardous wastes include the preparation of manifests or other shipping papers, motor vehicle placarding, waste packaging, marking and labeling, and identification numbers for the generators and the transporters.



Manifests, marking and placarding, and other labeling requirements are addressed in WID procedures. Completion of step-by-step worksheets and checklists ensure the proper execution of these tasks in shipping hazardous wastes from WIPP to an off-site TSDF.

16.2.3 Transitional Provisions for Implementing Requirements Based on the United Nations (UN) Recommendations, 49 CFR 171.14

Provides an orderly transition to the new requirements incorporated as part of a comprehensive revision to this subchapter based on the UN Recommendations. Specified are requirements for new explosives, materials that are poisonous by inhalation, and infectious substances.

Prescribed methods are included in the WID procedures addressing the shipment of nonradioactive hazardous materials.

16.2.4 Immediate Notice of Certain Hazardous Materials Incidents and Detailed Hazardous Materials Incident Reports, 49 CFR 171.15-171.16

Section 171.15 specifies the requirements of immediate notification by each carrier who transports certain hazardous materials (including hazardous wastes) and is involved in a hazardous material incident during the course of transportation. Section 171.16 specifies the requirements for the submission of a written hazardous materials incident report by the carrier.

Requirements for transportation emergency notifications are specified in the Transportation Plan. This plan and WID procedures address reportable incident and reporting requirements, including the identification of organizations and other entities that receive reports. During this reporting period there were no hazardous materials incidents as defined in these regulations.

16.2.5 Table of Hazardous Materials, 49 CFR 172.101

The Hazardous Materials Table designates all materials, listed as hazardous for the purpose of transporting those materials.

These requirements are covered in a WID procedure that is directed to any "... material, including its mixtures and solutions that...is listed in Table 172.101 and/or in appendices to 49 CFR 172.101, *List of Hazardous Substances and Reportable Quantities.*"

16.2.6 Shipping Papers, Subpart C, 49 CFR 172.200-172.205

This subpart describes the requirements for the provision of shipping papers by persons who offer hazardous material for transportation. The shipping papers must include a description of the hazardous material and a shipper's certification. A "bill of lading" or "hazardous waste manifest" may be used depending on the commodity being shipped.



Requirements concerning shipping papers, including manifests for hazardous waste and bills of lading for hazardous materials, are described in WID procedures. Each required record is identified and defined by forms attached to these procedures.

16.2.7 Marking, Subpart D, 49 CFR 172.300-172.338

Marking requirements for the transportation of hazardous materials or substances are described in this subpart.

According to a WID procedure, the Transportation Engineer marks the shipment in accordance with either Subpart D of 49 CFR Part 172 or the International Air Transport Association (IATA) 7.1.

16.2.8 Labeling, Subpart E, 49 CFR 172.400-172.450

This subpart describes the requirements for the labeling of packages or containment devices by persons who offer hazardous material for transport.

According to a WID procedure, the Transportation Engineer labels the shipment in accordance with either Subpart E of 49 CFR Part 172 or IATA 7.2.

16.2.9 Placarding, Subpart F, 49 CFR 172.500-172.560

This subpart describes the requirements for the placarding of hazardous material by persons who offer hazardous material for transport.

According to a WID procedure, the Transportation Engineer ensures that the vehicle that will transport hazardous materials or waste from WIPP is properly placarded, if necessary.

16.2.10 Emergency Response Information, Subpart F, 49 CFR 172.600

This subpart describes the requirements for the provision of emergency response information during transportation and at facilities where hazardous materials are loaded for transportation, stored incidental to transportation, or otherwise handled during any phase of transportation.



According to a WID procedure, the Transportation Engineer delivers the shipping papers and the *DOT Emergency Response Guides* for the particular shipment materials to the driver and releases the shipment. This plan specifies driver actions to be taken in the event of an incident during transportation.

On-site emergency response is addressed in the WID Waste Management Plan and WID procedures. The Transportation Engineer provides the CMR with copies of transportation documentation. The CMR is a 24-hour emergency contact for all shipments of hazardous waste or materials.

16.2.11 Training Requirements, Federal/State Relationship, and Applicability and Responsibility for Training and Testing, Subpart H, 49 CFR 172.700-.702 and 172.704

Prescribes minimal training requirements for the transportation of hazardous materials and specify requirements that Hazmat employers and employees as established by DOT must meet to ensure that their hazardous materials (hazmat) employees are trained in a systematic program. The following requirements are included: States may impose more stringent training requirements under certain conditions; the training curriculum must include general awareness and familiarization, hazardous material recognition and identification, function-specific topics, and safety and emergency response information; and current hazmat employee training records must be maintained and contain

specific training documentation including certification of training.

WIPP employees having job duties that require them to attend the Hazardous Material Transportation Course (HMT-102) have done so. Through the training programs, hazmat employees become familiar with the applicable hazardous material regulations, are able to recognize and identify hazardous materials, are knowledgeable of function-specific hazardous material regulations, and are knowledgeable of emergency response information and hazardous material communications requirements. The WIPP provides each hazmat employee with initial and recurrent training in accordance with established schedules. New employees, or employees who change job functions and are required to attend the training, must do so within 90 days. Until completion of their training, they may work under the direct supervision of another certified hazmat employee. The WIPP maintains records of current training, inclusive of the preceding two years. The training records are maintained in accordance with existing requirements

16.2.12 General Requirements for Shipments and Packagings, Subpart A, 49 CFR 173.1-173.12

This subpart includes the requirements for preparing hazardous materials for shipment by air, highway, rail, or water and definitions and classifications of hazardous materials for transportation purposes.



WID procedures encompass the requirements of these sections. WIPP shipments are evaluated and authorized by a WID Transportation Engineer to ensure these requirements are met.

16.2.13 Preparation of Hazardous Materials for Transportation, Subpart B, 49 CFR 173.21-173.40

This subpart describes the general requirements for the preparation of hazardous materials for transportation. The shipper's responsibilities are described and include the hazard classification and description of hazardous material and the determination that the packaging or container is an authorized packaging and that it has been manufactured, assembled, and marked properly.

According to WID procedures, the WID Hazardous Waste Operations Section is responsible for ensuring that materials are packaged, marked, and labeled in accordance with 49 CFR. Personnel packaging hazardous materials must be familiar with the packaging requirements for these materials, commensurate with the complexity of the packaging and the degree, nature, and quantity of hazard.

16.2.14 Definitions, Classification, and Packaging for Class 1 Materials, Subchapter C, 49 CFR 173.50-173.63

Definitions, classifications, and requirements for packaging of Class 1 materials (explosives) are described.

Class 1 materials were not packaged, or shipped from the WIPP; therefore, this section did not apply during this reporting period.

16.2.15 Definitions, Classification, Packaging Group Assignments, and Exceptions for Hazardous Materials other than Class 1 and Class 7, Subpart D, 49 CFR 173.115-173.156

Definitions, classifications, packing group assignments, and exceptions for hazardous materials, including flammable, non-flammable, poisonous and non-poisonous gases, flammable liquids and solids, and toxic material are specified.

WID procedures include worksheets for ground and air shipments. Actions required for the classification and packaging of hazardous materials other than Class 1 are included in these worksheets.

16.2.16 Non-Bulk Packaging Requirements for Hazardous Materials other than Class 1 and Class 7, Subpart E, 49 CFR 173.158-173.230

Non-bulk packaging requirements for hazardous materials other than Class 1 and Class 7 materials are described. Specific requirements are described in 49 CFR 173.158 through 173.198 for nitric acid; wet batteries; corrosive non-explosive smoke bombs; chemical kits; gallium; hydrogen fluoride; mercury; smokeless powder for small arms; aircraft hydraulic power unit fuel tanks; paint, paint-related material, adhesives, and ink; refrigerating machines; liquid pyrophoric materials; barium azide; nitrocellulose-based film; highway or rail fuses; lithium batteries and cells; matches; pyrophoric solids, metals, or alloys; white or yellow phosphorus; certain Group 1 poisonous materials; mixtures of bromoacetone, methyl bromide, chloropicrin, and methyl chloride or of chloropicrin and methyl chloride or of chloropicrin and compressed gas; hydrogen cyanide; infectious substances; and nickel carbonyl.



A WID procedure indicates that the Transportation Engineer classifies the shipment with the information provided in the shipping request by completing the shipment worksheet. If required, the requester and/or the Transportation Engineer obtain

additional information to classify the shipment properly. The Transportation Engineer determines the packaging requirements.

16.2.17 Radioactive Materials, Subpart I, 49 CFR 173.401-173.478

This subpart sets forth requirements for the transportation of radioactive materials by carriers and shippers and includes requirements for package design, package testing, empty radioactive materials packaging, and NRC-approved packages.

The WAC, SARP, and TRAMPAC programs control the generation, packaging, and shipment of radioactive waste to the WIPP. The procedures also show how packaging requirements are determined, including verification that the quantity and form of material to be shipped meet the requirements of the C of C and/or tested parameters of the intended package. More detail is specified in Chapter 15 under the NRC's regulations implementing transportation requirements under the Atomic Energy Act.

16.2.18 Carriage by Aircraft, 49 CFR Part 175

This part describes requirements that must be observed with respect to the transportation of hazardous materials in air craft. Included are provisions relating to unacceptable hazardous materials shipments; acceptance and inspection of shipments; discrepancy reports; notification of the pilot in command; shipping papers; keeping and replacement of labels; reporting hazardous materials incidents; quantity limitation; orientation, securing, and location of cargo containing hazardous materials; compatibility of packages; damaged shipments; and specific regulations applicable according to the classification of the material, including special limitations and requirements for Class 7 (i.e., radioactive) materials.



A WID procedure provides guidance for shipping hazardous materials by air. Hazardous materials shipped from WIPP are in accordance with the IATA, International Civil Aviation Organization (ICAO), and 49 CFR 171.11.

The transportation options studied in the Comparative Transportation Alternatives Study did not consider transportation of TRU wastes to WIPP by air.

16.2.19 Training Responsibilities and Requirements for Class 7 (Radioactive) Materials, 49 CFR 177.800, 177.816, and 397, Subpart D

These sections set forth requirements for training, including the following: a carrier may not transport or cause to be transported hazardous material by motor vehicle unless each of its hazmat employees has received the appropriate specialized training. Each of the carrier's hazmat driver's must have the appropriate State-issued commercial driver's license with the proper endorsement and must have in his/her immediate possession a certificate of training that includes a proper statement of authentication.



All transportation of radioactive or mixed waste will be by contract carrier. The carrier's employees have been properly trained, and their records include all certification information. The carrier's drivers all possess a commercial driver's license with a hazardous material endorsement, and each is trained and certified to transport highway route-controlled-quantity radioactive materials. Each driver has a properly authenticated training certificate in his or her possession.

16.2.20 Specifications for Packagings, 49 CFR Part 178

This part contains prescribed manufacturing and testing specifications and inspection requirements for packaging and for containers used for the transportation of hazardous materials.

WIPP quality assurance procedures define the methodology by which specified criteria are verified. The TRUPACT-II container has been developed to transport CH TRU waste to WIPP from the generator sites. The specifications for this packaging and conditions of the C of C granted by the NRC are described in more detail in Chapter 15. WID Transportation Engineers use a WID procedure worksheet to specify the performance-oriented packaging necessary to satisfy these requirements for each hazardous shipment from WIPP of hazardous materials.

17.0 MATERIALS ACT OF 1947



17.1 Summary of the Law

The Materials Act of 1947 (30 USC §§ 601 et seq.) establishes policy that directs the BLM to prescribe rules and regulations for the disposal of mineral material resources (including, but not limited to, sand, stone, gravel, pumice, cinders, and clay) on public lands under the BLM's jurisdiction at fair market value while ensuring that adequate measures are taken to protect the environment and to minimize damage to public health and safety during the authorized removal of such minerals. Under the act, no mineral material shall be disposed of if the Secretary of the Interior determines that the aggregate damage to public lands and resources would exceed the benefits to be derived from the proposed sale or free use of the material.

The policy of the Materials Act of 1947 is addressed in the 1992 LWA. In the LWA, the DOE was given statutory authority and responsibility for the management of the withdrawn land at WIPP consistent with the Materials Act of 1947 and other applicable laws such as the Federal Land Policy and Management Act and the Public Rangelands Improvement Act (see Chapters 18 and 19, respectively). Furthermore, the LWA directs the DOE to produce a WIPP land management plan to address the disposal of salt tailings subject to the Materials Act of 1947. The regulations in 43 CFR Part 3600, *Mineral Materials Disposal: General*, implement the Materials Act of 1947 and establish procedures for the disposal of mineral material resources.

17.2 Compliance Status of the Regulatory Requirement

Table 17-1 summarizes the single applicable requirement and its compliance status under the Materials Act of 1947. The text provides more detail on the compliance status of the requirement.

TABLE 17-1. Materials Act of 1947 - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
43 CFR Part 3600, <i>Mineral Materials Disposal: General</i>		
43 CFR 3601.1-3	Disposal of salt tailings	<p style="text-align: center;">UP TO DATE</p> <p>Addressed in the <i>WIPP Land Management Plan</i></p> <p>[Section 17.2.1]</p>

**17.2.1 Environmental Protection During Disposal of Mineral Material,
43 CFR 3601.1-3**

Authorized land managers must take steps to prevent unnecessary or undue environmental degradation resulting from mineral material disposal operations.

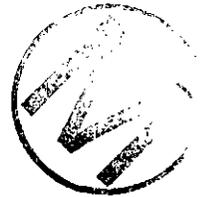
Salt from the underground mining operations at WIPP is brought to the surface and stored in the salt pile just north of the surface facilities. This salt storage pile has the capacity to store the two million tons of material projected to be excavated during the lifetime of the WIPP Project. There is also an inactive salt storage pile at WIPP. This salt pile is a result of the SPDV phase.

According to the planned actions addressed in the *WIPP Land Management Plan (LMP)*¹ (DOE, 1993c), salt tailings extracted from the withdrawal area that are not needed for backfill at WIPP will be disposed of in accordance with the requirements of §§ 2 and 3 of the Materials Act of 1947. These requirements specify that if the appraised value of the salt exceeds \$1,000, disposal will be performed by the highest responsible qualified bidder by competitive bidding and publication of notice of the proposed disposal as described in § 2 of the Materials Act. If the appraised value of the salt is \$1,000 or less, it may be disposed of at the discretion of the DOE. Any money received from the disposal of the salt will be disposed of in the same manner as money received from the sale of public lands (Materials Act, § 3).



¹ The Land Management Plan (LMP) (DOE/WIPP 93-004) was reissued on January 31, 1996, to merge the Land Management Implementation Plan with the LMP.

18.0 FEDERAL LAND POLICY AND MANAGEMENT ACT



18.1 Summary of the Law

One of the objectives of the Federal Land Policy and Management Act (FLPMA; 43 USC §§ 1701-1782) is to ensure that

. . . public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.

Title II under FLPMA, *Land Use Planning; Land Acquisition and Disposition*, directs the Secretary of the Interior to prepare and maintain an inventory of all public lands and to develop and maintain, with public involvement, land-use plans regardless of whether subject public lands have been classified as withdrawn, set aside, or otherwise designated. Under Title V, *Rights-of-Way*, the Secretary of the Interior is authorized to grant, issue, or renew rights-of-way over, upon, under, or through public lands.

The policy and commitment of the FLPMA are addressed in the 1992 LWA. The LWA gave the DOE statutory authority and responsibility for the management of the withdrawn land consistent with FLPMA and other applicable laws such as the Public Rangelands Improvement Act and the Taylor Grazing Act (see also Chapters 19 and 20, respectively). Furthermore, the LWA directed the DOE to produce a WIPP land-management plan to provide for grazing, hunting and trapping, wildlife habitat, the disposal of salt tailings, and mining, subject to the applicable implementing regulations of FLPMA.

A process was established in the implementing regulations of 43 CFR Part 1600, *Planning, Programming, Budgeting*, for the development, approval, maintenance, amendment, and revision of resource management plans for public lands administered by the BLM. This part states that the objective of resource management planning is to guide and control future management actions and the development of subsequent more detailed and limited scope plans for resources and uses consistent with the principles of Title II of FLPMA. The DOE must develop and maintain a land management plan consistent with the processes and requirements for resource management plans as described in these regulations.

Other regulations implementing FLPMA established procedures for the orderly and timely processing of applications, grants, permits, amendments, assignments, and terminations for rights-of-way and permits over, upon, under, or through public lands.

In particular, 43 CFR Part 2800, *Rights-of-Way, Principles and Procedures*, provides guidelines for the use of right-of-way and temporary-use permit areas and establishes requirements for the submission and processing of right-of-way grant/reservation and temporary-use permit applications. These regulations remain applicable to the WIPP because of the necessity to establish rights-of-way for the construction and phased operation of this facility.

18.2 Compliance Status of the Regulatory Requirements

Table 18-1 summarizes each applicable requirement and its compliance status under FLPMA. The text provides more detail on the compliance status of each requirement.

TABLE 18-1. Federal Land Policy and Management Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
43 CFR Part 1600, <i>Planning, Programming, Budgeting</i>		
43 CFR 1610.1	Resource management planning guidance	<p style="text-align: center;">ACHIEVED</p> <p style="text-align: center;"><i>WIPP Land Management Plan</i></p> <p style="text-align: center;">[Section 18.2.1]</p>
43 CFR 1610.2	Public participation	<p style="text-align: center;">ACHIEVED</p> <p style="text-align: center;">Public review of <i>WIPP Land Management Plan</i>, 30 days</p> <p style="text-align: center;">[Section 18.2.2]</p>
43 CFR 1610.3-2	Consistency of management plan with applicable laws	<p style="text-align: center;">ACHIEVED</p> <p style="text-align: center;"><i>WIPP Land Management Plan</i></p> <p style="text-align: center;">[Section 18.2.3]</p>
43 CFR Part 2800, <i>Rights-of-Way, Principles and Procedures</i>		

CITATION	REQUIREMENT	COMPLIANCE STATUS
43 CFR 2801.2(a)	Common terms and conditions of right-of-way reservations and temporary-use permits: <ul style="list-style-type: none"> • Compliance with regulations • Nondiscrimination • Repair of roads, fences, trails • Fire prevention and suppression 	ACHIEVED Compliance status in BECR; nondiscrimination policy; repairs as needed; fire-fighting equipment, personnel, and agreement [Section 18.2.4]
43 CFR 2801.2(b)	Mandatory conditions for right-of-way reservations and temporary-use permits: <ul style="list-style-type: none"> • Restoration • Air- and water-quality standards • Scenic, cultural, and environmental values • Local inhabitants • State standards that are more stringent than the federal ones 	UP TO DATE FEIS; LMP; SEIS and draft SEIS-II; no local inhabitants who rely on biota of the area for subsistence; operation and maintenance in accordance with reservations (see Section 18.3); and permit conditions met (see other chapters in BECR) [Section 18.2.5]
43 CFR 2802.2	Application requirements for a right-of-way reservation or temporary-use permit	ACHIEVED Several reservations and permits obtained (see Sections 18.3 and 35.3) [Section 18.2.6]

18.2.1 Resource Management Planning Guidance, 43 CFR 1610.1

Guidance in preparing resource management plans may be provided to the District and Area BLM Managers by the Director and State Director of the BLM.

The LMP was prepared for the DOE by the WID with considerable input from the BLM. The plan parallels the general guidelines used in the development of the BLM's Area Resource-Management Plan.



18.2.2 Public Participation, 43 CFR 1610.2

The public shall be provided an opportunity to review and comment on land management plans.

Public meetings were held in Carlsbad and Hobbs, New Mexico, and members of the public were given 30 days to review and comment on the LMP. A copy of the draft plan was also sent to the State Land Office, the Environmental Evaluation Group (EEG), and the NMED for their review. The comments obtained were incorporated, as appropriate, into the final document.

18.2.3 Consistency of Management Plans, 43 CFR 1610.3-2

Land-use plans shall be consistent with the purposes, policies, and programs of Federal laws and regulations that apply to public lands.

As a requirement of the LWA, the LMP was developed for the withdrawal area consistent with FLPMA. The plan was drafted by the WID and DOE in consultation with the BLM and the state of New Mexico and was submitted to Congress in October 1993. The development of this plan parallels the general guidelines used in formulating the BLM's Area Resource-Management Plan.

18.2.4 Common Terms and Conditions of Right-of-Way Reservations and Temporary-Use Permits, 43 CFR 2801.2(a)

By accepting a right-of-way reservation or a temporary-use permit, the applicant agrees and consents to comply with the following terms and conditions in addition to those terms and conditions that are specified in the reservation(s) or permit(s). The common terms and conditions are:

- *To comply with all applicable State and Federal laws and the implementing regulations to the extent practicable;*
- *To protect employees and applicants for employment who will be or are involved in the construction, operation, maintenance, and termination of the authorized use against discrimination because of race, creed, color, sex, or national origin and to ensure that all subcontracts include an identical provision;*

- *To rebuild and repair roads, fences, and established trails that may be destroyed or damaged by the construction, operation, or maintenance of the project and to build and maintain suitable crossings for existing roads and significant trails that intersect the project; and*
- *To prevent and suppress fires on or in the immediate vicinity of the right-of-way areas.*



Compliance with all applicable state and federal laws and their implementing regulations is discussed throughout this document. (See the specific regulations and the compliance status section of each for more detailed information.)

The DOE and its contractors have a nondiscrimination policy in effect for their employees and for hiring. In addition, contracts and subcontracts awarded by the DOE and by its contractors include such a nondiscrimination clause.

Any roads, fences, or established trails destroyed or damaged by the construction, operation, or maintenance of any of the structures for which WIPP has received a right-of-way reservation or temporary-use permit are repaired as required.

WIPP maintains fire-fighting equipment. Some WIPP emergency response personnel are trained in fire-fighting methods. WIPP also has an agreement with the Carlsbad Fire Department to provide fire-fighting service if necessary.

18.2.5 Conditions to be Incorporated within all Right-of-Way Reservations and Temporary-Use Permits, 43 CFR 2801.2(b)

All right-of-way reservations and temporary-use permits must contain requirements to ensure:

- *Restoration, revegetation, and curtailment of land erosion;*
- *Compliance with applicable air- and water-quality standards;*
- *Protection of scenic, aesthetic, cultural, and environmental values as well as Federal property and public health and safety;*
- *Protection of the interests of local inhabitants who rely on the fish, wildlife, and biota of the area for subsistence;*

- *Maintenance and operation of facilities on the prescribed location in a manner that is consistent with the reservation or permit; and*
- *Compliance with any State standards for public health and safety; environmental protection; and siting, construction, operation, and maintenance that are more stringent than the Federal standards.*



Each area that is the subject of a right-of-way reservation will be reclaimed and revegetated as described in the LMP.

Compliance with applicable air- and water-quality standards is discussed in Chapters 6 through 8, 29, and 30 of this report. (See these chapters for more specific information pertaining to the air- and water-quality standards.)

Protection of scenic, aesthetic, cultural, and environmental values was addressed in the FEIS and the SEIS. A second SEIS is being prepared to address disposal of TRU waste at WIPP; any changes in these values or in the potential impact of WIPP operations on these values will be addressed in this document.

The people who live in the vicinity of WIPP are ranchers. There are no local inhabitants who rely on fish, wildlife, or other biota of the area for subsistence. Therefore, this condition does not apply to WIPP.

Each "facility" (road, pipeline, railroad, etc.) is maintained and operated in accordance with the stipulations provided in the respective right-of-way reservation. (See Section 18.3 for more specific information.)

State standards or permit conditions imposed by the State are being met. For example, see Section 29.3 on the air-quality permit issued to WIPP by the NMED.

18.2.6 Requirements for Applications for Right-of-Way Reservations and Temporary-Use Permits, 43 CFR 2802.2

Parties seeking a right-of-way reservation or temporary-use permit involving the use of public lands shall file an application for the reservation or permit with either the Area Manager, the District Manager, or the State Director having jurisdiction over the affected public lands.

To date, several right-of-way reservations and land-use permits have been granted to the DOE. The following are examples of WIPP reservations and permits.

Right-of-way Reservation No. NM 53809 for a water pipeline was granted on August 17, 1983, and is still active. There is no expiration date. (See Section 18.3.2.)

Right-of-way Reservation No. NM 55676 for the north access road at WIPP was granted on August 24, 1983, and is still active. There is no expiration date. (See Section 18.3.3.)

Right-of-way Reservation No. NM 55699 for the railroad spur at WIPP was granted on September 27, 1983, and is still active. There is no expiration date. (See Section 18.3.4.)

Right-of-way Reservation No. NM 63136 for dosimetry and aerosol sampling sites was granted on July 31, 1986, and is still active. There is no expiration date. (See Section 18.3.5.)

Right-of-way Reservation No. NM 65801 for seven subsidence monuments was granted on November 7, 1986, and is still active. There is no expiration date. (See Section 18.3.6.)

Right-of-way Reservation No. NM 82245 for the installation of a survey monument was granted on December 13, 1989, and is still active. The permit expires on December 13, 2019. (See Section 18.3.7.)

Right-of-way Reservation No. NM 77921 for an aerosol sampling site was granted on August 18, 1989, and is still active. The permit expires August 18, 2019. (See Section 18.3.8.)

Free-Use Caliche Permit No. NM-FU-91183 was renegotiated on June 13, 1995, and is extended to May 12, 1998. (See Section 18.3.9.)

A right-of-way permit for a high-volume air sampler has also been issued to WIPP. Because this permit was issued by the New Mexico Commissioner of Public Lands, it is discussed in more detail in Section 35.3.

18.3 Compliance Status of the Permit Conditions

Table 18-2 summarizes the conditions in the right-of-way reservations and the temporary-use permit awarded to WIPP by the BLM. The table also includes the compliance status. The text provides more detail on the compliance status of each reservation or permit condition.

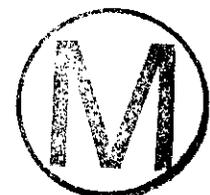
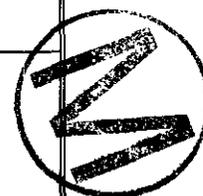


TABLE 18-2. Federal Land Policy and Management Act - Summary of Permit Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
Common Conditions (CC) of Right-of-Way Reservations		
CC 1	Control and jurisdiction of DOE	<p style="text-align: center;">ACHIEVED</p> DOE jurisdiction and control [Section 18.3.1]
CC 2 	Right of access and use	<p style="text-align: center;">ACHIEVED</p> DOE and BLM and authorized personnel [Section 18.3.1]
CC 3	Products or resources on lands within the right-of-way	<p style="text-align: center;">NOT APPLICABLE</p> Superseded by LWA [Section 18.3.1]
CC 4	Compliance with 43 CFR Part 2800	See Sections 18.2.4 through 18.2.6 [Section 18.3.1]
CC 5	BLM seeding requirements for BLM Roswell district	<p style="text-align: center;">UP TO DATE</p> Sites prioritized for reclamation and reseeded [Section 18.3.1]
Right-of-Way Reservation No. NM 53809, <i>Water Pipeline</i>		
Sec. 13; Standard Stipulations (SS) 1, 2, 5, 6, 8	Preconstruction and construction conditions	<p style="text-align: center;">ACHIEVED</p> Notification and construction activities [Section 18.3.2.1]
Sec. 13E	Water access for livestock	<p style="text-align: center;">ACHIEVED</p> Water tap on pipeline installed [Section 18.3.2.2]

CITATION	REQUIREMENT	COMPLIANCE STATUS
SS 3	Road construction	ACHIEVED Only essential roads; traffic confined to authorized right of way [Section 18.3.2.3]
SS 4	Posting of BLM number	ACHIEVED BLM No. NM 53809 posted [Section 18.3.2.4]
SS 7	Gates or cattleguards on public lands	UP TO DATE Gates and cattleguards on public lands not locked [Section 18.3.2.5]
Right-of-Way Reservation No. NM 55676, North Access Road		
SS 2	Polychlorinated biphenyls (PCBs)	NOT APPLICABLE All PCB-containing fluids and equipment removed from WIPP; no known PCB spills at WIPP [Section 18.3.3.1]
SS 3-5	Standard stipulations for the construction of overhead electric distribution lines	ACHIEVED All stipulations met [Section 18.3.3.2]
SS 6	Posting of BLM serial number	ACHIEVED BLM No. NM 55676 posted [Section 18.3.3.3]
Term/Condition (T/C) 7	Damage or injury to private property	UP TO DATE Personal responsibility of DOE and DOE contractor employees [Section 18.3.3.4]



CITATION	REQUIREMENT	COMPLIANCE STATUS
T/C 7 and 8	Actions required upon abandonment, relinquishment, or expiration of right-of-way reservation	<p>NOT APPLICABLE</p> <p>Right-of-way reservation active [Section 18.3.3.5]</p>
Amendment (April 22, 1988)	Fencing 	<p>ACHIEVED</p> <p>Fencing standards met [Section 18.3.3.6]</p>
Right-of-Way Reservation No. NM 55699, Access Railroad		
SS 1-4, 7, 9, 11	Preconstruction and construction requirements for railroad spur	<p>ACHIEVED</p> <p>Agreement among BLM, DOE, and Army Corps of Engineers [Section 18.3.4.1]</p>
SS 5	Reseeding upon completion of construction	<p>ACHIEVED</p> <p>BLM seeding requirements for Roswell district [Section 18.3.4.2]</p>
SS 6	Abandonment of the site	<p>NOT APPLICABLE</p> <p>Site not abandoned [Section 18.3.4.3]</p>
SS 8	Responsibility for damage or injury to private property	<p>See Section 18.3.3.4 [Section 18.3.4.4]</p>
SS 10	Access to water for livestock	<p>ACHIEVED</p> <p>Water taps and related equipment provided by DOE [Section 18.3.4.5]</p>
SS 12	Removal of caliche and/or other mineral material	<p>ACHIEVED</p> <p>Free-use caliche permit in effect (See Section 18.3.9) [Section 18.3.4.6]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
SS 13	Application for free-use permits	<p>ACHIEVED</p> <p>Free-use permit application filed; permit granted by BLM (see also Section 18.3.9)</p> <p>[Section 18.3.4.7]</p>
Amendment	Notification of BLM regarding the access road parallel to the railroad	<p>ACHIEVED</p> <p>BLM notified</p> <p>[Section 18.3.4.8]</p>
Right-of-Way Reservation No. NM 63136, Dosimetry and Aerosol Sampling Sites		
Attachment A	Establishment of dosimeter stations and air samplers	<p>ACHIEVED</p> <p>Aerosol samplers installed; operated and maintained by WID personnel</p> <p>[Section 18.3.5.1]</p>
Amendment	Air monitoring and data collection site	<p>ACHIEVED</p> <p>Trailer, tower, and instruments installed as agreed</p> <p>[Section 18.3.5.2]</p>
Right-of-Way Reservation No. NM 65801, Seven Subsidence Monuments		
Right-of-way reservation	No unique conditions	<p>See Section 18.3.1</p> <p>[Section 18.3.6]</p>
Right-of-Way Reservation No. NM 82245 for Two Subsidence Monuments		
#1	Construction and maintenance of the monuments	<p>ACHIEVED</p> <p>Installed as described in application</p> <p>[Section 18.3.7.1]</p>
#3	Security and maintenance of the monuments	<p>UP TO DATE</p> <p>DOE responsible for security; WID maintains monuments</p> <p>[Section 18.3.7.2]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
#5	Rehabilitation of the land	<p>NOT APPLICABLE</p> <p>Right-of-way active</p> <p>[Section 18.3.7.3]</p>
<p>Right-of-Way Reservation No. NM 77921, Aerosol Sampling Site</p>		
#1	Construction, operation, and maintenance	<p>ACHIEVED</p> <p>Constructed, operated, and maintained as described in application</p> <p>[Section 18.3.8.1]</p>
#3	Security and operation of aerosol sampling station	<p>UP TO DATE</p> <p>DOE responsible for security; WID operates and maintains station</p> <p>[Section 18.3.8.2]</p>
#5	Rehabilitation of the land occupied by the aerosol sampling station	<p>NOT APPLICABLE</p> <p>See Section 18.3.7.3</p> <p>[Section 18.3.8.3]</p>
Letter from El Paso Natural Gas Company	Use of the abandoned concrete slab	<p>ACHIEVED</p> <p>Discussions with El Paso Natural Gas Company personnel</p> <p>[Section 18.3.8.4]</p>
<p>Free-Use Permit No. NM-FU3-91183 for Use of Caliche</p>		
Approval of request to mine 35,000 cubic yards of caliche	Withdrawal of caliche	<p>UP TO DATE</p> <p>WIPP still removing allotted caliche</p> <p>[Section 18.3.9.1]</p>
Attachment 2, Reclamation	Reclamation of caliche borrow pit	<p>NOT APPLICABLE</p> <p>Withdrawal area to be recontoured to a slope of 3:1</p> <p>[Section 18.3.9.2]</p>

18.3.1 Common Conditions of the Right-of-Way Reservations

Several conditions are common to all the right-of-way reservations awarded to WIPP by the BLM. These common conditions are:

- (1) *That the subject of the reservation be under the control and jurisdiction of the DOE;*
- (2) *That right of access and use is reserved to DOE personnel and those authorized by DOE and to BLM personnel and their authorized permittees, licensees, and leasees;*
- (3) *That any products or resources on lands within the right-of-way remain under the jurisdiction of the issuing agency;*
- (4) *That all applicable regulations under 43 CFR Part 2800 be followed; and*
- (5) *That the BLM seeding requirements for the Roswell district be met.*



The subjects of each of the right-of-way reservations are under the control and jurisdiction of the DOE. Right of access and use of these structures is reserved to the DOE and the BLM and their authorized personnel.

In October 1992, the WIPP LWA was passed. This legislation transferred WIPP lands from the DOI to the DOE. These lands were also withdrawn from all forms of entry, appropriation, and disposal under the public land laws, including the mineral leasing laws.

The applicable portions of 43 CFR Part 2800 and the compliance status of each are described in Sections 18.2.4 through 18.2.6. They are also summarized in Table 18-1.

Reclamation of disturbed areas is an ongoing project at WIPP and is performed as described in the LMP. Seeding is conducted in accordance with the requirements for the BLM Roswell district.

18.3.2 Right-of-Way Reservation No. NM 53809, Water Pipeline

The conditions specified for the water-pipeline right-of-way reservation are described in Section 18.3.2, along with the compliance status of each condition. Since the pipeline

was built approximately 10 years ago, the conditions required for its construction are not discussed individually.

The reservation was awarded on August 17, 1983, and extends to perpetuity.

18.3.2.1 Pre-Construction and Construction Conditions for the Water Pipeline, Section 13 and SS Nos. 1, 2, 5, 6, 8

Pre-construction notification and conditions for construction (e.g., minimization of blading and clearing of vegetation; protection of scenic values; permits; livestock barriers) were specified in the right-of-way reservation and in the Standard Stipulations for Pipeline and Underground Cable Rights of Way in the Roswell District, BLM.

All conditions were met when the water pipeline was constructed.

18.3.2.2 Livestock Water, Section 13.E

The DOE has agreed to provide water access (taps) off the waterline for livestock in the area. The DOE will also provide water meters and all necessary materials, equipment, and labor to install new water troughs in the four sections specified.

The DOE installed a water tap on the water pipeline for use by ranchers. The tap is located 0.6 mile south of the intersection of the DOE north access road (NAR) and Highway 62/180.

18.3.2.3 Road Construction, SS No. 3

Roads will not be constructed where terrain features allow vehicles to maneuver without the aid of such construction. All vehicular traffic and construction activities will be confined to the authorized right-of-way.

No roads have been constructed where the terrain allows vehicles to maneuver adequately. All traffic is confined to the authorized right-of-way.

18.3.2.4 Posting of the BLM Number Assigned to This Right-of-Way, SS No. 4

The grantee will post the BLM serial number assigned to this right-of-way in a conspicuous place where the right-of-way intersects existing roads or highways. If the right-of-way parallels existing roads, the BLM number will be posted



where the right-of-way first crosses the public lands and where it leaves the public lands.

The BLM number assigned to this right-of-way (i.e., NM 53809) is posted as required.

18.3.2.5 Gates or Cattleguards on Public Lands, SS No. 7

Gates or cattleguards on public lands will not be locked or closed to the public.

Gates and cattleguards on public lands are not locked and remain open to the public.

18.3.3 Right-of-Way Reservation No. NM 55676, North Access Road

The conditions specified for the NAR right-of-way reservation are described in this section, along with the compliance status of each condition. Since the road was built approximately 10 years ago, the conditions required for its construction are not discussed individually.

This reservation was awarded on August 24, 1983, and extends to perpetuity.

18.3.3.1 Polychlorinated Biphenyls (PCBs), SS No. 2

Any PCBs shall be used in a totally enclosed manner in accordance with the provisions of the Toxic Substances Control Act. Any release of PCBs in excess of the reportable quantity shall be reported as required under the Comprehensive Environmental Response, Compensation, and Liability Act, with a copy of any report required by the Federal or State agency being provided to the Authorized Officer within 5 working days of the occurrence of the spill or release.



As described in Chapter 9, all PCB-containing equipment and fluids have been removed from the WIPP site and have been disposed of in accordance with the regulations. No PCBs are allowed on site. No release or spill of PCBs or PCB-containing fluids is known to have ever occurred at WIPP. Therefore, these conditions do not apply at WIPP.

18.3.3.2 Standard Stipulations for the Construction of Overhead Electric Distribution Lines, SS Nos. 3-5

Upon DOE's request, BLM authorized the DOE to install an auxiliary electrical line and 10-13 poles along the right-of-way for the NAR. This authorization was accompanied by

standard stipulations for overhead electrical distribution lines in the Roswell District. The standard stipulations for the construction of power lines included a prohibition of clearing or blading of the right-of-way unless agreed to in writing by the Authorized Officer, construction of the power lines to ensure the safety of raptors, and minimization of damage to existing fences and other improvements on public lands.

All stipulations for the construction of power lines were met.

18.3.3.3 Posting of BLM Serial Number, SS No. 6

The BLM serial number assigned to this authorization (i.e., NM 55676) shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers must be at least 2 inches high and will be affixed to the pole nearest the road crossing and at the facilities served.



The BLM Serial Number (NM 55676) is posted as required.

18.3.3.4 Damage or Injury to Private Property, Term/Condition No. 7

The DOE and/or its authorized agents will be responsible for any damage or injury to private property, including livestock, and will financially reimburse the allottee for any such loss in accordance with applicable law.

In the event that the vehicle of an employee of the DOE or a DOE contractor injures or kills livestock within the WIPP's sixteen sections or causes other damage to private property, reimbursement will be made as appropriate, in accordance with applicable laws.

18.3.3.5 Actions Required Upon Abandonment, Relinquishment, or Expiration of Right-of-Way Reservation, Terms/Conditions, Nos. 7 and 8

Upon cancellation, relinquishment, or expiration of the reservation, the holder of the reservation will comply with those abandonment procedures prescribed by the BLM Authorized Officer. All surface structures (poles, lines, transformers, etc.) will be removed within 180 days of abandonment, relinquishment, or termination of use of the reservation or of the use of the serviced facility or facilities. This will not apply where the power line extends service to an active adjoining facility or facilities.

These conditions will be met upon termination of the reservation or abandonment of the site by the DOE.

18.3.3.6 Fencing, Amendment (April 22, 1988)

The DOE requested that it be allowed to install fencing on the east and west sides of the WIPP NAR for a distance of 12.125 miles to allow for a safe travel route when entering or leaving the site via Highway 62/180. The BLM allowed this installation, subject to the BLM fencing standards.

The BLM fencing standards were met in installing the fence along the NAR.

18.3.4 Right-of-Way Reservation No. NM 55699, Railroad

The conditions specified for the railroad right-of-way reservation are described in this section, and the compliance status of each condition is given. Since the railroad spur at WIPP was constructed a number of years ago, the conditions pertaining to the construction of the spur are not discussed individually.

This right-of-way reservation was awarded on September 27, 1983, and extends to perpetuity.

18.3.4.1 Preconstruction and Construction Requirements for the Railroad Spur, SS Nos. 1-4, 7-9, and 11

The preconstruction and construction conditions for the railroad spur were listed in the "Special Stipulation for WIPP Railroad Access." These conditions include preconstruction notification and a prework conference, notification of any anticipated changes, notification of grazing permittees or lessees prior to entering public lands on grazing allotments, barriers and fences for livestock, road or stock trail crossings, mitigation of cultural resources, and installation of fences.



Agreement was reached among members of the BLM, the DOE, and the Army Corps of Engineers with respect to the DOE's meeting all preconstruction and construction requirements.

18.3.4.2 Reseeding Upon Completion of Construction, SS No. 5

The right-of-way must be reseeded upon completion of railroad construction according to BLM seeding requirements for the Roswell District.

The right-of-way was reseeded upon completion of railroad construction in accordance with the BLM seeding requirements for the Roswell district.

18.3.4.3 Abandonment of the Site, SS No. 6

If the WIPP is abandoned for any reason, the railroad bed will be ripped and returned as much as possible to its original terrain. The area will be reseeded as discussed in Section 18.3.4.2.



If the site is abandoned, these actions will be conducted. Until such time, these conditions are not applicable.

18.3.4.4 Responsibility for Damage or Injury to Private Property, SS No. 8

See Section 18.3.3.4.

18.3.4.5 Access to Water for Livestock, SS No. 10

The DOE will provide a water tap and a livestock watering facility in one section, a livestock drinker and related pipeline in a second section, and a water pipeline to tie into an existing water tub in a third. This action is separate and apart from the railroad reservation and will be implemented after completion of the Cooperative Agreement among the DOE, the BLM, and the rancher.

Water taps and related equipment have been provided by the DOE. (See also Section 18.3.2.2.)

18.3.4.6 Removal of Caliche and/or other Mineral Material, SS No. 12

The grantee and its subcontractor will remove caliche and/or other mineral material from BLM-approved sites only. The DOE will submit a pit development and rehabilitation plan to the BLM for its approval before removing any caliche.

An application for a free-use caliche permit was submitted to the BLM by the DOE. The permit was awarded by the BLM. (See also Section 18.3.9.)

18.3.4.7 Application for Free-Use Permits, SS No. 13

The DOE will sign applications for BLM free-use permits for the borrowing of caliche, sand, gravel, and other construction materials in quantities that may be reasonably required for this project. WIPP contractors will be responsible for locating the source; obtaining, completing, and processing the applications; and complying with all BLM requirements.

The DOE submitted an application to the BLM for a free-use permit for caliche. The permit was granted by the BLM. (See also Section 18.3.9.)

18.3.4.8 Notification of the BLM Regarding the Access Road Parallel to the Railroad, Amendment

An access road parallel to the railroad was deemed necessary. Since the existing access road, constructed in conjunction with the railroad, is located within 75 feet of the railroad centerline (i.e., within the railroad right-of-way), no new right-of-way was required. However, notification to the BLM was needed.

The BLM was notified as specified.

18.3.5 Right-of-Way Reservation No. NM 63136, Dosimetry and Aerosol Sampling Sites

The conditions specified for the right-of-way reservation for the aerosol sampling site are described in this section, along with the compliance status of each condition. The reservation was awarded on July 31, 1986, and amended in August 1988. The reservation is to remain in effect for 25 years (i.e., until July 31, 2011).

18.3.5.1 Establishment of Dosimeter Stations and Air Samplers, Attachment A

The reservation allowed the installation of 21 thermoluminescent dosimeters (TLDs) and four aerosol sampling stations at 20 and two locations, respectively. The DOE and its operating contractor are technically and financially responsible for the installation, maintenance, and operation of these monitoring systems.



Air samplers have been installed. WID personnel operate and maintain the monitoring system. The environmental dosimetry program that used the TLDs was discontinued in 1990 on the basis of two studies performed: one internally; the other by University of Michigan personnel for the EEG. Both studies concluded that the environmental dosimetry program could be discontinued because it measures gamma or x-ray radiation rather than alpha radiation, such as that emitted by TRU material, and because it is much less sensitive than other sampling programs used at WIPP.

18.3.5.2 Air Monitoring and Data Collection Site, Amendment

Right-of-way reservation No. 63136 was modified to allow an air monitoring and data collection site.



An instrumentation trailer (8 feet by 16 feet), a 10-meter-tall meteorological tower, and various environmental monitoring instruments were installed as agreed to between the DOE and the BLM. The installation required clearing an area of vegetation, constructing a concrete foundation for the trailer and tower, burying instrumentation wires, and constructing an access road. The 0.25-acre area was enclosed by a chain-link security fence as specified in the request to amend the right-of-way reservation.

18.3.6 Right-of-Way Reservation for Subsidence Monuments, No. NM 65801

No unique conditions were specified for the right-of-way reservation for seven geological subsidence monuments. Therefore, only the common conditions described in Section 18.3.1 apply and have been met.

The right-of-way reservation was awarded on November 7, 1986. It is to be held in perpetuity.

18.3.7 Right-of-Way Reservation for Two Subsidence Monuments, No. NM 82245

The conditions of the right-of-way reservation for two subsidence monuments are described in this section, along with the compliance status of each condition.

The reservation was granted on December 13, 1989. It has a 30-year term and is renewable.

18.3.7.1 Construction and Maintenance of the Monuments, #1

The monuments will be constructed and maintained in accordance with the details specified in the application submitted on December 4, 1989.

Two concrete survey monuments were installed on the right-of-way. The monuments are approximately 18 inches in diameter and 36 inches deep. Installation of the monuments was performed as described in the application.

18.3.7.2 Security and Maintenance of the Monuments, #3

The DOE is responsible for the security and maintenance of the monuments.

The DOE is responsible for the security of the monuments. WID maintains the monuments.

18.3.7.3 Rehabilitation of the Land, #5

Upon cancellation or termination of this reservation, the DOE will rehabilitate the land. All structures, improvements, debris, etc., will be removed. All disturbed surfaces will be reseeded in accordance with BLM specifications using Seed Mixture 2.

Upon cancellation or termination of this right-of-way reservation, the DOE will ensure that the land is rehabilitated as specified. All structures, improvements, and debris will be removed and all disturbed surfaces reseeded with pure live seed (Seed Mixture 2) containing no weeds as specified in the *BLM Seeding Requirements in the Roswell District*. Until the reservation is canceled or terminated, these conditions are not applicable.

18.3.8 Right-of-Way Reservation for an Aerosol Sampling Site, No. NM 77921 (NM 77860)

The conditions for the right-of-way reservation for an aerosol sampling site are discussed in this section, along with the compliance status of each condition. Right-of-way reservation No. NM 77921 was granted on August 18, 1989. (It was originally granted as No. NM 77860, but the number had already been issued and was subsequently changed.) The reservation was made for a 30-year term and is renewable.

18.3.8.1 Construction, Operation, and Maintenance, #1

The facility will be constructed, operated, and maintained in accordance with the details specified in the application submitted on July 31, 1989.



The application (dated July 13, 1989) specified that a 6-foot metallic stand would be positioned on an existing concrete pad, an electrical hookup would be made to an

existing power line, and a chain-link security fence would be emplaced. It also indicated that the monitoring station would be used throughout the life of the project and would be operated throughout each year of the project. These conditions have been met.

18.3.8.2 Security and Operation of the Aerosol Sampling Station, #3

The DOE will be responsible for the security and day-to-day operation of the facility.

The DOE is responsible for the security of the aerosol sampling station. WID personnel operate and maintain the station.

18.3.8.3 Rehabilitation of the Land Occupied by the Aerosol Sampling Station, #5

The conditions specified (and the response to the conditions) specified are identical to those described in Section 18.3.7.3. See this section for specific information pertaining to rehabilitation of the land upon cancellation or termination of a right-of-way reservation.

18.3.8.4 Use of the Abandoned Concrete Slab

A concrete slab was present at the location of the right-of-way land. The slab had been owned by the El Paso Natural Gas Company. WID personnel requested the use of the slab for radiation monitoring. El Paso Natural Gas Company personnel stated that the slab could be used if their personnel in Jal, New Mexico, were notified prior to initiating construction and if the BLM gave its consent.



Discussions were held with personnel from the El Paso Natural Gas Company. No additional conditions were specified, and notifications were made as requested by El Paso Natural Gas.

The BLM's issuance of this right-of-way reservation consists of its tacit approval of use of the concrete slab.

18.3.9 Caliche Free-Use Permit, NM-FU3-91183

The conditions specified under this permit are discussed in this section, and the compliance status of each condition is given. The Caliche Free Use Permit was renegotiated June 13, 1995, and extended to May 12, 1998. Reclamation contingencies still apply.

18.3.9.1 Withdrawal of Caliche

Under this permit, WIPP is entitled to withdraw 35,000 cubic yards of caliche.

The WIPP has not yet finished withdrawing the allotted 35,000 cubic yards of caliche from the borrow pit as allowed by the permit. It is anticipated that this activity will have been completed by the time the permit expires on May 12, 1998.

18.3.9.2 Reclamation of the Caliche Borrow Pit

Upon completion of its withdrawal of caliche from the caliche borrow pit, the DOE will perform reclamation and other closure activities, including reseeding, as specified under the permit.

WIPP and BLM personnel have agreed that the only closure activity to be performed by the DOE is to recontour the slope of the withdrawal area to a 3:1 slope. The reason for the other conditions being canceled (e.g., reseeding the area) is that the pit is a community borrow pit; several other parties are removing caliche from the pit and will continue to do so past the expiration date of the WIPP caliche free-use permit.



19.0 PUBLIC RANGELANDS IMPROVEMENT ACT

19.1 Summary of the Law

Congress has recognized that vast segments of public rangelands produce less than their potential for livestock, wildlife habitat, recreation, forage, and water and soil conservation benefits. The 1978 Public Rangelands Improvement Act (43 USC §§ 1901 et seq.) was enacted to address the concerns that such rangelands could remain in such an unsatisfactory condition and that some areas could decline further under existing levels of management.

With the passage of this act, Congress reaffirmed a national policy and commitment to:

- Inventory and identify current public rangeland conditions and trends;
- Manage, maintain, and improve the condition of public rangelands so that they become as productive as is feasible; and
- Continue the policy of protecting wild free-roaming horses and burros while facilitating the removal and disposal of excess wild free-roaming horses and burros that pose a threat to themselves, their habitat, and other rangeland values.

This policy and commitment are echoed in other statutes that address public-land use and management. One such act, FLPMA, directs the Secretary of the Interior to prepare and maintain an inventory of all public lands and to develop and maintain land-use plans with public involvement regardless of whether the public lands have been classified as withdrawn, set aside, or otherwise designated (see Chapter 18). Another statute, the LWA, transferred jurisdiction over, and statutory authority and responsibility for, the management of the withdrawn lands at WIPP from the DOI to the DOE. Section 4 of the LWA, *Establishment of Management Responsibilities*, directs the DOE to conduct the management of grazing consistent with such laws as the Public Rangelands Improvement Act, the Taylor Grazing Act (Chapter 20), and other applicable laws such as Title IV, *Range Management*, of FLPMA (Chapter 18).

The implementing regulations under Subchapter D, *Range Management*, 43 CFR Part 4100, *Grazing Administration - Exclusive of Alaska*, provide uniform guidance for the administration of grazing on public lands. The objectives of these regulations include the following: orderly use, improvement, and development; enhancement of productivity by prevention of overgrazing and soil deterioration; and provision of inventory and categorization of public rangelands on the basis of range conditions and trends. The regulations specify that grazing on administered public lands must be managed in accordance with applicable land-use plans. These plans must set forth



program constraints and the general management practices needed to achieve the management objectives.

19.2 Compliance Status of the Regulatory Requirement

Table 19-1 summarizes the applicable requirement and its compliance status under the Public Rangelands Improvement Act. The text discusses the compliance status of the requirement in more detail.

TABLE 19-1. Public Rangelands Improvement Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
<i>43 CFR Part 4100, Grazing Administration - Exclusive of Alaska</i>		
43 CFR 4100.0-8	Land-use plan, including grazing management	<p style="text-align: center;">UP TO DATE</p> <p>Authorized range-management activities ongoing per the LMP.</p> <p>[Section 19.2.1]</p>



19.2.1 Management of Grazing Per Land-Use Plan, 43 CFR 4100.0-8

Grazing on administered public lands shall be managed under the principle of multiple use and sustained yield and must be in accordance with the applicable land-use plan.

As addressed in the LMP, the DOE's intent is to continue current range-management practices with no immediate changes. Grazing will continue on the withdrawn lands as it has since the inception of the WIPP project. Range-management plans include (1) continued management of two affected grazing allotments under multiple-use management and sustained yield; (2) continued vegetative monitoring, which will include collecting data on actual livestock use, wildlife use, and degree of use of key forage species; and (3) continued monitoring studies to determine range condition and trends. In accordance with the LMP, the BLM will administer all range management activities.

20.0 TAYLOR GRAZING ACT

20.1 Summary of the Law

Although the United States does not and cannot hold property for private or personal purposes, it controls public lands under constitutional grant, acting through Congress. Control over public lands is in the hands of Congress; with this power, Congress may prohibit or fix the terms under which public lands may be used.

The Taylor Grazing Act of 1934 (43 USC §§ 315 et seq.) was enacted by Congress for the purpose of establishing a means for federal management of public lands used for grazing. The intent of Congress was to aid the livestock industry by defining grazing rights and to protect these rights by regulation. This act is intended to prohibit injury to public grazing lands from unregulated grazing and directs the orderly use of and improvement to public grazing lands by establishing grazing districts and a grazing permit system.

The LWA withdrew public lands and transferred jurisdiction over WIPP site lands from the DOI to the DOE. As a result of the LWA, the DOE was given statutory authority and responsibility for the management of the withdrawn land consistent with FLPMA (see Chapter 18) and other applicable laws such as the Taylor Grazing Act. Under the LWA, the DOE may allow grazing to continue where it was established before the enactment of the LWA, consistent with the applicable implementing regulations of the Taylor Grazing Act such as 43 CFR Part 4100, *Grazing Administration - Exclusive of Alaska*, although the BLM continues to administer the grazing-permit program and collects the grazing fee. The WIPP withdrawal area affects two grazing allotments (i.e., land designated and managed for the grazing of livestock).

The implementing regulations of 43 CFR Part 4100 provide uniform guidance for the administration of grazing on public lands, exclusive of Alaska. The objectives of these regulations are as follows: orderly use, improvement, and development of public grazing lands; enhancement of grazing land productivity by the prevention of overgrazing and soil deterioration; stabilization of the livestock industry dependent upon the public range; and provision of inventory and categorization of public rangelands on the basis of range conditions and trends. These objectives must be consistent with land-use plans, multiple use, sustained yield, environmental values, and other general objectives as stated by the Taylor Grazing Act.

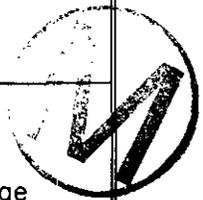
20.2 Compliance Status of the Regulatory Requirements

Table 20-1 summarizes the two applicable regulatory requirements and their compliance status under the Taylor Grazing Act. The text gives more detail on the compliance status of each requirement.



TABLE 20-1. Taylor Grazing Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
43 CFR Part 4100, <i>Grazing Administration</i>		
43 CFR 4100.0-8	Management of grazing lands under principles of multiple use and sustained yield and in accordance with applicable land-use plans	<p style="text-align: center;">UP TO DATE</p> <p>BLM authorized to administer ongoing grazing activities per the LMP</p> <p>[Section 20.2.1; see also Section 19.2.1]</p>
43 CFR 4120.2	Preparation of allotment management plan	<p style="text-align: center;">ACHIEVED</p> <p>BLM authorized to manage land use for two allotments</p> <p>[Section 20.2.2]</p>



20.2.1 Management of Grazing Lands, 43 CFR 4100.0-8

Grazing on public lands shall be managed under the principles of multiple use and sustained yield in accordance with applicable land-use plans.

In accordance with the LMP, the BLM will ensure that range management activities are carried out under the authority of the Taylor Grazing Act of 1934, FLPMA, (Chapter 18), and the Public Rangelands Improvement Act (Chapter 19). The principles of multiple use and sustained yield are basic to the management of these activities. The DOE's intent is to continue current management practices with no immediate changes in current operations. (See also Section 19.2.1.)

20.2.2 Allotment Management Plans, 43 CFR 4120.2

An allotment management plan shall be prepared in careful and considered consultation, cooperation, and coordination with BLM personnel, the landowners involved, the district grazing advisory board, and any other affected interests.

The WIPP withdrawal area affects two grazing allotments administered by the BLM: the Livingston Ridge and Antelope Ridge. Portions of both allotments lie within the withdrawal area. No formal grazing system has been implemented for the Livingston

Ridge; however, a recent review by the BLM of actual-use data indicates that there is *pasture rotation, with some pastures being rested for at least a portion of the growing season*. The Antelope Ridge allotment is leased to a livestock rancher; in consultation with the BLM, an allotment management plan has been developed for this allotment. The plan includes a five-pasture rotation system, with some pastures being rested for full years and others receiving growing-season rest. WIPP is contained within an area of 300 acres within the Antelope Range allotment that is posted against trespass and fenced to prevent grazing. The 277-acre DOE Exclusive Use Area and 23 additional acres set aside for reclamation sites, storage yards, etc., are the only portions of the withdrawal area not currently used for livestock activity.



21.0 BALD AND GOLDEN EAGLE PROTECTION ACT

21.1 Summary of the Law

The Bald and Golden Eagle Protection Act (16 USC § 668-668d) makes it unlawful to take (i.e., capture, kill, or destroy), possess, molest, or disturb bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*), alive or dead, their nests, or their eggs anywhere in the United States. A permit must be obtained from the DOI to relocate any nest that interferes with resource development or recovery operations. The Bald and Golden Eagle Protection Act is implemented by several parts under CFR Title 50, Subchapter B, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*. These implementing regulations are found in 50 CFR Parts 13, 17, 21, and 22.

The regulations in 50 CFR Part 13, *General Permit Procedures*, provide uniform rules, conditions, and procedures for the application for, and the issuance, denial, suspension, revocation, and general administration of, all permits issued pursuant to 50 CFR Subchapter B. The provisions in this part are in addition to other regulations, such as the Migratory Bird Treaty Act (Chapter 22) and the Endangered Species Act (Chapter 23), and apply to all permits issued under these regulations, including 50 CFR Parts 17, 21, and 22.

The regulations of 50 CFR Part 17, *Endangered and Threatened Wildlife and Plants*, which also implement the Endangered Species Act and are discussed in Chapter 23, could apply to WIPP because of the potential for the presence of the endangered bald eagle. The regulations in this part outline permit requirements for activities involving endangered wildlife and identify those species of wildlife and plants recognized as endangered or threatened with extinction.

The purpose of the regulations in 50 CFR Part 21, *Migratory Bird Permits*, is to supplement the general permit regulations of Part 13 of Subchapter B with respect to permits for the taking, possession, transportation, sale, purchase, barter, importation, exportation, and banding or marking of migratory birds. Section 21.22 of 50 CFR Part 21 outlines the requirements and procedures for permitting the banding or marking of bald and golden eagles. The requirements under 50 CFR Part 21 are discussed in Chapter 22.

The purpose of the regulations in 50 CFR Part 22, *Eagle Permits*, is to govern the taking, possession, and transportation of bald and golden eagles for scientific, educational, and depredation-control purposes and for the religious purposes of Indian tribes. The import, export, purchase, sale, and or barter of bald or golden eagles, their parts, nests, or eggs are not permitted by any regulation of Subchapter B.



21.2 Compliance Status of the Regulatory Requirements

Table 21-1 summarizes some of the applicable requirements and their compliance status under the Bald and Golden Eagle Protection Act. The text provides more detail on the compliance status of these requirements.

TABLE 21-1. Bald and Golden Eagle Protection Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
<i>50 CFR Part 13, General Permit Procedures</i>		
50 CFR 13.11	Permit application procedures	NOT APPLICABLE Refer to 50 CFR 22.11 and 22.25 [Section 21.2.1]
<i>50 CFR Part 22, Eagle Permits</i>		
50 CFR 22.11	General permit requirements	NOT APPLICABLE Eagles not included on any general banding permits at WIPP [Section 21.2.2]
50 CFR 22.25	Permits to take golden eagle nests	NOT APPLICABLE No nesting eagles at WIPP [Section 21.2.3]

21.2.1 Permit Application Procedures, 50 CFR 13.11

Applicants must submit separate applications for each permit on prescribed forms and must follow prescribed forwarding instructions.

At present, no bald or golden eagles are nesting on the WIPP site; however, individual eagles overwinter on WIPP lands. Overwintering eagles are provided considerations during determinations of all land-use actions. WIPP personnel will file an application for an eagle permit as required if the need for such a permit is perceived. Other permit requirements under 50 CFR Part 13, which would become applicable were a need to arise to disturb or relocate a bald or golden eagle, are discussed in Chapter 22.

21.2.2 General Permit Requirements, 50 CFR 22.11

No person shall take, possess, or transport any bald or golden eagle, living or dead, or the parts, nest, or eggs of such birds except as authorized under terms of a valid issued permit.

WIPP personnel will apply for a permit and will comply with the permit conditions if such a permit is ever needed.

21.2.3 Permits to Take Golden Eagle Nests, 50 CFR 22.25

Persons desiring to take golden eagle nests during a resource-development or recovery operation must file a permit application in accordance with prescribed procedures. The nests may be taken only when they are inactive.

At present, no golden eagles are nesting on the WIPP site. If it becomes necessary to move or remove a golden eagle nest, a permit application will be filed. All permit conditions will be met, and the nest(s) will be moved only when inactive.



22.0 MIGRATORY BIRD TREATY ACT

22.1 Summary of the Law

The Migratory Bird Treaty Act (16 USC §§ 703-712) is intended to protect birds that have common migratory flyways between the United States and Canada, Mexico, Japan, and Russia. The act stipulates that it is unlawful "at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, or attempt to take, capture, or kill . . . any migratory bird, any part, nest, or eggs of any such bird" unless specifically authorized by the Secretary of the Interior by direction or through regulations permitting and governing these actions. Although WIPP is not located within a major migration corridor, there is the potential for migratory birds to be present on WIPP lands.

The regulations in 50 CFR Part 13, *General Permit Procedures*, provide uniform rules, conditions, and procedures for the application for and the issuance, denial, suspension, revocation, and general administration of all permits issued pursuant to 50 CFR Subchapter B, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*. The provisions in this part are in addition to other regulations, including 50 CFR Parts 17, 21, and 22, and apply to all permits issued under these regulations.

The regulations of 50 CFR Part 17, *Endangered and Threatened Wildlife and Plants*, also implement the Migratory Bird Treaty Act and could apply to WIPP because of the potential for the presence of migratory endangered and threatened species of birds at the WIPP. These regulations, discussed in Chapter 23, outline the requirements for permits for activities involving endangered wildlife and identify those species of wildlife which are recognized as endangered or threatened with extinction.

Under the Migratory Bird Treaty Act, the DOE is required to consult annually with the U. S. Fish and Wildlife Service (FWS) with respect to impacts on migratory game birds¹ and crows resulting from the hunting activities permitted on WIPP lands. Hunting privileges for the public within the withdrawal area will continue, except for the areas that are posted against trespass. These hunting activities, whether conducted out of or within the withdrawal area, are subject to regulations implementing the Migratory Bird Treaty Act (i.e., 50 CFR Part 20, *Migratory Bird Hunting*¹), which regulate the harvest of migratory birds by specifying the mode of harvest, hunting seasons, possession limits,

¹ Migratory game birds are migratory birds that belong to the following families: Anatidae (ducks, geese, brant, and swans); Columbidae (doves and pigeons); Gruidae (little brown cranes); Rallidae (rails, coots, and gallinules); and Scolopacidae (woodcock and snipe).



and so on. Furthermore, because certain migratory birds that have been federally recognized and listed as endangered or threatened, such as bald eagles and peregrine falcons, could be present on WIPP lands, the Bald and Golden Eagle Protection Act (Chapter 21) and the Endangered Species Act (Chapter 23) may also apply, along with their implementing regulations.

The regulations in 50 CFR Part 21, *Migratory Bird Permits*, supplement the general permit regulations of Part 13 of this subchapter with respect to permits for the taking, possession, transportation, sale, purchase, barter, importation, exportation, and banding or marking of migratory birds. The portion that is relevant to WIPP is § 21.22, which outlines the requirements and procedures for obtaining permits to band or mark birds. Part 21 also provides certain exceptions to the permit requirements for public, scientific, or educational institutions and establishes depredation orders that provide limited exceptions to the Migratory Bird Treaty Act.

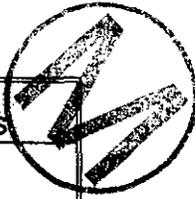
The purpose of the regulations in 50 CFR 22, *Eagle Permits*, is to govern the taking, possession, and transportation of bald and golden eagles for scientific, educational, and depredation-control purposes and for the religious purposes of Indian tribes. Compliance with these regulations is discussed in Chapter 21.

22.2 Compliance Status of the Regulatory Requirements

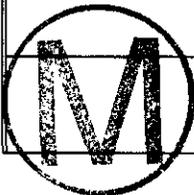
The compliance status of each of the applicable regulatory requirements under the Migratory Bird Treaty Act is summarized in Table 22-1. More detail is provided in the text.

TABLE 22-1. Migratory Bird Treaty Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
50 CFR Part 13, General Permit Procedures		
50 CFR 13.11	Permit application procedures	<p style="text-align: center;">ACHIEVED</p> <p>Application submitted to the U.S. Fish and Wildlife Service (FWS)</p> <p>[Section 22.2.1]</p>
50 CFR 13.12	Information requirements for permit applications	<p style="text-align: center;">ACHIEVED</p> <p>Prescribed information included in application</p> <p>[Section 22.2.2]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
50 CFR 13.44	Display of permit	<p>ACHIEVED</p> <p>Permit displayed</p> <p>[Section 22.2.3]</p>
50 CFR 13.45	Filing of reports	<p>ACHIEVED</p> <p>Annual report submitted to FWS</p> <p>[Section 22.2.4]</p>
50 CFR 13.46	Maintenance of records	<p>UP TO DATE</p> <p>Maintained for at least 5 years</p> <p>[Section 22.2.5]</p>
50 CFR 13.47	Inspection requirement	<p>NOT APPLICABLE</p> <p>No inspections requested to date</p> <p>[Section 22.2.6]</p>
50 CFR 13.48	Compliance with permit conditions	<p>UP TO DATE</p> <p>All conditions met (See also Sections 22.2.12 and 22.3.1.)</p> <p>[Section 22.2.7]</p>
50 CFR 13.50	Acceptance of liability	<p>UP TO DATE</p> <p>No action required</p> <p>[Section 22.2.8]</p>
50 CFR Part 20, Migratory Bird Hunting		
50 CFR Part 20, Subpart C	Compliance with applicable hunting regulations	<p>UP TO DATE</p> <p>Hunting allowed in some areas in compliance with applicable regulations</p> <p>[Section 22.2.9]</p>
50 CFR Part 21, Migratory Bird Permits		



CITATION	REQUIREMENT	COMPLIANCE STATUS
50 CFR 21.22(a)	Permit for banding or marking migratory birds	<p>ACHIEVED</p> <p>Federal Permit 22478 for banding obtained</p> <p>[Section 22.2.10]</p>
50 CFR 21.22(b)	Application procedures for banding or marking permits	<p>ACHIEVED</p> <p>Prescribed information submitted to FWS</p> <p>[Section 22.2.11]</p>
50 CFR 21.22(c)	Additional permit conditions	<p>UP TO DATE</p> <p>Permit conditions met</p> <p>[Section 22.2.12]</p>
50 CFR 21.22(d)	Term of permit	<p>UP TO DATE</p> <p>Less than 3 years</p> <p>[Section 22.2.13]</p>
50 CFR 21.27	Special-purpose permits	<p>NOT APPLICABLE</p> <p>No action required</p> <p>[Section 22.2.14]</p>
50 CFR 21.28	Falconry permits	<p>NOT APPLICABLE</p> <p>No falconry activities anticipated at WIPP</p> <p>[Section 22.2.15]</p>
50 CFR 21.41	Depredation permits	<p>NOT APPLICABLE</p> <p>No need for a depredation permit anticipated for WIPP</p> <p>[Section 22.2.16]</p>



22.2.1 Permit Application Procedures, 50 CFR 13.11

Applicants must submit a separate application on the prescribed form for each permit and must follow the prescribed forwarding instructions.

The prescribed information has been submitted to the FWS.



22.2.2 Information Requirements for Permit Applications, 50 CFR 13.12

Applicants must provide current information such as organizational affiliation, reason(s) for the permit application, and certification of familiarity with 50 CFR Part 13.

The prescribed permit applications and supporting information have been submitted to the FWS.

22.2.3 Display of Permit, 50 CFR 13.44

Any permit issued under 50 CFR Part 13 will be displayed for inspection upon the request of the Director, his/her agent, or any other person that relies upon the existence of the permit.

The permits are permanently displayed on the door of the freezer in which tissue samples are held at WIPP.

22.2.4 Filing of Reports, 50 CFR 13.45

Recipients of a permit may be required to file reports of the activities conducted under the permit. Any such report must be filed by March 31 for the preceding calendar year ending December 31 or for any portion of the year during which the permit was in force.

Annual reports are submitted to the FWS.

22.2.5 Maintenance of Records, 50 CFR 13.46

From the date of issuance of a permit, the recipient of the permit must maintain complete and accurate records of any taking, possession, transportation, sale, purchase, barter, exportation, or importation of plants obtained from the wild or wildlife covered under the permit. The records must be kept current and must include the names and addresses of any

persons involved in the transfer of the plant or wildlife as well as the date of the transaction and any other appropriate information. The records must be legible or reproducible and written in English and must be maintained for 5 years from the date of expiration of the permit.

All applicable records are held for at least five years from the date of expiration of the permit.

22.2.6 Inspection Requirement, 50 CFR 13.47

Any person holding a permit under this subpart shall allow the Director's agent to enter his/her premises at any reasonable hour to inspect any wildlife or plant held or to inspect, audit, or copy any permits, books, or records required under Subpart B.



The Director's agent has not yet requested such an inspection. Should an inspection be requested, full cooperation will be given.

22.2.7 Compliance with Permit Conditions, 50 CFR 13.48

Any person holding a permit under this subpart or acting under the authority of the permittee must comply with all conditions of the permit and with all applicable laws and regulations governing the permitted activity.

Conditions described in the permit have been met. See also Sections 22.2.12 and 22.3.1.

22.2.8 Acceptance of Liability, 50 CFR 13.50

Any person holding a permit under Subpart B assumes all liability and responsibility for the conduct of any activity conducted under the authority of the permit.

The recipients of the permits under Subpart B at WIPP are fully aware of their liabilities and assume responsibility for their activities.

22.2.9 Compliance with Applicable Migratory Bird Hunting Regulations, 50 CFR 20, Subpart C

Hunters of migratory game birds and crows must comply with open-season requirements, including the avoidance of prohibited hunting methods.

Hunting privileges for the public will continue within the withdrawal area, except in areas posted against trespass, in accordance with applicable hunting regulations.

22.2.10 Application for Banding or Marking Permit, 50 CFR 21.22(a)

Persons intending to capture migratory birds for banding or marking must have obtained a permit acquired in accordance with prescribed permit regulations.

A permit No. 22478 for banding at WIPP has been granted by the FWS. (See also Section 22.3.1.)

22.2.11 Application Procedures for Banding or Marking Permits, 50 CFR 21.22(b)

Information to be provided in banding or marking permit applications includes, but is not limited to, the State in which authorization is desired; the species to be banded or marked; and the name and address of the public, scientific, or educational institution that will be recipients of salvaged specimens.

This information was included in the application for the permit.

22.2.12 Additional Permit Conditions, 50 CFR 21.22(c)

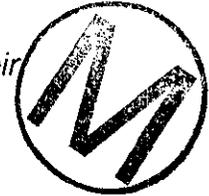
In addition to the general permit conditions described in 50 CFR Part 13 (see Sections 22.2.1 through 22.2.8), the following conditions will be met:

- *Only official numbered leg bands issued by the Fish and Wildlife Service will be used to band migratory birds.*
- *All traps or nets used to capture migratory birds for banding or marking will have a tag attached with the name and address of the permittee and the permit number.*
- *The holder of a permit may salvage birds killed or found dead. All such dead birds salvaged under the authority of a banding or marking permit must be donated and transferred to a public, scientific, or educational institution at least every 6 months or*



within 60 days of the expiration or revocation of the permit unless a special permit that authorizes possession for a longer period of time has been issued.

- *The permittees must keep accurate records of their operations and must file reports as required.*



The additional permit conditions are met at WIPP.

22.2.13 Term of Permit, 50 CFR 21.22(d)

The term of a banding or marking permit shall not exceed 3 years from the date of issuance or renewal. The expiration date is designated on the permit unless the permit has been amended or revoked.

Permit No. 22478 does not exceed the three-year term. The permit was reissued to WID personnel on June 30, 1995, and will expire on June 30, 1997.

22.2.14 Special-Purpose Permits, 50 CFR 21.27

Permits may be issued for special-purpose activities related to migratory birds or their parts, nests, or eggs that are otherwise outside the scope of the standard permits of this part.

No special-purpose permits have been needed at WIPP to date. Should such a permit become necessary, all appropriate requirements will be met as specified under this section.

22.2.15 Falconry Permits, 50 CFR 21.28

A falconry permit is required before any person may take; possess; transport; sell; purchase; barter; or offer to sell, purchase, or barter raptors for falconry purposes.

No falconry activities are anticipated at WIPP. Therefore, this permit is not applicable.

22.2.16 Depredation Permits, 50 CFR 21.41

A depredation permit is required before any person may take, possess, or transport migratory birds for depredation control.

No need for a depredation permit to control migratory birds is anticipated at WIPP. Therefore, this permit does not apply.

22.3 Compliance Status of Permit Conditions

Table 22-2 summarizes the conditions imposed by the FWS for the permit issued. The text provides more detail on the compliance status of the permit conditions.

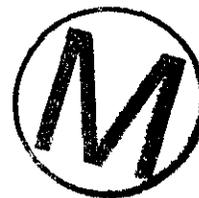
TABLE 22-2. Migratory Bird Treaty Act - Summary of Permit Compliance Status

CITATION	CONDITION	COMPLIANCE STATUS
Permit No. 22478	Authorization to capture and band or mark birds; excluded for waterfowl, eagles, and endangered or threatened species	<p style="text-align: center;">UP TO DATE</p> <p>No waterfowl, eagles, or endangered species captured, banded, or marked at WIPP</p> <p>[Section 22.3.1]</p>

22.3.1 Permit No. 22478

Permit No. 22478 authorizes the WID employee specified to capture and band or mark all species of birds except waterfowl, eagles, or endangered or threatened species.

Permit No. 22478 provides authority to capture and band or mark all species of birds except waterfowl, eagles, or endangered or threatened species. No waterfowl, eagles, or endangered or threatened species have been captured, marked, or banded at WIPP.



23.0 ENDANGERED SPECIES ACT

23.1 Summary of the Law

The Endangered Species Act (16 USC §§ 1531 et seq.) was enacted in 1973 to prevent the extinction of many species of animals and plants. This act provides strong measures to help alleviate the loss of species and their habitats and places restrictions on a wide range of activities involving endangered and threatened animals and plants to help ensure their continued survival. With limited exceptions, this act prohibits activities that could potentially impact these protected species unless authorized by a permit from the U.S. Fish and Wildlife Service (FWS). Under § 1536 of the act and the implementing regulations in 50 CFR Part 402, *Interagency Cooperation--Endangered Species Act, as Amended*, the EPA is prohibited from authorizing activities likely to jeopardize the continued existence of any threatened or endangered species or its critical habitat. A biological assessment and "formal consultation," followed by the issuance of a "biological opinion" by the FWS, may be required for any species that is determined to be in potential jeopardy.

The DOE consulted with the FWS in 1979 to determine the presence of threatened or endangered species at or near the WIPP site. At that time, the FWS listed the Lee Pincushion Cactus (*Coryphantha sneedi* var. *Leei*), the Black-Footed Ferret (*Mustela nigripes*), the American Peregrine Falcon (*Falco peregrinus anatum*), and the Bald Eagle (*Haliaeetus leucocephalus*) as threatened or endangered that could occur on lands within or outlying the WIPP site. However, no critical habitat for endangered species was identified at WIPP. In 1989, the DOE again consulted with the FWS to update the list of threatened and endangered species. The agency has advised the DOE that the list of species provided in 1979 is still valid.

During 1989, the DOE consulted with the New Mexico Department of Game and Fish (NMDG&F) regarding the state-listed endangered species in the vicinity of the WIPP. Based on NMDG&F Regulation 657, dated January 9, 1988, the NMDG&F listed seven birds and one reptile in one of two endangerment categories that occur or are likely to occur at the site.

During 1995, the FWS transmitted the April 24, 1995, updated list of threatened and endangered species (to include Notice of Review) for Eddy and Lea Counties, New Mexico. Inclusive were approximately 18 species that occur or are likely to occur on WIPP lands. Accordingly, the list was distributed to pertinent WIPP departments for consideration and incorporation into applicable documents. The DOE currently operates under the assumption that activities associated with the operation of the WIPP will have no impact on any threatened or endangered species. Considerations pertaining to protected species are implemented in accordance with this management plan, during the deliberation and administration of projects conducted on WIPP lands.



The regulations in 50 CFR Part 13, *General Permit Procedures*, provide uniform rules, conditions, and procedures for the application for and the issuance, denial, suspension, revocation, and general administration of all permits issued pursuant to 50 CFR Subchapter B, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*. The provisions in this part are in addition to other regulations and apply to all permits issued under them, including 50 CFR Parts 17, 21, and 22.

The regulations of 50 CFR Part 17, *Endangered and Threatened Wildlife and Plants*, implement the Endangered Species Act as well as the Bald and Golden Eagle Protection Act (see Chapter 21) and could apply to WIPP because of the potential for the presence of the endangered animal and plant species identified above. The regulations in this part outline the requirements for permits for activities involving endangered wildlife and identify those species of wildlife and plants recognized as endangered or threatened with extinction.

Other federal regulations which implement the Endangered Species Act and which apply to the WIPP include the implementing regulations in 50 CFR Parts 21 and 22. The purpose of the regulations in 50 CFR Part 21, *Migratory Bird Permits*, is to supplement the general permit regulations of Part 13 of Subchapter B with respect to permits for the taking, possession, transportation, sale, purchase, barter, importation, exportation, and banding or marking of migratory birds, including those listed as threatened or endangered. Compliance with these regulations is discussed in Chapter 22.

The regulations in 50 CFR Part 22, *Eagle Permits*, govern the taking, possession, and transportation of the endangered bald eagle for scientific, educational, and depredation-control purposes and for the religious purposes of Indian tribes. Requirements under these regulations are discussed in Chapter 21.

23.2 Compliance Status of the Regulatory Requirements

Table 23-1 summarizes regulatory requirements and their compliance status under the Endangered Species Act. The text gives more detail on the compliance status of each requirement.



TABLE 23-1. Endangered Species Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
50 CFR Part 13, General Permit Procedures		
50 CFR 13.11	Permit application procedures	NOT APPLICABLE No work anticipated with endangered or threatened species [Section 23.2.1]
50 CFR Part 17, Endangered and Threatened Wildlife and Plants		
50 CFR 17.22, 17.32, 17.52, and 17.62	Application for permits for scientific purposes or for the enhancement of propagation or survival of endangered or threatened species	NOT APPLICABLE No work anticipated with endangered or threatened species [Section 23.2.2]
50 CFR Part 402, Interagency Cooperation - Endangered Species Act, as Amended		
50 CFR 402.12	Biological assessment to evaluate effects of proposed actions on designated species	NOT APPLICABLE Determination of no adverse impacts; see Section 23.2.4 [Section 23.2.3]
50 CFR 402.14	Formal consultation with the FWS to determine whether any action will affect listed species	ACHIEVED Determination of no adverse impacts [Section 23.2.4]

23.2.1 Permit Application Procedures, 50 CFR 13.11

Applicants must submit separate applications for each permit on prescribed forms and must follow prescribed forwarding instructions.



No permit is required because activities involving endangered species are not conducted at WIPP. Other requirements related to permits under 50 CFR Part 13,

which would become applicable only if activities involving endangered species were initiated, are summarized and discussed in Chapter 22.

23.2.2 Application for Endangered or Threatened Species Permit, 50 CFR 17.22 (a)(1), 17.32, 17.52, and 17.62

Applicants for permits for using endangered or threatened species of wildlife or plants for scientific purposes, enhancement of propagation or survival, or for incidental taking must submit an application as prescribed.

To date, taking endangered or threatened wildlife or plants for these purposes, which would require a permit from the FWS, has not been necessary. It is not expected that such a permit will be needed in the future.

23.2.3 Biological Assessment of Impacts on Recognized Species, 50 CFR 402.12

A biological assessment may be required to determine whether construction activities will jeopardize the continued existence of endangered species or the critical habitat of any such species.

On May 29, 1980, the FWS determined that construction of the WIPP would have no adverse impacts on recognized endangered or threatened species. In addition, no critical habitat for terrestrial endangered species has been identified at the WIPP site. Consequently, no biological assessment has been required for the WIPP.

23.2.4 Formal Consultation with the FWS Regarding Impacts on Recognized Species, 50 CFR 402.14

Formal consultation with the FWS to determine whether construction activities will jeopardize the continued existence of endangered species or its critical habitat is required.

On May 29, 1980, the FWS determined that construction of the WIPP would have no adverse impacts on recognized endangered or threatened species. In addition, no critical habitat for terrestrial endangered species has been identified at the WIPP site. Consequently, no formal consultation has been required for the WIPP.



24.0 NATIONAL HISTORIC PRESERVATION ACT



24.1 Summary of the Law

The National Historic Preservation Act (NHPA; 16 USC §§ 470 et seq.) was enacted to protect the nation's cultural resources in conjunction with the states, local governments, Indian tribes, and private organizations and individuals. The policy of the federal government includes (1) providing leadership in preserving the prehistoric and historic resources of the nation; (2) administering federally owned, administered, or controlled prehistoric resources for the benefit of present and future generations; (3) contributing to the preservation of nonfederally owned prehistoric and historic resources; and (4) assisting state and local governments and the National Trust for Historic Preservation in expanding and accelerating their historic preservation programs and activities. The act also established the National Register of Historic Places ("National Register"). At the state level, the State Historic Preservation Officer (SHPO) coordinates the state's participation in implementing the NHPA.

Section 106 of NHPA requires that a federal agency head who has jurisdiction over a federal, federally assisted, or federally licensed undertaking take into account the effects of the agency's undertaking on historic properties included in or eligible for the National Register. Furthermore, the "Section 106 process" requires that the federal agency head afford the Advisory Council on Historic Preservation ("the Council") a reasonable opportunity to comment on the undertaking prior to initiating the undertaking. Through the Section 106 process, the Council seeks to accommodate historic preservation concerns with the needs of federal undertakings. The Council encourages this accommodation through consultation among the federal agency, the SHPO, and other interested parties during the early stages of planning.

The NHPA has been amended by two acts. The Archaeological and Historic Preservation Act (16 USC §§ 469 et seq.) directs federal agencies to recover and preserve historic and archaeological data that would otherwise be lost as a result of federal construction or program activities. This statute applies to known cultural resources on WIPP lands or those which may be recorded in the future.

The other act amending the NHPA is the Archaeological Resources Protection Act (16 USC §§ 470aa et seq.). This statute sets forth the requirements for obtaining a permit from the DOI for the excavation or removal of archaeological resources from public or Indian lands. The act's implementing regulations in 43 CFR Part 7, *Protection of Archaeological Resources*, establish uniform definitions, standards, and procedures to be followed by all Federal land managers in providing protection for archaeological resources located on public lands. The statute and regulations apply to known cultural resources on WIPP lands or those that may be recorded in the future.

The NHPA's implementing regulations in 36 CFR Part 800, *Protection of Historic and Cultural Properties*, contain provisions for the development of a treatment plan by a federal agency that identifies historic properties likely to be discovered during the implementation of an undertaking and how they will be managed.

Since 1976, cultural resource investigations have recorded 60 archaeological sites and 91 isolated occurrences within the 16-square-mile, WIPP site boundary. The exact number of sites within the WIPP site boundary was confirmed with the completion of a comprehensive archaeological database created in July 1994. During the creation of the database some inconsistencies were discovered with regard to the number of archaeological sites, eligible and ineligible for inclusion in the National Register, reported to exist within the WIPP land withdrawal area. Some sites previously included as "WIPP archaeological sites" are located within the outer perimeters of WIPP's Control Zone IV. When the WIPP site was configured to the present 16-section square, much of Control Zone IV reverted to the management of the DOI. Therefore, the archaeological sites located in those areas are no longer the responsibility of the DOE.

Of the 60 archaeological sites, 33 sites recorded within the central 4-square-mile area were determined eligible for inclusion on the National Register as an archaeological district. Investigations since 1980 have recorded an additional 14 individual sites outside the central 4-square-mile area that are considered eligible for inclusion on the National Register. Of the 14 sites, six are within the WIPP's present 16-section configuration.

24.2 Compliance Status of the Regulatory Requirements

Table 24-1 summarizes the regulatory requirements and their compliance status under the NHPA. The text gives more detail on the compliance status of each requirement.

TABLE 24-1. National Historic Preservation Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
36 CFR Part 800, <i>Protection of Historic and Cultural Properties</i>		
36 CFR 800.5	Assessment of effects on historic properties	<p style="text-align: center;">ACHIEVED</p> <p>Determination of No Adverse Effect obtained (May 1980)</p> <p>[Section 24.2.1]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
36 CFR 800.11	Development of plan for treatment of historic property	<p style="text-align: center;">ACHIEVED</p> <p><i>WIPP Mitigation Plan</i> submitted to State Historic Preservation Officer (SHPO) and to the Council; SHPO determined No Adverse Effect from WIPP activities in May 1980</p> <p>[Section 24.2.2]</p>
43 CFR Part 7, Protection of Archaeological Resources		
43 CFR 7.5	Application for permit to excavate and/or remove archaeological resources	<p style="text-align: center;">NOT APPLICABLE</p> <p>No excavations or removal of archaeological sites slated</p> <p>[Section 24.2.3]</p>

24.2.1 Assessment of Effects on Historic Properties, 36 CFR 800.5

In consultation with the SHPO, the Federal agency official with jurisdiction over an undertaking is responsible for assessing the effect of an undertaking on affected historic properties, obtaining the SHPO's concurrence when the effect is not considered adverse, and notifying and submitting summary documentation to the Council.



The DOE submitted documentation to the New Mexico SHPO describing excavation activities and the avoidance of any potential historical sites. A determination of No Adverse Effect from WIPP activities on historic properties was made by the SHPO in May 1980. This determination was applicable for the primary construction activities associated with the development of the WIPP. Similar documentation was submitted to the Council. Since the 1980 determination, the DOE has evaluated minor construction activities in previously undisturbed areas for potential impacts to cultural resources. New surface disturbing activities are evaluated by a licensed, permitted archaeologist and approval is obtained from the SHPO prior to allowing the action to proceed. Examples of activities approved during this reporting period include the construction of small access roads and new well pads for groundwater sampling wells.

24.2.2 Development of a Plan for the Treatment of Historical Property Discovered During a Federal Agency Undertaking, 36 CFR 800.11

After a determination by the Federal agency official presiding over an undertaking that the potential for the discovery of

historical property exists, the agency official may develop a plan for the treatment of such properties if discovered and include this plan in any documentation prepared to comply with 36 CFR 800.5.

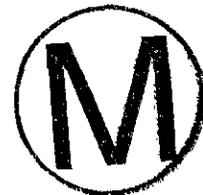
A mitigation plan describing excavation activities at WIPP and the avoidance of historical sites was submitted to the New Mexico SHPO. A determination of No Adverse Effect from WIPP activities on cultural resources was made by the SHPO in May 1980. A similar mitigation plan was submitted to the Council. The Council concurred that the *WIPP Mitigation Plan* is appropriate to protect cultural resources.

The LMP also outlines objectives and planned actions for the management of cultural resources within the withdrawal area.

24.2.3 Application for Permits and Information Collection, 43 CFR 7.5

Any person proposing to excavate and/or remove archaeological resources from public lands and to carry out activities associated with such excavation and/or removal shall apply for a permit for the proposed work and shall not begin the proposed work until a permit has been issued.

Avoidance of known archaeological sites is the primary mitigation measure used at WIPP. During this reporting period no archaeological sites were excavated.



25.0 NEW MEXICO HAZARDOUS WASTE ACT

25.1 Summary of the Law

The purpose of the Hazardous Waste Act (HWA; §§ 74-4-1 through 74-4-14 NMSA 1978) is to help ensure the maintenance of the quality of New Mexico's environment; to confer optimal health, safety, comfort, and economic and social well being on its inhabitants; and to protect the proper utilization of its lands. The HWA established the program for hazardous waste management and control in the state of New Mexico. Since its initial enactment in 1977, it has been amended substantially several times to make its provisions more consistent with the 1980 and 1984 amendments to RCRA (see Chapter 2). The major provisions of the HWA were taken directly from Subtitles C (*Hazardous Waste Management*) and I (*Regulation of Underground Storage Tanks*) of RCRA.

On January 11, 1985, New Mexico received authorization from the EPA to administer the base federal hazardous waste program, effective January 25, 1985. Additional authorizations that expanded the scope of the initial authorization were granted by the EPA and became effective on April 10, 1990; July 25, 1990; December 4, 1992; September 23, 1994; and January 2, 1996.

The New Mexico Environmental Improvement Board (EIB) adopted amendments to the New Mexico Hazardous Waste Management Regulations in 1994 and 1995. The changes updated the regulations to be consistent with changes to the federal regulations.

On January 2, 1996, the EPA provided an additional Final Authorization of State Hazardous Waste Management Program Revisions in the State of New Mexico. With this authorization the state is provided regulatory authority to implement the 1984 Hazardous and Solid Waste Amendments. The EPA published this final authorization in accordance with the requirements of 40 CFR 271.21(B)(3). With this authorization the EPA determined that the revisions to the New Mexico hazardous waste program met the requirements of Section 3006(b) of RCRA by demonstrating that the state program was equivalent to and consistent with the federal program, and that the state program provided adequate enforcement authority to implement the revised Hazardous and Solid Waste Amendments (HSWA) authority under RCRA.

Section 74-4-4.E of the HWA allows the EIB to adopt federal hazardous waste management regulations by reference after public notice and public hearing. On January 11, 1991, New Mexico adopted the entire body of 40 CFR Parts 260 through 266 and Parts 268 through 270 of the EPA's regulations implementing Subtitle C with only a few substitutions and minor exceptions. Table 25-1 shows the correspondence



between the federal and state implementing regulations. On July 11, 1990, the EPA published its acceptance of New Mexico's revised hazardous waste program, effective July 25, 1990. This authorization allows New Mexico to regulate the hazardous constituents of mixed waste under the revised HWA. The only exception to this authorization are regulatory changes made by the EPA subsequent to the authorization. Therefore, this authorization allows the state to regulate the hazardous constituents of the mixed waste to be sent to the WIPP except for changes in the regulations that have been made by the EPA but have not yet received EPA's authorization in the state program.

On July 23, 1992, New Mexico submitted an application for additional program approvals. The EPA published an immediate final rule on October 5, 1992, in which the decision was made to grant final authorization to New Mexico for the additional program modifications. The final authorization became effective on December 4, 1992.

TABLE 25-1. Correspondence Between the Federal Regulations Implementing the Resource Conservation and Recovery Act (RCRA) and the State Regulations Implementing the New Mexico Hazardous Waste Act)

Implementing Regulations under RCRA	Hazardous Waste Management Regulations (HWMRs) under HWA/20 NMAC 4.1	Adoptions, Modifications, and Exceptions	BECR Sections
40 CFR Part 260	Section 101	Adopts Part 260 into Subpart I by reference	---
	Section 102	Modifies and adds several definitions; omits (from Subpart I) Sections 260.1(b)(6), 260.20, 260.22, 260.30, 260.31, 260.32 and 260.33; the section also provides NMED's 24-hour emergency-response telephone number	---
40 CFR Part 261	Section 200	Adopts Part 261 into Subpart II by reference	---
40 CFR Part 262	Section 300	Adopts Part 262 into Subpart III by reference	Section 25.2.2
	Section 301	omits (from Subpart III) Sections 262.51-57	

Implementing Regulations under RCRA	Hazardous Waste Management Regulations (HWMRs) under HWA/20 NMAC 4.1	Adoptions, Modifications, and Exceptions	BECR Sections
40 CFR Part 263	Section 400 Section 401	Adopts Part 263 into Subpart IV by reference Omits (from Subpart IV) Section 263.20(e)	Section 25.2.3
40 CFR Part 264	Section 500 Section 501	Adopts Part 264 into Subpart V by reference Omits (from Subpart V) Sections 264.149, 264.150 and 264.301(1)	Not applicable
40 CFR Part 265	Section 600 Section 601	Adopts Part 265 into Subpart VI by reference Omits (from Subpart VI) Sections 265.149 and 265.150	Section 25.2.4
40 CFR Part 266	Section 700	Adopts Part 266 into Subpart VII by reference	Not applicable
40 CFR Part 268	Section 800	Adopts Part 268 into Subpart VIII by reference	Section 25.2.2.17
40 CFR Part 270	Section 900 Section 901	Adopts Part 270 into Subpart IX by reference. Several terms in Subpart I do not apply in Sections 270.5, 270.10(f)(2) & (3), 270.101(g)(1)(i), 270.11(a)(3), 270.32(c), 270.72(a)(5) and 270.72(b)(5) as adopted in Subpart IX. Adds New Mexico permitting procedures	Section 25.2.5



Implementing Regulations under RCRA	Hazardous Waste Management Regulations (HWMRs) under HWA/20 NMAC 4.1	Adoptions, Modifications, and Exceptions	BECR Sections
	<p>Section 1101</p> <p>Section 1102</p> <p>Section 1103</p> <p>Section 1104</p> <p>Section 1105</p> <p>Section 1106</p> <p>Section 1107</p> <p>Section 1108</p> <p>Section 1109</p>	<p>Adopts Subpart X Requires compliance with applicable state and federal regulations,</p> <p>Construction</p> <p>Replaces Part 124 with Section 902 of the HWMRs</p> <p>References Part 280. Required compliance with New Mexico's Underground Storage Tank Regulations</p> <p>Severability</p> <p>Effect of stay or invalidation of federal regulations incorporated by reference</p> <p>Amendment of prior regulations</p> <p>Saving clause</p> <p>Materials incorporated by reference into the regulations may be viewed at the New Mexico Hazardous and Radioactive Materials Bureau</p>	<p>Section 25.2.1</p> 

The state's Hazardous Waste Management Regulations are applicable to the WIPP in three different areas. First, WIPP is a generator of hazardous waste and is thus required to comply with the RCRA requirements of 40 CFR Part 262 (20 New Mexico Administrative Code [NMAC] 4.1, Subpart III). As long as site generated hazardous wastes are sent to a permitted off-site TSD facility within 90 days, no permit is required for the accumulation and storage of hazardous wastes. Second, when WIPP receives waste from the generator sites, WIPP will be responsible for subcontracting the TRU

waste transporter. This activity will be regulated under the transporter requirements of 40 CFR Part 263 (Part IV of the HWMRs). Third, WIPP will be a disposal and storage facility for TRU mixed waste, which mandates that WIPP receive a RCRA operating permit. The permit for the disposal phase will be received from the NMED.

After New Mexico received authorization from the EPA to regulate mixed waste in July 1990, the NMED informed WIPP that the RCRA Part A permit application was due on January 22, 1991, with the Part B permit application due on February 28, 1991. WIPP submitted its Part A and Part B permit applications to the NMED and to Region VI of the EPA in January and February 1991. Since then, several revisions of the permit application have been submitted to the regulatory agencies to provide additional information required and to inform the agencies of changes.

The WIPP submitted a RCRA Part B permit application to the NMED in February 1991. The application was revised twice between 1991 and 1993 to detail the test phase. A draft permit was issued by the NMED in August 1993. In October 1993, the DOE made a decision not to conduct tests with TRU and TRU mixed waste at the WIPP site. Instead, the DOE implemented an accelerated regulatory program, that focused on activities directly relevant to a demonstration of compliance with long-term disposal regulations. In September 1994 the NMED Secretary remanded the draft permit back to the Hazardous and Radioactive Materials Bureau for reconsideration based on DOE's changes.

In May 1995, the DOE submitted a revised RCRA Part B permit application for the disposal of TRU and TRU mixed waste at the WIPP. A request for additional information was received from the NMED in November 1995. The requested information was submitted in phases throughout the months of December 1995 and January 1996. The NMED issued an NOD in March 1996. The DOE responded with the final revision in April 1996.

The NMAC (20 NMAC 4.1) permitting procedures contained in Subpart IX, Section 901, and provisions contained in §§ 1101 through 1109 are not contained in the federal regulations and are additional requirements to those found in the federal regulations. Revisions that have changed since the hazardous waste regulations were codified include the requirements contained in § 1104, the provision that any reference to 40 CFR Part 280 is to be construed to mean compliance with the requirements of the New Mexico Underground Storage Tank Regulations (USTR). Furthermore, since the New Mexico USTRs differ from the federal regulations specified in 40 CFR Part 280, these state regulations are also discussed in detail in this chapter (see Section 25.2.7). The UST section includes the results of the environmental compliance assessment that was performed for the UST program at WIPP.



25.2 Compliance Status of Regulatory Requirements

There are two requirements contained in Subpart X of 20 NMAC 4.1 that do not have direct counterparts in the federal regulations. Section 25.2.1 discusses one requirement from the New Mexico regulations that is unique and is not in the federal regulation addressing state implementation programs. It also includes a discussion of the New Mexico USTR requirements and their compliance status at WIPP.

25.2.1 Compliance With the Hazardous Waste Regulatory Requirement

The New Mexico requirement pertaining to hazardous waste management that differs from the federal regulations is summarized in Table 25-2, along with a summary of WIPP's compliance status. Additional information is presented in the text.

TABLE 25-2. New Mexico Hazardous Waste Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
New Mexico Hazardous Waste Management Regulations (20 NMAC 4.1)		
20 NMAC 4.1 Subpart X, § 1101	Compliance with other regulations	ACHIEVED See other chapters in this report [Section 25.2.1.1]

25.2.1.1 Compliance With Other Regulations, 20 NMAC 4.1, § 1101

Compliance with the HWMRs does not relieve a person of the obligation to comply with other applicable state and federal regulations.

Compliance with the other federal and state regulations that apply to WIPP is discussed in the other chapters of this BECR.

25.2.2 Compliance with Standards Applicable to Generators of Hazardous Waste (20 NMAC 4.1, Subpart III, § 300)

Table 25-3 summarizes the applicable regulatory requirements for hazardous waste generators under Subpart III of 20 NMAC 4.1, which corresponds to the federal implementing regulations of 40 CFR Part 262. Because New Mexico adopts the federal implementing regulations by reference, the citations given in this table are from the federal regulations (40 CFR Part 262). The compliance status of the WIPP to each

requirement of Subpart III is summarized in Table 25-3, and the text provides additional compliance status information.

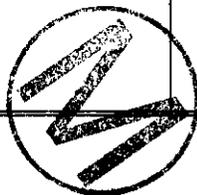
TABLE 25-3. New Mexico Hazardous Waste Management Regulations (HWMRs) for Hazardous Waste Generators - Compliance Status

Citation	Requirement	Compliance Status
40 CFR 262.11 (20 NMAC 4.1, § 300)	Hazardous waste determination 	UP TO DATE Addressed in WID procedures and plans [Section 25.2.2.1]
40 CFR 262.12 (20 NMAC 4.1, § 300)	EPA identification number	ACHIEVED NM 4890139088 [Section 25.2.2.2]
40 CFR 262.20 (20 NMAC 4.1, § 300)	General Requirements (manifest requirements)	UP TO DATE Addressed in WID plans and procedures [Section 25.2.2.3]
40 CFR 262.21 (20 NMAC 4.1, § 300)	Acquisition of manifests	UP TO DATE State-specific or uniform manifest used [Section 25.2.2.4]
40 CFR 262.22 (20 NMAC 4.1, § 300)	Number of copies	UP TO DATE Uniform manifest [Section 25.2.2.5]
40 CFR 262.23 (20 NMAC 4.1, § 300)	Use of the manifest	UP TO DATE Addressed in WID procedures and plans [Section 25.2.2.6]

Citation	Requirement	Compliance Status
40 CFR 262.30 (and 49 CFR Parts 173, 178, and 179) (20 NMAC 4.1, § 300)	DOT packaging requirements	<p align="center">UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 25.2.2.7]</p>
40 CFR 262.31 (and 49 CFR Part 172) (20 NMAC 4.1, § 300)	Labeling requirements	<p align="center">UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 25.2.2.8]</p>
40 CFR 262.32 (and 49 CFR Part 172) (20 NMAC 4.1, § 300)	Marking requirements	<p align="center">UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 25.2.2.9]</p>
40 CFR 262.33 (and 49 CFR Part 172) (20 NMAC 4.1, § 300)	Placarding requirements	<p align="center">UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 25.2.2.10]</p>
40 CFR 262.34(a) (20 NMAC 4.1, § 300)	Accumulation time	<p align="center">ACHIEVED</p> <p>Addressed in WID procedures and plans</p> <p>[Section 25.2.2.11]</p>
40 CFR 262.34(a)(1)(i) (20 NMAC 4.1, § 300)	Compliance with Subpart I of 40 CFR Part 265 for waste placed in containers	<p align="center">UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 25.2.2.12]</p>
40 CFR 262.34(a)(1)(ii) (20 NMAC 4.1, § 300)	Accumulation of hazardous wastes in tanks	<p align="center">NOT APPLICABLE</p> <p>Hazardous waste is not accumulated in tanks at WIPP</p> <p>[Section 25.2.2.13]</p>



Citation	Requirement	Compliance Status
40 CFR 262.34(a)(1)(iii) (20 NMAC 4.1, § 300)	Compliance with Subpart W of 40 CFR Part 265 for wastes placed on drip pads	<p>NOT APPLICABLE</p> <p>No drip pads are used at WIPP</p> <p>[Section 25.2.2.14]</p>
40 CFR 262.34(a)(2) (20 NMAC 4.1, § 300)	Marking each container with the date of initial accumulation of waste	<p>UP TO DATE</p> <p>Addressed in WID procedures and plans</p> <p>[Section 25.2.2.15]</p>
40 CFR 262.34(a)(3) (20 NMAC 4.1, § 300)	Marking each container as hazardous waste	<p>UP TO DATE</p> <p>Addressed in WID procedures and plans</p> <p>[Section 25.2.2.16]</p>
40 CFR 262.34(a)(4) (20 NMAC 4.1, § 300)	<p>Compliance with Subpart C of 40 CFR 265 for preparedness and prevention</p> <p>Compliance with Subpart D of 40 CFR Part 265 for contingency plans and emergency procedures</p> <p>Compliance with 40 CFR 265.16 regarding personnel training</p> <p>Compliance with 40 CFR 268.7(a)(4) regarding a waste analysis plan for prohibited waste under the land disposal restrictions (LDRs)</p>	<p>UP TO DATE</p> <p><i>WIPP Contingency Plan</i></p> <p>UP TO DATE</p> <p><i>WIPP Contingency Plan</i></p> <p>UP TO DATE</p> <p>Formal personnel training</p> <p>NOT APPLICABLE</p> <p>No treatment or land disposal at WIPP for WIPP-generated wastes</p> <p>[Section 25.2.2.17]</p>
40 CFR 262.34(b) (20 NMAC 4.1, § 300)	Extension of the 90-day storage period due to unforeseen, temporary, and uncontrollable circumstances	<p>UP TO DATE</p> <p>Procedures in place if an extension of time becomes necessary.</p> <p>[Section 25.2.2.18]</p>



Citation	Requirement	Compliance Status
40 CFR 262.34(c)(1) (20 NMAC 4.1, § 300)	Restrictions and requirements for satellite accumulation areas (SAAs), including: <ul style="list-style-type: none"> • Limit of 55 gallons of hazardous or 1 quart of acutely hazardous waste (listed in 40 CFR 261.33 [e]) at or near point of generation 	<p style="text-align: center;">UP TO DATE</p> WID procedures in place governing the management of SAAs at WIPP [Section 25.2.2.19]
40 CFR 262.34(c)(1)(i) (20 NMAC 4.1, § 300)	<ul style="list-style-type: none"> • Compliance with 40 CFR 265.171, <i>Condition of Containers</i> • Compliance with 40 CFR 265.172, <i>Compatibility of Waste with Container</i> • Compliance with 40 CFR 265.173(a) pertaining to keeping hazardous waste containers closed during storage 	<p style="text-align: center;">UP TO DATE</p> Addressed in WID procedures and plans [Section 25.2.2.20]
40 CFR 262.34(c)(1)(ii) (20 NMAC 4.1, § 300)	Labeling of container as "hazardous waste"	<p style="text-align: center;">UP TO DATE</p> Addressed in WID procedures and plans [Section 25.2.2.21]
40 CFR 262.34(c)(2) (20 NMAC 4.1, § 300)	Management of waste exceeding the 55-gallon (hazardous) or 1-quart (acutely hazardous) waste limit, including required compliance within 3 days and marking container(s) containing the excess waste with the date on which excess waste began accumulating	<p style="text-align: center;">UP TO DATE</p> Addressed in WID procedures and plans [Section 25.2.2.22]
40 CFR 262.40 (20 NMAC 4.1, § 300)	Record-keeping requirements	<p style="text-align: center;">UP TO DATE</p> Addressed in WID procedures [Section 25.2.2.23]

Citation	Requirement	Compliance Status
40 CFR 262.41 (20 NMAC 4.1, § 300)	Generator-biennial report 	UP TO DATE Biennial report submitted in February 1996 with revisions submitted in April 1996 [Section 25.2.2.24]
40 CFR 262.42 (20 NMAC 4.1, § 300)	Exception reporting if copy of manifest is not returned to the generator within the specified period of time	UP TO DATE No exception reporting required to date [Section 25.2.2.25]
40 CFR 262.43 (20 NMAC 4.1, § 300)	Additional reporting	NOT APPLICABLE No additional reports requested [Section 25.2.2.26]
40 CFR 262.44 (20 NMAC 4.1, § 300)	Special requirements for generators of between 100 and 1,000 kg/mo	NOT APPLICABLE WIPP produces in excess of 1,000 kg/mo [Section 25.2.2.27]

25.2.2.1 Hazardous Waste Determination, 40 CFR 262.11 (20 NMAC 4.1, § 300)

The generator of solid waste is required to determine whether the waste is hazardous as defined under 40 CFR Parts 260 and 261.

Nonradioactive hazardous waste is currently generated from maintenance, construction, and laboratory operations at WIPP. This waste is characterized through process knowledge and/or waste sampling and analysis. Desktop instruction to meet these requirements have been implemented.

25.2.2.2 EPA Identification Number, 40 CFR 262.12 (20 NMAC 4.1, § 300)

An EPA identification number is required for each generator of hazardous waste.

The DOE has obtained a generator identification number for the WIPP. The EPA identification number for the WIPP is *NM4890139088*.

25.2.2.3 Manifest Requirements, 40 CFR 262.20 (20 NMAC 4.1, § 300)

Compliance with the manifest requirements is mandatory for shipping hazardous waste off site. One of the requirements is that the generator have a waste minimization program in place.



Nonradioactive hazardous waste generated at the WIPP is manifested prior to shipment to an off-site disposal facility. Records are maintained in the operating files for five years. Procedures are in place that address these requirements. The WID is responsible for implementing these procedures. A waste minimization program is in place.

25.2.2.4 Acquisition of Manifests, 40 CFR 262.21 (20 NMAC 4.1, § 300)

The generator must obtain a manifest from the appropriate source.

The WIPP obtains a manifest from consignment states which require a manifest. If the consignment state does not require a specific manifest, a uniform hazardous waste manifest is used. The WIPP uses the current revision of EPA form 8700-22.

25.2.2.5 Number of Copies, 40 CFR 262.22 (20 NMAC 4.1, § 300)

The manifest shall consist of sufficient copies to provide two for the generator and one each for the transporter and owner or operator of the facility.

The manifests used by WIPP contain the required number of copies to fulfill this requirement. The manifest form currently used contains six copies.

25.2.2.6 Use of the Manifest, 40 CFR 262.23 (20 NMAC 4.1, § 300)

The generator must sign the manifest certification by hand, obtain the handwritten signature of the initial transporter and date of acceptance on the manifest, and retain one copy. The generator must give the transporter the remaining copies of the manifest. Other requirements of this regulation pertain to shipments by water, rail, or to a designated facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous.

WID procedures are in place that address compliance with applicable parts of this regulation. Hazardous waste generated at WIPP is sent to TSDFs in states with authorized hazardous-waste programs.

25.2.2.7 Packaging Requirements, 40 CFR 262.30 (20 NMAC 4.1, § 300)

EPA and DOT packaging requirements must be met before shipping hazardous waste off site.

A WID procedure is in place that addresses these requirements. WID is responsible for proper packaging of all hazardous waste shipped from the site.

25.2.2.8 Labeling Requirements, 40 CFR 262.31 (20 NMAC 4.1, § 300)

EPA and DOT labeling requirements must be met before shipping hazardous waste off site.

A WID procedure is in place that addresses these requirements.

25.2.2.9 Marking Requirements, 40 CFR 262.32 (20 NMAC 4.1, § 300)

EPA and DOT marking requirements must be met before shipping hazardous waste off site.

A WID procedure is in place that addresses these requirements.

25.2.2.10 Placarding Requirements, 40 CFR 262.33 (20 NMAC 4.1, § 300)

EPA and DOT placarding requirements must be met before shipping hazardous waste off site.

A WID procedure is in place that addresses these requirements.

25.2.2.11 Accumulation Time, 40 CFR 262.34(a) (20 NMAC 4.1, § 300)

Accumulation time for large quantity generators is limited to 90-day storage of hazardous wastes for a non-permitted facility.

Waste is accumulated in containers in satellite accumulation areas (SAAs) and subsequently moved to the Hazardous Waste Staging Area at WIPP. At this point, the 90-day storage requirement comes into effect. WID procedures are in place that address this requirement for hazardous wastes generated at WIPP and shipped off site to an approved TSDF. Records that document compliance with the 90-day storage requirement are maintained at WIPP.



25.2.2.12 Compliance with Subpart I of 40 CFR Part 265, 40 CFR 262.34(a)(1)(i)
(20 NMAC 4.1, § 300)

Compliance with Subpart I of 40 CFR Part 265 is required for waste placed in containers. The requirements of this subpart pertain to the condition of containers, compatibility of waste with the containers, closing containers during storage, inspections, the location of containers holding ignitable or reactive waste, and the segregation of incompatible wastes.



WID procedures that address compliance with Subpart I of 40 CFR Part 265 (See also Sections 25.2.4.54 through 25.2.4.59) are in place. These procedures provide for weekly inspections of containers and segregation of incompatible wastes. The hazardous waste storage area is located more than 50 feet from the WIPP property line for compliance with the requirements for ignitable or reactive waste (40 CFR 265.176).

25.2.2.13 Accumulation of Hazardous Wastes, 40 CFR 262.34(a)(1)(ii)
(20 NMAC 4.1 § 300)

Except as provided in paragraphs (d), (e), and (f) of this section, a generator may accumulate hazardous waste on site for 90 days or less without a permit or without having interim status, provided that the waste is placed in tanks, and the generator complies with Subpart J of 40 CFR Part 265.0, except § 265.197(c) and § 265.200.

Hazardous waste is not accumulated in tank systems at WIPP; therefore, this regulation does not apply.

25.2.2.14 Compliance with Subpart W of 40 CFR Part 265, 40 CFR 262.34(a)(1)(iii)
(20 NMAC 4.1, § 300)

Compliance with Subpart W of 40 CFR Part 265 for wastes placed on drip pads is required.

No drip pads are required at WIPP for hazardous waste accumulation. Therefore, these requirements do not apply.

25.2.2.15 Marking with Date of Initial Accumulation, 40 CFR 262.34(a)(2)
(20 NMAC 4.1, § 300)

Each container of hazardous waste must be clearly marked with the date of accumulation of the waste, and the label must be visible for inspection.

The accumulation date is placed on the container when it enters the temporary storage area to await transport off site.

25.2.2.16 Marking as Hazardous Waste, 40 CFR 262.34(a)(3)
(20 NMAC 4.1, § 300)

Each hazardous waste container in an SAA must be labeled or marked as hazardous waste.

Each hazardous waste container in each SAA is clearly labeled as hazardous waste as described in WID procedures. Weekly inspections are performed to verify proper labeling of containers.

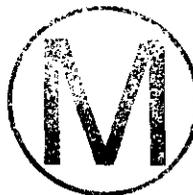
25.2.2.17 Compliance with Emergency Response, Training, and Waste Analysis Plan Requirements, 40 CFR 262.34(a)(4) (20 NMAC 4.1, § 300)

Compliance with Subparts C (preparedness and prevention) and D (contingency plans and emergency procedures) of 40 CFR Part 265 and with Sections 40 CFR 265.16 (personnel training) and 268.7(a)(4) (waste analysis plan for prohibited waste under the land disposal restrictions) is required.

40 CFR Part 265, Subpart C, Preparedness and Prevention: WIPP is maintained and operated to minimize the possibility of fire, explosions, or any unplanned release of hazardous waste to the environment. Inspections of waste handling areas and equipment are conducted periodically in accordance with WID procedures. Any corrective actions needed are initiated via spill management procedures and action requests (ARs).

WID has prepared a contingency plan which provides a list of emergency equipment at WIPP, along with a description and statement of capabilities of the equipment and the cognizant organization responsible for ensuring that the equipment is available and operable.

The following communication and alarm systems are available at the WIPP site: two-way communication by the public address system and its intercom phones and paging channels, an intra-plant telephone system, mine phones, local and facility wide alarm systems, pagers and plectrons, and portable two-way radios. Inspection procedures are in place for the communication and alarm systems and the fire protection equipment. These procedures include provisions for testing and maintenance to ensure that equipment will be operable in an emergency. Spill control and decontamination equipment are inspected weekly, and the results are recorded on an inspection form. Adequate aisle space is provided in the hazardous waste storage area at WIPP to allow for potential emergency response activities.



The WIPP Emergency Management Section provides regional ambulance and emergency medical services. In addition, the DOE has established Memoranda of Understanding (MOU) with off-site emergency response agencies for fire fighting, medical assistance, and law enforcement. An example is the mutual aid agreement between Hobbs and the DOE that provides for mutual ambulance, medical, fire, rescue, and hazardous material response services. All outside agencies with which MOUs have been made have received copies of the *WIPP RCRA Contingency Plan* and the *WIPP Emergency Plan*.

40 CFR Part 265, Subpart D, Contingency Plan and Emergency Procedures: A contingency plan has been developed for the WIPP site and is maintained at all controlled document locations and has been provided to outside emergency response agencies. The purpose of the document is to define responsibilities, provide guidance for the coordination of activities, and minimize hazards to human health and the environment from fires, explosions, or any sudden or non-sudden release of hazardous waste or hazardous waste constituents. The *WIPP RCRA Contingency Plan* describes actions that must be taken in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or water. It describes agreements with local authorities; lists names, addresses, and phone numbers of persons qualified to act as Emergency Coordinators; provides a list of emergency equipment at the facility; and includes an evacuation plan.

Copies of the *WIPP RCRA Contingency Plan* have been provided to all outside agencies with which WIPP has agreements for assistance in an emergency situation. A copy of the plan is maintained at WIPP controlled document locations. WID has the distribution list for the plan and is responsible for updating the controlled copies.

The plan will be reviewed and revised if necessary whenever applicable regulations are revised; if the plan fails in an emergency; if the facility changes in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency; or if the list of Emergency Coordinators or the list of emergency equipment changes.

The TRU mixed waste handling areas at the WIPP facility do not include tank storage or treatment of hazardous waste as defined and regulated by the regulations. At the WIPP facility, tanks are used to store water and petroleum fuels only. The petroleum tanks store diesel and unleaded gasoline. Underground storage tanks are subject to the New Mexico Underground Storage Tank Regulations.

A RCRA Emergency Coordinator is on site 24 hours a day, 7 days a week. The coordinator is responsible for coordinating all emergency response measures. The primary RCRA Emergency Coordinator is the on duty Facility Shift Manager (FSM). Emergency Coordinators are thoroughly familiar with the *WIPP RCRA Contingency Plan*. The plan has provisions that meet the emergency procedure requirements such as communication of an emergency situation to employees, notification of the

appropriate agency if assistance is needed, identification of hazardous materials, assessment of hazards, and notification of any incident that requires implementation of the *WIPP RCRA Contingency Plan*.

40 CFR 265.16, Personnel Training: Formal training at WIPP is conducted in accordance with a WID training procedures manual. Training includes General Employee Training (GET-19X), other classroom training, and on-the-job training. Training is conducted by certified instructors. Certification requirements are established in a WID procedure. The GET-19X course provides detailed training in such areas as communications, alarm systems, and emergency response. A WID procedure requires all personnel to attend GET-19X within 30 days of employment. WID employees must attend a refresher class annually. Other classroom training is offered for personnel in selected job categories that involve the management of hazardous waste, such as maintenance and waste operations. Annual refreshers are provided. Maintenance personnel are trained to provide repair and replacement services. Inspections are a part of job-specific training and emergency response personnel training. WIPP employees involved in managing site-generated, nonradioactive waste, or TRU mixed waste will receive the Hazardous Waste Worker course (HWW). This course provides job specific training required to safely receive, transfer, or handle waste at the facility. Review and update of the HWW topics are provided annually.

WID maintains a listing of all hazardous waste management job titles, the names of employees assigned by job title to hazardous waste management jobs, and job descriptions that identify RCRA-related duties. Records on active and inactive personnel are kept in accordance with WID documents.

40 CFR 268.7(1)(4), Waste Analysis for Treating Prohibited Wastes in Tanks or Containers: This requirement for a waste analysis plan for the treatment of wastes prohibited from land disposal in tanks or containers is not applicable to WIPP as WIPP-generated hazardous waste is neither treated nor land disposed at this facility.

25.2.2.18 Extension of Storage Period, 40 CFR 262.34(b) (20 NMAC 4.1, § 300)

The 90-day storage period may be extended due to unforeseen, temporary, and uncontrollable circumstances.

WID procedures provide instruction for the shipment of hazardous waste off site prior to the 90-day deadline. An extension of the storage period was not required during this reporting period; however, procedures exist if a request for an extension is needed.



25.2.2.19 Restrictions and Requirements, 40 CFR 262.34(c)(1)
(20 NMAC 4.1, § 300)



There are a number of restrictions and requirements for satellite accumulation areas. These include the limit of 55 gallons of hazardous or 1 quart of acutely hazardous waste (listed in 40 CFR 261.33[e]) and the requirement that the satellite accumulation area be located at or near the point of generation of the waste.

WID procedures are in place and weekly inspections are conducted to verify that the 55-gallon limit per SAA is not exceeded. None of the SAAs have a capacity that exceeds 55 gallons, and no acutely hazardous waste is generated at WIPP. The SAAs are located at or near the points of generation of the hazardous waste. In addition, WID procedures define the requirements for placing waste in an SAA. These procedures define the responsibilities of the waste generator.

25.2.2.20 Compliance with 40 CFR 265.171, 265.172, and 165.173(a), 40 CFR 262.34(c)(1)(i) (20 NMAC 4.1, § 300)

These requirements for hazardous waste generators from 40 CFR Part 265 pertain to the condition of the containers (265.171), compatibility of the waste with the container (265.172), and the necessity to keep the containers closed when not actually adding waste to or removing it from the containers (265.173[1]). In addition, a container holding hazardous waste must not be opened, handled, or stored in a manner that could rupture the container or cause it to leak.

WID procedures are in place to ensure that containers used to hold hazardous waste in SAAs are in good condition. If a container is found to be damaged, it is repaired, or the waste is removed and transferred to another container. All SAA inspection reports on file at WIPP indicate that the requirement for containers holding hazardous waste to be kept in good condition is met. Weekly inspections confirm that this requirement is being met. No special liners are used in the waste containers. Procedures are in place that address waste/container compatibility and the requirement that containers be closed except when waste is being added or removed. Inspections are conducted on a regular basis to ensure compliance with these regulations for containers.

A WID procedure addresses the requirement that containers not be opened, handled, or stored in a manner that could cause the container to rupture or leak by requiring that containers be inspected before and after transportation from the SAA to the staging area. (See also Sections 25.2.4.54 through 25.2.4.59).

25.2.2.21 Labeling of Container as "Hazardous Waste," 40 CFR 262.34(c)(1)(ii)
(20 NMAC 4.1, § 300)

Labeling of each hazardous waste container as "hazardous waste" is required.

WID procedures are in place, and weekly inspections are conducted to verify that each container of hazardous waste is clearly labeled as hazardous waste.

25.2.2.22 Management of Waste, 40 CFR 262.34(c)(2) (20 NMAC 4.1, § 300)

If waste accumulates in one of the SAAs in excess of the 55-gallon or 1-quart limit, the container(s) containing the excess waste must be marked with the date on which excess waste began accumulating, and compliance with the 55-gallon or 1-quart limit must be restored within 3 days.



WID procedures that address the 55-gallon limit in the SAAs are in place. No acutely hazardous wastes are generated at WIPP. WID personnel verify that no SAA waste container is overfilled and that any waste stored at an SAA in excess of the 55-gallon limit is removed within three days in accordance with the regulations.

25.2.2.23 Record-keeping Requirements, 40 CFR 262.40 (20 NMAC 4.1, § 300)

Manifests, test results, waste analyses, and reports must be kept on site for at least three years.

WID procedures that address these requirements are in place. Required records are maintained by WID on site for a minimum of five years after which they may be retained onsite until closure or microfiched and stored indefinitely. Although 20 NMAC 4.1 § 300 requires that manifests and their associated records be maintained for only three years, WID procedures dictate that manifest records will be maintained onsite for five years. Waste analyses and reports supporting Land Disposal Restrictions (LDR) must be kept on file five years (40 CFR 268.7[a][7]). The five-year retention period is designed to assure that manifest and associated LDR records are kept together, and that LDR records are retained onsite the required five year period.

25.2.2.24 Generator-Biennial Report, 40 CFR 262.41 (20 NMAC 4.1, § 300)

Each generator of hazardous waste that ships the waste off site to an approved TSDF must file a report to the EPA by March 1 of every even-numbered year, including a description of the results of waste minimization efforts.

WID procedures have been prepared to respond to these requirements. The results of waste-minimization activities are included in the hazardous-waste generator biennial report. The most recent report was submitted in February 1996. Revisions to the report requested by NMED were submitted in April 1996.

25.2.2.25 Exception Reporting, 40 CFR 262.42 (20 NMAC 4.1, § 300)

Exception reporting is required if a copy of the manifest is not returned to the generator within 35 days of the date of acceptance of the hazardous waste by the transporter.



A WID procedure addresses exception reporting. At this time, no exception reporting has been required.

25.2.2.26 Additional Reporting, 40 CFR 262.43 (20 NMAC 4.1, § 300)

The Administrator, as he or she deems necessary, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in 40 CFR Part 261.0.

No additional reports have been requested to date.

25.2.2.27 Special Requirements for Generators of Between 100 and 1,000 kg/mo, 40 CFR 262.44 (20 NMAC 4.1, § 300)

A generator of greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month is subject to only ...record-keeping; ...exception reporting; and ...additional reporting

The WIPP site is currently categorized as a large quantity generator (over 1,000 kilograms in any calendar month); therefore, this regulation is not applicable.

25.2.3 Compliance with Standards Applicable to Transporters of Hazardous Waste, 40 CFR Part 263 (20 NMAC 4.1, § 400)

The standards and requirements specified under 40 CFR Part 263 are currently not applicable to WIPP because of DOE's decision to eliminate testing of TRU mixed wastes at WIPP. However, the requirements will become applicable when the generator sites begin shipping TRU mixed wastes to WIPP because wastes will be transported via a trucking and/or rail company. The DOE and WID conduct assessments or audits to review WIPP compliance with requirements of applicable federal regulations, DOE Orders, and DOE Albuquerque Operations Office (AL) Directives that pertain to hazardous materials transportation activities. The DOE

conducted an assessment January 22-26, 1996, and WID conducted a quality assurance audit January 4-12, 1996.

A summary of the requirements for transporters of hazardous or mixed wastes and the compliance status of each requirement is described in Table 25-4. Additional information is provided in the text.

TABLE 25-4. New Mexico Hazardous Waste Management Regulations for Transporters of Hazardous/Mixed Waste, 40 CFR Part 263 - Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 263.10(a) (20 NMAC 4.1, § 400)	Compliance with DOT regulations	<p style="text-align: center;">UP TO DATE</p> CAST Transportation, Inc. Transportation Management Plan June 22, 1995 [Section 25.2.3.1]
40 CFR 263.11 (20 NMAC 4.1, § 400)	EPA identification number	<p style="text-align: center;">ACHIEVED</p> COD 980953269 [Section 25.2.3.2]
40 CFR 263.20-263.22 (20 NMAC 4.1, § 400)	Compliance with the manifest system and record-keeping	<p style="text-align: center;">UP TO DATE</p> CAST Transportation, Inc. Transportation Management Plan [Section 25.2.3.3]
40 CFR 263.30 (20 NMAC 4.1, § 400)	Immediate action after hazardous waste discharges	<p style="text-align: center;">NOT APPLICABLE</p> CAST Transportation, Inc. Standard Emergency Response on Comprehensive Contingency Plan [Section 25.2.3.4]
40 CFR 263.31 (20 NMAC 4.1, § 400)	Discharge cleanup	<p style="text-align: center;">NOT APPLICABLE</p> No actual waste has been emplaced at WIPP [Section 25.2.3.5]





25.2.3.1 Compliance with Department of Transportation (DOT) Regulations, 40 CFR 263.10(a) (20 NMAC 4.1, § 400)

Transporters of hazardous/mixed waste must comply with all applicable DOT regulations.

Cast Transportation, Inc. has been contracted to transport TRU waste to WIPP from the generator sites. The Cast Transportation Management Plan (dated June 22, 1995) incorporates the applicable DOT regulations from the Title 49 series of the Code of Federal Regulations.

Any transporter hired to ship TRU and TRU mixed waste from the generator sites to WIPP must comply with the DOT regulations.

25.2.3.2 EPA Identification Number, 40 CFR 263.11 (20 NMAC 4.1, § 400)

The transporter must have an EPA identification number from the EPA Administrator.

Cast Transportation Inc. has been contracted to transport TRU and TRU mixed waste from the generator sites to WIPP. Their EPA identification number is COD 980953269. Any transporter hired to ship TRU and TRU mixed waste to WIPP must have an EPA identification number.

25.2.3.3 Compliance with the Manifest System and with Record-keeping Requirements, 40 CFR 263.20-263.22 (20 NMAC 4.1, § 400)

The transporter must comply with all relevant manifest and record-keeping requirements.

The Cast Transportation Management Plan indicates that it will comply with requirements of the manifest system. Any transporter hired to ship TRU and TRU mixed waste to WIPP must comply with these requirements.

25.2.3.4 Immediate Action after Hazardous Waste Discharges, 40 CFR 263.30 (20 NMAC 4.1, § 400)

The transporter will take appropriate immediate action in the event of a discharge of hazardous waste (or hazardous constituents) during transportation.

The Cast Transportation Management Plan addresses actions that will be undertaken to protect human health and the environment. Any transporter that ships TRU and TRU mixed waste to WIPP must have these capabilities. To date, no waste has been shipped to WIPP and no waste discharges have occurred.

25.2.3.5 Discharge Cleanup, 40 CFR 263.31 (20 NMAC 4.1, § 400)



A transporter must clean up any hazardous waste discharge that occurs during transportation or must take any action(s) required by federal, state, or local officials to render the discharge nonhazardous to human health and the environment.

In the event of a hazardous waste constituent discharge during transportation, cleanup activities will be undertaken, as required. Any transporter of TRU and TRU mixed waste to WIPP must be capable of ensuring adequate cleanup of any hazardous or mixed waste released to the environment during a transportation incident or accident. To date, no waste has been shipped to WIPP, and no waste discharges have occurred. (See also Section 25.2.3.4).

25.2.4 Compliance With the Regulatory Requirements for Interim-Status TSDFs, 40 CFR Part 265 (20 NMAC 4.1, §§ 600 and 601)

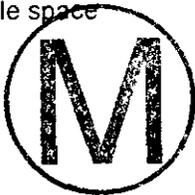
The WIPP is an interim-status facility. All applicable requirements for a TSDF are described in this section.

Table 25-5 summarizes each of the applicable requirements under 40 CFR Part 265 and provides the compliance status of each. The text that follows the table provides additional detail.

TABLE 25-5. NMACs for Interim-Status TSDFs, 40 CFR Part 265 - Compliance Status

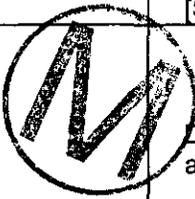
CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 265.10 (20 NMAC 4.1, § 600)	Applicability	See Section 25.2.4 and Sections 25.2.4.2 through 25.2.4.9
40 CFR 265.11 (20 NMAC 4.1, § 600)	EPA identification number	ACHIEVED NM4890139088 [Section 25.2.4.2]
40 CFR 265.12 (20 NMAC 4.1, § 600)	Required notices to off-site source(s)	NOT APPLICABLE None required to date [Section 25.2.4.3]

CITATION	REQUIREMENT	COMPLIANCE STATUS
<p>40 CFR 265.13 (20 NMAC 4.1, § 600)</p>	<p>General waste analysis</p> 	<p>UP TO DATE</p> <p><i>WIPP Waste Analysis Plan; Transuranic Waste Characterization Sampling and Analysis Methods Manual; Transuranic Waste Characterization Quality Assurance Program Plan</i></p> <p>[Section 25.2.4.4]</p>
<p>40 CFR 265.14 (20 NMAC 4.1, § 600)</p>	<p>Security</p>	<p>ACHIEVED</p> <p>Eight-foot-high chain-link fence, 24-hour surveillance system, and signs in Spanish and English posted at 50-foot intervals</p> <p>[Section 25.2.4.5]</p>
<p>40 CFR 265.15 (20 NMAC 4.1, § 600)</p>	<p>General inspection requirements</p>	<p>UP TO DATE</p> <p>Inspection procedures; inspection logs</p> <p>[Section 25.2.4.6]</p>
<p>40 CFR 265.16 (20 NMAC 4.1, § 600)</p>	<p>Personnel training</p>	<p>UP TO DATE</p> <p>Procedures, manuals, and employee records</p> <p>[Section 25.2.4.7]</p>
<p>40 CFR 265.17 (20 NMAC 4.1, § 600)</p>	<p>General requirements for ignitable, reactive, or incompatible wastes</p>	<p>UP TO DATE</p> <p>Part B permit application/<i>WIPP Waste Acceptance Criteria</i>; no incompatible wastes identified</p> <p>[Section 25.2.4.8]</p>
<p>40 CFR 265.18 (20 NMAC 4.1, § 600)</p>	<p>Location standards</p>	<p>NOT APPLICABLE</p> <p>Allows WIPP to be used as a TSDF</p> <p>[Section 25.2.4.9]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 265.31 (20 NMAC 4.1, § 600)	Maintenance and operation of facility	<p style="text-align: center;">UP TO DATE</p> <p><i>WIPP Waste Acceptance Criteria and WID Contingency Plan</i></p> <p>[Section 25.2.4.10]</p>
40 CFR 265.32 (20 NMAC 4.1, § 600)	Required equipment	<p style="text-align: center;">UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 25.2.4.11]</p>
40 CFR 265.33 (20 NMAC 4.1, § 600)	Testing and maintenance of equipment	<p style="text-align: center;">UP TO DATE</p> <p>Addressed in WID procedures</p> <p>[Section 25.2.4.12]</p>
40 CFR 265.34 (20 NMAC 4.1, § 600)	Access to communications or alarm system	<p style="text-align: center;">UP TO DATE</p> <p>Public address system, intercom, phones, telephones, alarm systems, pagers and plectrons, portable two-way radios</p> <p>[Section 25.2.4.13]</p>
40 CFR 265.35 (20 NMAC 4.1, § 600)	Required aisle space 	<p style="text-align: center;">UP TO DATE</p> <p>Procedures in place to ensure adequate aisle space when waste is brought to WIPP</p> <p>[Section 25.2.4.14]</p>
40 CFR 265.37 (20 NMAC 4.1, § 600)	Arrangements with local authorities	<p style="text-align: center;">ACHIEVED</p> <p>MOUs in place with local authorities</p> <p>[Section 25.2.4.15]</p>
40 CFR 265.51 (20 NMAC 4.1, § 600)	Purpose and implementation of the contingency plan	<p style="text-align: center;">ACHIEVED</p> <p><i>WIPP Contingency Plan</i> in place</p> <p>[Section 25.2.4.16]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 265.52 (20 NMAC 4.1, § 600)	Content of the contingency plan	<p>ACHIEVED</p> <p><i>WIPP Contingency Plan</i></p> <p>[Section 25.2.4.17]</p>
40 CFR 265.53 (20 NMAC 4.1, § 600)	Copies of contingency plan 	<p>ACHIEVED</p> <p>Copy provided to each outside agency with an agreement to provide emergency assistance to WIPP</p> <p>[Section 25.2.4.18]</p>
40 CFR 265.54 (20 NMAC 4.1, § 600)	Amendment of contingency plan	<p>UP TO DATE</p> <p><i>WIPP Contingency Plan</i></p> <p>[Section 25.2.4.19]</p>
40 CFR 265.55 (20 NMAC 4.1, § 600)	Emergency Coordinator	<p>ACHIEVED</p> <p>Facility Shift Manager</p> <p>[Section 25.2.4.20]</p>
40 CFR 265.56 (20 NMAC 4.1, § 600)	Emergency procedures	<p>UP TO DATE</p> <p><i>WIPP Contingency Plan</i></p> <p>[Section 25.2.4.21]</p>
40 CFR 265.71 (20 NMAC 4.1, § 600)	Use of manifest system	<p>NOT APPLICABLE</p> <p>WID procedures; no shipments to date</p> <p>[Section 25.2.4.22]</p>
40 CFR 265.72 (20 NMAC 4.1, § 600)	Manifest discrepancies	<p>NOT APPLICABLE</p> <p>WID procedures; no shipments to date</p> <p>[Section 25.2.4.23]</p>
40 CFR 265.73 (20 NMAC 4.1, § 600)	Operating record	<p>UP TO DATE</p> <p>WID procedures</p> <p>[Section 25.2.4.24]</p>

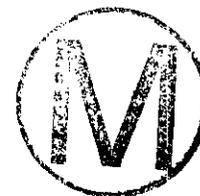
CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 265.74 (20 NMAC 4.1, § 600)	Availability, retention, and disposition of records	<p style="text-align: center;">UP TO DATE</p> <p>WID procedures [Section 25.2.4.25]</p>
40 CFR 265.75 (20 NMAC 4.1, § 600)	TSDF biennial report 	<p style="text-align: center;">NOT APPLICABLE</p> <p>Addressed in WID procedure [Section 25.2.4.26]</p>
40 CFR 265.76 (20 NMAC 4.1, § 600)	Unmanifested waste report	<p style="text-align: center;">NOT APPLICABLE</p> <p>No waste shipments to date [Section 25.2.4.27]</p>
40 CFR 265.77 (20 NMAC 4.1, § 600)	Additional reports	<p style="text-align: center;">NOT APPLICABLE</p> <p>No additional reporting to date [Section 25.2.4.28]</p>
40 CFR 265.90 (20 NMAC 4.1, § 600)	Applicability of the ground-water monitoring system	<p style="text-align: center;">UP TO DATE</p> <p>Ground-water monitoring plan [Section 25.2.4.29]</p>
40 CFR 265.91 (20 NMAC 4.1, § 600)	Ground-water monitoring system	<p style="text-align: center;">UP TO DATE</p> <p>Ground-water monitoring plan [Section 25.2.4.30]</p>
40 CFR 265.92 (20 NMAC 4.1, § 600)	Sampling and analysis	<p style="text-align: center;">UP TO DATE</p> <p>Ground-water monitoring plan [Section 25.2.4.31]</p>
40 CFR 265.93 (20 NMAC 4.1, § 600)	Preparation, evaluation, and response	<p style="text-align: center;">UP TO DATE</p> <p>Ground-water monitoring plan [Section 25.2.4.32]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 265.94 (20 NMAC 4.1, § 600)	Record-keeping and reporting	<p>UP TO DATE</p> <p>Ground-water monitoring plan [Section 25.2.4.33]</p>
40 CFR 265.110 (20 NMAC 4.1, § 600)	Applicability of the closure/post-closure requirements 	<p>UP TO DATE</p> <p>Disposal phase RCRA permit application [Section 25.2.4.34]</p>
40 CFR 265.111 (20 NMAC 4.1, § 600)	Closure performance standard	<p>UP TO DATE</p> <p>Disposal phase RCRA permit application [Section 25.2.4.35]</p>
40 CFR 265.112 (20 NMAC 4.1, § 600)	Closure plan; amendment of plan	<p>UP TO DATE</p> <p>Disposal phase RCRA permit application [Section 25.2.4.36]</p>
40 CFR 265.113 (20 NMAC 4.1, § 600)	Time allowed for closure	<p>UP TO DATE</p> <p>Disposal phase RCRA permit application [Section 25.2.4.37]</p>
40 CFR 265.114 (20 NMAC 4.1, § 600)	Disposal or decontamination of equipment, structures, and soils	<p>UP TO DATE</p> <p>Disposal phase RCRA permit application [Section 25.2.4.38]</p>
40 CFR 265.115 (20 NMAC 4.1, § 600)	Certification of closure	<p>NOT APPLICABLE</p> <p>Requirements will become applicable at the time of facility closure; addressed in WID procedures [Section 25.2.4.39]</p>

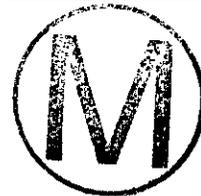
CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 265.116 (20 NMAC 4.1, § 600)	Survey plat	<p>NOT APPLICABLE</p> <p>Requirements will become applicable at the time of facility closure</p> <p>[Section 25.2.4.40]</p>
40 CFR 265.117 (20 NMAC 4.1, § 600)	Postclosure care and use of property	<p>NOT APPLICABLE</p> <p>Requirements will become applicable at the time of facility closure</p> <p>[Section 25.2.4.41]</p>
40 CFR 265.118 (20 NMAC 4.1, § 600)	Postclosure plan; amendment of plan	<p>NOT APPLICABLE</p> <p>Requirements will become applicable at the time of facility closure</p> <p>[Section 25.2.4.42]</p>
40 CFR 265.119 (20 NMAC 4.1, § 600)	Postclosure notices	<p>NOT APPLICABLE</p> <p>Requirements will become applicable at the time of facility closure</p> <p>[Section 25.2.4.43]</p>
40 CFR 265.120 (20 NMAC 4.1, § 600)	Certification of completion of postclosure care	<p>NOT APPLICABLE</p> <p>Requirements may become applicable at the time of facility closure</p> <p>[Section 25.2.4.44]</p>
40 CFR 265.142 (20 NMAC 4.1, § 600)	Cost estimate for closure	<p>NOT APPLICABLE</p> <p>Exemption as federal facility</p> <p>[Section 25.2.4.45]</p>



<p>40 CFR 265.143 (20 NMAC 4.1, § 600)</p>	<p>Financial assurance for closure</p>	<p>NOT APPLICABLE Exemption as federal facility [Section 25.2.4.46]</p>
<p>40 CFR 265.144 (20 NMAC 4.1, § 600)</p>	<p>Cost estimate for postclosure care</p>	<p>NOT APPLICABLE Exemption as federal facility [Section 25.2.4.47]</p>
<p>40 CFR 265.145 (20 NMAC 4.1, § 600)</p>	<p>Financial assurance for postclosure care</p>	<p>NOT APPLICABLE Exemption as federal facility [Section 25.2.4.48]</p>
<p>40 CFR 265.146 (20 NMAC 4.1, § 600)</p>	<p>Use of a mechanism for financial assurance of both closure and postclosure care</p>	<p>NOT APPLICABLE Exemption as federal facility [Section 25.2.4.49]</p>
<p>40 CFR 265.147 (20 NMAC 4.1, § 600)</p>	<p>Liability requirements</p>	<p>NOT APPLICABLE Exemption as federal facility [Section 25.2.4.50]</p>
<p>40 CFR 265.148 (20 NMAC 4.1, § 600)</p>	<p>Incapacity of owners or operators, guarantors, or financial institutions</p>	<p>NOT APPLICABLE Exemption as federal facility [Section 25.2.4.51]</p>
<p>40 CFR 265.149 (20 NMAC 4.1, § 601(A))</p>	<p>Use of state-required mechanisms</p>	<p>NOT APPLICABLE Exemption as federal facility [Section 25.2.4.52]</p>



<p>40 CFR 265.150 (20 NMAC 4.1, § 601(B))</p>	<p>State assumption of responsibility</p>	<p>NOT APPLICABLE Omission from state regulations and exemption as federal facility [Section 25.2.4.53]</p>
<p>40 CFR 265.171 (20 NMAC 4.1, § 600)</p>	<p>Condition of containers</p>	<p>UP TO DATE Addressed in WID procedures [Section 25.2.4.54]</p>
<p>40 CFR 265.172 (20 NMAC 4.1, § 600)</p>	<p>Compatibility of waste with containers</p>	<p>UP TO DATE Addressed in WID procedures [Section 25.2.4.55]</p>
<p>40 CFR 265.173 (20 NMAC 4.1, § 600)</p>	<p>Management of containers</p>	<p>UP TO DATE Addressed in WID procedures; training [Section 25.2.4.56]</p>
<p>40 CFR 265.174 (20 NMAC 4.1, § 600)</p>	<p>Inspections</p>	<p>UP TO DATE Addressed in WID procedures [Section 25.2.4.57]</p>
<p>40 CFR 265.176 (20 NMAC 4.1, § 600)</p>	<p>Special requirements for ignitable or reactive waste</p>	<p>UP TO DATE RCRA part B permit application/<i>WIPP Waste Acceptance Criteria</i> [Section 25.2.4.58]</p>
<p>40 CFR 265.177 (20 NMAC 4.1, § 600)</p>	<p>Special requirements for incompatible wastes</p>	<p>UP TO DATE Addressed in WID procedures [Section 25.2.4.59]</p>



<p>40 CFR 265.190-265.445 (20 NMAC 4.1, § 600)</p>	<p>Tank systems; surface impoundments; waste piles; land treatment; incinerators; thermal treatment; chemical, physical, and biological treatment; underground injection; and drip pads</p>	<p>NOT APPLICABLE None of these used at WIPP [Section 25.2.4.60]</p>
<p>40 CFR 265.1032 (20 NMAC 4.1, § 600)</p>	<p>Standards (air emission) for process vents</p>	<p>NOT APPLICABLE No process vents at WIPP [Section 25.2.4.61]</p>
<p>40 CFR 265.1052-265.1062 (20 NMAC 4.1, § 600)</p>	<p>Air emission standards for equipment leaks</p>	<p>NOT APPLICABLE Listed equipment not in use at WIPP [Section 25.2.4.62]</p>
<p>40 CFR 265.1080 (20 NMAC 4.1, § 600)</p>	<p>Air emission standards for tanks, surface impoundment and containers</p>	<p>NOT APPLICABLE TRU or TRU mixed wastes exempted Containers used to store wastes are exempted [Section 25.2.4.63]</p>



25.2.4.1 Applicability, 40 CFR 265.10 (20 NMAC 4.1 § 600)

The regulations in Subpart B apply to owners and operators of all hazardous waste facilities, except as § 265.1 provides otherwise.

The portions of Subpart B applicable to the WIPP are identified in §§ 265.11 through 265.18 as discussed in Sections 25.2.4.2 through 25.2.4.9 below.

25.2.4.2 EPA Identification Number, 40 CFR 265.11 (20 NMAC 4.1, § 600)

Each TSDf must have an EPA identification number.

The EPA identification number for WIPP is NM4890139088.

25.2.4.3 Required Notices, 40 CFR 265.12 (20 NMAC 4.1, § 600)

Notices required are notification of the Regional Administrator at least 4 weeks in advance of the date of arrival of waste from a foreign source and notification of a new owner or operator of the requirements under 40 CFR Parts 265 and 270.

Waste destined for WIPP will originate at U.S. facilities; no foreign waste will be shipped to WIPP. Before transferring ownership or operation of the facility, the DOE and/or WID will notify the new owner or operator in writing of the requirements of this part and those of Part 270.

25.2.4.4 General Waste Analysis, 40 CFR 265.13 (20 NMAC 4.1, § 600)

A detailed chemical and physical analysis of a representative sample of the wastes is required before a TSDf may treat, store, or dispose of waste. The owner/operator of the TSDf must inspect and, if necessary, analyze the waste received to ensure that it matches the identity of the waste described in the accompanying manifest. The owner/operator must follow a written waste analysis plan to ensure compliance with these requirements.

General waste analysis is addressed in the *WIPP Waste Analysis Plan* (DOE, 1996). Sampling and analysis are conducted in accordance with the *Transuranic Waste Characterization Sampling and Analysis Methods Manual* (DOE, WIPP-91-043)). All activities are performed in accordance with the *Transuranic Waste Characterization Quality Assurance Program Plan* (DOE, 1995y). Characterization methods consist of acceptable knowledge; visual examination (including weighing of individual items); radiography; headspace gas sampling and sampling of homogeneous waste forms.

25.2.4.5 Security, 40 CFR 265.14 (20 NMAC 4.1 § 600)

Security measures are required to prevent the possibility of unknowing and/or unauthorized entry by persons or livestock onto the active portion of the facility. A 24-hour surveillance system or barrier is required, and the facility must be posted.



The WIPP is enclosed within an 8-foot-high, chain-link fence, and 24-hour surveillance is conducted by guards trained to prevent unauthorized entry onto the facility. Signs with the legend "Danger—Unauthorized Personnel Keep Out" in both Spanish and English are posted at 50-foot intervals. The perimeter fence, gates, and signs are inspected daily for evidence of tampering or structural damage in accordance with a WIPP procedure.

25.2.4.6 General Inspection Requirements, 40 CFR 265.15 (20 NMAC 4.1, § 600)

The owner/operator must inspect the facility for malfunctions, deterioration, operator errors, and discharges that cause actual or potential releases of hazardous constituents to the environment or a threat to human health. A written schedule must be developed and followed for inspecting all monitoring, safety, and emergency equipment; security devices; and operating/structural equipment needed to prevent, detect, or respond to environmental or human health hazards. The inspections must be recorded in an inspection log or summary and kept for at least three years.



The WID implements inspection procedures for all monitoring, safety, and emergency equipment; security devices; and operating and structural equipment. Written schedules that indicate the frequency of routine inspections have been developed. Inspections may be conducted more frequently than indicated but are not performed less frequently.

Each group develops procedures that outline the types of problems that will be examined during inspections of its equipment and systems and maintains its own inspection information. Completed inspection sheets include a signature, date, and time of inspection; observations made; and the date and nature of any repairs or other remedial actions. All log sheets are maintained in the operating record for at least three years.

25.2.4.7 Personnel Training, 40 CFR 265.16 (20 NMAC 4.1, § 600)

Personnel training must be provided to facility personnel within six months of their employment or new assignment; personnel must not work in unsupervised positions until the training has been completed. The training program must be designed to ensure that facility personnel can respond effectively to an emergency. The program must be directed by a person trained in hazardous waste management procedures. The job title for each position at the facility that is related to hazardous waste management, the name of the employee filling the position, a written description of the training required, and records that document that the training and/or job experience has been completed are also required. These records must be kept until closure for current personnel and for at least three years for former employees.

Formal training is conducted in accordance with a training manual. The training includes GET-19X for all WIPP employees, other classroom training, and on-the-job training. Training policy indicates that WIPP training will be conducted by certified instructors. Certification requirements are established in a WID procedure.

GET-19X provides detailed training in such areas as communications, alarm systems, and emergency response. A WID procedure requires all personnel to attend GET-19X within 30 days of employment. The GET-19X refresher class is required annually for all personnel. Other classroom training is offered for personnel in certain job categories. Annual refresher courses are provided. Maintenance personnel are trained to provide repair and replacement services. Inspections are a part of job-specific training and emergency response personnel training. WIPP employees involved in managing site-generated, nonradioactive waste, or TRU mixed waste receive the Hazardous Waste Worker course (HWW). This course provides job specific training required to safely receive, transfer or handle waste at the facility. Review and update of the HWW topics are provided annually.

WID maintains a listing of all hazardous waste management job titles, names of employees assigned by job title to hazardous waste management jobs, and job descriptions that identify RCRA duties. Records on active and inactive personnel are kept by the WIPP Technical Training Group.

25.2.4.8 General Requirements for Ignitable, Reactive, or Incompatible Wastes, 40 CFR 265.17 (20 NMAC 4.1, § 600)

Precautions must be taken to prevent accidental ignition or reaction of ignitable or reactive waste. Any mixture or commingling of incompatible wastes must be conducted so that it does not generate extreme heat or pressure, fire or explosion, violent reaction; does not produce uncontrolled toxic airborne materials; does not produce uncontrolled flammable fumes or gases; does not damage the structural integrity of the device or facility; or does not threaten human health or the environment.



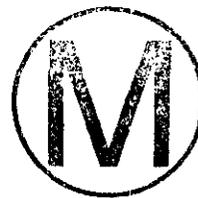
WIPP is precluded from accepting ignitable, corrosive, or reactive waste as specified in the Part B permit application and enumerated in the *Waste Acceptance Criteria*. In an analysis of the compatibility of the waste categories with each other and with waste containers, discussed in Chapter C of the permit application, no incompatibilities were identified.

No Smoking signs have been placed conspicuously at the Hazardous Waste Staging Area and at all SAAs where there could be a hazard from ignitable or reactive site generated wastes. A WID procedure requires a weekly inspection to verify that legible

No Smoking signs are posted near the SAAs. A WID procedure also prohibits storage of incompatible wastes within SAAs.

25.2.4.9 Location Standards, 40 CFR 265.18 (20 NMAC 4.1, § 600)

No hazardous waste may be emplaced in such structures as a salt-bed formation or an underground mine except at the DOE Waste Isolation Pilot Plant in New Mexico.



WIPP is specifically identified in the regulation as the only facility of this type that may be used for the placement of hazardous waste.

25.2.4.10 Maintenance and Operation of Facility, 40 CFR 265.31 (20 NMAC 4.1, § 600)

Facilities must be maintained and operated to minimize the possibility of fire, explosions, or any unplanned release of hazardous constituents to air, soil, or surface water that could threaten human health or the environment.

Section 1 of the *WID Contingency Plan* address this requirement. In addition, receipt of explosive or otherwise reactive waste, liquids, non-radioactive pyrophoric or other ignitable wastes, or compressed gases is prohibited at WIPP as a TSDF. Inspections of waste-handling areas and equipment are conducted as described by WID procedures. Corrective actions are initiated via Action Requests.

25.2.4.11 Required Equipment, 40 CFR 265.32 (20 NMAC 4.1, § 600)

All facilities must be equipped with an internal communications or alarm system for immediate emergency instruction; devices to summon external emergency assistance; fire extinguishers and fire-control, spill-control, and decontamination equipment; and water or foam equipment, sprinklers, or water-spray systems.

WID has prepared a contingency plan which provides a list of emergency equipment at WIPP, along with a description and statement of capabilities of the equipment and the cognizant organization responsible for ensuring that the equipment is available and operable. Procedures for providing guidance to WIPP personnel for testing emergency equipment are in place.

25.2.4.12 Testing and Maintenance of Equipment, 40 CFR 265.33 (20 NMAC 4.1, § 600)

All facility communications or alarm systems and fire-control, spill-control, and decontamination equipment must be tested and maintained as needed to ensure its proper operation during an emergency.

The WID maintains inspection procedures in place for communication and alarm systems and for fire protection equipment. These procedures include provisions for testing and maintenance to ensure that the equipment will be operable in an emergency. Spill control and decontamination equipment are inspected weekly and the results recorded on an inspection form.

25.2.4.13 Access to Communications or Alarm Systems, 40 CFR 265.34 (20 NMAC 4.1, § 600)

Immediate access to a communications or internal alarm system is required for all personnel involved when handling hazardous waste. If just one employee is ever on the premises during operations, he/she must have immediate access to a device (e.g., telephone) for summoning external emergency assistance.

The following communication and alarm systems are available at the WIPP site: two-way communication by the public address system and its intercom phones and paging channels, an intra-plant telephone system, mine phones, local and facility-wide alarm systems, pagers and plectrons, and portable two-way radios. The WIPP RCRA Contingency Plan provides an inspection schedule for this equipment and describes the location of alarms, telephones, etc. There is more than one employee at the site at all times.

25.2.4.14 Required Aisle Space, 40 CFR 265.35 (20 NMAC 4.1, § 600)

Aisle space must be maintained to allow the unobstructed movement of personnel and of fire-protection, spill-control, and decontamination equipment to any area of facility operation unless aisle space is not needed for these purposes.



No waste subject to this requirement is managed at WIPP at this time; however, a procedure is in place to address the areas of the WIPP where mixed waste containers will be maintained so that adequate aisle space will be provided for emergency response.

25.2.4.15 Arrangements with Local Authorities, 40 CFR 265.37 (20 NMAC 4.1, § 600)

Arrangements with local authorities must be made for the provision of emergency services if needed. Requirements include familiarizing the local authorities with the layout of the facility, properties of hazardous waste to be handled, possible evacuation routes, and other information needed for emergency responses.



The RCRA Contingency Plan addresses this requirement. The DOE has established MOUs with appropriate off-site emergency response agencies for fire fighting, medical assistance, and law enforcement. Examples include an MOU with the Guadalupe Medical Center Emergency Radiological Treatment Center for the WIPP, which provides for the treatment of radiologically contaminated personnel, and a mutual aid agreement between Hobbs and the DOE, which provides for mutual ambulance, medical, fire, rescue, and hazardous material response services. Outside agencies with which MOUs have been made have received copies of the RCRA Contingency Plan and the *WIPP Emergency Plan* (WID, 1992). The WIPP provides regional fire and emergency services to residences and local businesses.

25.2.4.16 Purpose and Implementation of the Contingency Plan, 40 CFR 265.51 (20 NMAC 4.1, § 600)

Each owner/operator must have a contingency plan for his or her TSDF. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or unplanned releases of hazardous constituents to the environment. The provisions of the plan must be carried out whenever a fire, explosion, or release of hazardous constituents could threaten human health or the environment.

The RCRA Contingency Plan was developed for the WIPP. It is maintained at all controlled document locations. The purpose of the document is to define responsibilities; provide guidance for coordination of activities; and minimize hazards to human health and the environment from fires, explosions, or any unplanned release of hazardous waste or hazardous waste constituents.

25.2.4.17 Content of the Contingency Plan, 40 CFR 265.52 (20 NMAC 4.1, § 600)

The contingency plan must describe the actions to be taken by facility personnel in response to fires, explosions, or any unplanned releases of hazardous constituents to the environment. The plan must describe arrangements agreed

to by local authorities and emergency response units and must list the current names, addresses, and phone numbers (work and home) of all Emergency Coordinators. All emergency equipment must be listed, along with the location, description, and capabilities of all equipment. An evacuation plan for facility personnel must be included.

The RCRA Contingency Plan describes actions that must be taken in response to fires, explosions, or any unplanned or sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or water, and describes agreements with local authorities. It also lists the names, addresses, and phone numbers of persons qualified to act as Emergency Coordinators, provides a list of emergency equipment at the facility, and includes an evacuation plan.

The RCRA Contingency Plan also describes the agreements between WIPP and local police and fire departments, hospitals, contractors, and state and local emergency response teams. An evacuation plan for WIPP personnel is also included in the RCRA Contingency Plan.

25.2.4.18 Copies of the Contingency Plan, 40 CFR 265.53 (20 NMAC 4.1, § 600)

Copies of the contingency plan and all revisions to the plan must be maintained at the facility and submitted to all local police and fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

Copies of the RCRA Contingency Plan are maintained at WIPP. A copy of the plan is maintained at controlled document locations. WID maintains a distribution list for the plan and is responsible for updating the controlled copies. Copies of the RCRA Contingency Plan have been provided to all outside agencies with which WIPP has agreements for assistance in an emergency situation.

25.2.4.19 Amendment of Contingency Plan, 40 CFR 265.54 (20 NMAC 4.1, § 600)

The contingency plan must be reviewed and immediately revised, if necessary, whenever applicable regulations are revised; the plan fails in an emergency; the facility changes in a way that increases the potential for fire, explosions, or release of hazardous waste; or the list of Emergency Coordinators or emergency equipment changes.



As described in the RCRA Contingency Plan, the plan will be reviewed and revised if necessary whenever applicable regulations are revised; the plan fails in an emergency; the facility changes in a way that materially increases the potential for fires, explosions,

or releases of hazardous waste or hazardous waste constituents or changes the response necessary in an emergency; the list of Emergency Coordinators changes; or the list of emergency equipment changes.

25.2.4.20 Emergency Coordinator, 40 CFR 265.55 (20 NMAC 4.1, § 600)

At least one employee (on the facility premises or on call) must be designated as the Emergency Coordinator, with the responsibility for coordinating all emergency response measures. The Emergency Coordinator must be familiar with the contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, location of all facility records, and the facility layout. The Emergency Coordinator must have the authority to commit the resources needed to carry out the contingency plan.

A RCRA Emergency Coordinator is on site at the WIPP facility 24 hours a day, 7 days a week, and is responsible for coordinating all emergency response measures. The primary RCRA Emergency Coordinator is the Facility Shift Manager (FSM). The FSM is the coordinator who will be on duty at the time of any incident that requires implementation of the RCRA Contingency Plan.

Persons qualified to act as the RCRA Emergency Coordinator are listed in the RCRA Contingency Plan. These employees have the requisite experience and authority to perform their role as Emergency Coordinator.

25.2.4.21 Emergency Procedures, 40 CFR 265.56 (20 NMAC 4.1, § 600)

In the event of an imminent or actual emergency situation, the Emergency Coordinator or designee must notify facility personnel via internal alarms or communications systems and must notify state or local agencies if their help is needed. A release, fire, or explosion mandates that the Emergency Coordinator obtain appropriate information, assess possible hazards, make any notifications required, prevent the spread or reoccurrence of the incident, monitor if necessary, recover waste, and record details regarding the incident in the facility's operating record. The owner or operator must note specific information about any incident that requires the contingency plan to be implemented. This information must be recorded in the facility's operating record. A written report must be submitted to the Regional EPA office and the NMED within 15 days of the incident. The state Emergency Response Commission (SERC) must be contacted rather than the NMED in the event of any spill



incident that may endanger human health or the environment.

WIPP Emergency Coordinators are thoroughly familiar with the RCRA Contingency Plan. The plan has provisions that meet the emergency procedure requirements such as communicating information about the emergency to employees, notifying appropriate agencies to obtain assistance, identifying hazardous materials, assessing hazards, and making the necessary notifications. The appropriate agencies include the Local Emergency Planning Committee (LEPC), the Carlsbad Police Department, the Carlsbad Fire Department, and the Eddy County Sheriff.

The FSM is responsible for coordinating the cleanup of spills. Disposal of the released material is the responsibility of WID.

All emergency equipment listed in the contingency plan is kept clean and fit for its intended use.

As described in the RCRA Contingency Plan, a daily log is maintained in the Central Monitoring Room (CMR) at WIPP. The FSM signs into the log before beginning his or her duty shift. All incidents, regardless of whether or not they activate the RCRA Contingency Plan, are recorded in the CMR log, along with routine maintenance activities.

The RCRA Contingency Plan addresses the requirement that the SERC be notified in the event of a spill that would endanger human health or the environment.

25.2.4.22 Use of Manifest System, 40 CFR 265.71 (20 NMAC 4.1, § 600)

If a facility receives hazardous constituents accompanied by a manifest, the owner or operator or designee must sign and date each copy of the manifest to certify receipt of the waste, note any significant discrepancies in the manifest, return at least one copy of the manifest to the transporter, send a copy of the manifest to the generator within 30 days, and retain a copy of the manifest for at least 3 years.



A WID procedure provides guidance on the proper management and retention of hazardous waste manifests. Another WID procedure provides instructions for receiving, surveying, and inspecting TRUPACT-II containers at WIPP, which includes proper disposition of the hazardous waste. Further, generator sites are required to provide a manifest for shipments of TRU waste. This requirement will become applicable when the WIPP facility receives a waste shipment.

25.2.4.23 Manifest Discrepancies, 40 CFR 265.72 (20 NMAC 4.1, § 600)

Manifest discrepancies are differences between the quantity or type of hazardous waste designated in the manifest and that actually received. Upon discovering a significant discrepancy, the owner or operator must try to reconcile the discrepancy with the generator or transporter. If not resolved within 15 days, the owner or operator must notify the Regional Administrator.

A WID procedure provides instruction and guidance for handling manifest discrepancies. The generator will be notified of all discrepancies, and the discrepancy will be recorded in the "remarks" section of the appropriate form. If the discrepancy cannot be resolved within 15 days, it will be reported in writing to the NMED. This requirement will become applicable when the WIPP facility receives a waste shipment.

25.2.4.24 Operating Record, 40 CFR 265.73 (20 NMAC 4.1, § 600)

The owner/operator must keep a written operating record at the facility. Information relating to the type and amount of hazardous waste, its location and quantity at each location, cross references to specific manifest documents and records and the results of waste analyses, summary reports and details of all incidents requiring implementation of the contingency plan, records and results of inspections, monitoring and analytical data and any corrective actions taken, and closure cost estimates must be included. In addition, records pertaining to an off-site treatment, land disposal, or storage facility must be kept in the operating record.



A WID procedure establishes guidelines for maintaining the written operating record.

25.2.4.25 Availability, Retention, and Disposition of Records, 40 CFR 265.74 (20 NMAC 4.1, § 600)

All records required under this part, including plans, must be retained and made available for inspection by EPA designees. The retention period for all records required under this part is automatically extended during the course of any unresolved enforcement action or as requested by the Administrator. Records of waste disposal locations and quantities must be submitted to the appropriate agencies upon closure of the facility.

This requirement is addressed in a WID procedure that establishes guidelines for maintaining a written operating record. The procedure includes provisions for furnishing all records upon request to the EPA and NMED, as well as provisions for submitting a copy of waste emplacement locations and quantities to appropriate state and federal regulators. In the event of an enforcement action, records will be retained for the duration of the action.

25.2.4.26 TSDf Biennial Report, 40 CFR 265.75 (20 NMAC 4.1, § 600)

The owner or operator of a TSDf must submit a copy of a biennial report to the Regional Administrator by March 1 of each even-numbered year using EPA Form 8700-13B.

A WID procedure establishes guidelines for the preparation and submittal of a biennial report for a facility that operates as a generator and a TSD. The procedure indicates that all information needed to meet this requirement shall be provided, including a description and the quantity of each mixed waste received during the reporting year and the method and date of treatment, storage, or disposal at the facility. The Biennial Generator Report is submitted to the EPA Region VI on or before March 1st of even numbered years. The TSDf biennial report is not required until after TRU mixed waste is received at WIPP.

25.2.4.27 Unmanifested Waste Report, 40 CFR 265.76 (20 NMAC 4.1, § 600)

A report must be submitted to the Regional Administrator for any hazardous waste accepted for treatment, storage, or disposal that is not accompanied by a hazardous waste manifest.

As stated in the part B permit application and enumerated in the *Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, a hazardous waste manifest shall be transmitted with each shipment of TRU mixed waste to WIPP. Therefore, no mixed waste will be accepted that is not accompanied by a hazardous waste manifest. No waste shipments have been received at WIPP to date.

25.2.4.28 Additional Reports, 40 CFR 265.77 (20 NMAC 4.1, § 600)

Additional reports required of the owner or operator of a TSDf by the Regional Administrator are reports relating to releases, fire, or explosions; ground-water contamination and monitoring data; facility closure; and air emissions under Subparts AA and BB of this part.



Releases, fires, and explosions will be reported as specified in the WIPP RCRA Contingency Plan. Whenever it becomes necessary to partially close WIPP, the DOE will notify the NMED, in writing, at least 60 days prior to the date on which such partial or final closure will commence, as specified by WID procedure. Subparts AA and BB do not apply at WIPP; therefore no reporting is required at WIPP under these subparts.

25.2.4.29 Applicability of the Ground-Water Monitoring System, 40 CFR 265.90 (20 NMAC 4.1, § 600)

A ground-water monitoring system is required by the owner or operator of a surface impoundment, landfill, or land treatment facility used to manage hazardous waste. All or part of the ground-water monitoring requirements may be waived if the owner/operator can demonstrate a low potential for migration of hazardous constituents from the facility via the uppermost aquifer to water supply wells or to surface water. The demonstration, in writing, must be certified by a qualified geologist or geotechnical engineer.



A ground-water monitoring waiver was prepared and is located at WIPP. This waiver contains the information to demonstrate that a very low potential for migration of hazardous waste or hazardous constituents from the WIPP site via ground water exists. A draft *No-Migration Variance Petition* was submitted to the EPA in May of 1995. The petition contained information for the operational phase at WIPP. The EPA has provided comments on the petition, but has made no formal decision. A final NMVP was submitted to the EPA in June 1996. The NMED has indicated that it is their policy to require the DOE to perform groundwater monitoring regardless of whether or not the WIPP is eligible for a federal groundwater monitoring waiver. Thus, the DOE has prepared a groundwater monitoring plan.

25.2.4.30 Ground-Water Monitoring System, 40 CFR 265.91 (20 NMAC 4.1, § 600)

The ground-water monitoring system required of landfills managing hazardous waste is described in detail.

A ground-water monitoring waiver was prepared and is located at the WIPP facility. This waiver obviates the need for a ground-water monitoring system at WIPP. The NMED has indicated that it is their policy to require the DOE to perform groundwater monitoring regardless of whether or not the WIPP is eligible for a federal groundwater monitoring waiver. Thus, the DOE has prepared a groundwater monitoring plan.

25.2.4.31 Sampling and Analysis, 40 CFR 265.92 (20 NMAC 4.1, § 600)

Sampling and analytical requirements for the ground-water monitoring system are described in detail.

A ground-water monitoring waiver was prepared and is located at WIPP. This waiver obviates the need for a ground-water monitoring system at WIPP. The NMED has indicated that it is their policy to require the DOE to perform groundwater monitoring regardless of whether or not the WIPP is eligible for a federal groundwater monitoring waiver. Thus, the DOE has prepared a groundwater monitoring plan.

25.2.4.32 Preparation, Evaluation, and Response, 40 CFR 265.93 (20 NMAC 4.1, § 600)

The owner or operator must prepare an outline of a ground-water quality assessment program, describing a more comprehensive ground-water monitoring program than that described in previous sections of this part.

A ground-water monitoring waiver was prepared and is located at WIPP. This waiver obviates the need for the ground-water quality assessment program described in this section. The NMED has indicated that it is their policy to require the DOE to perform groundwater monitoring regardless of whether or not the WIPP is eligible for a federal groundwater monitoring waiver. Thus, the DOE has prepared a groundwater monitoring plan.

25.2.4.33 Record-keeping and Reporting, 40 CFR 265.94 (20 NMAC 4.1, § 600)

Record-keeping and reporting of the results of ground-water monitoring is required.

A ground-water monitoring waiver was prepared and is located at WIPP. This waiver obviates the need for record-keeping and reporting the results of ground-water monitoring. The NMED has indicated that it is their policy to require the DOE to perform groundwater monitoring regardless of whether or not the WIPP is eligible for a federal groundwater monitoring waiver. Thus, the DOE has prepared a groundwater monitoring plan.

25.2.4.34 Applicability of the Closure/Postclosure Requirements, 40 CFR 265.110 (20 NMAC 4.1, § 600)

Closure and postclosure requirements apply to the owners and operators of all hazardous and mixed-waste management facilities.



Plans for closure and postclosure are addressed in the disposal phase RCRA permit application.

25.2.4.35 Closure Performance Standard, 40 CFR 265.111 (20 NMAC 4.1, § 600)

A closure performance standard is required to minimize the need for further maintenance; to control, minimize, or eliminate the post-closure escape of hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the environment; and to comply with the other closure requirements of this subpart.

Closure will be deemed complete when all hazardous waste and hazardous waste residues have been removed from the units, all equipment and structures associated with the operation of the units have been decontaminated, and unit closure certification has been submitted to and approved by the NMED.

25.2.4.36 Closure Plan; Amendment of Plan, 40 CFR 265.112 (20 NMAC 4.1, § 600)

The owner/operator of a hazardous or mixed-waste management facility must have a written closure plan. The plan, approved by the Regional Administrator or designee, may be amended subject to the Regional Administrator's approval.



WIPP has prepared a written closure plan to satisfy the RCRA closure requirements. The plan includes, but is not limited to, the following:

1. A description of how each hazardous waste management unit at the facility will be closed in accordance with the closure performance standard (see Section 25.2.4.34) and
2. A description of how final closure of the facility will be conducted.

Should it become necessary to amend the WIPP closure plan, the DOE will submit a written notification of, or request for, a permit modification describing any change in operation, facility design, or storage/disposal designs that affect the closure plan.

25.2.4.37 Time Allowed for Closure, 40 CFR 265.113 (20 NMAC 4.1, § 600)

Within 90 days after receipt of the final volume of hazardous mixed waste at a hazardous waste management unit or facility, the owner or operator must treat, remove, or dispose of all hazardous/mixed wastes on site in accordance with the approved closure plan. Partial or final closure activities must be complete in accordance with the

approved closure plan within 180 days of receipt of the final volume of waste. An extension of time may be allowed if the owner/operator can demonstrate that the activities required will take longer than the allotted time period and has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed but nonoperational facility.

The time allowed for closure is addressed in the disposal phase RCRA permit application.

25.2.4.38 Disposal or Decontamination of Equipment, Structures, and Soils, 40 CFR 265.114 (20 NMAC 4.1, § 600)

During the partial and final closure periods, all contaminated equipment, structures, and soils must be properly disposed of or decontaminated. By removing all hazardous constituents during closure, the owner/operator may become a mixed or hazardous waste generator and must handle all such waste in accordance with the requirements of 40 CFR Part 262.

The regulatory requirements for the disposal or decontamination of equipment, structures, and soils are addressed in WID procedures. This section is broken down into four subsections, which include the removal of hazardous waste residues; the decontamination of equipment, structures, and soils; personnel decontamination; and sampling and quality assurance.

25.2.4.39 Certification of Closure, 40 CFR 265.115 (20 NMAC 4.1, § 600)

Within 60 days of the completion of closure of each landfill unit and within 60 days of completion of final closure, the owner/operator must submit a certification that the hazardous or mixed waste unit has been closed in accordance with the specifications in the approved closure plan. The certification must be sent to the Regional Administrator by registered mail and must be signed by the owner/operator and by an independent registered professional engineer.

The DOE will submit the Certification of Closure to the Secretary of the NMED within 60 days of completion of closure activities.



25.2.4.40 Survey Plat, 40 CFR 265.116 (20 NMAC 4.1, § 600)

The owner/operator must submit a survey plat to the Regional Administrator and the authority with jurisdiction over local land use no later than the submittal of the certification of closure. The survey plat must indicate the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. The plat must be prepared and certified by a professional land surveyor.



The survey plat will be submitted to the NMED following closure. The survey plat will indicate the location and dimensions of hazardous waste disposal units with respect to permanently surveyed benchmarks. The plat will be prepared and certified by a professional land surveyor and will contain a prominently displayed note that states the DOE's obligation to restrict disturbance of the hazardous waste disposal unit.

25.2.4.41 Postclosure Care and use of Property, 40 CFR 265.117 (20 NMAC 4.1, § 600)

Postclosure care for each hazardous/mixed-waste unit must begin after completion of closure and continue for 30 years after that date. All postclosure care must be performed in accordance with the postclosure plan for the facility.

Postclosure care and use of property will be performed in accordance with the Post Closure Plan.

25.2.4.42 Postclosure Plan; Amendment of Plan, 40 CFR 265.118 (20 NMAC 4.1, § 600)

The owner/operator of a hazardous or mixed-waste management facility must have a written postclosure plan. The plan, approved by the Regional Administrator or designee, may be amended subject to the Regional Administrator's approval.

A postclosure plan is contained in the WIPP permit application. The plan describes active controls, monitoring, and passive controls.

25.2.4.43 Postclosure Notices, 40 CFR 265.119 (20 NMAC 4.1, § 600)

A record of the type, location, and quantity of hazardous/mixed wastes disposed of within each unit must

be submitted to the Regional Administrator and the authority with jurisdiction over local land use no later than 60 days after submittal of the certification of closure. Within the same timeframe, the owner/operator must also record a notation in the deed to the facility that the facility has been used to manage hazardous/mixed wastes and that the record of type, location, and quantity of waste disposal has been filed; the owner/operator must also certify that this notation has been recorded as required.

The DOE will notify the NMED within 60 days after completion of closure, with a Registered Professional engineer's certification. The DOE will also assure that this notification is properly recorded in the deed to the facility.

25.2.4.44 Certification of Completion of Postclosure Care, 40 CFR 265.120 (20 NMAC 4.1, § 600)

Within 60 days of the completion of postclosure of each landfill unit and within 60 days of completion of final post-closure, the owner/operator must submit a certification that the hazardous or mixed-waste unit has been closed in accordance with the specifications in the approved postclosure plan. The certification must be sent to the Regional Administrator by registered mail and must be signed by the owner/operator and by an independent registered professional engineer.



The DOE will notify the NMED within 60 days after completion of closure, with a Registered professional engineer's certification.

25.2.4.45 Cost Estimate for Closure, 40 CFR 265.142 (20 NMAC 4.1, § 600)

The owner/operator must provide a detailed written estimate of the cost of closing the facility.

As a federal facility, WIPP is exempt from the requirement to provide cost estimates for closure actions.

25.2.4.46 Financial Assurance for Closure, 40 CFR 265.143 (20 NMAC 4.1, § 600)

The owner/operator of each facility must establish financial assurance for closure of the facility.

As a federal facility, WIPP is exempt from the requirement to provide financial assurance for closure actions.

25.2.4.47 Cost Estimate for Postclosure Care, 40 CFR 265.144 (20 NMAC 4.1, § 600)

The owner/operator of each TSDF must provide a detailed written cost estimate for postclosure monitoring and maintenance of the facility.

As a federal facility, WIPP is exempt from the requirement to provide a cost estimate for postclosure care.

25.2.4.48 Financial Assurance for Postclosure Care, 40 CFR 265.145 (20 NMAC 4.1, § 600)

The owner/operator of a hazardous or mixed waste disposal unit must establish financial assurance for postclosure care of the disposal unit(s).

As a federal facility, WIPP is exempt from the requirement to provide financial assurance for postclosure care.

25.2.4.49 Use of a Mechanism for Financial Assurance of Both Closure and Postclosure Care, 40 CFR 265.146 (20 NMAC 4.1, § 600)

The owner/operator may satisfy the requirements for financial assurance by using a mechanism such as a trust fund, security bond, letter of credit, etc.



As a federal facility, WIPP is exempt from the requirement to provide mechanisms for financial assurance of both closure and postclosure care.

25.2.4.50 Liability Requirements, 40 CFR 265.147 (20 NMAC 4.1, § 600)

An owner/operator of a TSDF must demonstrate financial responsibility for bodily injury and property damage from accident occurrences arising from operations of the TSDF.

As a federal facility, WIPP is exempt from the requirement to provide liability insurance.

25.2.4.51 Incapacity of Owners or Operators, Guarantors, or Financial Institutions, 40 CFR 265.148 (20 NMAC 4.1, § 600)

An owner/operator must notify the Regional Administrator by certified mail of the commencement of a bankruptcy proceeding that names him/her as a debtor within 10 days

after commencement of the proceeding. In the event of bankruptcy of the guarantors or financial institutions, the owner/operator must establish financial assurance of liability coverage within 60 days after the event.

As a federal facility, WIPP is exempt from the requirement to provide financial status information.

25.2.4.52 Use of State-Required Mechanisms, 40 CFR 265.149 (20 NMAC 4.1, §601.A)

For a facility located in a state with financial assurance requirements but where the EPA administers the requirements of this subpart on closure and post-closure, an owner/operator may use state-required financial mechanisms to meet these requirements.

As a federal facility, WIPP is exempt from the requirement to provide financial status information.

25.2.4.53 State Assumption of Responsibility, 40 CFR 265.150 (20 NMAC 4.1, § 601.B)

If a state assumes responsibility for an owner/operator's compliance with the closure, post-closure, or liability requirements of this part, the owner/operator will be in compliance if the Regional Administrator determines that the state's assumption of responsibility is adequate.



As a federal facility, WIPP is exempt from the requirement to provide financial status information.

25.2.4.54 Condition of Containers, 40 CFR 265.171 (20 NMAC 4.1, § 600)

If a container holding hazardous or mixed waste is not in good condition or begins to leak, the waste within it must be transferred to a container that is in good condition, or the waste must be managed in another way that complies with the requirements in this part.

Containers must be in good condition (no visible deterioration) in accordance with WID procedures. The date and nature of repairs performed on a container or other remedial action is included in the Weekly Inspection Criteria Form or in the WIPP Waste Information System database and the operating record.

25.2.4.55 Compatibility of Waste With Containers, 40 CFR 265.172 (20 NMAC 4.1, § 600)

A container made of or lined with materials that will not react with and are compatible with the waste to be stored within it must be used.

No special liners are placed in waste containers to hold hazardous wastes generated at WIPP, but measures are taken to ensure that the containers to be used are compatible with the waste generated. These measures are described in WID procedures.

A chemical compatibility analysis of the waste forms to be sent to WIPP as a TSD and the container materials to be used was conducted. Each generator and storage site has produced a comprehensive list of all possible chemicals present in its waste. Low carbon steel and polyethylene were added to evaluate chemical compatibility between the waste materials and the container materials. Potential incompatibilities were analyzed using EPA-600/2-80-076, *A Method for Determining the Compatibility of Hazardous Waste*.

25.2.4.56 Management of Containers, 40 CFR 265.173 (20 NMAC 4.1, § 600)

A container holding hazardous or mixed waste must be kept closed during storage except when it is necessary to add or remove waste. Containers holding hazardous or mixed waste must not be opened, handled, or stored so as to rupture the container or cause it to leak.

A WID procedure prohibits opening containers located in the SAAs at WIPP except to add or sample the WIPP-generated hazardous waste.

The requirement that hazardous waste containers not be opened, handled, or stored in a manner that would threaten the integrity of the containers is addressed in the WID procedure that requires that containers be inspected before and after transportation from the SAA to the Hazardous Waste Staging Area.

TRU mixed waste shipped to WIPP will be contained in sealed containers. WID procedures do not provide for accessing containers. None of the procedures directs or allows the removal of lids from the containers. Waste derived from decontamination of spills of TRU mixed waste will be collected in a container in the permitted Container Storage Unit in the Waste Handling Building. The container will remain closed except when adding derived waste.

The Hazardous Waste Regulations require that owners and operators of all hazardous waste facilities that store containers of hazardous waste must safely manage containers. All TRU mixed-waste-handling operators are thoroughly trained in the safe

use of TRU mixed waste handling and transport equipment to minimize the potential for rupture or leak of a container.

25.2.4.57 Inspections, 40 CFR 265.174 (20 NMAC 4.1, § 600)

Areas in which containers holding hazardous or mixed wastes are stored must be inspected at least weekly to ensure that there are no leaks or other signs of deterioration caused by corrosion or other factors.

WID procedures are in place to ensure that the regulatory requirements for inspections are met. Inspections of containers holding hazardous waste are performed weekly, as described in WID procedures. All inspection report files are maintained by WID. TRU mixed waste containers to be emplaced in disposal rooms will not be inspected.

25.2.4.58 Special Requirements for Ignitable or Reactive Waste, 40 CFR 265.176 (20 NMAC 4.1, § 600)

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

All storage containers holding hazardous waste are located more than 15 meters from the property line at WIPP.

As stated in the Part B permit application and enumerated in the *Waste Acceptance Criteria for the Waste Isolation Pilot Plant* (DOE, 1996) ignitable or reactive waste will not be accepted at the WIPP. It states that explosives, compressed gases, or non-radionuclide pyrophorics are not allowed. It also says that residual liquids and radionuclides in pyrophoric form are limited to less than 1 percent by volume and weight, respectively.

25.2.4.59 Special Requirements for Incompatible Wastes, 40 CFR 265.177 (20 NMAC 4.1, § 600)

Incompatible wastes must not be placed in the same container and must be segregated. Hazardous waste must not be placed in an unwashed container that previously held incompatible waste or material.



A WID procedure prohibits the accumulation or storage of WIPP-generated hazardous wastes with materials that may be incompatible. The procedure includes a list of incompatible wastes that may be generated on site.

WID procedures prohibit placing hazardous waste in any unwashed container that previously held an incompatible material. WID procedures also specify that a storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby must be separated or protected from the other materials by means of a dike, berm, wall, or other barrier or device. WID procedures state that chemicals/materials must be compatible with any waste materials, container materials, and TRUPACT-II materials. A chemical compatibility analysis of the waste forms and container materials has been performed.

25.2.4.60 Tank Systems; Surface Impoundments; Waste Piles; Land Treatment; Landfills; Incinerators; Thermal Treatment; Chemical, Physical, and Biological Treatment; Underground Injection; and Drip Pads, 40 CFR 265.190-265.445 (20 NMAC 4.1, § 600)

Requirements are specified for tank systems; surface impoundments; waste piles; land treatment; incinerators; thermal treatment; chemical, physical, and biological treatment; underground injection; and drip pads.

None of these regulatory requirements is applicable to WIPP because none of these systems will be used at this facility.

25.2.4.61 Air Emission Standards for Process Vents, 40 CFR 265.1032 (20 NMAC 4.1, § 600)

Air emission standards have been set for TSDFs with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 parts per million by weight (ppmw).

WIPP does not have process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw. Therefore, the requirements in Subpart AA of 40 CFR Part 265 (265.1032 through 265.1035) do not apply.

25.2.4.62 Air Emission Standards for Equipment Leaks, 40 CFR 265.1052-.1062 (20 NMAC 4.1, § 600)

Air emission standards have been promulgated for leaks from TSDF equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight.

The air emissions standards for equipment leaks do not apply at WIPP because the types of equipment listed, such as pumps in light liquid service and compressors, are not used at WIPP. Therefore, none of the standards and requirements of 40 CFR Part BB (265.1050 through 265.1064) pertains to WIPP.

25.2.4.63 Air Emission Standards for Tanks, Surface Impoundment, and Containers
 40 CFR 265.1080, (20 NMAC 4.1, § 600)



The owner or operator shall control air emissions from each waste management unit in accordance with standards specified in §265.1088 of this subpart, as applicable to the waste management unit, except as provided for in paragraph (c) of this section.

The air emission standards for tanks, surface impoundments, and containers are not applicable to the WIPP. TRU or TRU mixed wastes are specifically exempted from these regulations by § 265.1080(b)(6). No site-generated wastes are stored or treated in tanks or surface impoundments, and the containers used to store wastes in the Hazardous Materials Storage Area are specifically exempted by § 265.1087 container standards. It should be noted that new federal regulations were published in the Federal Register on February 9, 1996; however, the effective date of the new regulations (June, 1996) falls outside the reporting period of this report.

25.2.5 Compliance with the Hazardous/Mixed Waste Permit Program, 40 CFR Part 270 (20 NMAC 4.1, §§ 900 and 901)

The requirements of 40 CFR Part 270 pertain to general RCRA permitting requirements for TSDFs and include provisions for submitting applications, standard permit conditions, and monitoring and reporting requirements. The compliance status of each applicable requirement is summarized in Table 25-6; detailed information is provided in the text.

TABLE 25-6. The New Mexico Hazardous/Mixed Waste Permit Program, 40 CFR Part 270 - Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 270.1 (20 NMAC 4.1, § 900)	Purpose and scope of the RCRA permit program regulations	<p style="text-align: center;">UP TO DATE</p> RCRA Part B permit application for the Waste Isolation Pilot Plant [Section 25.2.5.1]

CITATION	REQUIREMENT	COMPLIANCE STATUS
<p>40 CFR 270.10 (20 NMAC 4.1, § 900)</p>	<p>General application requirements</p>	<p>UP TO DATE</p> <p>RCRA Part B permit application for the Waste Isolation Pilot Plant</p> <p>[Section 25.2.5.2]</p>
<p>40 CFR 270.11 (20 NMAC 4.1, § 900)</p>	<p>Signatories to permit applications and reports</p>	<p>UP TO DATE</p> <p>RCRA Part B permit application for the Waste Isolation Pilot Plant</p> <p>[Section 25.2.5.3]</p>
<p>40 CFR 270.13 (20 NMAC 4.1, § 900)</p>	<p>Contents of Part A of the permit application</p>	<p>UP TO DATE</p> <p>RCRA Part A permit application for the Waste Isolation Pilot Plant</p> <p>[Section 25.2.5.4]</p>
<p>40 CFR 270.14 (20 NMAC 4.1, §§ 900 and 901)</p>	<p>Contents of Part B: general requirements</p>	<p>UP TO DATE</p> <p>RCRA Part B permit application for the Waste Isolation Pilot Plant</p> <p>[Section 25.2.5.5]</p>
<p>40 CFR 270.15 (20 NMAC 4.1, § 900)</p>	<p>Specific Part B information requirements for containers</p>	<p>UP TO DATE</p> <p>RCRA Part B permit application for the Waste Isolation Pilot Plant, Chapters D and F</p> <p>[Section 25.2.5.6]</p>
<p>40 CFR 270.23 (20 NMAC 4.1, § 900)</p>	<p>Specific Part B information requirements for miscellaneous units</p> 	<p>UP TO DATE</p> <p>RCRA Part B permit application for the Waste Isolation Pilot Plant, Chapter D</p> <p>[Section 25.2.5.7]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
40 CFR 270.30 (40 NMAC 4.1, § 900)	Conditions applicable to all permits	<p>NOT APPLICABLE</p> <p>Will be applicable when a permit is issued</p> <p>[Section 25.2.5.8]</p>
40 CFR 270.31 (20 NMAC 4.1, § 900)	Requirements for recording and reporting of monitoring results	<p>NOT APPLICABLE</p> <p>Will be applicable when a permit is issued</p> <p>[Section 25.2.5.9]</p>
40 CFR 270.42 (20 NMAC 4.1, §§ 900 and 901)	Permit modification at the request of the permittee	<p>NOT APPLICABLE</p> <p>Will be applicable when a permit is issued</p> <p>[Section 25.2.5.10]</p>
40 CFR 270.71 (20 NMAC 4.1, § 900)	Operation during interim status	<p>UP TO DATE</p> <p>Interim status achieved by timely filing of Part A; compliance with interim-status requirements</p> <p>[Section 25.2.5.11]</p>
40 CFR 270.72 (20 NMAC 4.1, § 900)	Changes during interim status	<p>UP TO DATE</p> <p>WID procedure</p> <p>[Section 25.2.5.12]</p>



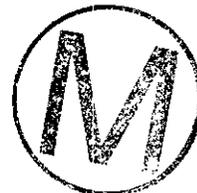
25.2.5.1 Purpose and Scope of the RCRA Permit Program Regulations, 40 CFR 270.1(20 NMAC 4.1, § 900)

The purpose and scope of the RCRA permit program regulations are defined, and the regulations are summarized.

Prior to the receipt of TRU mixed waste, WIPP must retain interim status or be permitted as a mixed-waste facility. As required for an interim-status facility, the DOE submitted a RCRA permit application to the EPA and to the NMED for the disposal phase. The DOE has completed and submitted a revised permit application.

25.2.5.2 General Application Requirements, 40 CFR 270.10 (20 NMAC 4.1, § 900)

General application requirements include the requirement that an interim-status facility submit a RCRA Part A permit application within six months after the date of publication of regulations requiring its compliance with 40 CFR Part 265. Submittal of the Part B application is required at least six months from the date of request. The permit application must be considered complete before a permit may be issued, which includes providing all applicable information described in 40 CFR 270.13 through 270.29, using the appropriate application form. Records must be kept of all data used to complete permit applications (including updates) for at least three years from the date of signature on the application.



On July 25, 1990, the NMED's predecessor agency, the New Mexico Environmental Improvement Division (EID) received the EPA's final authorization for the state's mixed-waste program. In a letter to DOE dated August 27, 1990, the EID required the submittal of Parts A and B of the *RCRA Permit Application for the Waste Isolation Pilot Plant* by January 22 and February 28, 1991, respectively. The DOE submitted the Part A portion of the application to the EID and to the Regional EPA office in Dallas, Texas, on January 22, 1991. The Part B portion was submitted to the EID and the EPA Regional Office on February 26 and February 27, 1991, respectively.

The RCRA permit application for the disposal phase was prepared to meet all applicable requirements specified in 40 CFR 270.13 through 270.29. The appropriate form was used for Part A; no form has been generated for Part B. Six major revisions of the application have been sent to the regulatory agencies, the latest being the April 1996 revision with minor revisions submitted in June 1996.

A record of all data used to complete the application for the disposal phase is being maintained at WIPP. It will be kept for at least three years from the date of the signature in the application.

25.2.5.3 Signatories to Permit Applications and Reports, 40 CFR 270.11 (20 NMAC 4.1, § 900)

Signatories to permit applications shall be by a senior executive officer with responsibility for overall operations for a federal agency and/or a responsible corporate officer for a corporation. Reports and plans required by permits (e.g., the annual waste minimization plan) and other information requested shall be signed by a duly authorized

representative. Any person signing one of these documents is required to make the certification statement specified in 40 CFR 270.11(d). (See also Section 2.2.3.3).

The requirement calling for signatories to permit applications is met in Part A of the permit application.

25.2.5.4 Contents of Part A of the Permit Application, 40 CFR 270.13 (20 NMAC 4.1, § 900)

The contents required for Part A of the RCRA permit application include the activities mandating a RCRA permit, identification of the facility and operator, SIC codes, status of the facility, a scale drawing and photographs of the facility, description of processes to be used, a specification of the hazardous wastes/constituents and the estimated quantity of such wastes, a listing of all permits received or applied for and other environmental permits, a topographic map, and a brief description of the nature of the business.



Part A of the permit application contains all of the information required by 40 CFR 270.13. The permit application has been submitted to the NMED. The NMED issued a determination of administrative completeness on July 25, 1995. The NMED issued a formal Notice of Deficiency on March 14, 1996. DOE has submitted its response comments to the NMED with a final revision to the permit application on April 12, 1996, and is awaiting further action.

25.2.5.5 Contents of Part B: General Requirements, 40 CFR 270.14 (20 NMAC 4.1, §§ 900 and 901)

The general requirements for Part B of a RCRA permit application include a facility description, chemical and physical analyses of the hazardous waste to be handled, a copy of relevant plans (e.g., waste analysis plan; contingency plan; closure plan) security procedures and equipment, inspection schedule, procedures, structures, equipment to minimize hazards and releases, traffic patterns, geologic data, training program, ground-water monitoring information and data, and information regarding solid waste management units.

The Part B permit application has been submitted to the NMED. The NMED technical review resulted in a NOD, which DOE answered and submitted with a final revision of the permit application on April 12, 1996.

25.2.5.6 Specific Part B Information Requirements for Containers, 40 CFR 270.15
(20 NMAC 4.1, § 900)

Specific Part B information requirements for containers include a detailed description of the containment system; a demonstration to show that the wastes contain no free liquids; drawings or data showing ignitable, reactive or incompatible wastes; and procedures used for incompatible wastes.

The requirement calling for specific container information is met in the permit application.

25.2.5.7 Specific Part B Information Requirements for Miscellaneous Units,
40 CFR 270.23 (20 NMAC 4.1, § 900)

Specific Part B information requirements for miscellaneous units include a detailed description of the unit; detailed hydrologic, geologic, and meteorological assessments and land-use maps for the region surrounding the site; information on potential exposure pathways to hazardous constituents and the potential magnitude and nature of such exposures; a report on the effectiveness of any treatment methodology proposed; and any additional information requested for evaluating the compliance of the unit with the environmental protection standards of 40 CFR 264.601.



The requirement calling for specific miscellaneous unit information is met in the RCRA Part B Permit Application for the Waste Isolation Pilot Plant.

25.2.5.8 Conditions Applicable to all Permits, 40 CFR 270.30
(20 NMAC 4.1, § 900)

Conditions applicable to all permits are specified and include duty to comply, duty to reapply, minimization of releases, proper operation and maintenance, permit actions, property rights, duty to provide information, inspection and entry, monitoring and records, signatory requirements, and reporting requirements.

This requirement will become applicable when a permit is issued by the NMED.

25.2.5.9 Requirements for Recording and Reporting of Monitoring Results,
40 CFR 270.31 (20 NMAC 4.1, § 900)

Requirements for recording and reporting monitoring results will be specified in the RCRA permit.

These requirements for recording and reporting monitoring results are met and discussed in the *RCRA Part B Permit Application for the Waste Isolation Pilot Plant*. These requirements will become applicable when a permit is issued by the NMED.

25.2.5.10 Permit Modification at the Request of the Permittee, 40 CFR 270.42
(20 NMAC 4.1, §§ 900 and 901)

After a RCRA permit has been finalized, the permittee may request that it be modified. Three classes of modifications are identified in Appendix I to 40 CFR 270.42. Class 1, the least significant of the permit modifications, covers minor modifications such as the correction of typographical errors; changes to conform with agency guidelines or regulations; or procedural changes that increase the frequency of monitoring, reporting, sampling, or maintenance activities. Class 1 modifications require notification of the Director within 7 days after the change has been made; all persons on the facility mailing list must be notified within 90 calendar days after the Director approves the request.

Class 2 modifications are more extensive and significant and apply to changes needed to allow timely response to common variations in the types and quantities of wastes managed, technological advancements, and changes in the regulations (e.g., changes in emergency procedures or removal of equipment from the emergency equipment list). They require that the permittee submit a modification request to the Director, announce a 60-day comment period, notify all persons on the facility mailing list, publish the notice in a major local newspaper of general circulation, and hold a public meeting.

Class 3 modifications are the most significant and potentially impactive and substantially alter the facility or its operation (e.g., extending the closure period or a final compliance date; creating a new landfill or other type of unit or increasing the capacity of a pre-existing one). The notification and other requirements are similar to those for Class 2 modifications.



Permit modification will not be applicable at WIPP until after a RCRA permit has been issued for this facility.

25.2.5.11 Operation During Interim Status, 40 CFR 270.71 (20 NMAC 4.1, § 900)

During interim status, the facility shall not treat, store, or dispose of hazardous waste or employ processes not specified or exceed the design capabilities described in Part A of the permit application. The facility will comply with all applicable standards described in 40 CFR Part 265.



The WIPP has waste analysis and waste acceptance criteria in place to ensure that all waste managed at the facility is within the bounds specified in the Part A permit application. Further, the WIPP has programs and procedures in place that address compliance with the applicable interim-status standards of 40 CFR Part 265 (See Section 25.2.4).

25.2.5.12 Changes During Interim Status, 40 CFR 270.72 (20 NMAC 4.1, § 900)

Changes that may be made during interim status are treatment, storage, or disposal of new wastes; increases in the design capacity of processes used or changes in the processes used; changes in ownership or operational control; changes made in accordance with an interim-status corrective action order; or the addition of newly regulated units if and only if a revised Part A permit application is submitted and approved by the Director. Such changes may not be made if reconstruction of the facility results (i.e., the capital investment in the changes to the facility may not exceed 50 percent of the capital cost of a comparable, entirely new, hazardous waste management facility).

Any changes to the disposal facility which require review and approval by NMED will be submitted to NMED for review and approval as required by the interim status provisions. Once a permit is issued, the DOE can propose modifications to the permit to the NMED for approval.

25.2.6 Compliance With the UST Regulatory Requirements under 20 NMAC, Chapter 5

This section of the report will examine the New Mexico UST requirements as they pertain to the WIPP. Compliance status is summarized in Table 25-7, and additional detail is provided in the text that follows the table.

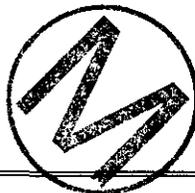
**TABLE 25-7. New Mexico Underground Storage Tank Regulations
(20 NMAC, Chapter 5) - Compliance Status Summary**

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.1, General Provisions		
20 NMAC 5.1, §101	Applicability	<p style="text-align: center;">UP TO DATE</p> <p>Two USTs at WIPP, one for diesel fuel, the other for unleaded fuel</p> <p>[Section 25.2.6.1]</p>
20 NMAC 5.2, Registration of Tanks		
20 NMAC 5.2, § 200	Existing tanks	<p style="text-align: center;">ACHIEVED</p> <p>Two registered USTs</p> <p>[Section 25.2.6.2]</p>
20 NMAC 5.2, § 201	Transfer of ownership	<p style="text-align: center;">NOT APPLICABLE</p> <p>Original ownership</p> <p>[Section 25.2.6.3]</p>
20 NMAC 5.2, § 202	New UST system	<p style="text-align: center;">ACHIEVED</p> <p>Registration for two new USTs transmitted on June 18, 1992</p> <p>[Section 25.2.6.4]</p>
20 NMAC 5.2, § 203	Substantially modified UST systems	<p style="text-align: center;">NOT APPLICABLE</p> <p>No system modifications made</p> <p>[Section 25.2.6.5]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.2, § 204	Notification of spill or release 	NOT APPLICABLE No releases during this period and WID procedures in place [Section 25.2.6.6]
20 NMAC 5.2, § 205	Emergency repairs and tank replacement	NOT APPLICABLE No emergencies requiring repair or tank replacement [Section 25.2.6.7]
20 NMAC 5.2, § 206	Application forms	ACHIEVED Proper application forms used and submitted to the NMED [Section 25.2.6.8]
20 NMAC 5.2, § 207	Registration certificate	ACHIEVED Certificate displayed [Section 25.2.6.9]
20 NMAC 5.3, Annual Fee		
20 NMAC 5.3, § 300	Payment of fee	ACHIEVED Fees paid annually by January 31 [Section 25.2.6.10]
20 NMAC 5.3, § 301	Amount of fee	ACHIEVED \$200.00 paid per year (\$100 per UST) [Section 25.2.6.11]
20 NMAC 5.3, § 302	Late payment penalties	NOT APPLICABLE No late payments made [Section 25.2.6.12]

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.4, New and Upgraded UST Systems: Design, Construction, and Installation		
20 NMAC 5.4, § 400(a)	Performance standards to ensure that new UST systems tanks are properly designed and constructed	<p style="text-align: center;">ACHIEVED</p> ASTM and UL standards met by fiberglass-reinforced plastic tanks [Section 25.2.6.13]
20 NMAC 5.4, § 400(b)	Piping to be properly designed and constructed	<p style="text-align: center;">ACHIEVED</p> Fiberglass-reinforced plastic piping [Section 25.2.6.14]
20 NMAC 5.4, § 400(c)(1)(i)	Spill prevention equipment	<p style="text-align: center;">ACHIEVED</p> Spill catchment basin [Section 25.2.6.15]
20 NMAC 5.4, § 400(c)(1)(ii)	Overflow prevention equipment	<p style="text-align: center;">ACHIEVED</p> Model 310 extractor vent valve [Section 25.2.6.16]
20 NMAC 5.4, § 400(d)	Installation of tanks and piping	<p style="text-align: center;">ACHIEVED</p> Installer's oath on NMED tank registration form [Section 25.2.6.17]
20 NMAC 5.4, § 400(e)	Certificate of installation	<p style="text-align: center;">ACHIEVED</p> Certification of inspector; NMED UST Bureau representative present at installation of new UST systems [Section 25.2.6.18]

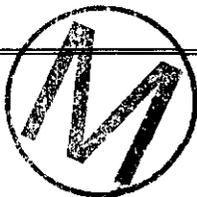


CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.4, § 401(a)	Upgrading of existing UST systems	<p>NOT APPLICABLE</p> <p>Two new USTs installed on February 10, 1992</p> <p>[Section 25.2.6.19]</p>
20 NMAC 5.4, § 401(b)	Upgrading requirements for steel tanks	<p>NOT APPLICABLE</p> <p>Single wall fiberglass-reinforced plastic tanks replaced with double-walled plastic tanks on February 10, 1992</p> <p>[Section 25.2.6.20]</p>
20 NMAC 5.4, § 401(c)	Upgrading requirements for metal piping	<p>NOT APPLICABLE</p> <p>Metal piping replaced with fiberglass-reinforced plastic piping on February 10, 1992</p> <p>[Section 25.2.6.21]</p>
20 NMAC 5.4, § 401(d)	Spill and overfill protection equipment	<p>ACHIEVED</p> <p>Current spill and overfill protection equipment meets 1998 deadline</p> <p>[Section 25.2.6.22]</p>
20 NMAC 5.4, § 402	Certification of compliance with notification requirements	<p>ACHIEVED</p> <p>Certification requirements met</p> <p>[Section 25.2.6.23]</p>
20 NMAC 5.5, General Operating Requirements		
20 NMAC 5.5, § 500(a)	Spill and overfill control	<p>ACHIEVED</p> <p>Addressed in WIPP procedure</p> <p>[Section 25.2.6.24]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.5, § 501(a)	Corrosion protection	<p style="text-align: center;">ACHIEVED</p> Rubber boots covering all metal fittings [Section 25.2.6.25]
20 NMAC 5.5, § 501(b)	Inspections of cathodic protection systems	<p style="text-align: center;">NOT APPLICABLE</p> No cathodic protection required [Section 25.2.6.26]
20 NMAC 5.5, § 501(c)	Inspections of impressed-current cathodic protection systems	<p style="text-align: center;">NOT APPLICABLE</p> No cathodic protection required for fiberglass-reinforced systems [Section 25.2.6.27]
20 NMAC 5.5, § 501(d)	Records of operation of the cathodic protection system	<p style="text-align: center;">NOT APPLICABLE</p> No cathodic protection required for fiberglass-plastic systems [Section 25.2.6.28]
20 NMAC 5.5, § 502	Compatibility	<p style="text-align: center;">ACHIEVED</p> Fiberglass-reinforced plastic system compatible with both diesel and unleaded fuel [Section 25.2.6.29]
20 NMAC 5.5, § 503(a)	Repairs allowed	<p style="text-align: center;">NOT APPLICABLE</p> No repairs performed on the UST system [Section 25.2.6.30]
20 NMAC 5.5, § 503(b)	Repairs to fiberglass-reinforced plastic tanks	<p style="text-align: center;">NOT APPLICABLE</p> No major repairs performed on the UST system [Section 25.2.6.31]

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.5, § 503(c)	Replacement or repair of pipe sections and fittings	<p>NOT APPLICABLE</p> <p>No repairs conducted on the pipes or fittings.</p> <p>[Section 25.2.6.32]</p>
20 NMAC 5.5, § 503(d)	Tightness testing after repairs	<p>NOT APPLICABLE</p> <p>No repairs conducted on the tanks or piping</p> <p>[Section 25.2.6.33]</p>
20 NMAC 5.5, § 503(e)	Testing of any repaired cathodically protected UST system	<p>NOT APPLICABLE</p> <p>No cathodic protection required</p> <p>[Section 25.2.6.34]</p>
20 NMAC 5.5, § 503(f)	Records of all repairs	<p>UP TO DATE</p> <p>Records of all repairs maintained for life of the UST system</p> <p>[Section 25.2.6.35]</p>
20 NMAC 5.5, § 504(a)	Reporting requirements	<p>ACHIEVED</p> <p>All required reports submitted</p> <p>[Section 25.2.6.36]</p>
20 NMAC 5.5, § 504(b)	Record-keeping requirements	<p>ACHIEVED</p> <p>All required records maintained</p> <p>[Section 25.2.6.37]</p>
20 NMAC 5.5, § 504(c)	Availability and maintenance of records	<p>ACHIEVED</p> <p>Records maintained at the site</p> <p>[Section 25.2.6.38]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.5, § 505(a)	Inspections, monitoring, and testing of USTs	<p style="text-align: center;">ACHIEVED</p> <p>NMED personnel allowed to inspect, sample, and monitor the UST system</p> <p>[Section 25.2.6.39]</p>
20 NMAC 5.5, § 505(c)	Inspections of UST installations, repairs or modifications, or removals or system closures	<p style="text-align: center;">ACHIEVED</p> <p>NMED representative present at installation of new UST system</p> <p>[Section 25.2.6.40]</p>
20 NMAC 5.6, Release Detection		
20 NMAC 5.6, § 600(a)	General requirements of all UST systems	<p style="text-align: center;">ACHIEVED</p> <p>Interstitial monitoring system installed</p> <p>[Section 25.2.6.41]</p>
20 NMAC 5.6, § 600(b)	Notification of releases	<p style="text-align: center;">ACHIEVED</p> <p>No releases to date</p> <p>[Section 25.2.6.42]</p>
20 NMAC 5.6, § 600(c)	Schedule for required release detection	<p style="text-align: center;">ACHIEVED</p> <p>UST system designed so no release detection for piping is required; interstitial monitoring used for tanks</p> <p>[Section 25.2.6.43]</p>
20 NMAC 5.6, § 600(d)	Failure to comply with release-detection requirements	<p style="text-align: center;">NOT APPLICABLE</p> <p>Release-detection equipment used</p> <p>[Section 25.2.6.44]</p>



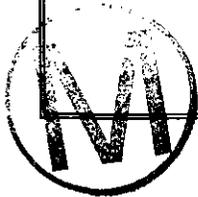
CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.6, § 601(a)	Requirements for tanks of petroleum UST systems	<p>ACHIEVED</p> <p>Interstitial monitoring used</p> <p>[Section 25.2.6.45]</p>
20 NMAC 5.6, § 601(b)	Requirements for piping of petroleum UST systems	<p>ACHIEVED</p> <p>See Sections 25.2.6.47 and 25.2.6.48</p> <p>[Section 25.2.6.46]</p>
20 NMAC 5.6, § 601(b)(1)	Requirements for pressurized piping	<p>NOT APPLICABLE</p> <p>USTs under suction piping</p> <p>[Section 25.2.6.47]</p>
20 NMAC 5.6, § 601(b)(2)	Requirements for suction piping	<p>ACHIEVED</p> <p>Engineering drawings confirm compliance with this requirement</p> <p>[Section 25.2.6.48]</p>
20 NMAC 5.6, § 602	Requirements for hazardous substance UST systems	<p>NOT APPLICABLE</p> <p>No UST systems used for hazardous substances at the WIPP</p> <p>[Section 25.2.6.49]</p>
20 NMAC 5.6, § 603	Methods of release detection for tanks	<p>ACHIEVED</p> <p>Interstitial monitoring used</p> <p>[Section 25.2.6.50]</p>
20 NMAC 5.6, § 603(a)	Inventory control	<p>ACHIEVED</p> <p>Inventory control used as contingency method only</p> <p>[Section 25.2.6.51]</p>

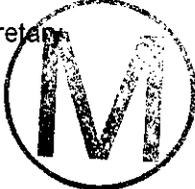


CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.6, § 603(b)	Manual tank gauging	NOT APPLICABLE Interstitial monitoring used [Section 25.2.6.52]
20 NMAC 5.6, § 603(c)	Tank tightness testing	NOT APPLICABLE Tank tightness testing not necessary when interstitial monitoring is used [Section 25.2.6.53]
20 NMAC 5.6, § 603(d)	Automatic tank gauging	NOT APPLICABLE Interstitial monitoring used [Section 25.2.6.54]
20 NMAC 5.6, § 603(e)	Vapor monitoring	NOT APPLICABLE Interstitial monitoring used [Section 25.2.6.55]
20 NMAC 5.6, § 603(f)	Ground-water monitoring	NOT APPLICABLE Interstitial monitoring used [Section 25.2.6.56]
20 NMAC 5.6, § 603(g)	Interstitial monitoring	ACHIEVED Release from any portion of the tank that regularly contains product detected by interstitial monitoring [Section 25.2.6.57]
20 NMAC 5.6, § 603(h)	Other methods of detecting releases	NOT APPLICABLE Interstitial monitoring used [Section 25.2.6.58]

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.6, § 604	Methods of release detection for piping	NOT APPLICABLE Release detection for piping not required because of design [Section 25.2.6.59]
20 NMAC 5.6, § 605	Release detection record-keeping	ACHIEVED Required records maintained [Section 25.2.6.60]
20 NMAC 5.7, Release Reporting, Investigation, and Confirmation		
20 NMAC 5.7, § 700	Reporting of suspected releases	NOT APPLICABLE No releases to date [Section 25.2.6.61]
20 NMAC 5.7, § 701	Investigation of off-site impacts	NOT APPLICABLE Off-site-impact information not requested by NMED [Section 25.2.6.62]
20 NMAC 5.7, § 702	Release investigation and confirmation steps	NOT APPLICABLE No releases to date [Section 25.2.6.63]
20 NMAC 5.7, § 703(a)	Reporting and cleanup of spills and overfills exceeding 25 gallons (or an amount specified by NMED) or a hazardous substance exceeding or equal to its CERCLA reportable quantity	NOT APPLICABLE No spills or overfills [Section 25.2.6.64]
20 NMAC 5.7, § 703(b)	Reporting and cleanup of spills and overfills less than 25 gallons (or an amount specified by NMED) or a hazardous substance that is less than its reportable quantity	ACHIEVED Small spills and overfills properly controlled and cleaned up [Section 25.2.6.65]

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.8, Out-of-Service Systems and Closure		
20 NMAC 5.8, § 800	Temporary closure	<p style="text-align: center;">NOT APPLICABLE</p> <p>No temporary closure [Section 25.2.6.66]</p>
20 NMAC 5.8, § 801(a)	Permanent closure and changes-in-service	<p style="text-align: center;">ACHIEVED</p> <p>NMED notified before closure of old UST systems [Section 25.2.6.67]</p>
20 NMAC 5.8, § 801(b)	Permanent closure of a tank	<p style="text-align: center;">ACHIEVED</p> <p>Old UST system emptied, cleaned, and removed for permanent closure [Section 25.2.6.68]</p>
20 NMAC 5.8, § 801(c)	Change in service	<p style="text-align: center;">NOT APPLICABLE</p> <p>No change in service for UST systems [Section 25.2.6.69]</p>
20 NMAC 5.8, § 802(a)	Assessing the site	<p style="text-align: center;">ACHIEVED</p> <p>Site assessed prior to permanent closure of old UST systems; documentation maintained at WIPP [Section 25.2.6.70]</p>
20 NMAC 5.8, § 802(b)	Corrective action	<p style="text-align: center;">UP TO DATE</p> <p>UST area assessed before change in service; WID procedure in place [Section 25.2.6.71]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.8, § 803	Applicability to previously closed UST systems	<p>NOT APPLICABLE</p> <p>No UST systems at WIPP closed before December 22, 1988</p> <p>[Section 25.2.6.72]</p>
20 NMAC 5.8, § 804	Closure records	<p>ACHIEVED</p> <p>Tank closure; records maintained at the WIPP site</p> <p>[Section 25.2.6.73]</p>
20 NMAC 5.9, Financial Responsibility		
20 NMAC 5.9, § 900	Applicability	<p>NOT APPLICABLE</p> <p>Federal and state government entities exempt</p> <p>[Section 25.2.6.74]</p>
20 NMAC 5.10, Administrative Review		
20 NMAC 5.10, § 1000	Informal review	<p>NOT APPLICABLE</p> <p>Provision not invoked at WIPP</p> <p>[Section 25.2.6.75]</p>
20 NMAC 5.10, § 1001	Review by Secretary 	<p>NOT APPLICABLE</p> <p>Provision not invoked at WIPP</p> <p>[Section 25.2.6.76]</p>
Part I, Miscellaneous		
20 NMAC 5.1, § 108	Compliance with other regulations	<p>See Chapters 2 - 24 and 25 - 38 for compliance with federal and state regulations,</p> <p>[Section 25.2.6.77]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.1, § 109	Construction	<p>NOT APPLICABLE</p> <p>Construction of UST Regs [Section 25.2.6.78]</p>
20 NMAC 5.1, § 110	Severability	<p>NOT APPLICABLE</p> <p>No action required; pertains to regulations [Section 25.2.6.79]</p>
20 NMAC 5.12, Corrective Action for UST Systems Containing Petroleum		
20 NMAC 5.12, § 1200(A)	Cleanup requirements for releases from petroleum UST systems	<p>NOT APPLICABLE</p> <p>No releases with the UST system during this period [Section 25.2.6.80]</p>
20 NMAC 5.12, §§ 1200(B)-1222	Additional corrective action requirements for petroleum UST systems	<p>NOT APPLICABLE</p> <p>No corrective actions necessary for current UST system; WID procedures in place [Section 25.2.6.81]</p>
20 NMAC 5.13, Corrective Action for UST Systems Containing Other Regulated Substances		
20 NMAC 5.13, §§ 1300-1320	Corrective action for hazardous substance UST systems	<p>NOT APPLICABLE</p> <p>No hazardous substance USTs at WIPP [Section 25.2.6.82]</p>
20 NMAC 5.14, Certification of Tank Installers		
20 NMAC 5.14, §§ 1400-1417	Certification of tank installers and repairers	<p>ACHIEVED</p> <p>Required certification information maintained [Section 25.2.6.83]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 5.15, Corrective Action Fund Allocation for State-Lead Sites		
20 NMAC 5.15, § 1505	Priorities	<p style="text-align: center;">NOT APPLICABLE</p> <p>Action taken by NMED [Section 25.2.6.84]</p>
20 NMAC 5.15, § 1508	Minimum site assessment	<p style="text-align: center;">UP TO DATE</p> <p>No UST releases to date [Section 25.2.6.85]</p>
20 NMAC 5.16, Certification of Contractors		
<p>20 NMAC 5.16</p> 	Certification requirements for firms performing work for which payment from the Corrective Action Fund will be sought	<p style="text-align: center;">NOT APPLICABLE</p> <p>The Ground Water Protection Act prohibits expenditures from the Fund for corrective action at federally owned or operated sites [Section 25.2.6.86]</p>
20 NMAC 5.17, Corrective Action Fund Payment and Reimbursement		
20 NMAC 5.17	Provisions for payments or reimbursements from the Corrective Action Fund	<p style="text-align: center;">NOT APPLICABLE</p> <p>The Ground Water Protection Act prohibits expenditures from the Fund for corrective action at federally owned or operated sites [Section 25.2.6.87]</p>

25.2.6.1 Applicability, 20 NMAC 5.1, § 103; 40 CFR 280.10

Any owner or operator of an UST that contains a hazardous substance or petroleum product must meet the standards set by the New Mexico Environmental Improvement Board (EIB) in the New Mexico Underground Storage Tank Regulations (USTRs).

The WIPP has two 8,000-gallon USTs. One contains unleaded gasoline, and the other contains diesel fuel.

25.2.6.2 Existing Tanks, 20 NMAC 5.2, § 200

The owner of any UST must register such tank or tanks with the Underground Storage Tank section of the NMED within three months after April 14, 1988, the effective date of this Part II as first adopted, except that any owner who has filed the form of notice entitled "Notification for Underground Storage Tanks," prescribed by the EPA and described in 40 CFR Part 280, is not required to register a tank for which a notice has been filed, provided that the information provided is still current.



Registration becomes effective upon receipt of the first year's annual fee described in Sections 25.2.6.10 and 25.2.6.11. Registration must be renewed annually by payment of the annual fee until the permanent closure of the tank.

Both USTs at WIPP are registered with the Underground Storage Tank Bureau of the NMED.

25.2.6.3 Transfer of Ownership, 20 NMAC 5.2, § 201

If ownership of the UST system changes, the new owner must re-register the tank with the division within 30 days of ownership transfer, using a form provided by the division.

This section is not applicable since ownership of the tanks has not been transferred.

25.2.6.4 New UST System, 20 NMAC 5.2, § 202

The owner must notify the division in writing at least 30 days before any new tank or UST system is installed and must register any new tank or UST system with the division prior to placing it in service.

Proper notification was provided to the NMED prior to the February 10, 1992, installation of the new UST system. The application for the new system was submitted on June 18, 1992, and the USTs were placed into service shortly thereafter.

25.2.6.5 Substantially Modified UST Systems, 20 NMAC 5.2, § 203

When an existing UST system is substantially modified or replaced, the owner must notify the division in writing of such modification or replacement at least 30 days prior to the modification or replacement. Emergency repairs or replacements made as described in Section 25.2.6.7 are exempt from these notification requirements.

Proper notification was provided to the NMED prior to the February 10, 1992, installation of the new UST system. The application for the new system was submitted on June 18, 1992, and the USTs were placed into service shortly thereafter.

25.2.6.6 Notification of Spill or Release, 20 NMAC 5.2, § 204

Notice of any known or suspected release from a UST system, any spill, or any other emergency situation must be given to the NMED by telephone within 24 hours. The owner or operator making the report shall provide the information specified under Section 204(A).

Written notice describing the spill, release, or suspected release and any investigation or follow-up action taken or to be taken must be mailed or delivered to the NMED within seven days of the incident. The written notice shall verify the prior oral notification as to each of the items of information listed in subsection A and provide any appropriate additions or corrections to the information contained in the prior oral notification.



No releases have occurred during this reporting period. However, if this should occur, WID procedures discuss the requirements for the proper handling of spills and releases.

25.2.6.7 Emergency Repairs and Tank Replacement, 20 NMAC 5.2, § 205

Immediate repairs or replacement of an UST system may be made in the event an emergency situation presents a threat to the public health, provided notice is given to the NMED as described in Section 25.2.6.6.

No such emergency repair or replacement of an UST system has been necessary at WIPP to date.

25.2.6.8 Application Forms, 20 NMAC 5.2, § 206

All USTs must be registered on application forms provided by the NMED unless the EPA form ("Notification for Underground Storage Tanks") has been submitted to the NMED and all information contained therein is still accurate. An application submitted by a municipal, state, or other public facility must be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.

The New Mexico UST registration form is used to register the USTs at WIPP. It has been submitted to the NMED.

25.2.6.9 Registration Certificate, 20 NMAC 5.2, § 207

Upon submittal of a complete registration application or the EPA form and payment of the annual fee, the NMED shall issue a validated registration certificate which is current and valid and must be displayed on the premises of the UST system at all times. In the event that any information provided on the registration form or the EPA form changes or is no longer accurate, the change must be reported to the NMED on the appropriate form within 30 days.

The registration certificate from the NMED is displayed.

25.2.6.10 Payment of Fee, 20 NMAC 5.3, § 300

An annual per-tank fee shall be paid to the NMED no later than January 31 for each current calendar year or portion of a year that a tank is in use. A tank shall be deemed "in use" until notice is received by the NMED that the tank has been removed or otherwise permanently closed in a manner acceptable to the division.

The annual fee for a new tank placed in service after January 31 for any calendar year after 1989 shall be paid within 30 days after the tank is placed in service. The annual fees shall be designated to the Hazardous Waste and Underground Storage Tank Fund.



The annual fee per UST at WIPP is paid by January 31 for each calendar year. The fee for the replacement tanks accompanied the application that was transmitted to the NMED.

25.2.6.11 Amount of Fee, 20 NMAC 5.3, § 301

The annual fee for each UST is \$100.00 per tank.

The annual fee paid for each UST at WIPP is \$100, or \$200 for both tanks.



25.2.6.12 Late Payment Penalties, 20 NMAC 5.3, § 302

In the event that the annual fee is not paid when due, a late fee of \$5.00 or 5 percent of the unpaid fee, whichever is greater, and interest charges at the rate of 1.5 percent per month shall be imposed and shall accumulate until the annual fee and all accrued late fees and interest charges are paid.

No late payment penalties have been incurred.

25.2.6.13 Performance Standards for Tanks in New UST Systems, 20 NMAC 5.4 § 400(a); 40 CFR 280.20(a)

Each tank must be properly designed and constructed, and any portion underground must be protected from corrosion by a nationally recognized association or independent testing laboratory as specified. Each tank must be constructed of fiberglass-reinforced plastic; steel, with cathodic protection; or steel-fiberglass-reinforced-plastic composite. The tank may be constructed of metal without additional corrosion protection if the conditions apply as described in Section 400(a)(4) of 20 NMAC 5.4.

The tanks are designed and constructed of fiberglass-reinforced plastic in accordance with Underwriters Laboratories Standard 1316, *Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products*, and with the American Society for Testing and Materials (ASTM) Standard D4021-86, *Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks*.

25.2.6.14 Design and Construction of Piping, 20 NMAC 5.4, § 400(b); 40 CFR 280.20(b)

The piping that routinely contains regulated substances and is in contact with the ground must be properly designed,

constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified. The piping is constructed of fiberglass-reinforced plastic; or steel, with cathodic protection; or metal without additional corrosion protection measures provided that the piping is installed at a non-corrosive site and records are maintained that demonstrate the noncorrosivity of the site for the remaining life of the piping. The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment.

The piping is constructed of fiberglass-reinforced plastic as designed by the Xerxes Corporation in accordance with the appropriated standards.

25.2.6.15 Spill Prevention Equipment, 20 NMAC 5.4, § 400(c)(1)(i);
40 CFR 280.20(c)(1)(i)

Owners and operators must use spill prevention equipment that will prevent the release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin).



The WIPP's UST system uses a spill catchment basin.

25.2.6.16 Overflow Prevention Equipment, 20 NMAC 5.4, § 400(c)(1)(ii);
40 CFR 280.20(c)(1)(ii)

Overfill-prevention equipment must be used that will automatically shut off flow into the tank when the tank is no more than 95 percent full; alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm; or restrict the flow 30 minutes prior to overfilling, alert the operator with a high-level alarm one minute before overfilling, or automatically shut off flow into the tank so that none of the fittings located on top of the tank is exposed to product due to overfilling. Owners and operators may use alternative equipment if it is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified above or if the UST system is filled by transfers of no more than 25 gallons at one time.

The Model 310 extractor vent valve is used to automatically shut off the flow into the tank when the tank is no more than 95 percent full. This valve is a permanent part of the system.

25.2.6.17 Installation of Tanks and Piping, 20 NMAC 5.4, § 400(d); 40 CFR 280.20(d)

All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

The installer (Cline Pump Co.) certified on the NMED application that the methods used to install the tanks and piping comply with the requirements. Cline Pump has supplied the WIPP with copies of qualified certification.

25.2.6.18 Certificate of Installation, 20 NMAC 5.4, § 400(e); 40 CFR 280.20(e)

All owners and operators must ensure that one or more of the specified methods of certification, testing, or inspection was used to demonstrate compliance with Section 25.2.6.17 by providing a certification of compliance on the UST notification form required by 20 NMAC 5.2. The allowable methods of certification for the installer are: certification by the tank and piping manufacturers; certification or licensing by the implementing agency; inspection and certification of the installation by a registered professional engineer with education and experience in UST system installation, inspection and approval by the implementing agency, or the presence of a representative from the UST Bureau of the NMED at the installation; completion of all work listed on the manufacturer's installation checklists; or compliance with another method for ensuring compliance with this section that is determined by the implementing agency to be no less protective of human health and the environment.



Cline Pump Company is certified by the NMED. The installation of the new systems was inspected and approved by an NMED representative who was present during the installation.

25.2.6.19 Upgrading Existing UST Systems, 20 NMAC 5.4, § 401(a);
40 CFR 280.21(a)

All existing UST systems must be upgraded to meet the new performance standards (see Sections 25.2.6.13 through 25.2.6.18), the requirements described in Sections 25.2.6.20 through 25.2.6.22, or the closure requirements described in Sections 25.2.6.66 through 25.2.6.73 by December 22, 1998.

The UST system formerly used at the WIPP has been replaced. The new system meets the new performance standards (see Sections 25.2.6.13 through 25.2.6.18); therefore, upgrading is not appropriate at this time.

25.2.6.20 Tank Upgrading Requirements, 20 NMAC 5.4, § 401(b);
40 CFR 280.21(b)

Steel tanks must be upgraded to have an interior lining and/or cathodic protection.

The new tanks are constructed of fiberglass-reinforced plastic and are not constructed of steel (See Section 25.2.6.19).

25.2.6.21 Piping Upgrading Requirements, 20 NMAC 5.4, § 401(c);
40 CFR 280.21(c)

Metal piping that routinely contains regulated substances and is in contact with the ground must be cathodically protected.

The piping for the UST system at WIPP is made of double-walled fiberglass-reinforced plastic.

25.2.6.22 Spill and Overfill Prevention Equipment, 20 NMAC 5.4, § 401(d);
40 CFR 280.21(d)

To prevent spilling and overfilling associated with the transfer of product to the UST system, all existing UST systems must comply with the new UST system spill and overfill prevention equipment requirements specified in 20 NMAC 5.4, Section 400(c).



Spill and overfill prevention equipment has been incorporated into the new UST system as described in Sections 25.2.6.15 and 25.2.6.16.

25.2.6.23 Certificate of Compliance and Notification Requirements, 20 NMAC 5.4, §402; 40 CFR 280.22

In the registration application required by 20 NMAC 5.2, all owners and operators of new UST systems must certify compliance with the installation requirements of USTR Section 400(e), cathodic protection requirements for steel tanks and piping under Sections 400(a) and (b), financial responsibility under 20 NMAC 5.9, and release detection under Sections 601 and 602. The owners and operators must also ensure that the installer certifies that the methods used to install the tanks and piping comply with the requirements in Section 400(d).



The notification requirements pertain to the person who sells a tank intended to be used as an UST.

As outlined in the registration form, the certification requirements were met. The cathodic protection requirements are not applicable since neither the tank nor the piping is made of steel. The financial responsibility requirements are not applicable because WIPP is owned by the DOE. The notification requirements apply only to the person who sold the tank to be used as an UST and therefore do not apply to WIPP.

25.2.6.24 Spill and Overfill Control, 20 NMAC 5.5, § 500 (a); 40 CFR 280.30

Owners and operators must ensure that any releases due to spilling or overfilling do not occur, that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made, and that the transfer operation is monitored constantly to prevent overfilling and spilling. Any spills or overfills must be reported, cleaned up, and investigated in accordance with 20 NMAC, Chapter 5, Sections 204 and 703.

The new tanks are equipped with spill and overfill protection equipment. WID procedures are in place that govern the transfer of product to the tanks and that specify requirements for reporting, cleaning up, and investigating spills or overfills.

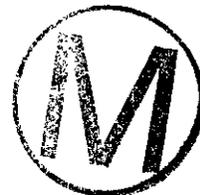
25.2.6.25 Operation and Maintenance of Corrosion Protection, 20 NMAC 5.5, § 501(a); 40 CFR 280.31(a)

All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping

that routinely contain regulated substances and are in contact with the ground.

The corrosion protection consists of rubber boots around the metal fittings.

25.2.6.26 Inspections of Cathodic Protection System, 20 NMAC 5.5, § 501(b); 40 CFR 280.31(b)



All UST systems equipped with cathodic protection systems must be inspected for proper operation by a qualified cathodic protection tester in accordance with requirements regarding the frequency of inspections and specific inspection criteria.

Cathodic protection is required only for steel tanks and metal parts. The metal fittings in the UST system are protected by rubber boots. Therefore, cathodic protection is not required.

25.2.6.27 Inspections of Impressed-Current Cathodic Protection Systems, 20 NMAC 5.5, § 501(c); 40 CFR 280.31(c)

UST systems with impressed-current cathodic protection systems must be inspected every 60 days to ensure that the equipment is running properly.

No cathodic protection systems are required for fiberglass-reinforced plastic systems.

25.2.6.28 Records of Operation of the Cathodic Protection System, 20 NMAC 5.5, § 501(d); 40 CFR 280.31(d)

For UST systems using cathodic protection, records of the operation of the cathodic protection system must be maintained in accordance with 40 CFR 280.34 to demonstrate compliance with the performance standards in this section. These records must provide the results of inspections.

No cathodic protection is required for fiberglass-reinforced plastic UST systems. Therefore, this requirement does not apply.

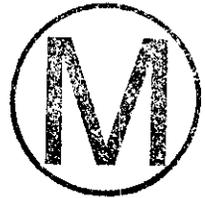
25.2.6.29 Compatibility, 20 NMAC 5.5, § 502; 40 CFR 280.32

Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

Fiberglass-reinforced plastic is compatible with unleaded and diesel fuel.

25.2.6.30 Repairs Allowed, 20 NMAC 5.5, § 503(a); 40 CFR 280.33(a)

Repairs to UST systems must be properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.



To date, no major repairs have been required.

25.2.6.31 Repairs to Fiberglass-Reinforced Plastic Tanks, 20 NMAC 5.5, § 503(b); 40 CFR 280.33(b)

Repairs to fiberglass-reinforced plastic tanks may be made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

To date, no major repairs have been required.

25.2.6.32 Repairs of Pipe Sections and Fittings, 20 NMAC 5.5, § 503(c); 40 CFR 280.33(c)

Metal pipe sections and fittings that have released product as a result of corrosion or other damage must be replaced. Fiberglass pipes and fittings may be repaired in accordance with the manufacturer's specifications.

No repairs have been conducted on the pipes or fittings.

25.2.6.33 Tightness Testing After Repairs, 20 NMAC 5.5, § 503(d); 40 CFR 280.33(d)

Repaired tanks and piping must be tightness tested in accordance with 20 NMAC 5.6, Sections 603(d) and 604(b) within 30 days after the date of the completion of the repair except as provided in this section.

No repairs have been conducted on the tanks or piping.

25.2.6.34 Testing of Repaired Cathodically Protected UST System, 20 NMAC 5.5, § 503(e); 40 CFR 280.33(e)

Within 6 months following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with 20 NMAC 5.5, Sections 501(b) and (c) to ensure that it is operating properly.

The current UST system does not require cathodic protection.



25.2.6.35 Records of all Repairs, 20 NMAC 5.5, § 503(f); 40 CFR 280.33(f)

UST system owners and operators must maintain records of each repair for the remaining operating life of the UST system to demonstrate compliance with the requirements of this section.

No repairs have been performed on the current system. However, when UST system repairs are necessary, the records will be maintained at WIPP for the life of the UST system.

25.2.6.36 Reporting, 20 NMAC 5.5, § 504(a); 40 CFR 280.34(a)

Owners and operators must submit the following information to the NMED: registration of all UST systems, including certification of installation for new UST systems (20 NMAC 5.2); reports of all releases (including suspected releases, spills, and overfills) and confirmed releases; corrective actions planned or taken; and a notification before permanent closure or change in service.

The information in this requirement has been submitted to the NMED. Spill, overfill, and release reporting requirements are addressed by WID procedures.

25.2.6.37 Record-keeping Requirements, 20 NMAC 5.5, § 504(b); 40 CFR 280.34(b)

Owners and operators must maintain the following information: a corrosion expert's analysis of site corrosion potential if corrosion protection equipment is not used, documentation of operation of corrosion protection equipment, documentation of UST system repairs, recent

compliance with release detection requirements, and the results of the site investigation required prior to permanent closure.

The rubber boots are considered adequate to meet the corrosion protection requirements since the tank and piping consist of fiberglass-reinforced plastic. Metal flex elbow fittings are contained within the rubber boots, which separate them from contact with the ground.

WID procedures specify the retention time for records of UST system repairs.

A WIPP procedure addresses the retention of monitoring results. Correspondence WD 93:00280 contains the tank closure form as an attachment.

25.2.6.38 Availability and Maintenance of Records, 20 NMAC 5.5, § 504(c);
40 CFR 280.34(c)

The applicable records must be kept either at the UST site and immediately available for inspections by the NMED or at a readily available alternative site and be provided to the NMED upon request.



The UST records are maintained at the WIPP site.

25.2.6.39 Inspections, Monitoring, and Testing of USTs, 20 NMAC 5.5, § 505(a)

Any owner or operator of an UST shall, upon the request of the director or authorized NMED representatives, furnish information relating to the UST(s), conduct monitoring or testing, and allow the NMED representative to have access to the USTs and to copy all records relating to such tanks at all reasonable times. NMED officers, employees, or representatives will be allowed to inspect the UST system(s) and obtain samples of its contents and to conduct monitoring or testing of the tanks and its associated equipment or the surrounding soils, air, surface water, or ground water.

NMED personnel are allowed to inspect the UST systems at any reasonable time. They are also allowed to sample the contents of the USTs. Monitoring or testing of the tanks and associated equipment and contents or the surrounding soils, air, or surface or ground water may also be performed.

25.2.6.40 Inspections of UST Installations, Repairs or Modifications, or Removals or System Closures, 20 NMAC 5.5, § 505(c)

The owner and operator must allow the Director or authorized NMED representatives to be present at and inspect all UST system installations, replacements, repairs, substantial modifications, installations of leak detection systems, and UST system closures. To ensure that the inspector has an opportunity to be present during the steps in these procedures which are important to the prevention of releases, the owner or operator must give the NMED oral notice of the dates on which critical junctures in the installation, repair, substantial modification, or closure of the UST system are to take place. Oral notice must be given at least 24 hours in advance of the commencement of the procedure. The inspector may require that critical junctures be performed from Monday through Friday during regular business hours.

A representative of the NMED UST Bureau was present at the installation of the new UST systems on February 10, 1992.

25.2.6.41 General Requirements for all UST Systems, 20 NMAC 5.6, § 600(a); 40 CFR 280.40(a)

Owners and operators of new and existing UST systems must provide a method, or combination of methods, of release detection that can detect a release from any portion of the tank and the connected underground piping that routinely contains product; is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition; meets the performance requirements; and must be capable of detecting the leak rate or quantity specified for that method in the corresponding section of the rule with a probability of detection (pd) of 0.95 and a probability of false alarm (pfa) of 0.05.



The UST system uses interstitial monitoring to detect releases. There are sensors between the walls at the lowest end of the piping and tank. Interstitial monitoring is adequate because it can detect a release through the inner wall in any portion of the double-walled tank and/or piping that regularly contains product.

25.2.6.42 Notification of Releases, 20 NMAC 5.6, § 600(b); 40 CFR 280.40(b)

When a release detection method operated in accordance with the performance standards in 20 NMAC 5.6, Sections 603 and 604 indicates that a release may have occurred, owners and operators must notify the NMED in accordance with 20 NMAC 5.2, Section 204, and 20 NMAC 5.7.

No releases or suspected releases have occurred with the current UST system.

25.2.6.43 Schedule for Required Release Detection, 20 NMAC 5.6, § 600(c); 40 CFR 280.40(c)

Owners and operators of all UST systems must comply with the release-detection requirements of this part by December 22 of the year listed in the schedule in 40 CFR 280.40(c) e.

New UST systems were installed on February 10, 1992. The new systems meet the release-detection requirements of this part.

25.2.6.44 Failure to Comply with Release-Detection Requirements, 20 NMAC 5.6, § 600(d); 40 CFR 280.40(d)

Any existing UST system that cannot apply a release-detection method that complies with the requirements of this part must complete the closure procedures for the system by the date indicated in 20 NMAC 5.6, Section 600(c) (Section 25.2.6.43).

The new UST system at WIPP uses a release-detection method that complies with the requirements of this part. Therefore, Section USTR 600(d) does not apply to the WIPP UST systems.

25.2.6.45 Requirements for Tanks of Petroleum UST Systems, 20 NMAC 5.6, § 601(a); 40 CFR 280.41(a)

Tanks must be monitored at least every 30 days for releases using one of the methods listed in 20 NMAC 5.6, Sections 603(d)-(h) (see Sections 25.2.6.54 through 25.2.6.58) except that UST systems that meet the performance standards and the monthly inventory control requirements may use tank tightness testing at least every five years until December 22, 1998, or until 10 years after the tank is installed or upgraded, whichever is later; UST systems that do not meet the performance standards may use monthly

inventory controls and annual tank tightness testing until December 22, 1998, when the tank must be upgraded or permanently closed; and tanks with a capacity of 550 gallons or less may use weekly tank gauging.

The interstitial monitoring system meets the release-detection requirement. Should the interstitial system become inoperable, monthly inventory controls will be used. In this contingency situation, tank tightness testing will be performed every five years.

25.2.6.46 Requirements for Piping of Petroleum UST Systems, 20 NMAC 5.6, § 601(b); 40 CFR 280.41(b)

Underground piping that routinely contains regulated substances must be monitored for releases in a manner that meets the requirements for pressurized or suction piping.

See Section 25.2.6.48, which specifies the requirements for suction piping as used in the UST systems at WIPP.

25.2.6.47 Requirements for Pressurized Piping, 20 NMAC 5.6, § 601(b)(1); 40 CFR 280.41(b)(1)

Underground piping that conveys regulated substances under pressure must be equipped with an automatic line leak detector and have an annual line-tightness test or have monthly monitoring conducted.

This requirement is not applicable since the current UST system operates under suction piping.

25.2.6.48 Requirements for Suction Piping, 20 NMAC 5.6, § 601(b)(2); 40 CFR 280.41(b)(2)

Underground piping that conveys regulated substances under suction must either have a line tightness test conducted at least every 3 years in accordance with 20 NMAC 5.6, Section 604(b), or use a monthly monitoring method conducted in accordance with 20 NMAC 5.6, Section 604(c). No release detection is required for suction piping that is designed and constructed to meet the following standards: the below-grade piping operates at less than atmospheric pressure; the below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released; only one check valve is included in each suction line; the check valve is located



directly below and as close as practical to the suction pump; and a method is provided that allows compliance with this section to be readily determined.

No release detection is required on the piping since the system was designed and constructed to meet each of the above requirements.

25.2.6.49 Requirements for Hazardous Substance UST Systems, 20 NMAC 5.6, § 602; 40 CFR 280.42

A number of release-detection requirements are specified for UST systems that contain hazardous substances.

WIPP has no UST systems that contain hazardous substances. Therefore, these requirements do not apply to this facility.

25.2.6.50 Methods of Release Detection for Tanks, 20 NMAC 5.6, § 603; 40 CFR 280.43

A number of requirements for the acceptable release-detection methods are specified. The release-detection methods described are: inventory control, manual tank gauging, tank-tightness testing, automatic tank gauging, vapor monitoring, ground-water monitoring, interstitial monitoring, and other methods.



WIPP uses interstitial monitoring (See Sections 25.2.6.51 through 25.2.6.59).

25.2.6.51 Inventory Control, 20 NMAC 5.6, § 603(a); 40 CFR 280.43(a)

Product inventory control (or another test of equivalent performance) must be conducted monthly to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner: inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day; the equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch; the regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery; deliveries are made through a drop tube that extends to within 1 foot of the tank bottom; product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6

cubic inches for every five gallons of product withdrawn; and the measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month.

Inventory control is a "contingency" method used only if the interstitial monitoring system fails. There is a WIPP procedure addressing the requirements for using this method if this situation arises. Compliance with the requirement for a drop tube extending to within one foot of the tank bottom has been verified through discussions with the installing organization. The stick reading can measure to the nearest one-eighth of an inch.

25.2.6.52 Manual Tank Gauging, 20 NMAC 5.6, § 603(b); 40 CFR 280.43(b)

Manual tank gauging must meet the following requirements: tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours during which no liquid is added to or removed from the tank; level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period; the equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch; a leak is suspected and subject to the requirements of 20 NMAC 5.7 if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the table provided.



This requirement is not applicable since the UST system uses interstitial monitoring as the primary method of release detection.

25.2.6.53 Tank Tightness Testing, 20 NMAC 5.6, § 603(c); 40 CFR 280.43(c)

Tank tightness testing (or another test of equivalent performance) must be capable of detecting a 0.1-gallon-per-hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

Tank tightness testing is not required for the current UST setup. If the interstitial monitoring method fails, tank tightness testing will be performed every five years as part of the inventory control method.

25.2.6.54 Automatic Tank Gauging, 20 NMAC 5.6, § 603(d); 40 CFR 280.43(d)

Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements: the automatic product level monitor test can detect a 0.2-gallon-per-hour leak rate from any portion of the tank that routinely contains product, and inventory control (or another test of equivalent performance) is conducted in accordance with the requirements of 20 NMAC 5.6, Section 603(a).

This method is not applicable for the current UST system (See Sections 25.2.6.51, 25.2.6.53, and 25.2.6.57).

25.2.6.55 Vapor Monitoring, 20 NMAC 5.6, § 603(e); 40 CFR 280.43(e)

Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following requirements: the materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area; the stored regulated substance (e.g., gasoline), or a tracer compound placed in the tank system, is sufficiently volatile to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the tank; the measurement of vapors by the monitoring device is not rendered inoperative by the ground water, rainfall, soil moisture, or other known interferences so that a release could go undetected for more than 30 days; the level of background contamination in the excavation zone will not interfere with the method used to detect releases from the tank; the vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system; in the UST excavation zone, the site is assessed to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the tank that routinely contains product; and monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

This method is not applicable for the current UST system (See Sections 25.2.6.51, 25.2.6.53, and 25.2.6.57).

25.2.6.56 Ground-Water Monitoring, 20 NMAC 5.6, § 603(f); 40 CFR 280.43(f)

Testing or monitoring for liquids in the ground water must meet the following requirements: the regulated substance stored is immiscible in water and has a specific gravity of less than 1; ground water is never more than 20 feet from the ground surface, and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts, or other permeable materials); the slotted portion of the monitoring well casing must be designed to prevent the migration of natural soils or filter pack into the well and to allow the entry of regulated substances on the water table into the well under both high and low ground-water conditions; monitoring wells shall be sealed from the ground surface to the top of the filter pack; monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible; the continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the ground water in the monitoring wells; within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the first five requirements of this section and to establish the number and positioning of the monitoring wells or devices that will detect releases from any portion of the tank that routinely contains product; and monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.



The requirements of this section are not applicable to WIPP. The regulations require that tanks be monitored for releases using one of several methods. WIPP utilizes interstitial monitoring to meet the requirement (See Section 25.2.6.57).

25.2.6.57 Interstitial Monitoring, 20 NMAC 5.6, § 603(g); 40 CFR 280.43(g)

Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed, and installed to detect a leak from any portion of the tank that routinely contains product and also meets one of the following requirements: for double-walled UST systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains product; for UST systems with a secondary barrier within the

excavation zone, the sampling or testing method used can detect a release between the UST system and the secondary barrier; the secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least 10^{-6} cm/sec for the regulated substance stored) to direct a release to the monitoring point and permit its detection; the barrier is compatible with the regulated substance stored so that a release from the UST system will not cause a deterioration of the barrier, allowing a release to pass through undetected; for cathodically protected tanks, the secondary barrier must be installed so that it does not interfere with the proper operation of the cathodic protection system; the ground water, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than 30 days; the site is assessed to ensure that the secondary barrier is always above the ground water and is not located in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions; monitoring wells are clearly marked and secured to avoid unauthorized access and tampering; and, for tanks with an internally fitted liner, an automated device can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.



The interstitial monitoring system is the primary method of release detection for the UST system. The as-built engineering drawings verify that this method can detect a release through the inner wall in any portion of the tank that routinely contains product.

25.2.6.58 Other Methods of Detecting Releases, 20 NMAC 5.6, § 603(h);
40 CFR 280.43(h)

Any other method may be used if it can detect a 0.2-gallon-per-hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05, and it has been approved by the NMED.

The WIPP does not use any methods of release detection other than the ones described in Sections 25.2.6.51 and 25.2.6.57.

25.2.6.59 Methods of Release Detection of Piping, 20 NMAC 5.6, § 604;
40 CFR 280.44

Each method of release detection for piping used to meet the requirements of 20 NMAC 5.6, Section 601, must be conducted in accordance with specific requirements for automatic line leak detectors, line tightness testing, or applicable tank methods.

Since the system meets the requirements of 20 NMAC 5.6, Section 601(b)(2), line leak detectors are not required.

25.2.6.60 Release Detection Record-keeping, 20 NMAC 5.6, § 605; 40 CFR 280.45

All UST system owners and operators must maintain records in accordance with 20 NMAC 5.5, Section 504, that demonstrate compliance with all applicable requirements in 20 NMAC 5.6. All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for five years, or for another reasonable period of time determined by the NMED, from the date of installation. The results of any sampling, testing, or monitoring must be maintained for at least 1 year, or for any reasonable period of time determined by the NMED, except that the results of tank tightness testing conducted in accordance with 20 NMAC 5.6, Section 603(c), must be retained until the next test is conducted. Written documentation of all calibration, maintenance, and repair of release-detection equipment permanently located on site must be maintained for at least one year after the servicing work has been completed or for any reasonable time period determined by the NMED. Any schedules of required calibration and maintenance provided by the release-detection equipment manufacturer must be retained for 5 years from the date of installation.



The WID purchasing group maintains the manufacturer's equipment and performance claims records. The Records Inventory and Disposition Schedule (RIDS) discusses the maintenance of these records. The RIDS adequately addresses the record retention requirements of this section. According to the manufacturer of the tanks, no calibration or maintenance is required for the current configuration. However, if modifications are made, these functions will need to be performed.

25.2.6.61 Reporting of Suspected Releases, 20 NMAC 5.7, § 700;
40 CFR 280.50

Owners and operators of UST systems must report suspected releases to the NMED within 24 hours and follow the procedures in 20 NMAC 5.7, Section 702, for any of the following conditions:

- *The discovery by owners and operators or others of released regulated substances at the UST site or in the surrounding area*
- *Unusual operating conditions*
- *Monitoring results from a release detection method that indicate that a release may have occurred unless the monitoring device is found to be defective and is immediately repaired and subsequent monitoring does not confirm the initial results or, in the case of inventory control, a second month of data does not confirm the initial result.*



No releases or suspected releases have occurred from the current UST system. A WIPP procedure outlines the required steps above should a suspected release occur.

25.2.6.62 Investigation of Off-Site Impacts, 20 NMAC 5.7, § 701; 40 CFR 280.51

When required by the NMED, owners and operators of UST systems must follow the procedures in 20 NMAC 5.7, Section 702, to determine if the UST system is the source of off-site impacts.

NMED has not requested off-site impact information.

25.2.6.63 Release Investigation and Confirmation Steps, 20 NMAC 5.7, § 702;
40 CFR 280.52

Unless corrective action is initiated in accordance with 20 NMAC 5.12 and 5.13, owners and operators must immediately investigate and confirm all suspected releases of regulated substances that require reporting under 20 NMAC 5.7, Section 700, within 7 days using a system test and/or a site check as described in more detail in this part of the regulations. If a leak in the UST system is found to exist,

the system must be repaired, replaced, or upgraded as needed.

WID procedures indicate the appropriate testing, investigating, reporting, and corrective action to be taken if a release of regulated substances is suspected. To date, there have been no leaks in the current UST system.

25.2.6.64 Reporting and Cleanup of Large Spills and Overfills, 20 NMAC 5.7, § 703(a); 40 CFR 280.53(a)

Owners and operators of UST systems must contain and immediately clean up a spill or overfill and report it to the NMED within 24 hours. Corrective action must be initiated in accordance with 20 NMAC 5.2, Section 204. If a spill or overfill of a petroleum product results in a release to the environment that exceeds 25 gallons [or a hazardous substance spill results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (40 CFR Part 302), corrective action must be initiated in accordance with 20 NMAC 5.12 or 5.13.



There have been no large spills or overfills with the current UST setup. WID procedures address the requirements with respect to petroleum UST systems (i.e., as specified in 20 NMAC 5.12). No hazardous substances are contained in UST systems at WIPP; therefore, USTR Part XIII does not apply.

25.2.6.65 Reporting and Cleanup of Small Spills and Overfills, 20 NMAC 5.7, § 703(b); 40 CFR 280.53(b)

Owners and operators of UST systems must contain and immediately clean up a spill or overfill of a petroleum product that is less than 25 gallons and a spill or overfill of a hazardous substance that is less than the reportable quantity. If cleanup cannot be accomplished within 24 hours, owners and operators must immediately notify the implementing agency.

Small spills and overfills have been properly contained and cleaned up. WID procedures address this requirement with respect to petroleum UST systems. No UST systems are used to contain hazardous substances at WIPP.

25.2.6.66 Temporary Closure, 20 NMAC 5.8, § 800; 40 CFR 280.70

When an UST system is temporarily closed, owners and operators must continue operation and maintenance of

corrosion protection in accordance with 20 NMAC 5.5, Section 501, and any release detection in accordance with 20 NMAC 5.6, 5.7, 5.12, 5.13, and Section 204 of NMAC 5.2 must be complied with if a release is suspected or confirmed. However, release detection is not required as long as the UST system is empty. When an UST system is temporarily closed for three months or more, the vent lines must be left open and functioning, and all other lines, pumps, manways, and ancillary equipment must be capped and secured.

Documentation of the original tank closures was submitted to NMED. No temporary closure took place.

25.2.6.67 Permanent Closure and Changes in Service, 20 NMAC 5.8, § 801(a); 40 CFR 280.71(a)

At least 30 days before beginning either permanent closure or a change in service, owners and operators must notify the NMED unless such action is in response to corrective action.

The closure documentation for the old UST systems was submitted to the NMED within the 30-day requirement for beginning permanent closure.

25.2.6.68 Permanent Closure of a Tank, 20 NMAC 5.8, § 801(b); 40 CFR 280.71(b)

To permanently close a tank, the owners and operators must empty and clean it by removing all liquids and accumulated sludges. The tanks must be either removed from the ground or filled with an inert solid material.

The closure documentation for the old UST system is maintained at the WIPP site. These USTs were emptied, cleaned, and removed from the ground as required.

25.2.6.69 Change in Service, 20 NMAC 5.8, § 801(c); 40 CFR 280.71(c)

Before a change in service in which the use of a UST system is continued for the storage of a nonregulated substance, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with 20 NMAC 5.8, Section 802.

There was no change in service for the old UST system.

25.2.6.70 Assessing the Site, 20 NMAC 5.8, § 802(a); 40 CFR 280.72(a)

Before permanent closure or a change in service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site as required under this subsection.

The UST site was assessed prior to permanent closure of the old UST system. The closure documentation for the old UST systems is maintained at the WIPP site.

25.2.6.71 Corrective Action, 20 NMAC 5.8, § 802(b); 40 CFR 280.72(b)

If contaminated soils, contaminated ground water, or free product as a liquid or vapor are discovered, owners and operators must begin corrective action in accordance with 20 NMAC 5.12 or 5.13.

The WIPP has procedures in place which address the required actions to take if a release or suspected release is identified. See 25.2.6.80 for further information.

25.2.6.72 Applicability to Previously Closed UST Systems, 20 NMAC 5.8, § 803; 40 CFR 280.73

When directed by the NMED, the owner and operator of an UST system permanently closed before December 22, 1988, must assess the excavation zone and close the UST system if releases from the UST may pose a current or potential threat to human health and the environment.

No UST systems at WIPP were permanently closed before December 22, 1988.

25.2.6.73 Closure Records, 20 NMAC 5.8, § 804; 40 CFR 280.74

Owners and operators must maintain records in accordance with 20 NMAC 5.5, Section 504, that demonstrate compliance with closure requirements under this part. The results of the excavation zone assessment required in 20 NMAC 5.8, Section 802 (Section 25.2.6.70), must be maintained for at least three years after completion of permanent closure or change in service.



A tank closure for the old UST systems was submitted to NMED. The records are maintained at WIPP.

25.2.6.74 Applicability of Financial Responsibility, 20 NMAC 5.9, § 900;
40 CFR 280.90

State and federal government entities whose debts and liabilities are the debts and liabilities of a state or the United States are exempt from the requirements of 20 NMAC 5.9, "Financial Responsibility."

As the owner of WIPP, the DOE is exempt from the financial responsibility requirements of this part.

25.2.6.75 Informal Review, 20 NMAC 5.10, § 1000

Any owner or operator of an UST who disagrees with a decision made by NMED personnel pursuant to the USTRs may have the decision reviewed by submitting a written request for informal review to the NMED. The request must be postmarked within 15 days of the date of the decision. The grounds for the petitioner's objection must be specified.



This provision has not been invoked at WIPP.

25.2.6.76 Review by the Secretary on Written Memoranda, 20 NMAC 5.10, § 1001

Within 20 days after the NMED has made a determination under 20 NMAC 5.10, Section 1000, the petitioner may appeal the determination to the NMED Secretary by requesting a review on written memoranda in writing. The grounds for the objection to the determination must be specified. The request must be accompanied by all written information, documentation, and arguments that the petitioner wants the Secretary to consider.

This provision has not been invoked at WIPP.

25.2.6.77 Compliance With Other Regulations, 20 NMAC 5.1, § 108

Compliance with the USTRs does not relieve a person of the obligation to comply with other applicable state and federal regulations.

Compliance with the other applicable federal and state regulations is discussed elsewhere in this document (see Chapters 2 through 24 and 25 through 38, respectively).

25.2.6.78 Construction, 20 NMAC 5.1, § 109

The USTRs shall be liberally construed to effectuate the purpose of the New Mexico Hazardous Waste Act.

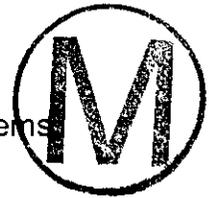
The USTRs are liberally construed to effectuate the purpose of the New Mexico HWA with respect to the sections in this act that pertain to managing UST systems containing hazardous (i.e., regulated) substances.

25.2.6.79 Severability, 20 NMAC 5.1, § 110

If any part, section, or application of the USTRs is held invalid, the remainder (or its application to other situations or persons) shall not be affected.

No action is required.

25.2.6.80 Cleanup Requirements for Releases from Petroleum UST Systems, 20 NMAC 5.12, § 1200(A)



All releases must be cleaned up through soil remediation, ground- and surface-water remediation, and any other appropriate procedures in a manner protective of health, public welfare, and the environment.

No releases have occurred with the current UST system to date.

25.2.6.81 Additional Corrective Action Requirements for Petroleum UST Systems, 20 NMAC 5.12, §§ 1200(B)-1222

Additional corrective action requirements specify types of releases, notification and reporting requirements, types of actions required for remediation and reclamation involving specific releases, and provisions for monitoring.

No releases have occurred during this reporting period. Consequently, these requirements are not applicable to WIPP, and no action is required. WID procedures are in place to address them, however, should corrective actions involving petroleum USTs become necessary in the future

25.2.6.82 Corrective Action for Hazardous Substance UST Systems, 20 NMAC 5.13, §§ 1300-1320

Requirements for corrective actions for hazardous substance UST systems are specified in this part of 20 NMAC Chapter 5.

There are no hazardous substance UST systems at WIPP. Furthermore, it is very unlikely that such systems would be installed at this facility. Therefore, 20 NMAC 5.13 (Sections 1300-1320) do not apply to WIPP.

25.2.6.83 Certification Requirements for Tank Installers and Repairers, 20 NMAC 5.14, §§ 1400-1417

Certification by the NMED is required for all individuals and companies that install or repair UST systems in New Mexico. Certification is based on field experience, training, and a written and an on-site examination.

Documentation of certification of the contractor that installed the new UST systems at WIPP is retained at the WIPP.

25.2.6.84 Priorities, 20 NMAC 5.15, § 1505

NMED priorities for corrective action at sites contaminated by releases of regulated substances from USTs are established in this section.



If a release is detected from the UST systems at WIPP, the action to be taken by the NMED will depend on the extent and nature of the release.

See Section 25.2.6.85 for the requirements for a minimum site assessment.

25.2.6.85 Minimum Site Assessment, 20 NMAC 5.15, § 1508

Owners and operators are strictly liable for the NMED's costs of taking corrective action at a site unless the owner or operator has conducted a minimum site assessment as required by these regulations. To complete such an assessment, the owner and operator must report, investigate, and confirm the release pursuant to 20 NMAC 5.7 and determine the immediate extent, magnitude, and impact of contamination by conducting investigations and reporting to the NMED (20 NMAC 5.12, Sections 1203

through 1206). The owner or operator shall include with the report of the on-site investigation a copy of any insurance policies which are in effect on the date of the report and any policies in existence at the time the release may have occurred. The NMED shall notify the owner or operator of any inadequacies in the report within 30 days of its receipt of the on-site investigation report. The owner or operator shall, within 15 days of such notice of inadequacy, modify the report and resubmit it to the NMED for review and written approval. If the modified report does not meet the requirements of 20 NMAC 5.12, Section 1205, the owner and operator shall be deemed not to have conducted a minimum site assessment.



If a minimum site assessment is deemed necessary, it will be prepared and submitted to meet the requirements specified. The transmittal of insurance policies is not required for a federal facility; therefore, the report would not be accompanied by a copy of such policies.

25.2.6.86 Certification of Contractors, 20 NMAC 5.16

Provisions are contained in 20 NMAC 5.16 for the qualification of firms performing corrective action on sites where payment or reimbursement from the Corrective Action Fund will be sought. It addresses education, experience, examination, continuing education and certification requirements for certified scientists.

This requirement is not applicable to WIPP. The Ground Water Protection Act prohibits expenditures from the Corrective Action Fund for federally owned and operated sites.

25.2.6.87 Corrective Action Fund Payment and Reimbursement, 20 NMAC 5.17

The regulation establishes procedures for the reimbursement or payment from the Corrective Action Fund for corrective actions.

This requirement is not applicable to WIPP. The Ground Water Protection Act prohibits expenditures from the Corrective Action Fund for federally owned and operated sites

26.0 NEW MEXICO SOLID WASTE ACT

26.1 Summary of the Law

With the enactment of the Solid Waste Act (SWA) in 1990, the New Mexico Legislature authorized and directed the establishment of a comprehensive and integrated solid waste management program at both the state and local levels. This legislation directs the planning and regulation of the reduction, storage, collection, transportation, and disposal of solid waste and authorizes the establishment of a system of permits for the construction, operation and, if applicable, closure and postclosure maintenance of solid waste facilities.

The SWA is implemented by the New Mexico Solid Waste Management Regulations (SWMRs). Since the last BECR was prepared, New Mexico's environmental regulations have been recodified under a new numbering system. The SWMRs are now contained within Section 9.1 of Title 20 of the New Mexico Administrative Code (NMAC). These regulations are applicable to WIPP because of infectious wastes generated at the facility. A construction landfill exists at the site but is exempt under § 108. C. of the SWMRs.

26.2 Compliance Status of the Regulatory Requirements

Table 26-1 summarizes the applicable requirements and their compliance status under the SWA. The text provides more detail on the compliance status of each requirement.

TABLE 26-1. New Mexico Solid Waste Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 9.1, § 106 A	Applicability of regulations	UP TO DATE Infectious waste [Section 26.2.1]
20 NMAC 9.1, § 106	General requirements	NOT APPLICABLE Construction Landfill covered by NMAC 9.1, §108.C exemption and infectious waste is disposed off-site [Section 26.2.2]



CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 9.1, § 107	Prohibited acts	<p>UP TO DATE</p> <p>Wastes specified that are excluded from the landfill</p> <p>[Section 26.2.3]</p>
20 NMAC 9.1, § 109	Record-keeping and annual reports	<p>NOT APPLICABLE</p> <p>Construction Landfill covered by NMAC 9.1, § 108.C exemption</p> <p>[Section 26.2.4]</p>
20 NMAC 9.1, § 111	Entry by department; availability of records	<p>UP TO DATE</p> <p>NMED may conduct inspections and review records</p> <p>[Section 26.2.5]</p>
20 NMAC 9.1, §§ 201, 202, 209, 210	Permit application requirements	<p>NOT APPLICABLE</p> <p>Landfill exempt Construction Landfill covered by NMAC 9.1, § 108.C exemption and infectious waste is disposed off-site</p> <p>[Section 26.2.6]</p>
20 NMAC 9.1, § 401, 403	Solid waste facility operation requirements	<p>NOT APPLICABLE</p> <p>Construction Landfill covered by NMAC 9.1, § 108.C exemption</p> <p>[Section 26.2.7]</p>
20 NMAC 9.1, Subpart V	Closure and postclosure requirements	<p>NOT APPLICABLE</p> <p>Landfill exempt</p> <p>[Section 26.2.8]</p>
20 NMAC 9.1, Subpart VI	Operator certification	<p>NOT APPLICABLE</p> <p>Landfill exempt</p> <p>[Section 26.2.9]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 9.1, § 706(C)	Storage and containment requirements for infectious waste	<p style="text-align: center;">UP TO DATE</p> Storage and containment procedures established [Section 26.2.10]
20 NMAC 9.1, § 706(D)	Operational requirements for infectious waste treatment, storage, and disposal facilities	<p style="text-align: center;">ACHIEVED</p> Operational procedures established [Section 26.2.11]
20 NMAC 9.1, § 706(E)	Treatment and disposal of infectious waste	<p style="text-align: center;">ACHIEVED</p> Off-site incineration or steam sterilization used [Section 26.2.12]
20 NMAC 9.1, § 214.B	Requirements for infectious waste transporters	<p style="text-align: center;">NOT APPLICABLE</p> Transport by off-site contractor [Section 26.2.13]
20 NMAC 9.1, § 712	Manifest requirements (to accompany each load of infectious waste)	<p style="text-align: center;">UP TO DATE</p> Manifest provided [Section 26.2.14]

26.2.1 Applicability of Regulations, 20 NMAC 9.1, § 106.A



Subpart 106.A. specifies that all solid waste shall be processed or disposed of in accordance with the regulations.

A construction landfill is located on the WIPP site. The construction landfill is on property owned by DOE and receives nonhazardous material generated on the property from construction activities; no hazardous wastes or materials are allowed. The landfill is thus covered by the exemption found in § 108.C of the SWMRs. Infectious wastes are generated at the facility and meet the applicable requirements of § 706 of the SWMRs.

26.2.2 General Requirements for Processing and Disposal of Solid Waste, 20 NMAC 9.1, § 106

All solid waste must be processed or disposed of by means in accordance with Environmental Improvement Board regulations, including recycling, composting, transformation, or landfilling. Generators of solid waste must provide containers for the solid waste except for construction and demolition debris, yard refuse, and white goods.

The construction landfill receives waste generated by construction activities at the site and is covered by the §108.C. exemption of the regulations. The requirements and rules of operation for the landfill are described in a WIPP procedure that provides guidelines for the operation of the construction landfill in a manner that is protective of human health and the environment and ensures compliance with applicable local, state, and federal laws and regulations. Infectious waste generated at the site is shipped off-site for disposal.

26.2.3 Prohibited Acts, 20 NMAC 9.1, § 107

Subpart 107 specifies prohibited acts including the following: disposal of solid waste in places other than a permitted solid waste facility; disposal of regulated waste such as special waste, hazardous waste, radioactive materials, and petroleum waste; disposal of bulk liquids; and disposal of any solid wastes that are known to be harmful to the environment or hazardous to public health or safety.



The following wastes are excluded from the WIPP landfill:

- Radioactive materials
- Hazardous or other regulated materials, including petroleum products
- Liquids, or containers that contain liquids
- Any recyclable materials as determined by the WID

Construction debris that may be disposed of in the landfill is material generally considered to be non-water soluble and nonhazardous in nature and includes timbers, pipes, excavation soil (if not contaminated with hazardous materials/wastes), concrete, packing materials, sheet metal, glass, and wood.

26.2.4 Record-keeping and Annual Reports, 20 NMAC 9.1, § 109

Operators of solid waste facilities shall make and maintain records during the active life of the facility. Operators shall submit annual reports to the Secretary of the New Mexico

Environment Department (NMED) within 45 days after each anniversary date of any permit or other approval given.

The construction landfill is covered by the § 108.C exemption found in the SWMRs. Although the landfill is exempt from record-keeping requirements, records for the landfill are maintained. Records are found on the WID Construction Debris Disposal Form (WP Form 1633), which requires the name, company, date, description and estimated volume of debris, and signatures of the landfill user and of the landfill custodian. No permit is required (see Section 26.2.6). Therefore, an annual report is not necessary.

26.2.5 Entry by Department, Availability of Records, 20 NMAC 9.1, § 111

The Secretary or any authorized representative, employee or agent of the Department may enter any solid waste facility any reasonable times for the purpose of making an inspection.

The NMED will be provided access to the facility any time it wishes to conduct an inspection.

26.2.6 Permit Application Requirements, 20 NMAC 9.1, §§ 201, 202, 209, 210

Any person seeking a permit to construct, operate, or modify a solid waste facility must file an application.

Chapter 20 of NMAC 9.1, § 108.C provides an exemption for this site, because the regulations do not apply to disposal of construction and demolition debris if the material is generated on the property and the disposal of the solid waste does not violate any provision of the regulations. This landfill is exempted from permit application requirements because it receives construction debris only and because it is located at the same site where the construction debris is generated. Therefore, a permit is not required for this landfill.

26.2.7 Solid Waste Facility Operation, 20 NMAC 9.1, §§ 401, 403

A solid waste facility must be operated so that it does not cause a public nuisance or create a potential hazard to public health or welfare.

The landfill is covered by the § 108.C exemption contained in the SWMRs. In order to ensure compliance with the SWMRs, the construction landfill is operated according to WID procedures that ensure protection of public health and welfare.



26.2.8 Landfill Closure and Postclosure Requirements, 20 NMAC 9.1, Subpart V

Subpart V of 20 NMAC 9.1 specifies a number of landfill closure and postclosure requirements including the installation of a final cover, preparing and implementing a land-use plan, a schedule for completing all closure work, an approved postclosure care and monitoring plan, and annual reports.



This landfill is exempted from these requirements because it receives construction debris only and because it is located at the same site (i.e., WIPP) where the construction debris is generated. Therefore, closure and postclosure requirements are not applicable.

26.2.9 Operator Certification, 20 NMAC 9.1, Subpart VI

Subpart VI of 20 NMAC 9.1 provides requirements for operator certification: certification of operators is required as of January 31, 1994. The amount and type of personnel training and experience are specified for landfills and for other types of facilities.

This landfill is exempted from these requirements because it receives construction debris only and because it is located at the same site (i.e., WIPP) where the construction debris is generated. Therefore, operator certification is not required.

26.2.10 Storage and Containment of Infectious Waste, 20 NMAC 9.1, § 706(C)

Subpart 706(C) specifies infectious waste storage and containment requirements, including waste segregation; specifications for container integrity; container labeling and marking; and storage and containment area access, integrity, and marking.

The following practices are ongoing at WIPP:

- Access to the infectious waste collection and storage area is limited to trained medical personnel, who are vaccinated against hepatitis.
- Special containers are easily identifiable through the use of enclosed red-lined bio-hazard bags.
- All sharps are sealed in containers that are leak-proof, puncture-proof, and tamper-proof. These containers are then enclosed in plastic bio-hazard bags.

- All containment bags are clearly identifiable with red lining as specified by 29 CFR 1910.145(f)(4).
- No infectious waste containers are reused.
- Storage and containment areas are in an enclosed, clearly marked environment.
- No compaction or grinding devices are used to reduce the volume of infectious waste.

26.2.11 Infectious Waste Treatment, Storage, and Disposal Facilities, 20 NMAC 9.1, § 706(D)

Section 706(D) specifies operational requirements for infectious waste treatment, storage, and disposal facilities. Included is a requirement for the preparation and maintenance of a management plan that identifies the type of waste generated or handled; the segregation, packaging, labeling, collection, storage, and transportation procedures to be implemented; the treatment or disposal methods to be used; the transporter and disposal facility to be used; and the person responsible for the management of the infectious waste.

The WID Transportation Manual and the Occupational Health Manual address the operational requirements for infectious waste as specified in this part.

26.2.12 Treatment and Disposal of Infectious Waste, 20 NMAC 9.1, § 706(E)

Several methods are specified for the treatment and disposal of infectious waste. These methods include controlled incineration, heat sterilization, discharge to a sewage treatment system, and landfilling.

The method of treatment and disposal is incineration or steam sterilization at an off-site facility. Transportation is provided by an off-site subcontractor.

26.2.13 Infectious Waste Transporters, 20 NMAC 9.1, § 214(B)

Requirements for the transportation of infectious waste are specified in this section.



WIPP does not transport infectious waste. Transportation is accomplished by an off-site subcontractor.

26.2.14 Manifest Requirements, 20 NMAC 9.1, § 712

A manifest must accompany each shipment of infectious waste. Each manifest must include information on the waste generator, transporter, waste treatment facility, the type of waste, and any special instructions.

Medical waste shipments are accompanied by a shipment manifest that includes the required information.



27.0 NEW MEXICO ENVIRONMENTAL IMPROVEMENT ACT

27.1 Summary of the Law

The enactment of the New Mexico Environmental Improvement Act (EIA; §§ 74-1-1 through 74-1-10 NMSA 1978) created the Environmental Improvement Board (EIB) to promulgate regulations and standards to protect health and safety and the environment. The EIA also created the EID, now known as the NMED. The act directs the NMED to assume responsibility for environmental management and protection to demonstrate that environmental policy provides optimal health, safety, social, and economic well-being for the people of New Mexico. In carrying out its responsibilities, the NMED is directed to maintain, develop, and enforce regulations and standards in areas including water supply, liquid waste, air quality, radiation control, health and safety, hazardous wastes, and underground storage tanks. As discussed in Chapters 25 through 31 of this report, many of these regulations and standards are applicable to WIPP. These include the Hazardous Waste Act and the implementing hazardous waste management and USTRs (Chapter 25), the Solid Waste Act (Chapter 26), the Ground Water Protection Act (Chapter 28), the Air Quality Control Act (Chapter 29), the Water Quality Act (Chapter 30), and Water Supply Regulations (Chapter 31).

27.2 Compliance Status of the Law

The DOE will continue to comply with all applicable New Mexico environmental regulations and standards as demonstrated in the following chapters.



28.0 NEW MEXICO GROUND WATER PROTECTION ACT

28.1 Summary of the Law

The Ground Water Protection Act (GWPA; § 74-6B NMSA 1978) was enacted in 1990 in response to the threat facing public health and safety and the environment from pollution of ground-water resources from leaking USTs. The purpose of this act includes the provision of substantive direction that allows the State of New Mexico to take corrective action at sites contaminated by leakage from USTs.

The GWPA is implemented by the regulations of the NMED, NMED-92-1, *Ground Water Protection Act Corrective Action Fund Regulations*. These regulations provide guidelines for the payment or reimbursal of the costs of a minimum site assessment and corrective action and specify the requirements for owners or operators of leaking USTs.

The GWPA is also implemented by the GWPA regulations, which are provided in the New Mexico USTR as Part XV. These regulations are discussed in Chapter 25. WIPP has installed two new UST systems that meet the new standards and requirements for USTs. Procedures are in place for routine operations regarding the tanks and for dealing with any spills or releases from the UST systems. Two sections in Chapter 25 (25.2.6.84 and 25.2.6.85) deal specifically with the applicable New Mexico GWPA regulations.

28.2 Compliance Status of the Regulatory Requirement

Table 28-1 summarizes the general regulatory requirement and its compliance status under the implementing regulation of the New Mexico Ground Water Protection Act. See also Sections 25.2.6.84 and 25.2.6.85 for the applicable portions of the Ground Water Protection Act Regulations.

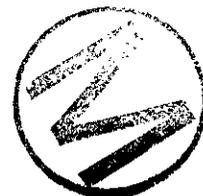


TABLE 28-1. New Mexico Ground Water Protection Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
New Mexico Environment Department 92-1, <i>Ground Water Protection Act Corrective Action Fund Regulations</i>		
NMED 92-1	Reimbursement of costs from corrective actions for spills/releases from USTs	<p style="text-align: center;">NOT APPLICABLE</p> <p>No spills or leaks from new UST systems</p> <p>[Section 28.2.1]</p>

28.2.1 Corrective Action for Spills/Releases From USTs, NMED-92-1

The owners or operators of USTs that release a regulated substance must take appropriate corrective action. The NMED will reimburse certain costs associated with performing a minimum site assessment and other corrective actions taken for spills or releases from USTs.

The WIPP will take appropriate corrective actions if a regulated substance is released from a UST.



29.0 NEW MEXICO AIR QUALITY CONTROL ACT

29.1 Summary of the Law

The New Mexico Air Quality Control Act (§§ 74-2-1 through 74-2-22 NMSA 1978), based primarily on the Clean Air Act (CAA; see Chapter 6), is not generally more stringent than the CAA except in areas of air pollution prevention that have not been preempted by the CAA and are not precluded by the limiting provisions of the Air Quality Control Act. The Air Quality Control Act was formerly implemented by the Air Quality Control Regulations (AQCRs) and is now implemented by Chapter 2 of Title 20 of the NMAC.

Under 40 CFR Part 70, operating permits are required for both area and major sources. The NMED will implement the federal requirements under 20 NMAC 2.70 and 2.71 which describe the fee structure for the operating permit program. At this time, emission limits for area sources have not been established, and major source emission thresholds are being used to determine which facilities require operating permits under 20 NMAC 2.70.

29.2 Compliance Status of the Regulatory Requirements

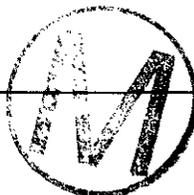
Table 29-1 summarizes the compliance status of the requirements in Chapter 2 of Title 20 of the NMAC that are potentially applicable to WIPP. The text provides more detail on the compliance status of each requirement. It should be noted that 20 NMAC 2.70 and 2.71 will deal with the state operating permit program and that the EPA has granted interim approval for the NMED's operating permit program. Therefore, a brief discussion of WIPP's compliance status with respect to 20 NMAC 2.70 is now included in this chapter.

TABLE 29-1. Air Quality Control Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENTS	COMPLIANCE STATUS
New Mexico Air Quality Control Regulations (AQCRs)		
	20 NMAC 2.60	<p style="text-align: center;">NOT APPLICABLE</p> <p>Open-burning permit canceled in 1995 (see also Section 29.3.1)</p> <p>[Section 29.2.1]</p>



CITATION	REQUIREMENTS	COMPLIANCE STATUS
20 NMAC 2.61	Regulations to control smoke and visible emissions	<p>ACHIEVED</p> <p>Opacity testing found to be less than the 20 percent opacity limit</p> <p>[Section 29.2.2]</p>
20 NMAC 2.18	Oil-burning equipment--particulate matter	<p>NOT APPLICABLE</p> <p>Oil-burning equipment below rated heat capacity of regulated equipment</p> <p>[Section 29.2.3]</p>
20 NMAC 2.34	Oil-burning equipment--nitrogen dioxide	<p>NOT APPLICABLE</p> <p>Oil-burning equipment below rated heat capacity of regulated equipment</p> <p>[Section 29.2.4]</p>
20 NMAC 2.75	Permit fees	<p>UP TO DATE</p> <p>One-time fee sent with permit application in 1993</p> <p>[Section 29.2.5]</p>
20 NMAC 2.70 40 CFR 70.5(c)(8)	Compliance plan for 40 CFR Part 70 sources as part of operating permit application	<p>NOT APPLICABLE</p> <p>Will be required if operating permit application is requested</p> <p>[Section 29.2.6]</p>
20 NMAC 2.70 40 CFR 70.5(c)(8)(iv) and 70.6(a)(3)(iii)(A)	Semiannual operating permit reports and progress reports on compliance plan	<p>NOT APPLICABLE</p> <p>Will be required if operating permit is needed</p> <p>[Section 29.2.7]</p>
20 NMAC 2.72	Permits	<p>ACHIEVED</p> <p>Application for permit for generators filed July 13, 1993; permit issued on December 7, 1993 (see Section 29.3.2)</p> <p>[Section 29.2.8]</p>



CITATION	REQUIREMENTS	COMPLIANCE STATUS
20 NMAC 2.73	Annual emission inventory from permitted facility or if more than 1 ton of lead or 10 tons of particulates, SO ₂ , NO ₂ , CO, or VOCs are emitted from the facility in any calendar year	<p style="text-align: center;">UP TO DATE</p> No emissions inventory requested by the NMED [Section 29.2.9]
20 NMAC 2.80	Stack height requirements	<p style="text-align: center;">ACHIEVED</p> Stack height approved by state [Section 29.2.10]
20 NMAC 2.78	National Emission Standards for Hazardous Air Pollutants (NESHAPs) - radionuclides (40 CFR Part 61, Subpart H) NESHAPs - other HAPs (40 CFR Part 61, Subpart A)	<p style="text-align: center;">NOT APPLICABLE</p> Radionuclides (Subpart H): not present; EPA-regulated; see Chapter 6 Other HAPs (Subpart A): WID HAPs inventory: HAP emissions not present or significantly below regulatory limits [Section 29.2.11]
20 NMAC 2.7	Excess emissions during malfunction, startup, shutdown, or scheduled maintenance	<p style="text-align: center;">UP TO DATE</p> No problems detected during this reporting period [Section 29.2.12]
20 NMAC 2.8	Controlling emissions leaving New Mexico	<p style="text-align: center;">ACHIEVED</p> Emissions do not exceed NAAQS [Section 29.2.13]
20 NMAC 2.1	Sampling equipment	<p style="text-align: center;">UP TO DATE</p> Addressed in permit for diesel generators [Section 29.2.14]

29.2.1 Regulations to Control Open Burning, 20 NMAC 2.60

Open burning is allowed for the instruction and training of fire-fighting and -rescue personnel when a permit is obtained from the NMED.



The open-burning permit was canceled in October 1995 and will not be renewed. Firefighter live-fire training is no longer conducted at WIPP.

29.2.2 Regulations to Control Smoke and Visible Emissions, 20 NMAC 2.61

No person owning or operating stationary combustion equipment shall permit, cause, or allow visible emissions from stationary combustion equipment to equal or exceed an opacity of 20 percent. No emissions of smoke with an opacity greater than 30 percent shall be released into the open air for any period greater than 10 seconds from any diesel-powered vehicle operating below 8,000 feet mean sea level. Opacity emissions shall be determined using Method 9 described in Appendix A of 40 CFR Part 60 (minimum time period for taking opacity readings: 10 minutes).



Opacity measurements are not required for the backup diesel generators because no opacity measurements are specifically required under the permit (see Section 29.3.2). However, opacity testing has been performed on the generators and was found to be less than the 20-percent opacity limit.

Other diesel equipment is present on site that does not require a permit under 20 NMAC 2.72 because this equipment represents such a small source of emissions. The inventory on the equipment was submitted to the NMED with the permit application for the backup generators. The emissions from this diesel equipment fall well below the permit thresholds; however, the equipment is scheduled for opacity testing. Method 9 will be used with at least 10-minute opacity readings.

29.2.3 Oil-Burning Equipment--Particulate Matter, 20 NMAC 2.18

Standards have been established for particulate-matter emissions from oil-burning equipment with a rated heat capacity exceeding 250 million British thermal units (BTUs) per hour.

No oil-burning equipment at WIPP exceeds this rated heat capacity. The rated heat capacity of each of the generators is only 139.6 million BTUs per hour.

29.2.4 Oil-Burning Equipment-- Nitrogen Dioxide, 20 NMAC 2.34

Standards have been established for nitrogen dioxide emissions from oil-burning equipment with a rated heat capacity of 10^{12} BTUs per hour.

No oil-burning equipment at WIPP exceeds this rated heat capacity. The rated heat capacity of each of the two generators is only 139.6 million BTUs per hour (i.e., 1.4×10^8 BTUs/hour).

29.2.5 Permit Fees, 20 NMAC 2.75

Permit fees must be paid with the submittal of a permit application.

The only permits required at WIPP under 20 NMAC 2 are for open burning and for the generators. (See also Sections 29.2.4, 29.3.1, and 29.3.2.) The permit fee for the diesel generators (\$10,100) was submitted with the permit application in July 1993.

29.2.6 Compliance Plan, 20 NMAC 2.70

Submittal of a compliance plan is required as part of the operating permit application for 40 CFR Part 70 sources.

Based on the 1994 WIPP Inventory, HAP and other pollutant emissions from the facility are below current operating permit threshold levels; therefore, an operating permit is not required for WIPP. If a determination is made at a later date that an operating permit application is required for the facility, a compliance plan will be part of the application as specified.

29.2.7 Semiannual Operating Permit Reports and Progress Reports on the Compliance Plan, 20 NMAC 2.70

Semiannual operating permit reports and progress reports on the compliance plan will be filed, if applicable.

Based on the 1993 WIPP HAPs Inventory, HAP emissions from the facility are below current operating permit threshold levels, and an operating permit is not required for WIPP. The WIPP will be required to submit these reports if and when WIPP is considered to be subject to the operating permit program.

29.2.8 Permits, 20 NMAC 2.72

A permit is required for facilities that emit criteria pollutants or toxic air pollutants at rates that meet or exceed the threshold levels specified in 20 NMAC 2.72.



Preliminary calculations for the backup diesel generators indicated that the emissions anticipated from the generators would exceed the hourly thresholds for nitrogen dioxide that trigger the need for submitting a permit application under 20 NMAC 2.72. (Subsequent calculations have supported the need for a permit.) Therefore, the WIPP

submitted a permit application to the NMED for the diesel generators, which was received by the state on July 13, 1993. The WIPP received notification from the state on August 24, 1993, that modeling information was needed to complete the application. The information was submitted within the 10-day window specified by the state. The state has since concurred that the permit application is complete. The permit was issued by the NMED on December 7, 1993. (See Section 29.3.)

29.2.9 Annual Emission Inventory, 20 NMAC 2.73

An annual emission inventory is required annually for any stationary source permitted under 20 NMAC 2.72 (except for those sources that are permitted only for TAP emissions). Other sources that are required to file an annual emission inventory are those that must file a Notice of Intent under 20 NMAC 2.73 or that emit in excess of 1 ton of lead or 10 tons of total suspended particulates, particulate matter with an aerodynamic diameter of 10 μ or less (i.e., PM_{10}), sulfur dioxide, nitrogen dioxide, carbon monoxide, or volatile organic compounds (VOCs) in any calendar year including and subsequent to 1990.



Emission testing for the diesel generators was performed in February 1994 and reported to the NMED as part of the original permit package. There have been no further requirements or NMED requests for emission testing to date.

29.2.10 Stack Height Requirements, 20 NMAC 2.80

Stack height requirements must be met.

WIPP meets the requirement for stack height. The state has approved WIPP's calculations and modeling.

29.2.11 National Emission Standards for Hazardous Air Pollutants (NESHAPs), 20 NMAC 2.78

NESHAPs requirements must be met.

The state is authorized to administer the NESHAPs program except for radionuclide emissions. Therefore, the EPA regulates these emissions under Subpart H of 40 CFR Part 61 (see Chapter 6). The state is currently performing an inventory of HAP emissions within New Mexico, particularly of the 181 HAPs that were added to the list in the Clean Air Act Amendments of 1990. After the inventory has been completed, the state will begin the process of promulgating regulations to control these emissions. WIPP will be required to comply with these new regulations for any HAPs emitted from a major or an area source.

In 1995, the WIPP completed an emission inventory for chemicals used during 1994 (WID, 1995). The inventory included calculations of the maximal potential hourly and annual emissions of criteria pollutants, the chemicals regulated under the NESHAP program, and the New Mexico TAPs specified under 20 NMAC 2.78 and Part III of 20 NMAC 2.72. Based on the HAPs inventory calculations, WIPP operations are significantly below the 10-ton per year (tpy) emission limit for any individual HAP or the 25-tpy limit for combined HAPs emissions established in Subpart A of NESHAPs. Thus, the WIPP does not have any NESHAP Subpart A permitting or reporting requirement at this time.

29.2.12 Excess Emissions During Malfunction, Startup, Shutdown, or Scheduled Maintenance, 20 NMAC 2.7

Excess emissions during malfunction, startup, shutdown, or scheduled maintenance must be minimized.

Special attention is paid during startup, shutdown, scheduled maintenance, and any malfunction of the generators to ensure that emissions are minimized. The release of excess emissions is unlikely, however, because a redundant system is in place, and the second backup generator will be used to reduce potential emissions. If excess emissions occur, reporting will be performed as required by 20 NMAC 2.7. No problems have been detected during this reporting period.

29.2.13 Controlling Emissions Leaving New Mexico, 20 NMAC 2.8

Emissions leaving New Mexico must not exceed the standards and regulations of the receiving state.

Emissions calculations and modeling that have been completed reveal that the emissions do not exceed the NAAQs.

29.2.14 Sampling Equipment, 20 NMAC 2.1

Sampling equipment on stacks or other openings through which emissions are released to the atmosphere will be used as required.



The sampling equipment required for measuring emissions from the WIPP backup diesel generators was specified by the state in § 3(b) of the permit. Sampling ports, safe sampling platforms, safe access to sampling platforms, and utilities for sampling and testing equipment have been provided. A 0.25-inch stainless steel sampling line adjacent to the sampling ports, which extends down to within 4 feet above ground level, has been installed as required by the permit. This sampling line provides access for future audits by the NMED (see Section 29.3.2).

29.3 Compliance Status of Permit Conditions

Only one permit issued under the NMAC is now in place at WIPP: the open-burning permit has been canceled. The permit for the backup diesel generators, which was issued to WIPP on December 7, 1993, is still in place. The permit conditions and the compliance status of each are summarized in Table 29-2. More detailed information is provided in the text.

TABLE 29-2. Air Quality Permits at WIPP - Summary of Regulatory Compliance Status

CONDITION	REQUIREMENTS	COMPLIANCE STATUS
Open-Burning Permit		
Conditions	Application and permit	NOT APPLICABLE Permit canceled [Section 29.3.1]
Air Quality Permit No. 310-M-2 for the Two Backup Diesel Generators		
Condition 1	Construction and operation	UP TO DATE Equipment installed and operated [Section 29.3.2.1]
Condition 2	Emission rates (NO ₂ , CO ₂ , SO ₂ , and particulate matter)	UP TO DATE Compliance tests [Section 29.3.2.2]
Conditions 3-4	Compliance test methods	UP TO DATE Completion of compliance tests and submittal of the final <i>Emission Sampling Report</i> to the NMED in March 1994 [Section 29.3.2.3]
Condition 5	Revisions and modifications	NOT APPLICABLE Revised permit application and NMED inspections [Section 29.3.2.4]

CONDITION	REQUIREMENTS	COMPLIANCE STATUS
Condition 6	Notification to subsequent owners	NOT APPLICABLE Notification to new owner/operator and to NMED [Section 29.3.2.5]
Condition 7	Right to access property and review records	UP TO DATE NMED request to inspect and/or to receive records [Section 29.3.2.6]
Condition 8	Posting of the permit	ACHIEVED Posting of permit [Section 29.3.2.7]
Condition 9	Record-keeping	UP TO DATE Records retained; WID procedure [Section 29.3.2.8]
Condition 10	Reporting	UP TO DATE Reports and notifications to NMED [Section 29.3.2.9]
Additional condition, p. 8	Permit cancellations	NOT APPLICABLE Submittal of new permit application [Section 29.3.2.10]
Additional condition, p. 8	Notice of intent and emission inventory	UP TO DATE See Section 29.2.7 [Section 29.3.2.11]

29.3.1 Conditions of Open-Burning Permit, Application and Permit

Open burning is allowed monthly for up to 1 year. Up to 500 gallons of propane, diesel, gasoline, wood products, and standard automotive vehicles are to be burned; plywood and tires are excluded. All burning must take place during



the time period of 3 hours after sunrise to 1 hour before sunset. The direction of the wind at the burning site must be such that the smoke is generally carried away from public roads and areas of human habitation. All burning must cease whenever an air stagnation advisory is issued for the area by the U.S. Weather Service. All material to be burned must be as dry as possible, and the amount of dirt on the material must be minimized. No natural or synthetic rubber or petroleum products shall be burned. All applicable restrictions, codes, and ordinances shall be met.

The open-burning permit was canceled in October 1995 and will not be renewed. Firefighter live-fire training is no longer performed at WIPP; therefore the permit is no longer needed. This section will not appear in subsequent revisions of the BECR.

29.3.2 Permit for Backup Diesel Generators, Permit No. 310-M-2

The conditions specified by Air Quality Permit No. 310-M-2 for the backup diesel generators at WIPP are described in this section.

29.3.2.1 Construction and Operation, Condition 1

The plant (i.e., the diesel generators) shall be constructed and operated as described in the permit application dated June 18, 1993, and with the air quality monitoring information that was submitted on September 22, 1993, unless modified by the conditions of this permit. The facility consists of two Caterpillar diesel generators with a rated capacity of 1500 horsepower. Only one Caterpillar diesel engine may operate at one time, and the sum of hours of operation for both engines shall not exceed 480 hours per year. Changes in plans, specifications, and other representations provided in the application documents shall not be made if they change the method of emissions control or in the character of the emissions or if they would increase the discharge of emissions. Any such proposed change must be submitted as a proposal revision or modification of the permit in accordance with the condition described in Section 29.3.2.4.



The equipment described in the permit application is being operated in accordance with the application and with the terms and conditions of the permit.

29.3.2.2 Emission Rates, Condition 2

The NMED has specified maximal emission rates for nitrogen oxide, carbon monoxide, sulfur dioxide, and particulate matter (see Table 29-3). The rates specified are in terms of pounds per hour and tons per year from each engine and from the facility (i.e., both engines).

The amounts of emissions were based upon calculations for the equipment installed. The equipment is operated and maintained in accordance with the manufacturer's specification.

TABLE 29-3. Allowable Emission Rates from the Diesel Generator Engines at WIPP

Pollutant	Allowable Emission Rates			
	Allowable Emission Rates from Each Diesel Engine		Total Allowable Rates from Both Diesel Engines	
	Pounds per Hour	Tons per Year	Pounds per Hour	Tons per Year
Nitrogen dioxide	46.3	5.6	46.3	11.2
Carbon monoxide	10.1	1.2	10.1	2.4
Sulfur dioxide	3.1	0.4	3.1	0.8
Particulate matter	3.3	0.4	3.3	0.8

29.3.2.3 Compliance Test Methods, Conditions 3-4

Initial compliance tests for all four pollutants described for Condition 2 (Section 29.3.2) are required for one of the diesel generators. Compliance tests may be reimposed if noncompliance is indicated or if the tests were technically unsatisfactory. The tests shall be conducted within 60 days after achieving the maximal production rate at which the generator will normally be operated. If the maximal production rate does not occur within 120 days of source startup, the tests must be conducted no later than 180 days after the initial startup of the source.

The tests shall be conducted in accordance with EPA Reference Methods 1-4, Method 5 (particulate matter), Method 6 (sulfur dioxide), Method 7(A-E) (nitrogen dioxide), and Method 10 (carbon monoxide) contained in 40 CFR Part 60, Appendix A, and with the requirements of



40 CFR 60.8(f). The oxygen in the stack gas shall be determined by using EPA Method 3.

The NMED shall be notified of the date and time of compliance testing at least 30 days before the planned test date so that the NMED may have an observer present during testing. The permittee will arrange a pretest meeting with the NMED at least 30 days prior to the anticipated test date and shall observe the pre-testing and testing procedures described in detail under this condition. These requirements include submitting a written test protocol to the NMED at least 1 week prior to the testing date for approval and providing appropriate equipment and access to the NMED observer for sampling. Several parameters (i.e., engine revolutions per minute, exhaust static pressure, exhaust manifold temperature, fuel consumption, and horsepower as indicated by kilowatt output) shall be monitored and recorded during the test and the results included with the test report. Flow straighteners shall be installed where necessary to prevent cyclonic flow in the stack. The tests shall be conducted at 90 percent of full load or greater and at additional loads as specified by NMED personnel at the test or pre-test meeting.



Two copies of the compliance test report must be submitted to the NMED within 30 days after completion of testing.

Compliance with these conditions was achieved and reported in the compliance test report, *Emission Sampling Report, Backup Diesel Generator*, that was submitted to the NMED Air Quality Bureau on March 6, 1994, and was approved on May 12, 1994.

29.3.2.4 Revisions and Modifications, Condition 5

Any future changes shall be preceded by the submittal of a permit application to the NMED in accordance with 20 NMAC 2.72. No modifications shall be made prior to the issuance of the revised permit.

There have been no revisions or modification to the equipment or its operation.

29.3.2.5 Notification to Subsequent Owners, Condition 6

If there is any change in control or ownership of the diesel generators, the permittee shall notify the succeeding owner

of the permit and its conditions and shall notify the NMED of the change in ownership within 15 days of the change.

There has been no change in ownership or control of the permitted equipment.

29.3.2.6 Right to Access Property and Review Records, Condition 7

The NMED will be given the right to enter the facility at all reasonable times to verify the terms and conditions of the permit. Upon receipt of a verbal or written request from any authorized representative of the NMED, the company will produce any records or information necessary to demonstrate that the terms and conditions of the permit are being met.



Upon request, NMED representatives will be allowed non-restricted entry to the site and will be provided with appropriate records and information. No NMED personnel requested entry to the site to verify the terms and conditions of the permit for the diesel generators within this reporting period.

29.3.2.7 Posting of the Permit, Condition 8

A copy of the permit will be posted and in view of the plant site at all times. It will be made available to NMED personnel for inspection upon request.

A copy of the permit is posted in the office of the Facility Shift Manager.

29.3.2.8 Record-keeping, Condition 9

DOE will maintain an operational log in which the date, time, and hours of operation will be recorded for each engine. The records will be maintained on site for at least 2 years from the time of recording and will be made available to NMED personnel upon request.

Completion and maintenance of operational logs are carried out as prescribed by WID procedure. Central Monitoring Room logs contain information about the diesel generators. The run times for the generators are recorded automatically by the Central Monitoring System. The records are maintained on site for at least 2 years.

29.3.2.9 Reporting, Condition 10

The permittee will notify the NMED in writing or provide the NMED with the following information:

- *The anticipated date of the initial startup of each new or modified emission source at least 30 days prior to that date*
- *The actual date of the initial startup of each new or modified source within 15 days after the startup date*
- *The date when each new or modified source reaches the maximal production rate at which it will operate within 15 days after that date*
- *Any change of operators within 15 days after the change*
- *Any necessary update or correction no more than 60 days after the operator knows or should have known of the condition necessitating the update or correction of the permit.*



Notice of the initial startup of each source was submitted to the Air Quality Bureau in December 1993. Subsequent reports will be filed as needed.

29.3.2.10 Permit Cancellations (Permit, p. 8)

The NMED will cancel the permit automatically if any source ceases operation for at least 5 years or if the construction or modification of a source is not initiated within 2 years from the date of issuance or if work on construction or modification is suspended for a total of 1 year.

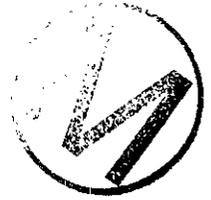
If the generator ceases operation for at least 5 years and is to be reactivated, a new permit application will be filed. The generators will not be operated until the permit has been issued.

29.3.2.11 Notice of Intent and Emission Inventory (Permit, p. 8)

Requirements related to Notice of Intent and emission inventory are contained in 20 NMAC 2.73.

See Section 29.2.7, which pertains to compliance with 20 NMAC 2.73.

30.0 NEW MEXICO WATER QUALITY ACT



30.1 Summary of the Law

With the enactment of the New Mexico Water Quality Act (WQA; 74-6-1 through 74-6-17 NMSA 1978), a mechanism was provided at the state level to establish water-quality standards that are consistent with the CWA. The state act created the Water Quality Control Commission (WQCC) and directed the WQCC, as the state's water-pollution-control agency for all purposes of the CWA, to adopt a comprehensive water quality management program and water quality standards. The *New Mexico Water Quality Control Commission Regulations* include water-quality standards for ground and surface water and regulations regarding discharges to surface-water courses and ground water.

Pursuant to the regulations of § 3-109, *Director Approval, Disapproval, Modification, or Termination of Proposed Discharge Plans*, the Discharge Plan submitted by the DOE for the discharge of 23,000 gallons per day (gpd) of sewage effluent and up to 1,500 gpd of nonhazardous brine water from the WIPP was approved in 1992. On August 28, 1995, the WID submitted a request to the NMED requesting a minor amendment to DP-831 increasing the amount of nonhazardous brine for disposal to 2,000 gpd. On October 4, 1995, the NMED approved the amendment to the Discharge Plan. The increase was required, not because additional brine was being generated but because on days the observation wells were pumped, greater than 1,500 gallons were produced, necessitating that the brine be disposed of over two days' time.

The WQA was formerly implemented by WQCC 82-1. It is now implemented by Chapter 6 of Title 20 of the NMAC.

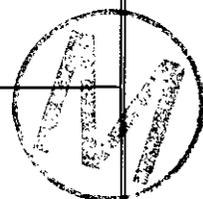
Title 20 NMAC 7.4 defines public water supply systems and public wastewater facilities. Under these definitions, and because of the size of the population served, the WIPP is classified as a Class 1 public wastewater facility and a Class 2 public water supply system. Since these systems require certified operators, the WIPP facility employs operators and supervisors certified to the requirements of Subpart II of this Part.

30.2 Compliance Status of the Regulatory Requirements

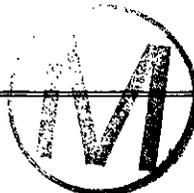
Table 30-1 summarizes the regulatory requirements and their compliance status under the New Mexico Water Quality Act. Following the table, the text gives more detail on the compliance status for each requirement.

**TABLE 30-1. New Mexico Water Quality Act -
Summary of Regulatory Compliance Status**

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 6.2, <i>New Mexico Water Quality Control Commission Regulations</i>		
20 NMAC 6.2, § 1-201	NOI to discharge	<p style="text-align: center;">ACHIEVED</p> NOI filed as required [Section 30.2.1]
20 NMAC 6.2, § 1-202	Filing of plans and specifications--sewerage systems	<p style="text-align: center;">ACHIEVED</p> Submitted to NMED [Section 30.2.2]
20 NMAC 6.2, § 1-203	Notification of discharge--removal: requirements for notification, corrective action, and reporting in the event of an unauthorized discharge of oil or other water contaminant that could have adverse effects	<p style="text-align: center;">UP TO DATE</p> <i>RCRA Contingency Plan</i> [Section 30.2.3]
20 NMAC 6.2, § 2-101	General discharge limitations and sampling/analytical requirements	<p style="text-align: center;">UP TO DATE</p> Specified in NMED Discharge Plan approval [Section 30.2.4]
20 NMAC 6.2, § 3-104	Authorization only of effluent(s)/leachate(s) as specified in Discharge Plan	<p style="text-align: center;">UP TO DATE</p> Authorization granted [Section 30.2.5]



CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 6.2, § 3-106	Application for Discharge Plan approval	<p>ACHIEVED</p> <p>Application sent to NMED</p> <p>[Section 30.2.6]</p>
20 NMAC 6.2, § 3-107	Monitoring, reporting, and other requirements	<p>UP TO DATE</p> <p>Monitoring reports filed</p> <p>[Section 30.2.7]</p>
20 NMAC 6.2, § 3-108	Public notice and participation	<p>ACHIEVED</p> <p>Public notice published</p> <p>[Section 30.2.8]</p>
20 NMAC 6.2, § 3-109	Director approval, disapproval, modification, or termination of proposed Discharge Plans	<p>UP TO DATE</p> <p>Discharge plan to be revised if necessary</p> <p>[Section 30.2.9]</p>
20 NMAC 6.1	Water quality standards for interstate and intrastate streams in New Mexico	<p>NOT APPLICABLE</p> <p>No streams affected by WIPP</p> <p>[Section 30.2.10]</p>
20 NMAC 7.4	Utility Operator Certification	<p>UP TO DATE</p> <p>Operators and supervisors undergo recertification and training every three years</p> <p>[Section 30.2.11]</p>



30.2.1 Notice of Intent to Discharge, 20 NMAC 6.2, § 1-201

Any party intending to make a new water contaminant discharge or to alter the character or location of an existing water contaminant discharge, unless the discharge is being made or will be made into a community sewer system or subject to the Liquid Waste Disposal Regulations adopted by the New Mexico Environmental Improvement Board, shall file a notice with the Water Pollution Control Bureau of the New Mexico Environment Department (NMED).

NOIs to discharge have been filed as required. The latest filing occurred on August 28, 1995.

30.2.2 Filing of Plans and Specifications - Sewerage Systems, 20 NMAC 6.2, § 1-202

Any party proposing to construct a sewerage system or proposing to modify any sewerage system in a manner that will change the quantity or quality of the discharge from the system substantially must file plans and specifications for the construction or modification with the Water Pollution Control Bureau of the NMED.



Sewerage system plans and specifications were included in the transmittal of the Discharge Plan application to the NMED.

30.2.3 Notification of Discharge - Removal, 20 NMAC 6.2, § 1-203

Requirements for reporting, notifications, and corrective action with respect to any discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property are specified.

In the event of an unauthorized discharge of oil or other potentially harmful water contaminants, notification and reporting will be performed and corrective action taken according to WIP procedures and the *RCRA Contingency Plan*. The discharge will be reported to the Chief of the Groundwater Bureau of the NMED within 24 hours. A written report will be submitted within seven days, as required under this regulation.

30.2.4 General Requirements, 20 NMAC 6.2, § 2-101

General discharge limitations and sampling/analytical requirements for the discharge of effluents to a watercourse must be met.

These limitations and requirements are specified in the NMED's Discharge Plan Approval DP-831. The discharge limitations and the sampling/analytical requirements are met. Reports are submitted quarterly to the NMED.

30.2.5 Discharge Plan Required, 20 NMAC 6.2, § 3-104

No party shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless the discharge meets the requirements of a discharge plan approved by the Director. When a plan has been approved, discharges must be consistent with the terms and conditions of the plan.

The discharge of 2,000 gpd of nonhazardous brine water at WIPP is authorized by NMED Discharge Plan approval, DP-831.

30.2.6 Application for Discharge Plan Approval, 20 NMAC 6.2, § 3-106

Any party who intends to begin discharging any listed water contaminants or any toxic pollutant so that they may move directly or indirectly into ground water must submit a Discharge Plan as required.

A Discharge Plan application was submitted to the NMED on November 14, 1991. The NMED approved the plan on January 16, 1992; it will expire on January 16, 1997.

30.2.7 Monitoring, Reporting, and other Requirements, 20 NMAC 6.2, § 3-107

Requirements include notification of the NMED of any facility expansion, production increase, or process modifications that would result in the discharge of water contaminants.

Monitoring reports are filed quarterly according to the following schedule: January 16, April 16, July 16, and October 16.

30.2.8 Public Notice and Participation, 20 NMAC 6.2, § 3-108

Within 30 days of filing of a proposed discharge plan, or modification or renewal of an approved discharge plan, the



NMED must ensure that the public and affected governmental agencies are notified.

The NMED made public notice of the Discharge Plan on December 15, 1991. No comments were received from the public.

30.2.9 Director Approval, Disapproval, Modification, or Termination of Proposed Discharge Plans, 20 NMAC 6.2, § 3-109

If the monitoring data submitted indicate that these regulations are being or may be violated or that the standards in 20 NMAC 6.2, § 3-102, "Standards for Ground Water of 10,000 mg/L TDS [total dissolved solid] Concentration or Less," are being or will be exceeded in ground water at any place of withdrawal for the present or reasonably foreseeable future due to the discharge, it may be necessary to modify the Discharge Plan.

If the monitoring data submitted indicate that the Discharge Plan conditions or the standards are being or will be exceeded, the plan may be revised.

Since the approval of discharge may not exceed seven years from the date of issuance of the Discharge Plan approval, it will be necessary to find an alternative means of disposal for the nonhazardous brine solution currently being discharged.

30.2.10 Water Quality Standards for Interstate and Intrastate Streams in New Mexico, 20 NMAC 6.1

The State has set a number of water-quality standards for interstate and intrastate streams in New Mexico.

The water-quality standards for interstate and intrastate streams in New Mexico do not apply to WIPP because there are no streams, either intermittent or permanent, that will be affected by WIPP.

30.2.11 Utility Operator Certification, 20 NMAC 7.4

The State requires that operators of public water supply systems and public wastewater facilities be certified to the educational and experience requirements of Subpart II of Part 4.

Under these regulations, the WIPP is considered a public water supply system, which is defined as a system for the provision to the public of piped water for human consumption or domestic purposes, and the system regularly serves an average of at

least 25 individuals at least 60 days of the year; it includes any water supply source and any treatment, storage, and distribution facilities. The WIPP is classified as a Class 2 public water supply system because of the population served, 501 to 5,000, and the treatment process being chlorination.

The WIPP is also considered a Class 1 public wastewater facility because of the population served and the treatment process being raw wastewater lagoons.

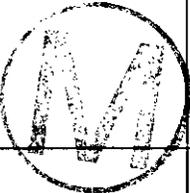
Since these systems at WIPP require certified operators, the WID's Facility Operations Section employs operators and supervisors certified to the section's requirements. All operators undergo recertification and training every three years; training and certification records are maintained by Facility Operations.

30.3 Compliance Status of the Permit Requirements

Table 30-2 summarizes the specific and general requirements from the Discharge Plan for WIPP and their compliance status. Additional information is provided in the text.

TABLE 30-2. New Mexico Water Quality Act - Summary of Compliance Status of Permit Requirements

CITATION	REQUIREMENT	COMPLIANCE STATUS
<i>Approval DP-831, New Mexico Discharge Plan for the WIPP</i>		
DP-831 Specific Requirement (SR) #1	Monitoring and quarterly reports	<p style="text-align: center;">UP TO DATE</p> <p>Monitoring conducted and reports submitted quarterly</p> <p>[Section 30.3.1]</p>
DP-831 SR #2 	Submittal of water quality analysis with quarterly report	<p style="text-align: center;">UP TO DATE</p> <p>Analysis submitted quarterly</p> <p>[Section 30.3.2]</p>
DP-831 SR #3	Quarterly sampling of each evaporation lagoon	<p style="text-align: center;">UP TO DATE</p> <p>Sampling and results reported quarterly</p> <p>[Section 30.3.3]</p>

CITATION	REQUIREMENT	COMPLIANCE STATUS
DP-831 SR #4	Maintenance of berms protecting the lagoon system from precipitation runoff and run-on	<p align="center">UP TO DATE</p> Performed quarterly [Section 30.3.4]
DP-831 SR #5 	Completion of proposed evaporation ponds	<p align="center">ACHIEVED</p> Completed July 16, 1993 [Section 30.3.5]
DP-831 General Requirement (GR)-- Record-keeping	Records to be kept and made available to the NMED upon request	<p align="center">UP TO DATE</p> Information recorded and available [Section 30.3.6]
DP-831 GR - Inspection and Entry	Allowing inspections, entry, sampling, and monitoring by NMED personnel	<p align="center">UP TO DATE</p> Activities allowed on site [Section 30.3.7]
DP-831 GR - Duty to Provide Information	Providing information relevant to Discharge Plan/records required by Discharge Plan that has been requested by NMED	<p align="center">UP TO DATE</p> No information requested to date [Section 30.3.8]
DP-831 GR - Spills, Leaks, and Other Unauthorized Discharges	Reporting and remediation of any spills, leaks, and any other unauthorized discharges	<p align="center">UP TO DATE</p> Reports to be made if unauthorized discharges occur; no reporting required to date [Section 30.3.9]
DP-831 GR - Retention of Records	Retention of all monitoring information, Discharge Plan reports, and data used to complete the Discharge Plan application for at least five years	<p align="center">UP TO DATE</p> Documentation being retained [Section 30.3.10]

CITATION	REQUIREMENT	COMPLIANCE STATUS
DP-831 GR - Modifications and/or Amendments	Notification of NMED of any modifications or additions to the wastewater disposal system; approval by NMED required prior to increasing the quantity or concentration of constituents in waste water above those approved in the plan	<p style="text-align: center;">UP TO DATE</p> <p>Approval to be obtained as required</p> <p>[Section 30.3.11]</p>

30.3.1 Requirements for Monitoring and Quarterly Reports, DP-831 Specific Requirement (SR) #1

The applicant shall monitor the quantity of brine water pumped into the evaporation ponds monthly and submit a quarterly report to the Ground Water Section's Office.

The monitoring required by the NMED Discharge Plan Approval DP-381 has been conducted as required. The results have been submitted in the quarterly Discharge Monitoring Reports required by the Discharge Plan, which are prepared in accordance with a WID procedure.

30.3.2 Requirement for Water Quality Analysis Submitted with Quarterly Report, DP-831 SR #2

A water quality analysis shall be submitted with the quarterly report mentioned above in SR #1.

Water quality analyses have been submitted with the quarterly reports.

30.3.3 Requirement that the Evaporation Lagoon be Sampled and the Results Reported, DP-831 SR #3

Each evaporation lagoon shall be sampled quarterly for total dissolved solids (TDS) and the results submitted in the quarterly report.

Each evaporation lagoon has been sampled quarterly, and the results provided in the quarterly reports.



30.3.4 Requirement for Berm Maintenance, DP-831 SR #4

Berms protecting the lagoon system shall be maintained to protect it from precipitation runoff and runoff.

Maintenance of the berms is performed quarterly.

30.3.5 Requirement for Completion of Proposed Evaporation Ponds, DP-831 SR #5

The applicant has 18 months from the date of approval to complete construction of the proposed evaporation ponds. The applicant can discharge brine waters into the existing salt pile evaporation pond until the new evaporation ponds are completed.

The evaporation ponds were completed by July 16, 1993, as required.

30.3.6 General Requirement, Record-keeping, DP-831

The discharger must maintain a written record of ground-water and wastewater quality analyses at the facility. The information must be recorded and made available to the NMED upon request.

Monitoring, reporting, and record-keeping requirements are met as specified in the Discharge Plan.

30.3.7 General Requirement, Inspection and Entry, DP-831

The discharger shall allow the NMED Secretary or her authorized representative, upon the presentation of credentials, to enter the discharger's facility during regular business hours or at other reasonable times under the conditions of this discharge plan.



NMED personnel are allowed on site to conduct inspections, sampling, and monitoring during normal business hours.

30.3.8 General Requirement, Duty to Provide Information, DP-831

The discharger shall furnish to the NMED, within a reasonable time frame specified by the NMED, any relevant information which it may request to determine whether cause exists for modifying, terminating, and/or renewing this

discharge plan or to determine compliance with this plan. The discharger shall furnish to the NMED, upon request, copies of records required to be kept by this Discharge Plan.

No requests have been received from the NMED to provide information relevant to the Discharge Plan. Similarly, the NMED has not requested copies of the records to be maintained under the terms of the Discharge Plan.

30.3.9 General Requirement, *Spills, Leaks, and other Unauthorized Discharges*, DP-831

Any unauthorized discharges must be reported to the NMED and remediated as required. This requirement applies to all seeps, spills, and/or leaks discovered from the sewerage lagoons or that may directly or indirectly leave the boundaries of the WIPP site.

Any spills, leaks, and other unauthorized discharges will be reported to NMED and remediated in accordance with WIPP procedures.

30.3.10 General Requirement, *Retention of Records*, DP-831

The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this discharge plan, and records of all data used to complete the application for this discharge plan, for a period of at least 5 years from the date of the sample collection, measurement, report, or application.

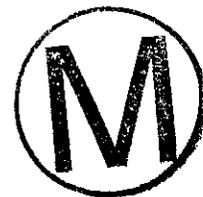
All monitoring information, analytical results, Discharge Plan reports, and data used to complete the Discharge Plan application will be retained for at least five years.

30.3.11 General Requirement, *Modifications and/or Amendments*, DP-831

The discharger must notify the NMED of any modifications or additions to the applicant's wastewater disposal system, including any increase in wastewater flow rate and wastewater storage and disposal management changes to the system as approved under this discharge plan. The discharger shall obtain the NMED's approval, as a discharge plan modification, prior to any increase in the quantity or concentration of constituents in the wastewater above those approved in this plan.



If any modifications or additions to the wastewater disposal system are planned for WIPP that would increase the quantity and/or the concentration of constituents in the waste water above those approved in the discharge plan, the NMED will be notified. No work will be initiated until the NMED approves the modification or addition.



31.0 NEW MEXICO DRINKING WATER REGULATIONS

31.1 Summary of the Regulations

Like the SDWA, the New Mexico Drinking Water Regulations (DWRs), Section 7.1 of Title 20 of the New Mexico Administrative Code (NMAC), provide a regulatory strategy for protecting public water-supply systems within the state. This section identifies the various categories of water-supply systems and establish operating requirements for each system. It also establishes the maximum contaminant levels (MCLs) for water-supply systems and implement monitoring and analytical requirements for each system.

The DWRs were formerly implemented by the New Mexico Water Supply Regulations, Part III. They are now implemented by Chapter 7 of Title 20 of the NMAC.

31.2 Compliance Status of the Regulatory Requirements

The NMED notified the WIPP on September 9, 1992, that the WIPP water supply system is considered a public water supply and classified the system as a non-transient, non-community water supply for reporting and testing under the requirements of the SDWA. The DOE has corresponded with the NMED since the original letter of September 9, 1992, which identified the WIPP as a nontransient, noncommunity water supply system, to obtain a determination of the specific SDWA sampling requirements for the site. This direction was requested because the WIPP obtains raw water from the Double Eagle Water Line, which is owned and operated by the city of Carlsbad.

On March 11, 1994, the NMED Carlsbad Field Office provided specific direction on the type of SDWA sampling required for the WIPP water supply system. The letter references Part III, § 310, of the New Mexico DWRs, which states:

When a public water system supplies water to one or more other public water supply systems, the Department may modify the compliance sampling requirements imposed by the regulations to the extent that the interconnection of the systems justifies treating them as a single system for compliance sampling purposes.

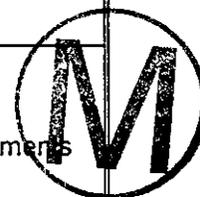


The NMED went on to determine that "since the Carlsbad Municipal Public Water Supply (WSS# 206-08) provides WIPP with its water and since Carlsbad already tests the various constituents at each Double Eagle wellfield source, WIPP is exempted from taking these samples." The NMED then determined that the WIPP is required to obtain point-of-use system samples, including lead, copper, and total coliform bacteria.

The specific requirements that are applicable to WIPP and the compliance status of each are summarized in Table 31-1. More detailed information is provided in the text.

**TABLE 31-1. New Mexico Drinking Water Regulations (20 NMAC 7.1) -
Summary of Regulatory Compliance Status**

CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 7.1, § 205(A)	MCLs for total coliform bacteria	<p>UP TO DATE</p> <p>Monthly sampling below MCL [Section 31.2.1]</p>
20 NMAC 7.1, § 208(I)	Cross connections	<p>UP TO DATE</p> <p>Inspections, corrective actions [Section 31.2.2]</p>
20 NMAC 7.1, § 301(E)	Certification of sampling personnel	<p>ACHIEVED</p> <p>Certification of personnel involved with sampling [Section 31.2.3]</p>
20 NMAC 7.1, § 302(A)	Compliance sampling of coliforms	<p>UP TO DATE</p> <p>At least one sample of total coliform bacteria collected per month; WIPP Water Sampling Plan in WID procedure [Section 31.2.4]</p>
20 NMAC 7.1, § 309	Laboratories	<p>ACHIEVED</p> <p>Contracts with laboratories; QA/QC [Section 31.2.5]</p>
20 NMAC 7.1, § 310	Sampling of consecutive public water-supply systems	<p>ACHIEVED</p> <p>Modified sampling requirements [Section 31.2.6]</p>
20 NMAC 7.1, § 401(A)	Reporting requirements	<p>UP TO DATE</p> <p>Submittal of analytical reports [Section 31.2.7]</p>



CITATION	REQUIREMENT	COMPLIANCE STATUS
20 NMAC 7.1, § 403(A)	Record maintenance	<p style="text-align: center;">UP TO DATE</p> <p>Maintenance of analytical results as quality records</p> <p>[Section 31.2.8]</p>

31.2.1 MCL for Total Coliform Bacteria, 20 NMAC 7.1, § 205(A)

The MCL for total coliform bacteria is based on the presence or absence of total coliforms in a sample rather than on coliform density. For a system that collects fewer than 40 samples per month, the system is in compliance with the total coliform MCL if no more than one sample collected during the month is total coliform positive.

Analyses for total coliform bacteria (i.e., *Escherichia coli*) are performed at WIPP on a monthly basis. The laboratory submits the results to WIPP and to the NMED. To date, coliforms have remained below the MCL.

31.2.2 Cross Connections, 20 NMAC 7.1, § 208(I)

No physical connection between a public water supply and any water-supply source not regulated by the NMED is allowed unless the public water-supply system is protected by a backflow prevention device that has been reviewed by the NMED and is listed by an appropriate listing agency.

WIPP has implemented a cross-connection control program. Inspections of the system's cross connections are complete. Corrective actions are being implemented as needed.

31.2.3 Certification of Sampling Personnel, 20 NMAC 7.1, § 301(E)

All persons who collect compliance samples for water-supply samples must possess a current Sampling Certificate issued by the Secretary of the NMED. Sampling Certificates are issued only to persons who have successfully completed an approved training course and have passed an examination that is administered periodically by the NMED. Sampling Certificates are valid for 3 years.



All WIPP personnel involved with water-supply sampling to ensure compliance with the DWRs have completed the New Mexico water-sampling training course and have received Sampling Certificates.

31.2.4 Compliance Sampling of Coliforms, 20 NMAC 7.1, § 302(A)

Public water-supply systems must collect total coliform samples at sites that are representative of water throughout the distribution system according to their approved written sampling plan.

The minimal number of samples required per month is based on the population served by the system. Only one sample per month is required by a water-supply system that serves an average daily population of 25 to 1,000.

Samples are collected from sites that are representative of water throughout the distribution system. This technique is covered in the desktop instructions "Coliform Sampling of WIPP Drinking Water."

Fewer than 1,000 people are served by the water-supply system at WIPP. Therefore at least one sample is collected per month for total coliform bacteria analysis.

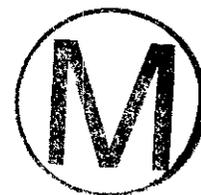
31.2.5 Laboratories, 20 NMAC 7.1, § 309

Compliance samples may be considered only if they have been analyzed by a laboratory that is acceptable to the NMED.

Lead and copper samples are analyzed by the Scientific Laboratory Division of the NMED. In addition, WIPP has contracts in place with two off-site EPA-certified laboratories to complete all microbiological and inorganic analyses required by the NMED for WIPP. Both laboratories have undergone QA/QC review and approval. Each laboratory has an approved Quality Assurance Project Plan (QAPjP) in place and is listed on the WIPP Qualified Supplier List (QSL).

31.2.6 Sampling of Consecutive Public Water-Supply Systems, 20 NMAC 7.1, § 310

When a public water-supply system provides water to one or more other public water-supply systems, the NMED may modify the compliance sampling requirements imposed by these regulations. Any modified compliance sampling shall be conducted in accordance with the schedule specified by the NMED.



The water-supply system at WIPP receives its water from the public water-supply system of the city of Carlsbad. Carlsbad is responsible for all well-source sampling. Therefore, the NMED has modified the compliance sampling requirements for WIPP and requires sampling only for lead, copper, and total coliform bacteria.

Per the requirements set forth in 20 NMAC 7.1, Subpart X, § 1001(c)(1), "the lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 1007 is greater than 0.015 mg/L."

Per the requirements set forth in 20 NMAC 7.1, Subpart X, § 1001(c)(2), "the copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 1007 is greater than 1.3 mg/L."

The schedule mandated by the NMED for sampling is presented in Table 31-2.

TABLE 31-2. Required Sampling at WIPP for Compliance with the Safe Drinking Water Act and the New Mexico Drinking Water Regulations

Contaminant	Frequency of Water-Supply Sampling
Lead and copper (for water systems for populations of 501 to 3,300)	Initial sampling required 20 sample sites for two 6-month periods beginning on July 1, 1993; requirements were reduced when action levels were met for two consecutive sampling periods (August 23, 1995). Sampling requirements will be reduced to 10 sample sites per year beginning July, 1996.
Total coliform bacteria	Once per month

31.2.7 Reporting Requirements, 20 NMAC 7.1, § 401(A)

Unless a shorter period is specified, the water supplier shall provide a copy of the results and data required to the appropriate NMED field office within 10 days after analysis.

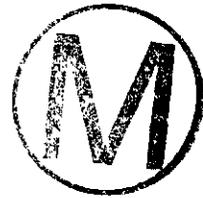
Analytical reports for lead and copper are submitted to the appropriate NMED field office within 10 days of their receipt by WID personnel and directly by the lab. The analytical laboratory that analyzes total coliform bacteria sends a copy of the results and data directly to WIPP and to the appropriate NMED field office.



31.2.8 Record Maintenance, 20 NMAC 7.1, § 403(A)

A water supplier shall retain the appropriate records on or near the premises of the public water-supply system. Records of bacteriological and chemical analyses shall be kept for at least 5 and 10 years, respectively. The information that must be retained includes the date, place, and time of sampling; the name of the person who collected the sample; identification of the sample; date of analysis and name of the laboratory and person who performed the analysis; the analytical method used; and the results of the analysis.

All applicable records pertaining to the sampling and analysis and the analytical results are maintained as quality records by WID.



32.0 NEW MEXICO HAZARDOUS CHEMICALS INFORMATION ACT

32.1 Summary of the Law

The New Mexico Hazardous Chemicals Information Act (HCIA; §§ 74-4E-1 through 74-4E-9 NMSA 1978) was enacted to ensure that current information on the nature and location of hazardous chemicals is available to LEPCs, emergency responders, and the public as required by Title III. The HCIA created the SERC and directs facility owners or operators to notify the New Mexico Department of Public Safety under certain conditions, including the presence of extremely hazardous substances at or above a specified quantity at a facility and the release of any chemical substance that has occurred at or above reportable quantities determined by the state. The HCIA specifies reports to be submitted to the State, including toxic chemical release and hazardous material inventory reports.

32.2 Compliance Status of the Regulatory Requirements

Table 32-1 summarizes each applicable requirement and its compliance status under the HCIA. The text provides more detail on the compliance status of each requirement.

TABLE 32-1. Hazardous Chemicals Information Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
Hazardous Chemicals Information Act, §§ 74-4E-1 to 74-4E-9 NMSA 1978		
§ 74-4E-5(A)(1)	Notification to the state that an extremely hazardous substance, at or above a specified quantity, is present at a facility	<p style="text-align: center;">UP TO DATE</p> Notifications and revised listing submitted [Section 32.2.1]
§ 74-4E-5(A)(2)	Notice of release of chemical substance(s) when release is at or above the reportable quantity of the substance	<p style="text-align: center;">UP TO DATE</p> Notification of releases of ethylene glycol submitted [Section 32.2.2]
§ 74-4E-5(A)(3)	Submittal of an inventory form covering each hazardous material on or before March 1 of each year	<p style="text-align: center;">UP TO DATE</p> Chemical inventory submitted in March 1995 and 1996 [Section 32.2.3]

CITATION	REQUIREMENT	COMPLIANCE STATUS
§ 74-4E-5(A)(4)	Submittal of Toxic Chemical Release Inventory (TRI) forms to Public Safety Department for facilities employing at least 10 employees and with SIC code between 20-39 classification	<p style="text-align: center;">NOT APPLICABLE</p> <p>TRI reporting not currently required due to certain exemptions</p> <p>[Section 32.2.4]</p>

32.2.1 Notice of Extremely Hazardous Substance, § 74-4E-5(A)(1)

Facility owners or operators must notify the State safety department that an extremely hazardous substance, at or above the threshold planning quantity, is present at a facility.



The WIPP submits a list of hazardous chemicals to the SERC, the LEPC, and the local fire department whenever additional substances are received or if significant new information is received about an item for which a list was provided. In March 1995 and March 1996, a revised list of hazardous chemicals was submitted to these organizations. The listing comprised extremely hazardous substances present in amounts equal to or greater than the Threshold Planning Quantity (TPQ) or 500 pounds, whichever is less, and all substances classified as hazardous under the Occupational Safety and Health Act Hazard Communication Standard with site inventories equal to or greater than 10,000 pounds.

32.2.2 Notice of Release of Chemical Substance(s), § 74-4E-5(A)(2)

Facility owners or operators must notify the State safety department of the release of a chemical substance when the release is at or above the reportable quantity of the substance.

During this reporting period, there were two ethylene glycol spills at WIPP that exceeded the reportable quantity at the time of 1 pound. These were reported to the SERC and the LEPC. The reportable quantity for ethylene glycol was raised from 1 pound to 5,000 pounds on June 12, 1995.

32.2.3 Hazardous Material Inventory, § 74-4E-5(A)(3)

Facility owners or operators must submit to the State an inventory form containing Tier II information on or before March 1 of each year.

The WIPP submitted the Emergency and Hazardous Chemical Inventory Report (Tier II Report) on February 1, 1995, and January 16, 1996 to the SERC, the LEPC, and local fire departments.

32.2.4 Toxic Chemical Release Inventory, § 74-4E-5(A)(4)

Facility owners or operators employing at least 10 employees and with a SIC code between 20 and 39 must submit a toxic chemical release form on or before July 1 of each year to the State safety department.

During this reporting period, the WIPP was exempt from submitting a Toxic Chemical Release Inventory report because of the use of toxic chemicals at WIPP and the exemptions described in 40 CFR 372.38, *Exemptions*.



33.0 NEW MEXICO EMERGENCY MANAGEMENT ACT

33.1 Summary of the Law

The New Mexico Emergency Management Act (EMA; §§ 74-4B-1 through 74-4B-14 NMSA 1978) was enacted to ensure the adequacy of hazardous material emergency management capabilities in the state to protect the health and safety of New Mexico citizens and the environment. The act delineates those state agencies that are responsible for responding to hazardous material accidents and providing control and management of such accidents. Furthermore, the act provides for the formulation of a comprehensive hazardous materials emergency management plan.

33.2 Compliance Status of the Regulatory Requirements

Table 33-1 summarizes each applicable requirement and its compliance status under the EMA. The text provides more detail on the compliance status of each requirement.

TABLE 33-1. New Mexico Emergency Management Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
Emergency Management Act, §§ 74-4B-1 - 74-4B-14 NMSA 1978		
§ 74-4B-2	Findings and purpose	NOT APPLICABLE State responsibilities [Section 33.2.1]
§ 74-4B-4	State responsibility for management of accidents; immunity from liability; cooperative agreements; private property	NOT APPLICABLE State responsibilities [Section 33.2.2]
§ 74-4B-5	State Police Emergency Response Officer; procedure for notification; cooperation with other State agencies and local governments	UP TO DATE WID procedures [Section 33.2.3]

CITATION	REQUIREMENT	COMPLIANCE STATUS
§ 74-4B-6	EMPT: powers and duties	<p>NOT APPLICABLE</p> <p>State EMTF is no longer active</p> <p>[Section 33.2.4]</p>
§ 74-4B-6.1	Creation and duties of the Hazardous Materials Emergency Response Administrator	<p>NOT APPLICABLE</p> <p>State responsibilities</p> <p>[Section 33.2.5]</p>
§ 74-4B-10	Responsibility for cleanup by owner, shipper, or carrier of the hazardous material	<p>UP TO DATE</p> <p>WID procedures</p> <p>[Section 33.2.6]</p>

33.2.1 Findings and Purpose, § 74-4B-2

The purpose of the EMA is to ensure that adequate hazardous materials emergency management capabilities exist in the State, delineate the State agencies that are responsible for responding to and controlling and managing a hazardous materials accident, and provide for the formulation of a comprehensive statewide hazardous materials emergency management plan.



These are state responsibilities. No action is required at WIPP by this subsection.

33.2.2 State Responsibility for Management of Accidents; Immunity from Liability; Cooperative Agreements; Private Property, § 74-4B-4

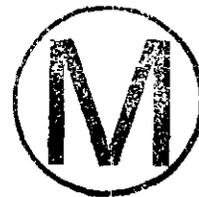
The State government has the primary responsibility for managing an accident. The EMA does not waive or alter immunity from liability. The State may enter into cooperative agreements with county and municipal governments for accident management. The State may enter into such agreements with the Federal government, Indian tribes and pueblos, and bordering States for assistance in managing accidents. When an accident has occurred or appears imminent, responsible State personnel or authorized persons are authorized to enter any buildings or premises to

determine whether emergency management procedures should be implemented.

These are state responsibilities. No action is required at WIPP under this subsection.

33.2.3 State Police Emergency Response Officer; Procedure for Notification; Cooperation of other State Agencies and Local Governments, § 74-4B-5

State Police Emergency Response Officers shall be designated, trained, and available to answer an emergency response call from the first responder. The responsibilities of these officers and of the State Police Emergency Response Center are described. Any driver of a vehicle carrying hazardous materials involved in an accident which may cause injury to persons or property or any owner, shipper, or carrier of hazardous materials involved in an accident who has knowledge of such accident or any owner or person in charge of any building, premises, or facility where such an accident occurs shall immediately notify the New Mexico State Police Division of the Public Safety Department by the quickest means of communication available.



Should an accident involving hazardous materials occur, the New Mexico State Police Division of the Public Safety Department will be notified by the driver, owner, shipper, or carrier of the waste as outlined in a WID procedure.

WIPP personnel will contact the SERC in the event of a spill that could endanger human health or the environment. The SERC will, in turn, contact the NMED if their assistance is needed.

33.2.4 Emergency Management Task Force: Powers and Duties, § 74-4B-6

The composition and responsibilities of the Emergency Management Task Force are described.

The state EMTF is no longer active. No action is required at WIPP under this subsection.

33.2.5 Creation and Duties of the Hazardous Materials Emergency Response Administrator, § 74-4B-6.1

The creation and responsibilities of the Hazardous Materials Emergency Response Administrator are described in this subsection.

These are state responsibilities. No action is required at WIPP under this subsection.

33.2.6 Clean-up, § 74-4B-10

Nothing in the EMA shall be construed to relieve hazardous materials owners, shippers, or carriers of their responsibilities and liability in the event of an accident. Such persons shall assist the State as requested in responding to an accident and are responsible for restoring the scene of the accident to the satisfaction of the State.

An occurrence involving a TRUPACT-II container that is not within the confines of the WIPP does not fall under WID responsibility. The correct line of action for an on-site occurrence that can be cleaned up by site personnel is covered in a WID procedure. However, in the event of an on-site occurrence that is not handled by site personnel, a cleanup contractor will be obtained.

If an off-site occurrence takes place involving a TRUPACT-II container, the DOE will take responsibility for cleaning up the scene of the accident to the state's satisfaction.



34.0 NEW MEXICO PREHISTORIC AND HISTORIC SITES PRESERVATION ACT

34.1 Summary of the Law

The provisions of the Congressional National Historic Preservation Act (NHPA) are furthered by law in the state of New Mexico. The act currently in place is the New Mexico Prehistoric and Historic Sites Preservation Act (§§ 18-8-1 through 18-8-8 NMSA 1978). The purpose of this act is the acquisition, stabilization, restoration, or protection of significant prehistoric and historic sites by the state of New Mexico and corporations. This act is administered by the SHPO in consultation with the Cultural Properties Review Committee.

The Prehistoric and Historic Sites Preservation Act is implemented by Historic Preservation Division (HPD) Rule 89-2, which established procedures for acquiring, stabilizing, restoring, or protecting significant prehistoric and historic sites. Rule 89-2 also established procedures and guidelines to evaluate alternatives to programs and projects requiring the use of land from significant prehistoric and historic sites and to determine whether all possible planning has been implemented to preserve and protect such sites. Detailed requirements for a long-term management plan for any site acquired, stabilized, restored, or protected are included under this rule.

34.2 Compliance Status of the Regulatory Requirements

The WIPP is bound by the New Mexico statutes and regulations regarding cultural properties in accordance with edicts provided by the SHPO. WIPP personnel contract for archeological surveys and consult with the SHPO each time an action is proposed that would impact a previously undisturbed area. Detailed instructions for compliance with applicable cultural resource management requirements are contained in the LMP.

Prior to the issuance of the LWA, the BLM was responsible for archaeological resource management on the WIPP site and served as the DOE's liaison with the SHPO. Following the issuance of the LWA, the BLM continued to serve in this capacity until July 19, 1994, when the Memorandum of Understanding Between the U.S. Department of Energy and the U.S. Department of Interior was finalized. At that time, the WIPP began communicating directly with the SHPO regarding archaeological concerns.

The following describes SHPO approvals granted for surface disturbing activities during this reporting period. On July 15, 1994, the BLM, using provisions contained in their Memorandum of Agreement with the SHPO, processed and approved WIPP surface disturbing activities associated with the construction of six new well-pads. On September 7, 1994, the SHPO granted the DOE approval to construct a short access road, and on September 27, 1994, the SHPO granted the DOE approval to construct another well-pad.

On June 21, 1995, an investigation was conducted of a previously known site as several previously buried artifacts emerged at the surface. No regulatory actions were required following the investigation, since no surface-disturbing activities are planned for the area in question. During this reporting period no new archaeological sites were discovered, and stipulations for avoidance of previously known sites were observed during construction activities.



35.0 NEW MEXICO STATE IMPLEMENTATION OF THE FEDERAL LAND POLICY AND MANAGEMENT ACT

35.1 Summary of the Law

The FLPMA was enacted to ensure that public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use." Under the FLPMA, the Secretary of the Interior is authorized to grant, issue, or renew rights-of-way over, upon, under, or through public lands.

The spirit and purpose of the congressional legislation to protect and preserve the quality of public lands is furthered by law in the state of New Mexico. In 1912, the New Mexico Legislature created the State Land Office (SLO) and directed that the Office's executive officer, the Commissioner of Public Lands (the Commissioner), execute jurisdiction over, and provide for the management, care, control, and disposition of, public lands owned and subsequently acquired by the state. The Commissioner was authorized to grant rights-of-way and easements over, upon, or across state lands for highways, power lines, mining, or other purposes. The Commissioner's authority related to rights-of-way and easements is currently promulgated in New Mexico Statute 19-7-57.

The regulation of right-of-way and easement grants is addressed in the SLO's Rule 10, *Relating to Easements and Rights-of-Way*, which outlines the requirements for applying for and maintaining a right-of-way grant.

35.2 Compliance Status of the Regulatory Requirements

Table 35-1 summarizes the applicable requirements under SLO Rule 10 and the compliance status of each requirement. The text provides more detail on the compliance status of the requirements.



TABLE 35-1. New Mexico Implementation of the Federal Land Policy and Management Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
State Land Office Rule No. 10, <i>Relating to Easements and Rights-of-Way</i>		
SLO Rule 10.006	Application requirements and fees	<p style="text-align: center;">ACHIEVED</p> Permit issued [Section 35.2.1]
SLO Rule 10.009	Conditions	<p style="text-align: center;">ACHIEVED</p> Right of way: 40 feet wide [Section 35.2.2]
SLO Rule 10.010	Damage bond	<p style="text-align: center;">NOT APPLICABLE</p> Requirement waived for government agencies [Section 35.2.3]
SLO Rule 10.011	Survey plat 	<p style="text-align: center;">ACHIEVED</p> Plat included in application [Section 35.2.4]
SLO Rule 10.012	Construction reports for ruins, artifacts, or monuments found	<p style="text-align: center;">NOT APPLICABLE</p> No artifacts found on right-of-way [Section 35.2.5]
SLO Rule 10.013	Affidavit of completion	<p style="text-align: center;">ACHIEVED</p> Affidavit of completion submitted [Section 35.2.6]
SLO Rule 10.017	Renewal of right-of-way grants	<p style="text-align: center;">NOT APPLICABLE</p> Term of permit (35-years) currently deemed adequate [Section 35.2.7]

CITATION	REQUIREMENT	COMPLIANCE STATUS
SLO Rule 10.019	Reclamation and restoration	<p>NOT APPLICABLE</p> <p>Right-of-way to be reclaimed and revegetated after use</p> <p>[Section 35.2.8]</p>

35.2.1 Application Requirements and Fees, SLO Rule 10.006

Written application for right-of-way grants (reservations) shall be made upon the proper forms. The application shall be made under oath and be accompanied by the payment of appropriate fees. The application will contain a legal description of the lands to be crossed and a plat (see Section 35.2.4).

The proper application form and the fees required were submitted as required. The application included the legal description of the lands to be crossed and a survey plat.

Permit No. RW-22789 was issued for a high-volume air sampler for the period of October 3, 1985, through October 3, 2020.

35.2.2 Conditions, SLO Rule 10.009

The minimum width of a right-of-way or easement granted under these rules shall be 30 feet.

As described in the application and survey plat, the right-of-way covers a 40-foot-wide strip of land.

35.2.3 Damage Bond, SLO Rule 10.010

The applicant must file a bond with the Commissioner before the right-of-way may be issued. The bond must compensate the State or other appropriate party for any damage done to improvements or other property. The Commissioner may waive this requirement if the applicant is a governmental agency that is prohibited from posting a security bond, the applicant is not immune to suit or is otherwise required by law to pay such damages, or meets other conditions specified.



The DOE is a governmental agency and as such a damage bond is not required.

35.2.4 Survey Plat, SLO Rule 10.011

Specific requirements for the survey plat are described in SLO Rule 10.011

A survey plat was included in the application. The plat met all requirements specified in SLO Rule 10.011.

35.2.5 Construction Reports, SLO Rule 10.012

The holder of a right-of-way shall notify the Commissioner immediately in the event that any historic or prehistoric ruin, monument, or artifact of historical, archeological, or scientific value is discovered upon the right-of-way. The holder of the right-of-way shall refrain from further disturbing the area until the Commissioner has been notified and inspection and clearance have been performed by the proper authorities if deemed necessary by the Commissioner.



No ruins, monuments, or artifacts of historical, archeological, or scientific value were discovered upon the right-of-way.

35.2.6 Affidavit of Completion, SLO Rule 10.013

Upon the completion of construction of any right-of-way, the applicant shall promptly file an affidavit of completion with the Commissioner. Failure to file such an affidavit in accordance with this section shall subject the right-of-way to cancellation in accordance with the provisions of these rules.

The DOE submitted an Affidavit of Completion to the SLO certifying the completion of construction and the location of the high-volume air sampler.

35.2.7 Renewal of Right-of-Way Reservations, SLO Rule 10.017

An application may be submitted for a renewal of the reservation prior to the expiration date of any right-of-way.

Permit No. RW-22789 (see Section 35.3) was granted for a term of 35 years. If the right-of-way will still be needed after the expiration date, an application will be submitted as required. However, it is likely that the 35-year period will be adequate.

35.2.8 Reclamation and Restoration, SLO Rule 10.019

Any person who enters upon State land to survey or construct a right-of-way shall take all steps necessary to preserve and protect the natural environmental conditions of the land, including reclaiming disturbed areas by leveling or terracing and revegetation. Revegetation shall include the establishment of suitable grasses and forbs. The grantee of any right-of-way shall consult with the Commissioner's designee regarding reclamation prior to undertaking same and shall abide by all directives of the designee.

The DOE will ensure that all reclamation and revegetation activities requested by the Commissioner or by his/her designee will be performed. Until these activities have been initiated, these requirements do not apply to WIPP.

35.3 Compliance Status of the Permit Conditions

The Commissioner granted Right-of-Way Permit No. RW-22789 to WIPP for a high-volume air sampler. The term of the permit is 35 years (October 3, 1985, through October 3, 2020). Table 35-2 summarizes the applicable permit conditions and the compliance status of each condition. The text provides more detail on the compliance status of the permit conditions.

TABLE 35-2. State Land Office Right-of-Way Permit No. RW-22789 - Summary of Permit Compliance Status

CITATION	CONDITION	COMPLIANCE STATUS
Right-of-Way Permit No. RW-22789 for a High-Volume Air Sampler		
Term/Condition #3	Disposal of brush and other debris	ACHIEVED Appropriate disposal of brush and other debris [Section 35.3.1]
Term/Condition #4	Depth of pipelines	NOT APPLICABLE No pipelines on right-of-way [Section 35.3.2]



CITATION	CONDITION	COMPLIANCE STATUS
Term/Condition #5	Prevention of destruction or injury to improvements or livestock	<p>UP TO DATE</p> <p>Care taken to avoid damage to improvements or livestock</p> <p>[Section 35.3.3]</p>
Term/Condition #6	Purpose of right-of-way	<p>UP TO DATE</p> <p>Used only for high-volume air sampler</p> <p>[Section 35.3.4]</p>
Term/Condition #7	Existing rights	<p>NOT APPLICABLE</p> <p>No other leases or rights-of-way known for area</p> <p>[Section 35.3.5]</p>
Term/Condition #8	Leases for mineral resources 	<p>NOT APPLICABLE</p> <p>Affected land is outside the WIPP boundary; no action required by WIPP</p> <p>[Section 35.3.6]</p>
Term/Condition #9	Compliance with all applicable regulations and requirements	<p>UP TO DATE</p> <p>See entire BECR for compliance status</p> <p>[Section 35.3.7]</p>
Term/Condition #10	Nonuse of the right-of-way	<p>UP TO DATE</p> <p>Right-of-way used periodically</p> <p>[Section 35.3.8]</p>

CITATION	CONDITION	COMPLIANCE STATUS
Term/Condition #13	Protection and preservation of natural environmental conditions	<p style="text-align: center;">UP TO DATE</p> <p>Protection of land; best acceptable reclamation practices to be used</p> <p>[Section 35.3.9]</p>
Term/Condition #14	Reclamation of all disturbed areas	<p style="text-align: center;">NOT APPLICABLE</p> <p>Seed mixes of indigenous plants to be used for revegetation</p> <p>[Section 35.3.10]</p>

35.3.1 Disposal of Brush and Other Debris, Term/Condition #3

In clearing the right-of-way, the grantee agrees to dispose of brush and other debris so as not to interfere with the movement of livestock of State grazing lessees.

All brush and other debris were disposed of appropriately.

35.3.2 Depth of Pipelines, Term/Condition #4

All pipelines placed on the right-of-way lands under this permit must be buried at least 20 inches deep.

This right-of-way was not obtained for a pipeline. Therefore, this condition is not applicable.

35.3.3 Prevention of Destruction or Injury to Improvements or Livestock, Term/Condition #5

The grantee agrees to carefully avoid causing destruction or injury to any improvements or livestock lawfully upon the premises, to close all gates immediately after passing through them, and to make prompt payment of all reasonable and just damages for any injury or destruction arising from constructing or maintaining the right-of-way.



The DOE carefully avoids causing destruction or injury to any improvements or livestock that are lawfully upon the premises. Gates are closed as soon as possible.

35.3.4 Purpose of Right-of-Way, Term/Condition #6

The right-of-way granted is for the sole purpose of providing egress from and ingress to a high-volume air sampler. The right-of-way may not be used for any other purpose and may not be re-assigned by the grantee.

The right-of-way granted under this permit is used only for accessing the high-volume air sampler.

35.3.5 Existing Rights, Term/Condition #7

The rights granted under Permit RW-22789 are subject to valid existing rights.

No existing leases or rights-of-way of record are known.

35.3.6 Leases for Mineral Resources, Term/Condition #8

The Commissioner reserves the right to execute leases for oil and gas, coal and minerals; to sell or dispose of same; and to grant rights-of-way and easements related to such leasing.

The land subject to the conditions of Permit RW-22789 (i.e., T 19 S, R 27 E, Section 13) is not part of the land that was withdrawn from the DOI and transferred to the DOE under the LWA (i.e., several sections under T 22 S, R 31 E). Therefore, this term remains applicable although no action is required by WIPP personnel.

35.3.7 Compliance with all Applicable Regulations and Requirements, Term/Condition #9

The grantee and its employees, agents, and contractors shall fully comply with all laws, regulations, and requirements of any governmental authority or agency in all matters that affect the premises and operations pertaining to such issues as conservation, sanitation, aesthetics, pollution, cultural properties, fire, or ecology.



This entire BECR addresses compliance with all such laws, regulations, and requirements at WIPP.

35.3.8 NonUse of the Right-of-Way, Term/Condition #10

If the right-of-way granted is not used for a period that exceeds 1 year without the prior written permission of the Commissioner, the right-of-way will be considered abandoned. Non-use for shorter periods will require that the grantee prove that there was no intent to abandon the right-of-way.

The right-of-way is used periodically to collect samples and to maintain the sampler.

35.3.9 Protection and Preservation of Natural Environmental Conditions, Term/Condition #13

The grantee agrees to preserve and protect the natural environmental conditions of the land encompassed in this permit and to take such reclamation or corrective actions necessary to protect the land from pollution, erosion, or other forms of environmental degradation.

The land encompassed in this permit is being preserved and protected. In addition, a contemporary reclamation program and a corresponding long-range plan have been implemented at WIPP. When the right-of-way for the high-volume air sampler is to be reclaimed, WIPP personnel will use the best acceptable reclamation practices. (See also Section 35.3.10.)

35.3.10 Reclamation of All Disturbed Areas, Term/Condition #14

The grantee agrees to reclaim all disturbed areas by grading, leveling, or terracing and to landscape these areas at its own expense. Landscaping will include the planting of native grasses, shrubs, or other vegetation so as to return disturbed areas to their natural state and prevent erosion caused by water and/or wind.

The seed mixes to be used to revegetate the area will reflect those species which are indigenous to the vicinity, with priority given to those species of plants that are conducive to soil stabilization and to the needs of livestock and wildlife. (See also Section 35.3.9.) This section is not applicable to WIPP during this reporting period.



36.0 NEW MEXICO STATE IMPLEMENTATION OF THE BALD AND GOLDEN EAGLE PROTECTION ACT

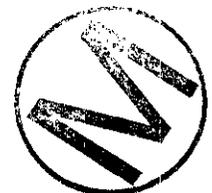
36.1 Summary of the Law

The Bald and Golden Eagle Protection Act makes it unlawful to take (i.e., capture, kill, or destroy), possess, molest, or disturb living or dead bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*), their parts, their nests, or their eggs anywhere in the United States. A permit must be obtained from the DOI to relocate any nest that interferes with resource development or recovery operations. In addition, a permit may be obtained that authorizes taking, possessing, or transporting eagles or their parts, nests, or eggs.

Chapter 17 of the New Mexico statutes establishes rules and regulations to protect raptors. In particular, § 17-2-14, *Hawks, vultures and owls, taking, possessing, trapping, destroying, maiming or selling prohibited; exception by permit; penalty*, authorizes the Director of the Department of Game and Fish to issue permits to allow any person to take, possess, trap, ensnare, or destroy any bird protected by this section. Permits may be granted for several purposes, including scientific purposes, in accordance with the law and the State Game Commission's regulations. In addition, §§ 17-2-37 through 17-2-46 of the Wildlife Conservation Act also further the purpose of the Bald and Golden Eagle Protection Act with respect to the bald eagle as an endangered species (see Chapter 37).

36.2 Compliance Status of the Regulatory Requirements

At present, no bald or golden eagles are nesting on the WIPP site; however, individual eagles are frequently observed overwintering in the area. Therefore, a permit regarding bald or golden eagles is not required. If it becomes necessary, a permit application will be submitted, and all applicable permit requirements will be met.



37.0 NEW MEXICO WILDLIFE CONSERVATION ACT, IMPLEMENTING THE ENDANGERED SPECIES ACT

37.1 Summary of the Law

The Endangered Species Act was enacted in 1973 to prevent the extinction of many species of animals and plants. The act provides strong measures to help alleviate the loss of species and their habitats. It places restrictions on a wide range of activities involving endangered and threatened animals and plants to help ensure their continued survival. With limited exceptions, the act prohibits activities using these protected species unless authorized by a permit from the FWS.

The intent of the Congressional endangered species legislation is furthered in the New Mexico's Wildlife Conservation Act, which was enacted in 1974. The current sections of the state's act reside in §§ 17-2-37 through 17-2-46 NMSA 1978. The act directs that endangered species of wildlife that are indigenous to New Mexico should be managed and maintained and, to the extent possible, their numbers enhanced within the carrying capacity of the habitat. The state is directed to assist in the management of endangered and threatened species of wildlife, including those which are federally listed.

Protection under the Wildlife Conservation Act extends to species, genera, and families that are listed in § 17-2-3, *Protected wildlife species and game fish defined*. Thus, protection under the Wildlife Conservation Act is extended to game birds such as all members of the family Phasianidae (quail, partridges, and pheasants) and game fish such as all members of the family Ictaluridae (catfish).

Section 17-2-41, *Endangered Species*, states that "except as otherwise provided in this act, it is unlawful to take, possess, transport, export, process, sell or offer for sale, or ship" any species or subspecies of wildlife that appears on the following lists: (1) wildlife indigenous to the state determined to be endangered within the state as set forth by regulations of the Game Commission of the State of New Mexico (the Commission) and (2) the federal lists of endangered species as set forth in the Endangered Species Act to the extent that such lists are adopted by regulations of the Commission. In § 17-2-42, *Management Programs*, the Director of the State Department of Game and Fish is directed to perform the following: (1) establish programs deemed necessary by the Commission for the management of endangered species; (2) work with federal and state entities or with private individuals in the administration and management of programs for the management of endangered species; (3) authorize by permit the taking, possession, transportation, or shipment of species deemed to need management for purposes including scientific and educational; and (4) authorize by permit the removal, capture, and destruction of endangered species where necessary to prevent damage to property or to protect human health.

The intent of the congressional legislation protecting migratory game birds under the Migratory Bird Treaty Act is also addressed in Chapter 17 of the New Mexico statutes. In particular, § 17-2-3, *Protected wildlife species and game fish defined*, specifies that all of the migratory bird family Anatidae (waterfowl) is protected. The hunting, taking, capturing, killing, or possession or the attempt to hunt, take, capture, or kill species of this family is regulated by the Commission. In addition, the Wildlife Conservation Act also implements portions of the Migratory Bird Treaty Act with respect to migratory game birds that are recognized as endangered species.

The Commission's Regulation No. 564, *Governing the Removal, Capture or Destruction of Endangered Species*, was adopted in 1975. This regulation specifies that any person who does not possess a permit and who removes, captures, or destroys any wildlife species classified as endangered by Commission regulations, other than those listed in 50 CFR Part 17, *Endangered and Threatened Wildlife and Plants*, must report any such incident to the NMDG&F.

The Commission's Regulation No. 682, *Amending the Listing of Endangered Species and Subspecies of New Mexico*, lists endangered wildlife in the state. Amendment 1 to this regulation adopts the Federal list of endangered species specified in 50 CFR Part 17.

The amended listing of endangered wildlife of New Mexico, which was issued in November 1990, includes a number of endangered or threatened species that could be found at WIPP and were specified in the FEIS (DOE, 1980) or the SEIS (DOE, 1990a). These include three species of reptiles and five species of birds, which are listed in Table 37-1.

The Commission's Regulation No. 705, *Regulation for the Taking and Possession of Protected Wildlife for Scientific and Educational Purposes*, contains the requirements for obtaining and using state permits and authorizations for taking and possessing wildlife for scientific and educational purposes. Permits and authorizations are issued to individuals rather than to parties or organizations; however, a permittee may have qualified subpermittees. "Protected wildlife" is defined as all wild species of mammals, birds, reptiles, amphibians, and fishes and endangered mollusks and crustaceans taken by a nonresident of New Mexico, or as pikas, marmots, and game, furbearing, and endangered mammals; all birds except rock doves, European starlings, and house sparrows; horned lizards if sacrificed, retained, and/or transported out of state; endangered reptiles; bullfrogs and endangered amphibians; game and endangered fishes; and endangered mollusks and crustaceans taken by a resident.



TABLE 37-1. Endangered and Threatened Species in the State of New Mexico that May Occur at WIPP

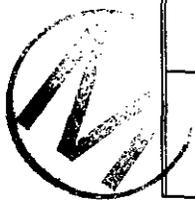
COMMON NAME	SCIENTIFIC NAME
Reptiles	
Western ribbon snake (Dunes) sagebrush lizard	<i>Thamnophis proximus</i> <i>Sceleroporus graciosus arenicolous</i>
Birds	
Aplomado falcon Peregrine falcon (F) Bald eagle (F) Baird's sparrow Varied bunting	<i>Falco femoralis</i> <i>Falco peregrinus</i> <i>Haliaeetus leucocephalus</i> <i>Ammodramus bairdii</i> <i>Passerina versicolor</i>

37.2 Compliance Status of the Regulatory Requirements

Table 37-2 summarizes each applicable requirement and its compliance status under the State of New Mexico's Wildlife Conservation Act. The text provides more detail on the compliance status of each requirement. It should be noted that a number of these requirements apply to WIPP because of the potential for the occurrence of recognized endangered or threatened species on WIPP lands.

TABLE 37-2. New Mexico Wildlife Conservation Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
State Game Commission Regulation No. 564, Governing the Removal, Capture, or Destruction of Endangered Species		
Regulation No. 564	Report of unpermitted removal, capture, or destruction of endangered species	NOT APPLICABLE No endangered species removed from, captured, or destroyed at WIPP [Section 37.2.1]
State Game Commission Regulation No. 682, Amending the Listing of Endangered Species and Subspecies of New Mexico		



CITATION	REQUIREMENT	COMPLIANCE STATUS
Regulation No. 682	Recognition of state-listed endangered wildlife	<p style="text-align: center;">ACHIEVED</p> Consultation with NMDG&F [Section 37.2.2]
State Game Commission Regulation No. 705, Regulation for the Taking and Possession of Protected Wildlife for Scientific and Educational Purposes		
Regulation No. 705, Chapter 2	Requirements for obtaining a permit	<p style="text-align: center;">ACHIEVED</p> Two permits obtained at WIPP (see Section 37.3) [Section 37.2.3]
Regulation 705, Chapter 5	Year-end reports	<p style="text-align: center;">UP TO DATE</p> Submitted annually by March 31 [Section 37.2.4]

37.2.1 Report of Unpermitted Removal, Capture, or Destruction of Endangered Species, Regulation No. 564

Persons without an authorized State permit who remove, capture, or destroy a State-listed endangered species must provide detailed information on such incident(s) to the State Game and Fish Department within 30 days.

No incidents requiring reports have occurred. Several permits and authorizations have been issued for various activities involving the taking of wildlife that are neither endangered nor threatened. These permits and authorizations specify that endangered wildlife shall not be taken during these activities (see Section 37.3).

37.2.2 Recognition of State-Listed Endangered Wildlife, Regulation No. 682

The State-listed endangered species that could be present at WIPP and/or affected by WIPP activities must be identified.



In 1989, the DOE consulted with the NMDG&F regarding the state-listed endangered species in the vicinity of the WIPP site. At that time, the department communicated to the DOE their opinion of which state-listed endangered species occur or are likely to occur at the WIPP site." The species identified were listed in Regulation No. 657, dated January 9, 1988, and included the following species: Mississippi kite, bald

eagle, peregrine falcon, least tern, willow flycatcher, Bell's vireo, Baird's sparrow, and the sagebrush lizard. The NMDG&F subsequently concurred that proposed WIPP activities would probably have no significant impacts on state-listed species in the area. Regulation No. 682 was updated on November 30, 1990, with Amendment No. 1 issued on July 25, 1991. The list in the updated version of Regulation No. 682 does not include the Mississippi kite. WIPP received the most recent list (dated April 24, 1995) of threatened and endangered species delineated by county and currently uses this list when considering land-use proposals.

37.2.3 Permit Application and Requirements to Conduct Activities Authorized Under this Regulation, Chapter 2 of Regulation No. 705

A person must complete and submit a permit or authorization application; after receipt of the permit, permittees and subpermittees must comply with written permit requirements.

To date, two permits for banding birds and taking protected birds (with specific methods for taking protected birds) have been issued. More detail on these permits is provided in Section 37.3.

37.2.4 Year-End Reports, Chapter 5 of Regulation No. 705

An annual report is generally required for permits issued by the Department of Game and Fish. The permits must be filed by March 31.

Annual reports are submitted that describe the activities conducted under each permit issued by the NMDG&F.

37.3 Compliance Status of the Permit Conditions

Table 37-3 summarizes the conditions imposed by the NMDG&F for each of the two permits issued. The text provides more detail on the compliance status of each permit condition.



TABLE 37-3. New Mexico Wildlife Conservation Act - Summary of Permit Compliance Status

CITATION	CONDITION	COMPLIANCE STATUS
Permit No. 1961	<ul style="list-style-type: none"> • Authorization for live capture and banding of protected birds; excluded for waterfowl, eagles, resident gallinaceous species of gamebirds, and federally endangered or threatened species • Salvaged endangered or threatened species salvaged to be reported • Disposition of wildlife 	<p style="text-align: center;">ACHIEVED</p> <p>Only authorized birds captured and/or banded; no endangered or threatened species salvaged; disposition of wildlife as required under permit</p> <p>[Section 37.3.1]</p>
Permit No. 1894	Live trapping; authorization for quail, catfish, and unprotected vertebrates; nonlethal methods for catfish; report for salvaging endangered or threatened vertebrates	<p style="text-align: center;">ACHIEVED</p> <p>No gill nets used; no more than 50 catfish taken under permit; nonlethal methods used for catfish; no endangered or threatened vertebrates salvaged</p> <p>[Section 37.3.2]</p>

37.3.1 Permit No. 1961

Permit No. 1961 authorizes the designated permittee and subpermittees to live-capture, band, and release all protected species of birds except for waterfowl, eagles, resident gallinaceous game birds, and endangered or threatened species. Salvage of any dead, injured, or otherwise incapacitated members of an endangered or threatened species must be reported to the NMDG&F within 14 days. The ultimate disposition of all protected wildlife that is not released is to the Carnegie Museum of Natural History, New Mexico State University, or the University of Arizona.

Permit No. 1961 was issued for the period of April 2, 1995, through March 31, 1996. No waterfowl, eagles, resident gallinaceous game birds, or endangered or threatened species have been live-captured, banded, or salvaged. The ultimate disposition of any protected species allowable under this permit resides in the Carnegie Museum of

Natural History, New Mexico State University, or the University of Arizona, as specified in the permit.

37.3.2 Permit No. 1894

Permit No. 1894 authorizes the permittee and subpermittees specified to use live traps, trotlines, and nets (except gill nets) to obtain specimens and to salvage dead, injured, or otherwise incapacitated vertebrates. The authorized WID personnel may take up to 30 specimens of quail, 50 channel/flathead catfish, and unprotected vertebrates as needed in Eddy and Lea counties. Nonlethal methods must be used to take the catfish. Any endangered or threatened species salvaged must be reported to the NMDG&F within 14 days. WIPP is the ultimate disposition location for all specimens retained under this permit.

Permit No. 1894 was issued for the period of April 1, 1995, through March 31, 1996. No gill nets have been used to obtain specimens. The allowable number of specimens of 50 channel/flathead catfish has not been exceeded. Methods used to capture the catfish are not lethal to these fish or to other aquatic vertebrates. No endangered or threatened species have been salvaged.

38.0 NEW MEXICO PESTICIDE CONTROL ACT

38.1 Summary of the Law

The Pesticide Control Act (§§ 76-4-1 through 76-4-30 NMSA 1978) is administered and enforced by the New Mexico State Department of Agriculture under the direction of the Board of Regents of New Mexico State University, Las Cruces, New Mexico. This act provides for the registration, labeling, distribution, storage, transportation, application, use, and disposal of pesticides and pesticide-related devices. It also provides for the licensing of pesticide dealers, consultants, applicators, and operators of pesticide apparatus and imposes penalties to protect the environment and the public health and welfare.

The Pesticide Control Act is implemented by two regulatory orders of the Board of Regents of New Mexico State University. Regulatory Order No. 4, *Regulatory Orders of the Board of Regents of New Mexico State University* (dated September 16, 1978), describes state requirements for the storage of pesticides and the disposal of pesticide wastes. Regulatory Order No. 5, *Definitions, Licensing, Equipment Inspection, Record Keeping of Pesticides by Regulated Applicants* (dated November 2, 1979), describes requirements for licensing and for applying pesticides in New Mexico and applies to all activities involving the distribution and use of pesticides in the state.

38.2 Compliance Status of the Regulatory Requirements

The compliance status of each of the major requirements of the implementing regulations of the Pesticide Control Act is summarized in Table 38-1. Additional detail is provided in the text.

TABLE 38-1. New Mexico Pesticide Control Act - Summary of Regulatory Compliance Status

CITATION	REQUIREMENT	COMPLIANCE STATUS
New Mexico Pesticide Control Act, Regulatory Order No. 4, <i>Regulatory Order of the Board of Regents of New Mexico State University</i>		
Section 5	Storage of pesticides and disposal of pesticide wastes	ACHIEVED General-use wasp and hornet killer properly stored on site [Section 38.2.1; see also 10.2.2]



New Mexico Pesticide Control Act, Regulatory Order No. 5, Definitions, Licensing, Equipment Inspections, Record Keeping of Pesticides by Regulated Applicators		
Section 6	License classifications	<p>NOT APPLICABLE</p> <p>Subcontractor: Categories 3A, 3B, 7A, 7B, 7D</p> <p>[Section 38.2.2]</p>
Section 10	Protective equipment	<p>ACHIEVED</p> <p>Contracts reviewed by WID personnel</p> <p>[Section 38.2.3]</p>
Section 11	Application of pesticides	<p>UP TO DATE</p> <p>Contracts reviewed by WID personnel</p> <p>[Section 38.2.4]</p>

38.2.1 Storage of Pesticides and Disposal of Pesticide Wastes, Section 5 of Regulatory Order No. 4

Requirements for storing pesticides and for disposing of pesticide wastes and pesticide containers are described in Section 5 of Regulatory Order No. 4 to the New Mexico Pesticide Control Act.



All restricted-use pesticides are brought on site by the contractor who has been hired to apply them. Storage and disposal of restricted-use pesticides and their containers are the responsibility of the contractors who are licensed by the State and knowledgeable of applicable requirements (see also Section 10.2.2). Two general-use pesticides, CINCH Wasp and Hornet Killer® and RAID Wasp and Hornet Killer® are stored at WIPP. CINCH® and RAID® are properly stored in accordance with the product label. Used, empty aerosol cans are managed as hazardous waste.

38.2.2 License Classification, Section 6 of Regulatory Order No. 5

There are 17 categories of licenses granted by the State of New Mexico. Each one represents the type and scope of the specific certification examinations that must be taken by commercial, non-commercial, and public applicators and by pest-management consultants for their licenses.

The contractor who applies pesticides at WIPP is licensed under the following categories:

3A - Ornamental Pest Control
3B - Turf Pest Control

7A - Structural Pest Control
7B - Rodent Control
7D - Termite Control

38.2.3 Protective Equipment, Section 10 of Regulatory Order No. 5

All licensed certified applicators must make available properly decontaminated protective equipment which is in proper working order and must advise their employees of its use to meet the safety requirements of the pesticide labeling.

All pesticide application contracts are reviewed and approved by WID before the contract is awarded. Provisions in the contract require that WID approve the use of all pesticides prior to application on site. In addition, the contractor is required to submit records of the date of application, specific location, application method, quantity applied, and weather conditions at time of application.

38.2.4 Application of Pesticides, Section 11 of Regulatory Order No. 5

A licensed certified applicator shall apply only those pesticides registered for use in New Mexico under his/her license application. Any person who applies pesticides must follow the directions, rates, and precautions that are stated on the approved label and labeling. Restricted-use pesticides shall be applied only by licensed certified applicators or persons under their direct supervision.

WID reviews the application method and pesticide(s) to be used by the contractor before the application to ensure that the method is appropriate and that no pesticides on the EPA's restricted list will be used.

A copy of the contractor's current license is maintained by the WID.



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