

**Notice of Class 1 Permit Modification in Accordance
with WIPP Permit Condition I.B.1**

**Waste Isolation Pilot Plant
Carlsbad, New Mexico**

Notice of Class 1 Permit Modification in Accordance with WIPP Permit Condition I.B.1

Consistent with the requirements of 20.4.1.900 New Mexico Administrative Code (NMAC) (hereafter referred to as Part 270 or Section 270.XX) the U.S. Department of Energy, Carlsbad Field Office is submitting to the New Mexico Environment Department (NMED) a notice of Class 1 modification to the Hazardous Waste Facility Permit (NM4890139088-TSDF) for the Waste Isolation Pilot Plant (WIPP). Specifically, this information is provided to comply with the requirements of Section 270.42(a).

This modification is listed in Table 1. Listed information includes a reference to the applicable section of the Permit, the title of the item and the relevant permit modification category as identified in 20.4.1.900 NMAC, incorporating 40 CFR 270.42, Appendix I. A more complete description of the Class 1 modification is provided in Attachment A.

The changes within these modifications do not reduce the capacity of the facility to protect human health or the environment.

Table 1. Class 1 Hazardous Waste Facility Permit Modification

No.	Affected Permit Section	Item	Category	Attachment A Page #
1	<ul style="list-style-type: none"> a. Module I I.A I.D.3 b. A-1 c. B-3d(1)(a) B-3d(2) B-4b(1)(ii) d. B3-16 e. B4-3e f. B6 g. F F-2 F-4a h. H i. H2 j. I-1 k. I1 l. I1G m. I2 n. L L-4c(2)(iii) L-4c(3) L-7a L-7f L-8 L-8b(1)(i) L-8d L-8f L-8g L-8h L-8i L-8j L-8k Figure L-17a Figure L-17b o. M1-1b p. N N-5i Figure N-3 q. P r. O- page 1, 7, Certification Statement 	<p>Name Change for M&O Contractor and Name Change for DOE Office</p>	A.1	A-2

Attachment A

Description of the Hazardous Waste Facility Class 1 Permit Modification

Item - 1

Description:

Revise the Hazardous Waste Facility Permit (HWFP) to change Carlsbad Area Office (CAO) to Carlsbad Field Office (CBFO). Change M&O references from Westinghouse Government Environmental Services Company LLC to Westinghouse TRU Solutions LLC and identify appropriate management personnel in HWFP Modules and Attachments.

Basis:

The CAO has recently been changed to the CBFO. This modification reflects that change.

The CBFO recently awarded a five-year Management and Operating (M&O) contract for WIPP to Westinghouse TRU Solutions LLC. Westinghouse Government Environmental Services LLC (WGES) and Roy F. Weston Inc. formed Westinghouse TRU Solutions LLC specifically for WIPP, of which WGES serves as managing member. Westinghouse TRU Solutions LLC commenced operations on February 1, 2001, as WIPP M&O contractor and as co-permittee under the HWFP.

Discussion:

The change is administrative and informational in nature as described in 20.4.1.900 NMAC (incorporating 40 CFR 270.42, Appendix I, A.1). The recent name change for both the M&O contractor as well as the change from a DOE area office to field office has prompted this modification.

Revised Permit Text:

a. 1. Module I, Section I.A. EFFECT OF PERMIT

The Secretary of the New Mexico Environment Department (**Secretary**) issues this Permit to the United States Department of Energy (**DOE**), the owner and co-operator of the Waste Isolation Pilot Plant (**WIPP**) (EPA I.D. Number NM4890139088), and ~~Westinghouse TRU Solutions LLC, Management and Operating Contractor (MOC), the Waste Isolation Division (**WID**) of Westinghouse Electric~~ **Westinghouse TRU Solutions LLC, Management and Operating Contractor (MOC)**, the co-operator of WIPP. This Permit authorizes DOE and ~~MOC WID~~ (**the Permittees**) to manage, store, and dispose contact-handled transuranic (**TRU**) mixed waste at WIPP, and establishes the general and specific standards for these activities, pursuant to the New Mexico Hazardous Waste Act (**HWA**), NMSA 1978, §§74-4-1 et. seq. (Repl. Pamp. 1993) and the New Mexico Hazardous Waste Regulations, 20.NMAC 4.1.100 NMAC et. seq.

a.2. Module I, Section I.D.3. Permittees

"Permittees" means the United States Department of Energy (**DOE**), an agency of the Federal government, and the owner and co-operator of the WIPP facility; and **Westinghouse TRU Solutions LLC, Management and Operating Contractor (MOC)**, the ~~Waste Isolation Division of Westinghouse Electric~~ **Waste Isolation Division of Westinghouse Electric Government Environmental Services Company LLC (**WID**)**, a division of CBS Corporation, and the co-operator of the WIPP facility.

b.1. Attachment A, Section A-1

ATTACHMENT A

**GENERAL FACILITY DESCRIPTION AND
PROCESS INFORMATION**

A-1 Facility Description

Abstract

NAME OF FACILITY:	Waste Isolation Pilot Plant
OWNER and CO-OPERATOR:	U.S. Department of Energy P.O. Box 3090 Carlsbad, NM 88221
CO-OPERATOR:	Westinghouse TRU Solutions Electric Corporation Government Environmental Services Company, LLC Waste Isolation Division P.O. Box 2078 Carlsbad, NM 88221
RESPONSIBLE OFFICIALS:	Keith Klein Inès Triay , Manager DOE/Carlsbad Area Field Office Joseph L. Epstein Henry F. Herrera , General Manager Westinghouse TRU Solutions Electric

~~Corporation~~Government Environmental Services Company,
LLC

FACILITY MAILING ADDRESS: U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221

FACILITY LOCATION: 30 miles east of Carlsbad on the Jal Highway, in Eddy County.

TELEPHONE NUMBER: 505/234-7300

U.S. EPA I.D. NUMBER: NM4890139088

GEOGRAPHIC LOCATION: 32° 22' 30" N
103° 47' 30" W

DATE OPERATIONS BEGAN: 11-26-1999

c.1. Attachment B, Section B-3d(1)(a) Sampling of Newly Generated Homogenous Solids

The records generated by the process procedures will be examined weekly for indications of process changes or limits being exceeded that would change the hazardous constituents identified in the waste stream or add relevant prohibited materials. If these changes are discovered, the Permittees will notify NMED and will not manage, store or dispose the waste stream until a follow-up sample of process waste is collected and analyzed to assess whether the container contents are within those identified on the Waste Stream Profile Form. If the second analysis is not consistent with the Waste Stream Profile Form information, all waste containers in question will be segregated and a new Waste Stream Profile Form and waste generation procedures/bounds will be established. Records of that analysis will be available for examination by the auditors and will be provided to NMED upon request. If records of the analysis are not available, the Permittees will not accept the waste stream at the WIPP facility for disposal. If a generator/storage site changes a process but determines that increased sampling is not required because the change will not affect waste generated by that process, the Permittees and NMED shall be notified in the form of a memorandum to the DOE's Carlsbad Area Field Office (CAO/CBFO) Waste Characterization Manager. The Permittees shall concur with the decision to not increase the sampling frequency before any additional waste from that process is shipped, and NMED will be notified of the Permittees' decision.

c.2. B-3d(2) Retrievably Stored Waste

To confirm the results of radiography, a statistically selected number of the TRU mixed waste container population will be visually examined by opening containers to inspect waste contents to verify radiography results. Permit Attachment B2 contains the approach used to statistically select the number of drums to be visually examined. For homogenous waste and soils/gravels selected for sampling, the containers opened for sampling may be used to help fulfill the visual examination requirements. A site may establish container safety conditions that must be met prior to opening containers for VE as a QC check on radiography. The establishment and use of container safety conditions are subject to the following criteria:

- C All container safety conditions must be based on characteristics of the waste and the site-specific operational safety requirements for VE (e.g., VE facility limitations and Hazards Analysis)
- C The method for determining the container safety conditions, the analysis performed, and the actual conditions established must be part of the site's documentation that is

submitted to the ~~CAO~~CBFO for approval (e. g., QAPjP, SOP) .

- c If a randomly selected container does not meet the container safety conditions, another randomly selected container from the same Summary Category Group must be visually examined in its place.
- c Container safety conditions that are established may not reduce the number of containers that are visually examined based on the statistical requirements of Permit Attachment B2.

c.3. Attachment B, Section B-4b(1)(ii) Examination of the Waste Stream Profile Form and Container Data Checks

The Permittees will be responsible for the verification of completeness and accuracy of the Waste Stream Profile Form (Section B3-12b(1)). The assignment of the waste stream description, Waste Matrix Code Group, and Summary Category Groups; the results of waste analyses; the acceptable knowledge summary documentation; the methods used for characterization; the ~~TSDf-WACCAO~~CBFO certification, and appropriate designation of EPA hazardous waste code(s) will be examined. If the Waste Stream Profile Form is inaccurate, efforts will be made to resolve discrepancies by contacting the generator/storage site. If discrepancies in the waste stream are detected at the generator/storage site, the generator/storage site will implement a non-conformance program to identify, document, and report discrepancies (Permit Attachment B3).

d.1. Attachment B3, Section B3-16 List of References

Currie, Lloyd A. 1968. "Limits for Qualitative Detection and Quantitative Determination." *Analytical Chemistry*, No. 40: pp. 586-93.

DOE. 1995a. Performance Demonstration Program Plan for the Analysis of Simulated Headspace Gases for the TRU Waste Characterization Program. CAO-95-1076, Current Revision, Carlsbad, ~~n~~New Mexico, Carlsbad Area Office, U.S. Department of ~~e~~Energy.

e.1. Attachment B4, Section B4-3e Acceptable Knowledge Data Quality Requirements

Each site shall address quality control by tracking its performance with regard to the use of acceptable knowledge by: 1) assessing the frequency of inconsistencies among information, and 2) documenting the results of acceptable knowledge confirmation through radiography or visual examination, headspace-gas analyses, and homogeneous waste analyses. In addition, the acceptable knowledge process and waste stream documentation shall be evaluated through internal assessments by quality assurance organizations and assessments by auditors or observers external to the organization (i.e., DOE/Carlsbad ~~Field~~Area Office (~~CBFO~~CAO), NMED, EPA).

f.1. Attachment B6, Table B6-2

TABLE B6-2 Solids and Soil/Gravel Sampling and Data Generation Level Review WAP Requirement¹	
GENERAL SOLIDS SAMPLING REQUIREMENTS	
24	<p>Are procedures in place that adequately ensure that the following requirements are met for continuous processes associated with newly generated homogeneous solid waste streams:</p> <ul style="list-style-type: none"> A. Newly generated homogeneous solid waste streams will be randomly sampled a minimum minimum of once per year for total PCBs, VOCs, SVOCs, and metals. An initial ten-sample set will be collected to develop a baseline control chart B. Sampling frequency of once per year is allowed only if continuous processes associated with newly generated homogeneous solid waste streams have operated within procedurally established bounds. Processes found not to be within established bounds are considered as process batches, and each batch will undergo sampling and analysis C. If the limits are exceeded, the waste stream shall be re-characterized according to procedures required for retrievably stored waste D. Process parameter bounds are established by specific written procedures for that process. These procedures consist of sections containing the following information: <ul style="list-style-type: none"> 1. Responsible organizations for implementing the requirements of the procedure b. Material inputs c. Waste streams generated d. Process controls and range of operation (bounds) that affect final hazardous waste determinations e. Rate and quality of hazardous waste generated f. List of applicable operating procedures relevant to the hazardous waste determination E. Procedures for evaluating the need for increased sampling frequency are defined F. Process records are examined weekly for indications of process changes or limit exceedances that would change the hazardous constituents identified in the waste stream or add relevant prohibited materials. Appropriate action is taken as specified in Section B-3d(1)(a) G. For process changes not impacting sampling frequency, the Permittees and NMED are notified in the form of a memorandum to the CBFO Waste Characterization Manager. The Permittees concur with the decision to not increase the sampling frequency before any additional waste from that process is shipped <p>(Section B-3d(1)(a))</p>

g.1 Attachment F, Introduction

The WIPP facility is owned and co-operated by the Department of Energy (**DOE**) and co-operated by its designated Management and Operating Contractor (**MOC**) which is currently the ~~Waste Isolation Division (**WID**) of Westinghouse~~ **TRU Solutions LLC Electric Company**.

g.2 Attachment F, Section F-2 Response Personnel

- EOC Staff-The EOC consists of a minimum staff, which includes **MOC** management personnel, three Operations representatives, one Environment, Safety, and Health representative (**ES&H**), and one Emergency Management representative.

g.3. Attachment F, Section F-4a Notification

Notification of the General Public

Immediate notification of the general public through the public safety and emergency agencies listed above will be made by, or under the direction of, the RCRA Emergency Coordinator following an evaluation to determine if local adjacent areas need to be evacuated. This evaluation will be made in consultation with the DOE who, as the owner of the facility, has management responsibility for the land withdrawal area. DOE policy is to provide accurate and timely information to the public by the most expeditious means possible concerning emergency situations at the WIPP site that may affect off-site personnel, public health and safety, and/or the environment. A DOE Carlsbad ~~Field Area~~ Office (~~DOE/CBFO~~ **GAO**) Management representative is always on-call. This person is available by pager or telephone 24 hours a day.

A Hazards Assessment was conducted, which indicated no need for protective actions or emergency action levels, as defined by the Permittees, for the facility. Therefore, no procedures are in place for evacuation of the public. Procedures are in place for notification of the public by radio, television, and newspapers for news items which might include notification of on-site emergency situations. These procedures include a Public Affairs Coordinator in the EOC who writes and transmits press releases to the DOE/~~CBFO~~ **GAO** office, where formal press conferences are conducted.

h.1. Attachment H, Introduction

The training requirements apply to all appropriate employees of the U.S. Department of Energy (**DOE**); the Management and Operating Contractor (**MOC**), Westinghouse **TRU Solutions LLC** ~~Waste Isolation Division~~; the Scientific Advisor, Sandia National Laboratories; and contractors who regularly work at the facility that may come in contact with and/or manage hazardous waste. The WIPP Project training program is comprehensive and applies to all areas of personnel performance and development. This chapter describes the introductory and continuing training provided to personnel at the WIPP facility, with emphasis on those facility personnel and their supervisors whose jobs are such that their actions or failure to act could result in a spill or release, or the immediate threat of a spill or release of hazardous waste. These personnel are directly involved with hazardous waste management at the WIPP facility. Their training allows them to operate the facility safely and in compliance with hazardous waste regulations.

i.1 Attachment H2

COURSE: GET-19X/GET-20X - General Employee Training

DURATION: . 16 Hours

PREREQUISITES: None

SCOPE:

TYPE: Classroom

OBJECTIVES: Upon completion of this course, the student will be able to perform their job in a safe manner and will have an overview of the site organization and description.

Mastery of the terminal objectives will be demonstrated by scoring 80 percent or higher on the course examination.

REFRESHER: GET-19XA/GET-20XA annually

COURSE DESCRIPTION (by module)

- 1. Site Overview & WIPP Description
. 1 hour
 - a. Mission of DOE and ~~CAO~~CBFO
 - b. Relationship of WIPP organizations
 - c. Surface structures
 - d. WIPP shafts
 - e. Underground area
 - 8. Work Policies and Procedures
. 1 hour
 - a. DOE Orders and Westinghouse TRU Solutions Procedures
 - b. Teamwork
 - c. Conduct of Operations Policy
 - 1. Elements of Conduct of Ops
 - d. Quality Assurance Program
 - e. Responsibility for following procedures
 - f. Resuming work after stoppage
 - g. Stopping work for unsafe acts
 - h. Purpose and uses of "Hold Tag"
 - i. Quality records and requirements
 - j. Correcting errors on QA Records
 - k. Configuration Management and affected departments
- i.2. Attachment H2

COURSE: SAF-630/631 - Respiratory Protection

DURATION: . 8 hours

PREREQUISITES: Medical physical

TYPE: Classroom and Practical

SCOPE: This program contains the requirements of respiratory protection as outlined in 29 CFR 1910.134, 10 CFR 20, ANSI, Z88.2-1980 and applicable WIPP procedures.

OBJECTIVE: Upon completion of this course the trainee will demonstrate a knowledge of the WIPP respiratory protection program; respiratory health hazards; and types of respiratory protection devices, their proper use and limitations.

Mastery of the terminal objective will be demonstrated by scoring

80% or higher on a closed book lesson examination.

COURSE DESCRIPTION (by lesson)

- 1. Introduction
 . 2 hours
 - A. Basic Requirements
 - a. Regulations
 - b. DOE Orders
 - c. Industry Standards
 - d. Westinghouse **TRU Solutions**
 - e. WIPP Procedures
 - 1. Physical exam
 - 2. Pulmonary test
 - 3. Training
 - 4. Fit Testing
 - 5. Identification of potential respirator activities

i.3 Attachment H2, **QUALIFICATION CARD:** Quality Assurance Inspector

DURATION: Six to nine months

CLASSROOM TRAINING: Various formal classroom courses are utilized to support the training received as part of the qualification card. The candidate is required to complete the classroom training courses, satisfactorily, prior to completion of the qualification card.

SCOPE: The Quality Assurance Qualification card establishes the minimum education, skill, training, knowledge, and experience requirements for Quality Assurance personnel who perform inspection activities.

REFERENCES: WP 13-1, ~~WID QA Program Manual~~ **Quality Assurance Program Description**
QAI PD2-3, Qualification of Inspection Personnel

QUALIFICATION CARD DESCRIPTION (by category)

1. General Knowledge

Demonstrate knowledge of the minimum site specific procedures:

- ! ASME NQA-1
- ! ~~WID QA Program Manual~~ **Quality Assurance Program Description**
- ! Safety Manual
- ! Hoisting and Rigging Procedures
- ! Work Authorization Procedures
- ! Document Control Procedures

j.1. Attachment I, Section I-1 Closure Plan

In the event the Permittees fail to obtain an extension of the hazardous waste permit in accordance with 20.NMAC 4.1.900 NMAC (incorporating 40 CFR §270.51) or fail to obtain a new permit in accordance with 20.NMAC 4.1.900 NMAC (incorporating 40 CFR §270.10(h)), the Permittees will seek a modification to this Closure Plan in accordance with 20.NMAC 4.1.900 NMAC (incorporating 40 CFR 270.42) to accommodate a contingency closure. Under contingency closure, storage units will undergo clean closure in accordance with 20.NMAC

4.1.500 **NMAC** (incorporating 40 CFR §264.178) waste handling equipment, shafts, and haulage ways will be inspected for hazardous waste residues (using, among other techniques, radiological surveys to indicate potential hazardous waste releases as described in Permit Attachment I3) and decontaminated as necessary, and underground HWDUs that contain radioactive mixed waste will be closed in accordance with the panel closure design described in this Closure Plan. Final facility closure, however, will be redefined and a request for a time extension for final closure will be requested. A copy of this Closure Plan will be maintained by the Permittees at the WIPP facility and at the Department of Energy (**DOE**) Carlsbad **Field Area** Office. The primary contact person at the WIPP facility is:

Manager, Carlsbad **Field Area** Office
 U.S. Department of Energy
 Waste Isolation Pilot Plant
 P. O. Box 3090
 Carlsbad, New Mexico 88221-3090
 (505) 234-7300

k.1. Attachment I1, **List of Abbreviations/Acronyms** Section

ACI	American Concrete Institute
AISC	American Institute for Steel Construction
*CFR	Code of Federal Regulations
cm	centimeter
EC	degrees celsius
EF	degrees Fahrenheit
DOE	U.S. Department of Energy
DRZ	disturbed rock zone
EEP	Excavation Effects Program
ESC	expansive salt-saturated concrete
FLAC	Fast Lagrangian Analysis of Continua
ft	foot (feet)
GPR	ground-penetrating radar
Kips	1,000 pounds
m	meter(s)
MB 139	Marker Bed 139
MPa	megapascal(s)
MSHA	Mine Safety and Health Administration
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NaCl	sodium chloride
NMVP	no-migration variance petition
psi	pound(s) per square inch
RCRA	Resource Conservation and Recovery Act
SMC	Salado Mass Concrete
TRU	transuranic
VOC	volatile organic compound(s)
Westinghouse	Westinghouse TRU Solutions LLC Electric Corporation- Government Environmental Services Company, LLC
WID	Waste Isolation Division
WIPP	Waste Isolation Pilot Plant

k.2. Attachment I1, **Executive Summary** Section

Scope. Under contract to Westinghouse **TRU Solutions LLC (Westinghouse)** now ~~Westinghouse Government Environmental Services Company, LLC, Waste Isolation Division (WID)~~, IT Corporation has prepared a detailed design of a panel-closure system for the Waste Isolation Pilot Plant (**WIPP**). Preparation of this detailed design of an operational-phase closure system is required to support a Resource Conservation and Recovery Act (**RCRA**) Part B

permit application. This report describes the detailed design for a panel-closure system specific to the WIPP site. The recommended panel-closure system will adequately isolate the waste-emplacement panels for at least 35 years.

k.3. Attachment I1, Section 5.0 Technical Specifications

The specifications are in the engineering file room at the WIPP and are the property of the ~~MOC Westinghouse WID~~. These specifications are included as an attachment in Appendix G and summarized in Table I1-2.

Table I1-2
Technical Specifications for the WIPP Panel-Closure System

Division 1 - General Requirements	
Section 01010	Summary of Work
Section 01090	Reference Standards
Section 01400	Contractor Quality Control
Section 01600	Material and Equipment
Division 2 - Site Work	
Section 02010	Mobilization and Demobilization
Section 02222	Excavation
Section 02722	Grouting
Division 3 - Concrete	
Section 03100	Concrete Formwork
Section 03300	Cast-in-Place Concrete
Division 4 - Masonry	
Section 04100	Mortar
Section 04300	Unit Masonry System

k.4. Attachment I1, Section 6.0 Drawings

The drawings (Appendix H) are in the engineering file room at the WIPP and are the property of the ~~MOC Westinghouse WID~~ and summarized in Table I1-3.

Table I1-3
Panel-Closure System Drawings

Drawing Number	Title
762447-E1	Title Sheet
762447-E2	Underground Waste Disposal Plan
762447-E3	Air Intake Drift Construction Details
762447-E4	Air Exhaust Drift Construction Details
762447-E5	Construction and Explosion Barrier Construction Details

I.1.Attachment I1G, **Section 01010 - Summary of Work**

Part 1 - General

Abbreviations/Acronyms Section

ACI	American Concrete Institute
AISC	American Institute for Steel Construction
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
AWS	American Welding Society
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
DRZ	Disturbed rock zone
EPA	U.S. Environmental Protection Agency
MB 139	Marker Bed 139
MSHA	U.S. Mine Safety and Health Administration
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
MOC	Management and Operating Contractor, Westinghouse TRU Solutions, LLC
RCRA	Resource Conservation and Recovery Act
SMC	Salado Mass Concrete
USACE	U.S. Army Corps of Engineers
Westinghouse	Westinghouse TRU Solutions Electric Company Government- Environmental Services Company, LLC
WID	Waste Isolation Division
WIPP	Waste Isolation Pilot Plant

I.2. Attachment I1G, **Section 01090 - Reference Standards**

Part 1 - General

Section 1.3 **Schedule of References**

~~WID~~**MOC** Westinghouse ~~TRU Solutions~~ Electric Corporation Government
Environmental Services Company, **LLC**
~~Waste Isolation Division~~
Carlsbad, New Mexico 88221

End of Section

I.3. Attachment I1G, **Section 02222 - Excavation**

Part 3 - Execution

3.4 Field Measurements and Survey

All survey required for performance of the work will be provided by the Permittees. The Contractor shall protect all survey control points, bench marks, etc., from damage by his operations. ~~The MOC WID~~ will verify by survey that the Contractor has excavated to the required lines and grades. The Contractor shall be responsible for verifying the excavation dimensions to develop concrete formwork to fit the excavation. No form work or block work is to be erected until this survey is completed. The Contractor is to coordinate the survey work with his operations to assure against lost time. The Contractor shall notify the Engineer at least 24 hours prior to the time surveying is required

End of section.

I.4. Attachment I1G, **Section 0330 - Cast-in-Place Concrete**

Part 1 - General

1.3 References

~~MOC Westinghouse WID~~ **Standards**

WIPP-DOE-71	Design Criteria Waste Isolation Pilot Plant, Revised Mission Concept -- IIA (DOE, 1984)
WP 03-1	WIPP Startup and Acceptance Test Program (Westinghouse, 1993b)
WP 09-010	Design Development Testing (Westinghouse, 1991)
WP 09-CN3021	Component Numbering (Westinghouse, 1994a)
WP 09-024	Configuration Management Board/Engineering Change Proposal (ECP) (Westinghouse, 1994b)

m.1 Attachment I2, Table I2-9. Summary of Information Describing Existing WIPP Shafts

	Shafts			
	Salt Handling	Waste	Air Intake	Exhaust
A. Construction Method				
i. Sinking method	Blind bored	Initial 6' pilot hole slashed by drill & blast (smooth wall blasting)	Raise bored	Initial 6' pilot hole slashed by drill & blast (smooth wall blasting)
ii. Dates of shaft sinking	7/81-10/81	Drilled 12/81-2/82 Slashed 10/83-6/84 Grouted 1984 & 1988	12/87-8/88	9/83-11/84
iii. Ground treatment in water-bearing zone	Grout behind steel liner during construction		Grouted 1993	Grouted 1985, 1986, & 1987
iv. Sump construction	Drill & blast	Drill & blast	No sump	No sump
B. Upper Portion of Shaft *				
i. Type of liner	Steel	Concrete	Concrete	Concrete
ii. Lining diameter (ID)	10'-0"	19'-0"	18'-0"/16'-7"	14'-0"
iii. Excavated diameter	11'-10"	20'-8" to 22'-4"	20'-3"	15'-8" to 16'-8"
iv. Installed depth of liner	838.5'	812'	816'	846'
C. Key Portion of Shaft *				
i. Construction material	Reinf. conc. w/chem. seals	Reinf. concrete w/chem. seals	Reinf. concrete w/chem. seals	Reinf. concrete w/chem. seals
ii. Liner diameter (ID)	10'-0"	19'-0"	16'-7"	14'-0"
iii. Excavated diameter	15'-0" to 18'-0"	27'-6" to 31'-0"	29'-3" to 35'-3"	21'-0" to 26'-0"
iv. Depth-top of Key	844'	836'	834'	846'
v. Depth-bottom of Key	883'	900'	897'	910'
vi. Dow Seal #1 depth	846' to 848'	846' to 849'	839' to 842'	853' to 856'
vii. Dow Seal #2 depth	853' to 856'	856' to 859'	854' to 857'	867' to 870'
viii. Dow Seal #3 depth	868 to 891'	NA	NA	NA
ix. Top of salt (Rustler/Salado contact)	851'	843'	841'	853'
D. Lower Shaft (Unlined) *				
i. Type of support	Unlined	Chain link mesh	Unlined	Chain link mesh
ii. Excavated diameter	11'-10"	20'-0"	20'-3"	15'-0"
iii. Depth-top of "unlined"	882'	900'	904'	913'
iv. Depth-bottom of "unlined"	2144'	2142'	2128'	2148'
E. Station *				
i. Type of support	Wire mesh		Wire mesh	Wire mesh
ii. Principal dimensions	21H x 31W	12H x 30W	25H x 36W	12H x 23W
iii. Depth-top of station	2144'	2142'	2128'	2148'
iv. Depth-floor of station	2162'	2160'	2150'	2160'
F. Sump *				
Depth-top of sump	2162'	2160'	No sump	No sump
Depth-bottom of sump	2272'	2286'		
G. Shaft Duty	Construction hoisting of excavated salt; personnel hoisting	Hoisting shaft for lowering waste containers; personnel hoisting until waste receipt	Ventilation shaft for intake (fresh) air; personnel hoisting	Exhaust air ventilation shaft

*This information is from the MOC Westinghouse WIP drawings identified on Sheets 2, 3, 7, 8, 12, 13, 17, and 18 of Drawing SNL-007 (see Appendix I2-E).

List of Abbreviations/Acronyms

ASER	Annual Site Environmental Report
AR/VR	Approval/Variation Request
Bell Canyon	Bell Canyon Formation
bgs	below ground surface
Castile	Castile Formation
cm	centimeter(s)
Culebra	Culebra Member of the Rustler Formation
CofC	Chain of Custody
EC	degree(s) Celsius
%C	percent completeness
DI	deionized
DMP	Detection Monitoring Program
DOE	U.S. Department of Energy
DQO	data quality objectives
EM	Environmental Monitoring
EPA	U.S. Environmental Protection Agency
ES&H	Environment, Safety, and Health Department
FEIS	Final Environmental Impact Statement
ft	foot (feet)
ft ²	square foot (square feet)
g/cm ³	gram per cubic centimeter
GWSP	Groundwater Surveillance Program
HWDU	hazardous waste disposal unit(s)
km	kilometer(s)
km ²	square kilometer(s)
lb/in. ²	pound(s) per square inch
LCS	laboratory control samples
LD	limit of detection
LWA	Land Withdrawal Act
m	meter(s)
M&DC	monitoring and data collection
m ²	square meter(s)
mg/L	milligram(s) per liter
mi	mile(s)
mi ²	square mile(s)
MOC	Management and Operating Contractor
MPa	megapascal(s)
mV	millivolt(s)
NIST	National Institute for Standards and Technology
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
PRS	Project Records Services
QA	Quality Assurance
QA	quality assurance
QA/QC	quality assurance/quality control
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFA	request for analysis
RIDS	Records Inventory and Disposition Schedule
RPD	relative percent difference
Rustler	Rustler Formation
%R	percent recovery
Salado	Salado Formation
SC	specific conductance

SOP	Standard Operating Procedure
STLB	sample tracking logbook
TDS	total dissolved solids
TOC	total organic carbon
TOX	total organic halogens
TRU	transuranic
TSDF	treatment, storage, and disposal facilities
TSS	total suspended solids
VOC	volatile organic compound
WID	Waste Isolation Division
WIPP	Waste Isolation Pilot Plant
WLMP	WIPP Groundwater Level Monitoring Program
WQSP	Water Quality Sampling Program
µg/L	microgram(s) per liter
µm	micrometers

n.2. Attachment L, Section L-4c(2)(iii) Final Samples

Duplicates of the final sample will be provided to WIPP oversight agencies as requested by the Permittees or NMED.

Resulting wastes are disposed of in accordance with the ~~WIPP~~~~WID~~ Procedure WP 02-RC.01¹. A current version of this document will be maintained in the WIPP Operating Record.

n.3. Attachment L, Section L-4c(3) Laboratory Analysis

Data validation will be performed on behalf of the Permittees by ~~WID Environmental~~ **Westinghouse TRU Solutions, LLC** Monitoring. Data validation results are documented on an Approval/Variation Request (**AR/VR**) form (Procedure WP 15-PC3041). If no discrepancies are found in the data, the AR/VR form will be signed and the approved box will be checked. If however, discrepancies are found, the AR/VR form will be signed and the disapproved or approved-on-condition box will be checked and the form will be returned to the team leader accompanied by an attached report discussing the data validation results, any anomalies, and resolutions. Copies of the data validation report will be distributed to the EM Manager, Q&RA Manager, the Team Leader, and the Contract Administrator. Copies of the data validation report will be kept on file in the EM records section for review upon request by NMED.

n.4. Attachment L, Section L-7a Environmental Monitoring Manager

DMP personnel. The EM Manager will assure that position descriptions for assigned DMP personnel are adequately prepared. The EM Manager and/or Team Leader will assure that training is performed on an individual basis to maintain an acceptable level of proficiency by all new or temporary DMP staff and by all permanent GWSP staff. The EM Manager will assure that documents detailing all staff training are current and properly filed. Copies of training records will be on file for the Permittees in the ~~WID~~~~MOC~~ Technical Training Section.

n.5. Attachment L, Section L-7f Quality and Regulatory Assurance (Q&RA) Manager

The ~~Q&RA~~ Manager will provide independent oversight of the DMP, via the assigned cognizant ~~Q&RA~~ engineer, to verify that quality objectives are defined and achieved. The ~~Q&RA~~ Manager will ensure objective, independent assessments of the DMP quality performance and the quality performance of the contract analytical laboratory. The ~~Q&RA~~ Manager has been delegated authority on behalf of the Permittees by the ~~WID~~ **Westinghouse TRU Solutions, LLC** General Manager and will have access to work areas, identify quality problems, initiate or recommend corrective actions, verify implementation of corrective

actions, and ensure that work will be controlled or stopped until adequate disposition of an unsatisfactory condition has been implemented.

n.6. Attachment L, Section L-8 Quality Assurance Requirements

Specific Quality Assurance (**QA**) requirements for WIPP are defined in ~~WHD~~WIPP document WP 13-1 . A current version of this document will be maintained in the WIPP Operating Record. Requirements specific to the DMP are presented in this section.

n.7. Attachment L, Section L-8b(1)(i) Accuracy Objectives for Field Measurements

Field measurements will include pH, SC, temperature, Eh, and static ground-water surface elevation. Field measurement accuracy will be determined using calibration check standards. Thermometers used for field measurements will be calibrated to the National Institute for Standards and Technology (**NIST**) traceable standard on an annual basis to assure accuracy. Accuracy of ground-water surface elevation measurements will be checked before each measurement period by verifying calibration of the device within the specified schedule. ~~WHD~~WIPP document WP 13-1 outlines the basic requirements for field equipment use and calibration . WIPP Procedure WP 10-AD3029, contains instructions that outline protocols for maintaining current calibration of ground-water surface elevation measurement instrumentation . A current version of this document will be maintained in the WIPP Operating Record.

n.8. Attachment L, Section L-8d Instructions, Procedures, and Drawings

Provisions and responsibilities for the preparation and use of instructions and procedures at WIPP are outlined in ~~WHD~~WIPP document WP 13-1 . Any activities performed for ground-water monitoring that may affect ground water will be performed in accordance with documented and approved procedures which comply with the Permit and the requirements of 20. 4.1.500 NMAC (incorporating 40 CFR §264 Subpart F).

Technical procedures, as specified elsewhere in this DMP, have been developed for each quality-affecting function performed for ground-water monitoring. The technical procedures unique to the DMP will be controlled by the ES&H at WIPP. The procedures are sufficiently detailed and include, when applicable, quantitative or qualitative acceptance criteria.

Procedures were prepared in accordance with requirements in ~~WHD~~WIPP document WP 13-1. A current revision of this document will be maintained in the WIPP Operating Record.

n.9. Attachment L, Section L-8f Control of Work Processes

Process control requirements, defined in ~~WHD~~WIPP document 13-1 , are met, and will continue to be met, for this DMP . A current revision of this document will be maintained in the WIPP Operating Record.

n.10. Attachment L, Section L-8g Inspections and Surveillance

Inspection and surveillance activities will be conducted as outlined in ~~WHD~~WIPP document WP 13-1 . The QA Department will be responsible for performing the applicable inspections and surveillance on the scope of work. EM section personnel will be responsible for performance checks as defined in applicable procedures and determined for the Permittees by ~~WHD~~MOC metrology laboratory personnel. Performance checks for the DMP will determine the acceptability of purchased items and assess degradation that occurs during use. A current revision of this document will be maintained in the WIPP Operating Record.

n.11. Attachment L, Section L-8h Control of Monitoring and Data Collection Equipment

~~WHD~~ WIPP document WP 13-1 , outline the basic requirements for control and calibrating

monitoring and data collection (**M&DC**). M&DC equipment shall be properly controlled, calibrated, and maintained according to WIPP Procedure WP 10-AD3029, to ensure continued accuracy of ground-water monitoring data. Results of calibrations, maintenance, and repair will be documented. Calibration records will identify the reference standard and the relationship to national standards or nationally accepted measurement systems. Records will be maintained to track uses of M&DC equipment. If M&DC equipment is found to be out of tolerance, the equipment will be tagged and it will not be used until corrections are made. A current revision of this document or procedure will be maintained in the WIPP Operating Record.

n.12. Attachment L, Section L-8i Control of Nonconforming Conditions

~~WIP~~ WIPP document WP 13-1 specifies the system used at WIPP for ensuring that appropriate measures are established to control nonconforming conditions. Nonconforming conditions connected to the DMP will be identified in and controlled by documented procedures. Equipment that does not conform to specified requirements will be controlled to prevent use. The disposition of defective items will be documented on records traceable to the affected items. Prior to final disposition, faulty items will be tagged and segregated. Repaired equipment will be subject to the original acceptance inspections and tests prior to use. A current revision of this document will be maintained in the WIPP Operating Record.

n.13. Attachment L, Section L-8j Corrective Action

Requirements for the development and implementation of a system to determine, document, and initiate appropriate corrective actions after encountering conditions adverse to quality at WIPP are outlined in ~~WIP~~ WIPP document WP 13-1. Conditions adverse to acceptable quality will be documented and reported in accordance with corrective action procedures and corrected as soon as practical. Immediate action will be taken to control work performed under conditions adverse to acceptable quality and its results to prevent quality degradation. A current revision of this document will be maintained in the WIPP Operating Record.

n.14. Attachment L, Section L-8k Quality Assurance Records

~~WIP~~ WIPP document WP 13-1 outlines the policy that will be used at WIPP regarding identification, preparation, collection, storage, maintenance, disposition, and permanent storage of QA records. A current revision of this document will be maintained in the WIPP Operating Record.

n. 15. Attachment L, Figure L-17a

Revised Figure L-17a is included in Attachment B

n. 16. Attachment L, Figure L-17b

Revised Figure L-17b is included in Attachment B

o.1. Attachment M1, Section M1-1b Description of Containers

~~20.NMAC~~ 4.1.500 NMAC (incorporating 40 CFR §264.171) requires that containers holding waste be in good condition. Waste containers shall be in good condition prior to shipment from the generator sites, i.e., containers will be of high integrity, intact, and free of surface contamination above DOE limits. The Manager of the DOE Carlsbad ~~Field Area~~ Office has the authority to suspend a generator's certification to ship TRU mixed waste to the WIPP facility should the generator fail to meet this requirement. The containers will be certified free of surface contamination above DOE limits upon shipment. This condition shall be verified upon receipt of the waste at WIPP. The level of rigor applied in these areas to ensure container integrity and the absence of external contamination on both ends of the transportation process will ensure that waste containers entering the waste management process line at

WIPP meet the applicable Resource Conservation and Recovery Act (RCRA) requirements for container condition.

p.1. Attachment N, **Acronyms and Abbreviations** Section

BFB	4-Bromofluorobenzene
BS/BSD	blank spike/blank spike duplicate
CH	Contact-handled
CLP	Contract Laboratory Program
COC	concentration of concern
CRQL	contract-required quantitation limit
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
ft	feet
FTIR	Fourier transform infrared spectrometry
g/mol	grams per mole
GC/MS	gas chromatography/mass spectrometry
HWDU	Hazardous Waste Disposal Unit
LCS	laboratory control sample
m	meter
MDL	method detection limit
MOC	Management and Operating Contractor, Westinghouse TRU Solutions LLC
MRL	method reporting limit
NIST	National Institute of Standards and Testing
NMAC	New Mexico Administrative Code
ppbv	parts per billion by volume
QA	quality assurance
QAPD	Quality Assurance Program Description
QAPjP	Quality Assurance Project Plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RPD	relative percent difference
SOP	standard operating procedure
SOW	statement of work
TIC	tentatively identified compound
TRU	Transuranic
VOC	volatile organic compound
WID	Westinghouse Electric Company Waste Isolation Division
WIPP	Waste Isolation Pilot Plant

p.2. Attachment N, Section N-5i Records Management

The Confirmatory VOC Monitoring Program will require administration of record files (both laboratory and field data collection files). The records control systems will provide adequate control and retention for program-related information. Records administration, including QA records, will be conducted in accordance with applicable DOE, ~~WID~~**MOC** and WIPP requirements.

p.3. Attachment N, Figure N-3

Revised Figure N-3 is included in Attachment B

q.1. Attachment P, Section **WP 13-1**

~~WID Quality Assurance Program Description (QAPD)~~

The document following this page has been removed in its entirety and replaced with a Document Summary. The complete and current document is retained within the WIPP Operating Record.

Document Summary

WP 13-1 identifies federal and industry quality requirements applicable to the ~~WHD~~ **Management and Operating Contractor (MOC)** quality assurance program. This document establishes the minimum quality requirements for ~~WHD~~ **MOC** personnel and guidance for the development and implementation of quality assurance programs by all ~~WHD~~ **MOC** departments. Requirements and guidance are based on criteria contained in applicable Federal Regulations, DOE Directives, EPA requirements documents, industry standards and the Department of Energy (DOE) Carlsbad ~~Area~~ **Field** Office Quality Assurance Program Document (QAPD). Source documents, which fall into one of three categories:

- Regulatory documents that define the requirements necessary for WIPP to be granted a certificate of compliance by the federal government and permit(s) by state governmental agencies to dispose of mixed transuranic (TRU) wastes in the WIPP repository
- Commitment documents that are imposed by DOE
- Guidance documents that provide additional information useful in developing quality assurance programs

r.1. Attachment O, Part A Application

A revised Part A Application is included in Attachment B

Attachment B

Attachment L, Figure L-17a
Example Change-of-Custody Form

Attachment L, Figure L-17b
Example Request for Analysis Form

REQUEST FOR ANALYSIS

Waste Isolation Pilot Plant
 Westinghouse TRU Solutions Electric Corp.
 P.O. Box 2078
 Carlsbad, NM 88221-2078

R/A Control _____
 C/C Control No. _____
 Date Sample Shipped _____
 Lab Destination _____
 Laboratory Contact _____
 Send Lab Report To _____

 Date Report Required _____
 Project Contact _____
 Project Contact Phone No. _____

VOC Monitoring Program _____
 Purchase Order No. _____

Serial No.	Sample No.	C-of-C No.	Sample Type	Sample Pressure	Preservative	Contract-Specific Testing	Special Instructions

TURNAROUND TIME REQUIRED: (Rush must be approved by appropriate Manager) NORMAL _____ RUSH _____ (Subject to rush surcharge)
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)
 NONHAZARD _____ FLAMMABLE _____ SKIN IRRITANT _____ HIGHLY TOXIC _____ BIOLOGICAL _____ OTHER _____

SAMPLE DISPOSAL (Please indicate disposition of sample following analysis.) RETURN TO CLIENT _____ DISPOSAL BY LAB _____ (Please Specify)

FOR LAB USE ONLY
 RECEIVED BY _____ DATE/TIME _____

Figure L-17b
 Example Request for Analysis Form

Attachment N, Figure N-3
Example Request for Analysis Form

REQUEST FOR ANALYSIS

Waste Isolation Pilot Plant
 Westinghouse TRU Solutions Electric Corp.
 P.O. Box 2078
 Carlsbad, NM 88221-2078

R/A Control _____
 C/C Control No. _____
 Date Sample Shipped _____
 Lab Destination _____
 Laboratory Contact _____
 Send Lab Report To _____

 Date Report Required _____
 Project Contact _____
 Project Contact Phone No. _____

VOC Monitoring Program _____
 Purchase Order No. _____

Serial No.	Sample No.	C-of-C No.	Sample Type	Sample Pressure	Preservative	Contract-Specific Testing	Special Instructions

TURNAROUND TIME REQUIRED: (Rush must be approved by appropriate Manager) NORMAL _____ RUSH _____ (Subject to rush surcharge)
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)
 NONHAZARD _____ FLAMMABLE _____ SKIN IRRITANT _____ HIGHLY TOXIC _____ BIOLOGICAL _____ OTHER _____

SAMPLE DISPOSAL (Please indicate disposition of sample following analysis.) RETURN TO CLIENT _____ DISPOSAL BY LAB _____ (Please Specify)

FOR LAB USE ONLY
 RECEIVED BY _____ DATE/TIME _____

Figure N-3
 Example Request for Analysis Form

Attachment O, Figure O-Part A

<p>For EPA Regional Use Only</p>	 United States Environmental Protection Agency Washington, DC 20460 <h2 style="margin: 0;">Hazardous Waste Permit Application Part A</h2> <p><i>(Read the Instructions before starting)</i></p>													
<p>Date Received</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Month</td> <td style="width:33%;">Day</td> <td style="width:33%;">Year</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Month	Day	Year											
Month	Day	Year												
<p>I. Facility's EPA ID Number (Mark 'X' in the appropriate box)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:40%;"><input type="checkbox"/> A. First Part A Submission</td> <td style="width:60%;"><input checked="" type="checkbox"/> B. Revised Part A Submission (Amendment # 10)</td> </tr> </table>			<input type="checkbox"/> A. First Part A Submission	<input checked="" type="checkbox"/> B. Revised Part A Submission (Amendment # 10)										
<input type="checkbox"/> A. First Part A Submission	<input checked="" type="checkbox"/> B. Revised Part A Submission (Amendment # 10)													
<p>C. Facility's EPA ID Number D. Secondary ID Number (if applicable)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:40%;">N M 4 8 9 0 1 3 9 0 8 8</td> <td style="width:60%;"> </td> </tr> </table>			N M 4 8 9 0 1 3 9 0 8 8											
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W a s t e I s o l a t i o n P i l o t P l a n t														
<p>III. Facility Location (Physical address not P.O. Box or Route Number)</p> <p>A. Street</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>3 0 M i l e s E a s t o f C a r l s b a d o n</td> </tr> </table> <p>Street (Continued)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>J a l H i g h w a y</td> </tr> </table> <p>City or Town State Zip Code</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">C a r l s b a d</td> <td style="width:10%;">N M</td> <td style="width:40%;">8 8 2 2 1 -</td> </tr> </table> <p>County Code (if known) County Name</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">0 3</td> <td style="width:85%;">E d d y</td> </tr> </table>			3 0 M i l e s E a s t o f C a r l s b a d o n	J a l H i g h w a y	C a r l s b a d	N M	8 8 2 2 1 -	0 3	E d d y					
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J a l H i g h w a y														
C a r l s b a d	N M	8 8 2 2 1 -												
0 3	E d d y													
<p>B. Land Type C. Geographic Location D. Facility Existence Date</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">(Enter code)</td> <td style="width:35%;">LATITUDE (Degrees, minutes, & seconds)</td> <td style="width:35%;">LONGITUDE (Degrees, minutes & seconds)</td> <td style="width:15%;">Month</td> <td style="width:15%;">Day</td> <td style="width:15%;">Year</td> </tr> <tr> <td>F</td> <td>3 2 2 2 3 0 N</td> <td>1 0 3 4 7 3 0 W</td> <td>0 5</td> <td>1 8</td> <td>1 9 8 1</td> </tr> </table>			(Enter code)	LATITUDE (Degrees, minutes, & seconds)	LONGITUDE (Degrees, minutes & seconds)	Month	Day	Year	F	3 2 2 2 3 0 N	1 0 3 4 7 3 0 W	0 5	1 8	1 9 8 1
(Enter code)	LATITUDE (Degrees, minutes, & seconds)	LONGITUDE (Degrees, minutes & seconds)	Month	Day	Year									
F	3 2 2 2 3 0 N	1 0 3 4 7 3 0 W	0 5	1 8	1 9 8 1									
<p>IV. Facility Mailing Address</p> <p>Street or P.O. Box</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>P O B o x 3 0 9 0</td> </tr> </table> <p>City or Town State Zip Code</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">C a r l s b a d</td> <td style="width:10%;">N M</td> <td style="width:40%;">8 8 2 2 1 -</td> </tr> </table>			P O B o x 3 0 9 0	C a r l s b a d	N M	8 8 2 2 1 -								
P O B o x 3 0 9 0														
C a r l s b a d	N M	8 8 2 2 1 -												
<p>V. Facility Contact (Person to be contacted regarding waste activities at facility)</p> <p>Name (Last) (First)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">T r i a y</td> <td style="width:50%;">I n e s</td> </tr> </table> <p>Job Title Phone Number (Area Code and Number)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">M a n a g e r</td> <td style="width:50%;">5 0 5 - 2 3 4 - 7 3 0 0</td> </tr> </table>			T r i a y	I n e s	M a n a g e r	5 0 5 - 2 3 4 - 7 3 0 0								
T r i a y	I n e s													
M a n a g e r	5 0 5 - 2 3 4 - 7 3 0 0													
<p>VI. Facility Contact Address (See instructions)</p> <p>A. Contact Address B. Street or P.O. Box</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">Location Mailing</td> <td style="width:20%;">Other</td> <td style="width:60%;">P O B o x 3 0 9 0</td> </tr> </table> <p>City or Town State Zip Code</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">C a r l s b a d</td> <td style="width:10%;">N M</td> <td style="width:40%;">8 8 2 2 1 -</td> </tr> </table>			Location Mailing	Other	P O B o x 3 0 9 0	C a r l s b a d	N M	8 8 2 2 1 -						
Location Mailing	Other	P O B o x 3 0 9 0												
C a r l s b a d	N M	8 8 2 2 1 -												

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XI. Nature of Business (Provide a brief description)

The Waste Isolation Pilot Plant (WIPP) is a U.S. Department of Energy facility intended to demonstrate the technical and operational principles involved in the permanent isolation and disposal of defense-generated transuranic waste. For purposes of RCRA, WIPP operations entail receiving, unloading, and transferring radioactive-mixed waste from the surface of the site to the underground hazardous waste management units. Waste will be emplaced in an underground geologic repository horizon located in a deep-bedded salt formation approximately 2,150 feet beneath the surface.

XII. Process Codes and Design Capacities

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in item XIII.

B. PROCESS DESIGN CAPACITY - For each code entered in column A, enter the capacity of the process.

1. AMOUNT - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.

2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

C. PROCESS TOTAL NUMBER OF UNITS - Enter the total number of units used with the corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	
D79	Disposal: Underground Injection	Gallons; Liters; Gallons Per Day; or Liters Per Day	T87	Smelting, Melting, Or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour	
D80	Landfill	Acre-feet or Hectare-meter	T88	Titanium Dioxide Chloride Process Oxidation Reactor		
D81	Land Treatment	Acres or Hectares	T89	Methane Reforming Furnace		
D82	Ocean Disposal	Gallons Per Day r Liters Per Day	T90	Pulping Liquor Recovery Furnace		
D83	Surface Impoundment	Gallons or Liters	T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid		
D99	Other Disposal	Any Unit of Measure Listed Below	T92	Halogen Acid Furnaces		
S01	Storage: Container (Barrel, Drum, Etc.)	Gallons or Liters	T93	Other Industrial Furnaces Listed In 40 CFR §260.10		
S02	Tank	Gallons or Liters	T94	Containment Building-Treatment Miscellaneous (Subpart X):		
S03	Waste Pile	Cubic Yards or Cubic Meters	X01	Open Burning/Open Detonation		Any Unit of Measure Listed Below
S04	Surface Impoundment	Gallons or Liters	X02	Mechanical Processing		
S05	Drip Pad	Gallons or Liters	X03	Thermal Unit		
S06	Containment Building-Storage	Cubic Yards or Cubic Meters	X04	Geologic Repository	Cubic Yards or Cubic Meters	
S99	Other Storage	Any Unit of Measure Listed Below	X99	Other Subpart X		
T01	Tank	Gallons Per Day or Liters Per Day				
T02	Surface Impoundment	Gallons Per Day or Liters Per Day				
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; or Btu's Per Hour				
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T80	Boiler	Gallons or Liters				
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T82	Lime Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T84	Phosphate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T85	Coke Oven	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T86	Blast Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G	Short Tons Per Hour	D
Gallons Per Hour	E	Metric Tons Per Hour	W
Gallons Per Day	U	Short Tons Per Day	N
Liters	L	Metric Tons Per Day	S
Liters Per Hour	H	Pounds Per Hour	J
Liters Per Day	V	Kilograms Per Hour	R
		Cubic Yards	Y
		Cubic Meters	C
		Acres	B
		Acre-feet	A
		Hectares	Q
		Hectare-meter	F
		Btu's Per Hour	I

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XII. Process Codes and Design Capabilities (Continued)

EXAMPLE FOR COMPLETING ITEM XII (Shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number	A. Process Code <small>(From list above)</small>			B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	For Official Use Only			
				1. Amount (Specify)	2. Unit Of Measure <small>(Enter code)</small>					
X 1	S	0	2	533.788	G	001				
1	X	0	4	175600 Total-54064 in ten years.		010				
2				See attached page for additional.						
3				Process information.						
4	S	0	1	87.7	C	001				
5				WHB Container Storage Unit.						
6				See attached page.						
7	S	0	1	47.1	C	001				
8				Parking Area Storage Container Unit.						
9				See attached page.						
10										
11										
12										
13										

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in item XIII.

XIII. Other Processes (Follow instructions from item XII for D99, S99, T04 and X99 process codes)

Line Number <small>(Enter #s in seq w/XII)</small>	A. Process Code <small>(From list above)</small>			B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	D. Description Of Process
				1. Amount (Specify)	2. Unit Of Measure <small>(Enter code)</small>		
X 1	T	0	4				In-situ Vitrification
1							
2							
3							
4							

XII. PROCESS—CODES AND DESIGN CAPACITIES (continued)

The Waste Isolation Pilot Plant (WIPP) geologic repository is defined as a "miscellaneous unit" under 20.4.1.800 NMAC (incorporating 40 CFR §260.10). "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, waste pile, land treatment unit, landfill, incinerator, containment building, boiler, industrial furnace, or underground injection well with appropriate technical standards under 40 CFR Part 146, corrective action management unit, or unit eligible for research, development, and demonstration permit under 40 CFR §270.65. The WIPP is a geologic repository designed for the disposal of defense-generated transuranic (TRU) waste. Some of the TRU wastes disposed of at the WIPP contain hazardous wastes as co-contaminants. More than half the waste to be disposed of at the WIPP also meets the definition of debris waste. The debris categories include manufactured goods, biological materials, and naturally occurring geological materials. Approximately 120,000 cubic meters (m³) of the 175,600 m³ of WIPP wastes is categorized as debris waste. The geologic repository has been divided into ten discrete hazardous waste management units (HWMU) which are being permitted under 40 CFR Part 264, Subpart X.

During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived waste will be limited to 175,600 m³ of TRU waste of which up to 7,080 m³ may be remote-handled (RH) TRU mixed waste. For purposes of this application, all TRU waste is managed as though it were mixed.

On March 25, 1996, the DOE reached the conclusion that in order to comply with 40 CFR 191 §13 which regulates the long-term release of radionuclides from a geologic disposal facility, it is necessary to add magnesium oxide to each disposal room. This additive is to be placed as a backfill over, beside, and within the waste stacks. The function of the backfill is to chemically alter the composition of brine that may accumulate in the disposal region. The result of the chemical alteration is to significantly reduce the solubility of the prevalent TRU radionuclides.

The process design capacity for the miscellaneous unit (composed of ten underground HWMU areas in the geologic repository) shown in Section XII B, is for the maximum amount of waste that may be received from off-site generators plus the maximum expected amount of derived wastes that may be generated at the WIPP facility. In addition, two HWMU areas have been designated as container storage units (S01) in Section XII. One is inside the Waste Handling Building (WHB) and consists of the contact-handled (CH) bay, conveyance loading room, waste hoist entry room, RH bay, cask unloading room, hot cell, transfer cell, and facility cask loading room. This HWMU areas will be used for waste receipt, handling, and storage (including storage of derived waste) prior to emplacement in the underground geologic repository. No treatment or disposal will occur in this S01 HWMU areas. The capacity of this S01 unit for storage is 87.7 m³, based on 40 standard waste boxes or seven-packs of drums on pallets and

in the TRUDOCKs, one standard waste box of derived waste, seven RH canisters in the transfer cell, and five RH canisters in the hot cell. The second ~~S01 HWMU~~ **area** is the parking area outside the WHB where the Transuranic Package Transporter (TRUPACT-II) trailers and the

road cask trailers will be parked awaiting waste handling operations. The capacity of this unit is ~~12 TRUPACT-IIs and three road casks or four rail casks with a combined volume of 47.1 m³.~~ The railroad side tracks are included in this area to accommodate rail shipments of RH-TRU mixed waste. The HWMUs **storage areas** are shown in Appendix O3 as Figures O3-2, O3-3, and O3-4.

During the ten year period of the permit, up to 52,110 m³ of CH waste and 1,954 m³ of RH waste could be emplaced in Panels 1 to 3. A fourth ~~HWMU~~ **areas** (Panel 4), plus disposal area access drifts (designated as Panels 9 and 10), will be constructed under this permit. These latter areas will not receive waste for disposal under this permit.

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GSA No. 0248-EPA-07

EPA I.D. Number (Enter from page 1)							Secondary ID Number (Enter from page 1)						
NM4890139088													
XIV. Description of Hazardous Wastes (Continued)													
Line Number	A. EPA HAZARD WASTE NO. (Enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESSES									
				(1) PROCESS CODES (Enter code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))					
1	F 0 0 1	1,891	M	X	0	4	S	0	1	S	0	1	
2	F 0 0 2	1,860	M	X	0	4	S	0	1	S	0	1	
3	F 0 0 3	1,593	M	X	0	4	S	0	1	S	0	1	
4	F 0 0 4	26	M	X	0	4	S	0	1	S	0	1	
5	F 0 0 5	1,829	M	X	0	4	S	0	1	S	0	1	
6	F 0 0 6	915	M	X	0	4	S	0	1	S	0	1	
7	F 0 0 7	915	M	X	0	4	S	0	1	S	0	1	
8	F 0 0 9	915	M	X	0	4	S	0	1	S	0	1	
9	D 0 0 4	903	M	X	0	4	S	0	1	S	0	1	
1 0	D 0 0 5	484	M	X	0	4	S	0	1	S	0	1	
1 1	D 0 0 6	1,819	M	X	0	4	S	0	1	S	0	1	
1 2	D 0 0 7	1,248	M	X	0	4	S	0	1	S	0	1	
1 3	D 0 0 8	3,246	M	X	0	4	S	0	1	S	0	1	
1 4	D 0 0 9	1,727	M	X	0	4	S	0	1	S	0	1	
1 5	D 0 1 0	186	M	X	0	4	S	0	1	S	0	1	
1 6	D 0 1 1	1,090	M	X	0	4	S	0	1	S	0	1	
1 7	D 0 1 8	749	M	X	0	4	S	0	1	S	0	1	
1 8	D 0 1 9	761	M	X	0	4	S	0	1	S	0	1	
1 9	D 0 2 1	26	M	X	0	4	S	0	1	S	0	1	
2 0	D 0 2 2	1,098	M	X	0	4	S	0	1	S	0	1	
2 1	D 0 2 6	609	M	X	0	4	S	0	1	S	0	1	
2 2	D 0 2 7	26	M	X	0	4	S	0	1	S	0	1	
2 3	D 0 2 8	449	M	X	0	4	S	0	1	S	0	1	
2 4	D 0 2 9	478	M	X	0	4	S	0	1	S	0	1	
2 5	D 0 3 0	26	M	X	0	4	S	0	1	S	0	1	
2 6	D 0 3 2	26	M	X	0	4	S	0	1	S	0	1	
2 7	D 0 3 4	26	M	X	0	4	S	0	1	S	0	1	
2 8	D 0 3 5	139	M	X	0	4	S	0	1	S	0	1	
2 9	D 0 3 6	26	M	X	0	4	S	0	1	S	0	1	
3 0	D 0 3 7	26	M	X	0	4	S	0	1	S	0	1	
3 1	D 0 3 8	26	M	X	0	4	S	0	1	S	0	1	
3 2	D 0 3 9	26	M	X	0	4	S	0	1	S	0	1	
3 3	D 0 4 0	140	M	X	0	4	S	0	1	S	0	1	

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EPA I.D. Number (Enter from page 1)					Secondary ID Number (Enter from page 1)										
NM4890139088															
XIV. Description of Hazardous Wastes (Continued)															
Line Number	A. EPA HAZARD WASTE NO. (Enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESSES								
							(1) PROCESS CODES (Enter code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))				
1	D	0	4	3	26	M	X	0	4	S	0	1	S	0	1
2	P	0	1	5	945	M	X	0	4	S	0	1	S	0	1
3															
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Form Approved, OMB No. 2050-0094 Expires 10/31/02
GSA No. 0248-EPA-01

EPA ID Number (Enter from page 1) <table border="1" style="width:100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 20px;">N</td> <td style="width: 20px;">M</td> <td style="width: 20px;">4</td> <td style="width: 20px;">8</td> <td style="width: 20px;">9</td> <td style="width: 20px;">0</td> <td style="width: 20px;">1</td> <td style="width: 20px;">3</td> <td style="width: 20px;">9</td> <td style="width: 20px;">0</td> <td style="width: 20px;">8</td> <td style="width: 20px;">8</td> </tr> </table>	N	M	4	8	9	0	1	3	9	0	8	8	Secondary ID Number (Enter from page 1) <table border="1" style="width:100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 20px;"> </td> </tr> </table>												
N	M	4	8	9	0	1	3	9	0	8	8														

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (See instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature	Date Signed
Name and Official Title (Type or print) Ines R. Triay, Manager, DOE Carlsbad Field Office	
Owner Signature	Date Signed
Name and Official Title (Type or print)	
Operator Signature	Date Signed
Name and Official Title (Type or print) Ines R. Triay, Manager, DOE Carlsbad Field Office	
Operator Signature	Date Signed
Name and Official Title (Type or print) Henry F. Herrera, President and General Manager - Westinghouse TRU Solutions, LLC	

XIX. Comments

Section XVIII Operator - *See Attached "RCRA Part A Application Certification"

This submittal is to notify of a name change.

Previous submittals were on July 9, 1991; November 12, 1992; January 29, 1993; March 2, 1995; May 26, 1995; April 12, 1996; May 29, 1996; April 21, 1999; and May 10, 1999. Part A originally signed on January 18, 1991, and submitted on January 22, 1991.

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)

RCRA PART A APPLICATION CERTIFICATION

The U.S. Department of Energy (DOE), through its Carlsbad Area **Field** Office, has signed as "owner and operator," and Westinghouse **TRU Solutions, LLC** Electric Corporation, acting through its ~~Waste Isolation Division (WID)~~, has signed this application for the permitted facility as "co-operator."

The DOE has determined that dual signatures best reflect the actual apportionment of Resource Conservation and Recovery Act (RCRA) responsibilities as follows:

The DOE's RCRA responsibilities are for policy, programmatic directives, funding and scheduling decisions, Waste Isolation Pilot Plant (WIPP) requirements of DOE generator sites, auditing, and oversight of all other parties engaged in work at the WIPP, as well as general oversight.

The ~~WID's~~ **MOC** RCRA responsibilities are for certain day-to-day operations (in accordance with general directions given by the DOE and in the Management and Operating Contract as part of its general oversight responsibility), including, but not limited to, the following: ~~certain~~ waste handling, monitoring, record keeping, ~~certain~~ data collection, reporting, technical advice, and contingency planning.

For purposes of the certification required by ~~Title 20 of the New Mexico Administrative Code, Chapter 4, Part 1 (20 NMAC 4.1);~~ **20.4.1.900 NMAC, Subpart IX, (incorporating 40 CFR §270.11(d))**, the DOE's and the ~~WID's~~ **MOC** representatives certify, under penalty of law that this document and all attachments were prepared under their direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on their inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of their knowledge and belief, true, accurate, and complete for their respective areas of responsibility. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner and Operator Signature: _____

Title: Manager, Carlsbad Area **Field** Office

for: U.S. Department of Energy

Date: _____

Co-Operator Signature: _____

Title: General Manager

for: Westinghouse TRU Solutions, LLC

Date: _____

**APPENDIX 01
OTHER ENVIRONMENTAL PERMITS**

**TABLE O1-1
ACTIVE ENVIRONMENTAL PERMITS/APPROVALS AS OF 4/1/96**

Granting Agency	Type of Permit	Number	Granted/Submitted	Expiration	Permit Status
Department of Interior, Bureau of Land Management	Right-of-Way for Water Pipeline	NMM53809	8/17/83	None	Active
Department of Interior, Bureau of Land Management	Right-of-Way for the North Access Road	NM55676	8/24/83	None	Active
Department of Interior, Bureau of Land Management	Right-of-Way for Railroad	NM55699	9/27/83	None	Active
Department of Interior, Bureau of Land Management	Right-of-Way for Dosimetry and Aerosol Sampling Sites	NNM63136	7/31/86	None	Active
Department of Interior, Bureau of Land Management	Right-of-Way for Seven Subsidence Monuments	NM65801	11/7/86	None	Active
Department of Interior, Bureau of Land Management	Right-of-Way for Aerosol Sampling Site	NM77921	8/18/89	8/18/2019	Active
Department of Interior, Bureau of Land Management	Right-of-Way for Ten Raptor Nesting Platforms	NM82212	9/12/89	12/13/2019	Active
Department of the Interior, Bureau of Land Management	Right-of-Way for Survey Monument Installation	NM82245	12/13/89	12/13/2019	Active
Department of Interior, Bureau of Land Management	Approval to Drill 2 Additional Test Wells on Existing Pads at P-1 and P-2	None	9/18/86	None	Active ¹
Department of Interior, Bureau of Land Management	Free Use Permit for Caliche Extraction	NM-FU5 94405	6/6/95	5/12/98	Active
New Mexico Environment Department	Open Burning Permit to Train Fire Control Crews	None	2/20/95	3/1/96	Canceled 10/25/95 Open burn training no longer conducted on site.
New Mexico Environment Department	Operating Permit for two Backup Generators	310-M-2	12/7/93	None	Active
New Mexico Environment Department	Discharge Plan Approval	DP-831	1/16/92	1/16/97	Active

TABLE O1-1 (CONTINUED)
ACTIVE ENVIRONMENTAL PERMITS/APPROVALS AS OF 4/1/96

Granting Agency	Type of Permit	Number	Granted/Submitted	Expiration	Permit Status
New Mexico Environment Department	Acknowledgement of Notification of Hazardous Waste Activity (WIPP)	NM48901 39088	1/88	None	Active
New Mexico Department of Game and Fish	Individual Banding	1961	2/16/96		Pending
New Mexico Department of Game and Fish	Master Collecting	1894	3/1/95	3/1/97	Active
New Mexico Department of Game and Fish	Concurrence that WIPP construction activities will have no significant impact on State-listed threatened or endangered Species	None	5/26/89	None	Active
New Mexico State Engineer Office	H-19b1 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2420	11/10/94	1/31/98	Active
New Mexico State Engineer Office	H-19b2 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2421	11/10/94	1/31/98	Active
New Mexico State Engineer Office	H-19b3 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2422	11/10/94	1/31/98	Active
New Mexico State Engineer Office	H-19b4 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2423	11/10/94	1/31/98	Active
New Mexico State Engineer Office	H-19b5 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2424	11/10/94	1/31/98	Active

TABLE O1-1 (CONTINUED)
ACTIVE ENVIRONMENTAL PERMITS/APPROVALS AS OF 4/1/96

Granting Agency	Type of Permit	Number	Granted/Submitted	Expiration	Permit Status
New Mexico State Engineer Office	H-19b6 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2425	11/10/94	1/31/98	Active
New Mexico State Engineer Office	WQSP-1 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2413	11/10/94	1/31/96	Resubmittal Pending
New Mexico State Engineer Office	WQSP-2 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2414	11/10/94	1/31/96	Resubmittal Pending
New Mexico State Engineer Office	WQSP-3 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2415	11/10/94	1/31/96	Resubmittal Pending
New Mexico State Engineer Office	WQSP-4 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2416	11/10/94	1/31/96	Resubmittal Pending
New Mexico State Engineer Office	WQSP-5 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2417	11/10/94	1/31/96	Resubmittal Pending
New Mexico State Engineer Office	WQSP-6 well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2418	11/10/94	1/31/96	Resubmittal Pending
New Mexico State Engineer Office	WQSP-6a well, permit to appropriate the underground waters of New Mexico for monitoring and characterization	C-2419	11/10/94	1/31/96	Resubmittal Pending
U.S. Department of the Interior, Fish and Wildlife Service	Master Personal Banding	22478	5/19/93	6/30/98	Active

TABLE O1-1 (CONTINUED)
ACTIVE ENVIRONMENTAL PERMITS/APPROVALS AS OF 4/1/96

Granting Agency	Type of Permit	Number	Granted/Submitted	Expiration	Permit Status
U.S. Department of the Interior, Fish and Wildlife Service	Concurrence that WIPP construction activities will have no significant impact on Federally-listed threatened or endangered species	None	5/29/80	None	Active
New Mexico Commissioner of Public Lands	Right-of-Way for High Volume Air Sampler	RW-22789	10/3/85	10/3/2020	Active
New Mexico Department of Finance and Administrative Planning Division, Historic Preservation Bureau	Concurrence that the DOE Archaeological Resources Protection Plan is adequate to mitigate any adverse impacts upon cultural resources resulting from construction of the WIPP facility	None	7/25/83	None	Active
New Mexico Environment Department	Notification of the presence of 2 Underground Storage Tanks	None	4/15/86	None	Active
U.S. Environmental Protection Agency	Conditional No-Migration Determination for the Test Phase	None	11/14/90	11/14/2000	Active
U.S. Environmental Protection Agency	NESHAPS (Radionuclides)	None	2/19/91 Data package submitted to the EPA		
U.S. Environmental Protection Agency	NPDES Storm Water General Permit	NMR00A021	12/31/92	12/31/97	Active

¹Existing pads P-1 and P-2, as of October 1992, belong to the U.S. Department of Energy (DOE). Therefore this permit is no longer needed through the granting agency.

**APPENDIX O2
MAPS**

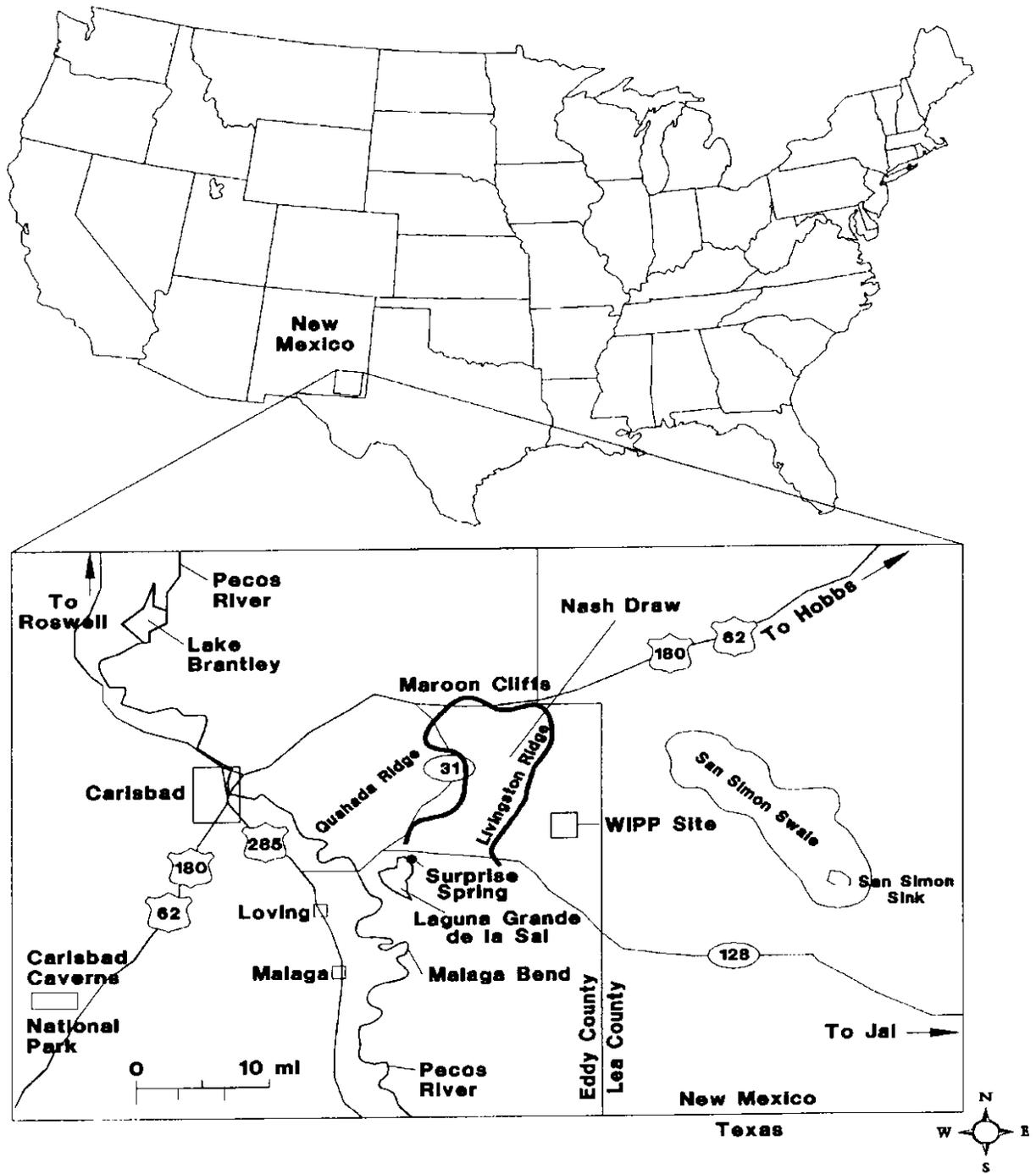
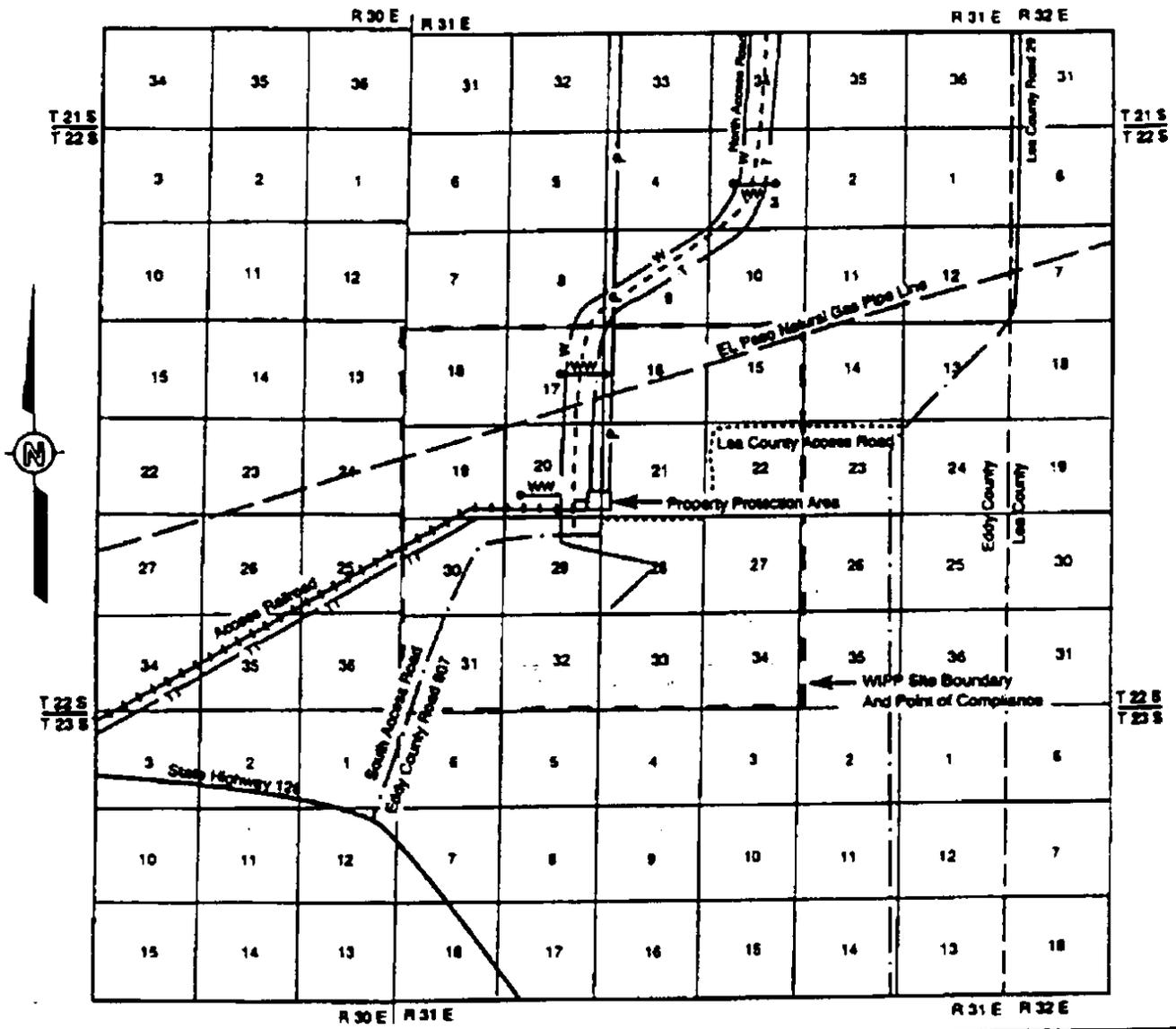


Figure O2-1
 General Location of WIPP Facility



This illustration for
information purposes only

Figure O2-2
Plainmetric Map-WIPP Facility Boundaries

LEGEND

-  WIPP Site Boundary 10,240 Acres.
-  U.S. DOE Right of Way Number NM-53809. For Waterline, 50 Feet Wide.
The DOE had Agreed with the City of Carlsbad to Allow the Individuals to Tap this Line Located within the North Access Road Right of Way.
-  Stock Water Tanks and Tap Lines Connected to the Main WIPP Waterline.
-  Southwestern Public Service Company Right of Way Number NM-43203 for Power 60 Feet Wide.
-  General Telephone of the Southwest Right of Way for Telephone Line, 30 Feet Wide, Located within the North access Road Right of Way.
-  General Telephone of the Southwest Right of Way Number NM-60174 for Telephone Line, 30 Feet Wide, Located within the Railroad Right of Way.
-  U.S. DOE Right of Way Number NM-55675 for North Access Road, 170 Feet Wide.
-  El Paso Natural Gas company Right of Way for Gas Pipeline, 30 Feet Wide in Section 16, 50 Feet Wide Elsewhere.
-  U.S. DOE Right of Way Number NM-55699 for Access Railroad, 150 Feet Wide.
-  Eddy County Right of Way for Access Roads includes Right of Way Number NM-4130 for the South Access Road Which is 150 Feet Wide.

NOTES

1. The Property Protection Area is a fenced area of approximately 35 acres. It contains all surface facilities with the exception of salt storage piles, parking lot, landfill and waste water stabilization lagoons.
2. Zone II overlies the maximum extent of the Area available for underground development.
3. WIPP site boundary (WSB) provides a one mile buffer area around the area available for underground development.

**APPENDIX O3
FACILITIES**

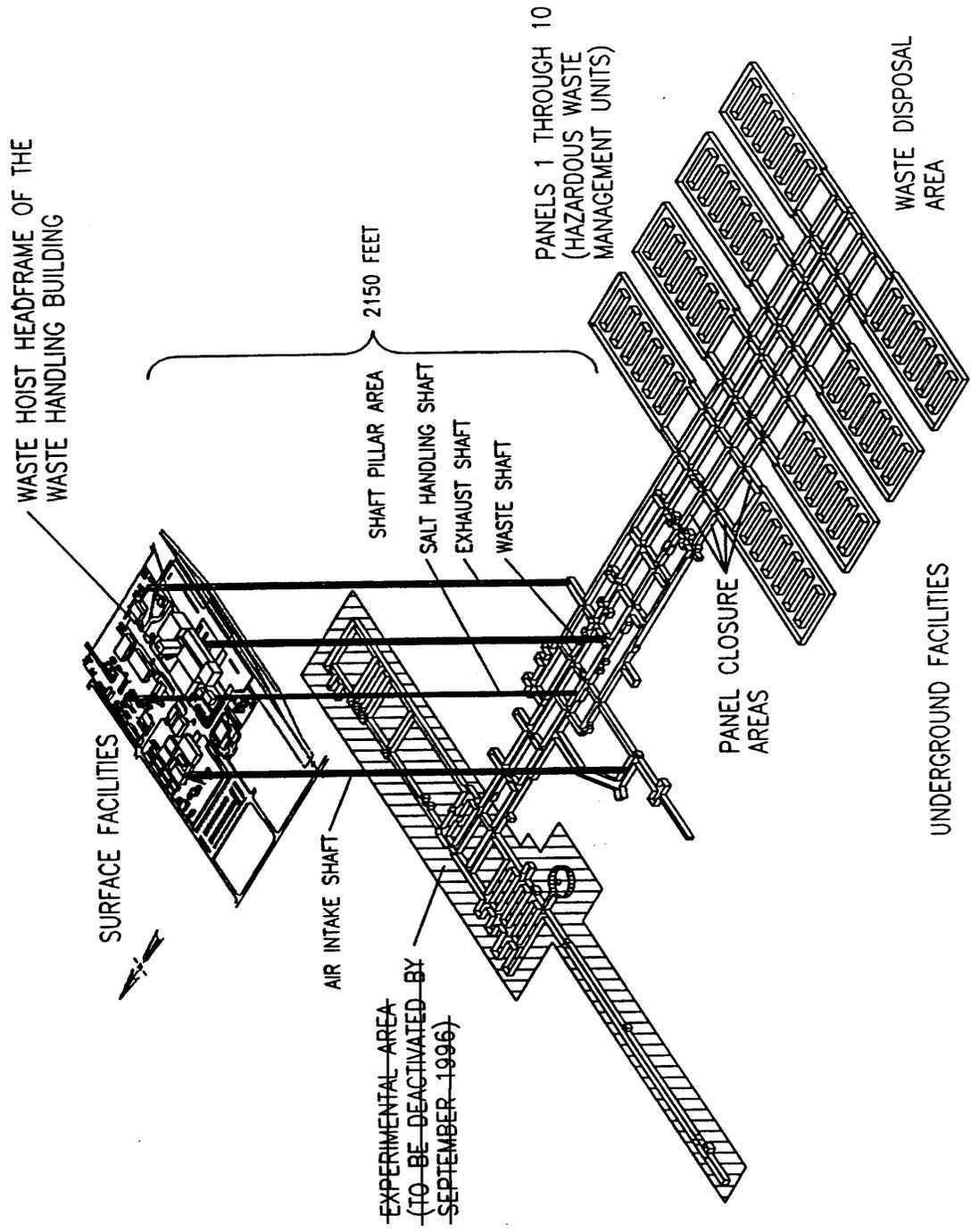


Figure O3-1
Spatial View of the WIPP Facility

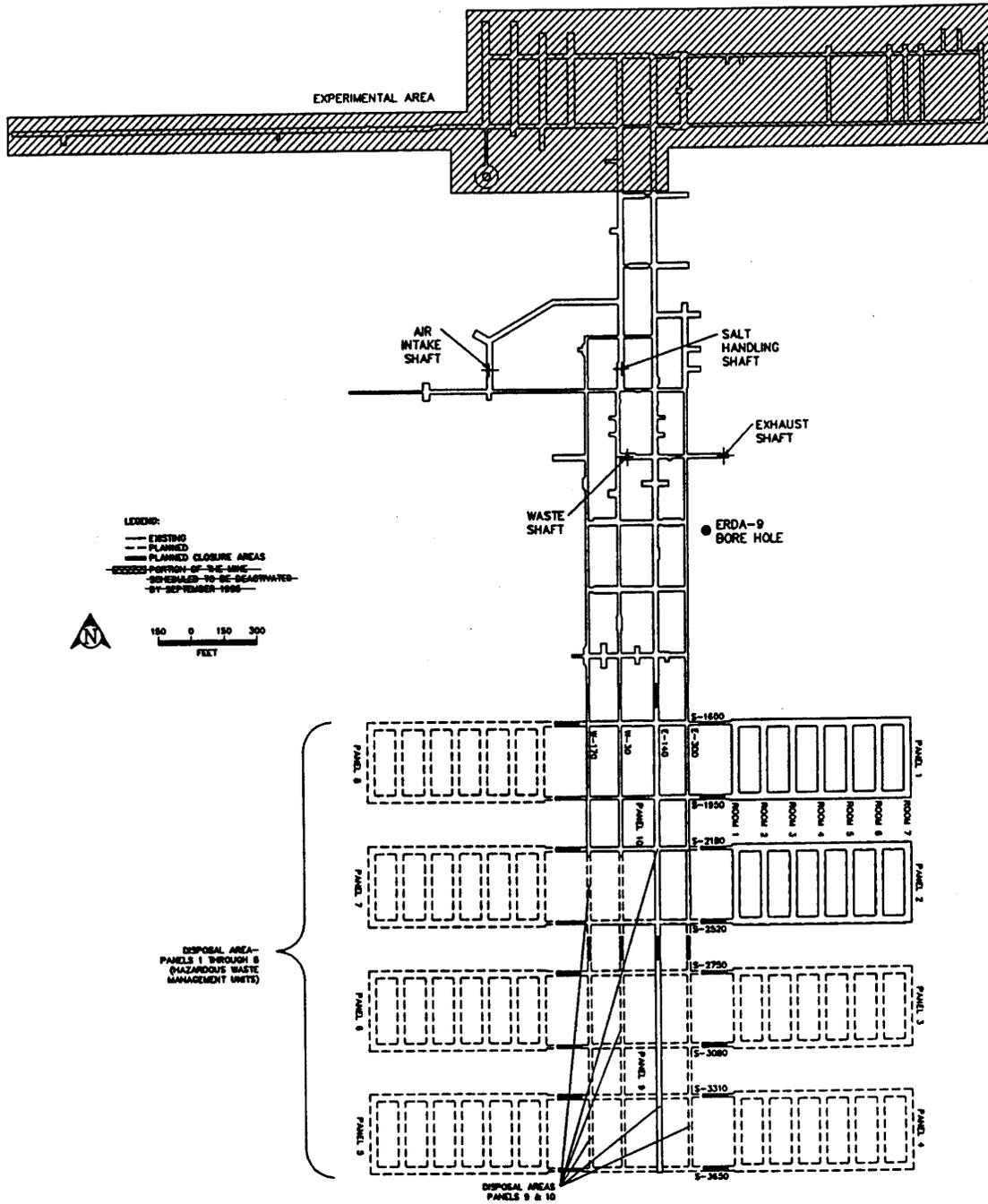


Figure O3-2
Repository Horizon

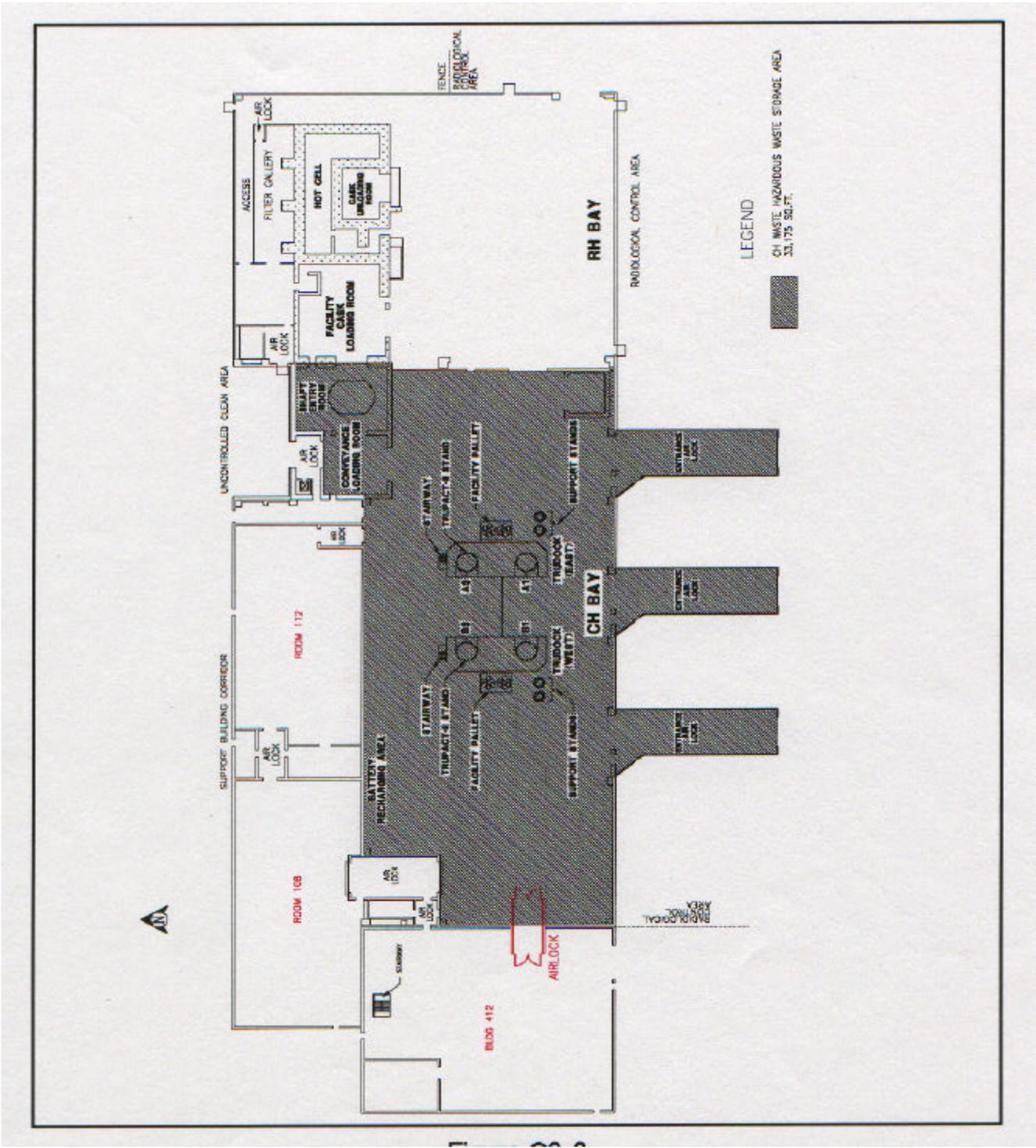


Figure O3-3
Waste Handling Building-Container Storage Unit

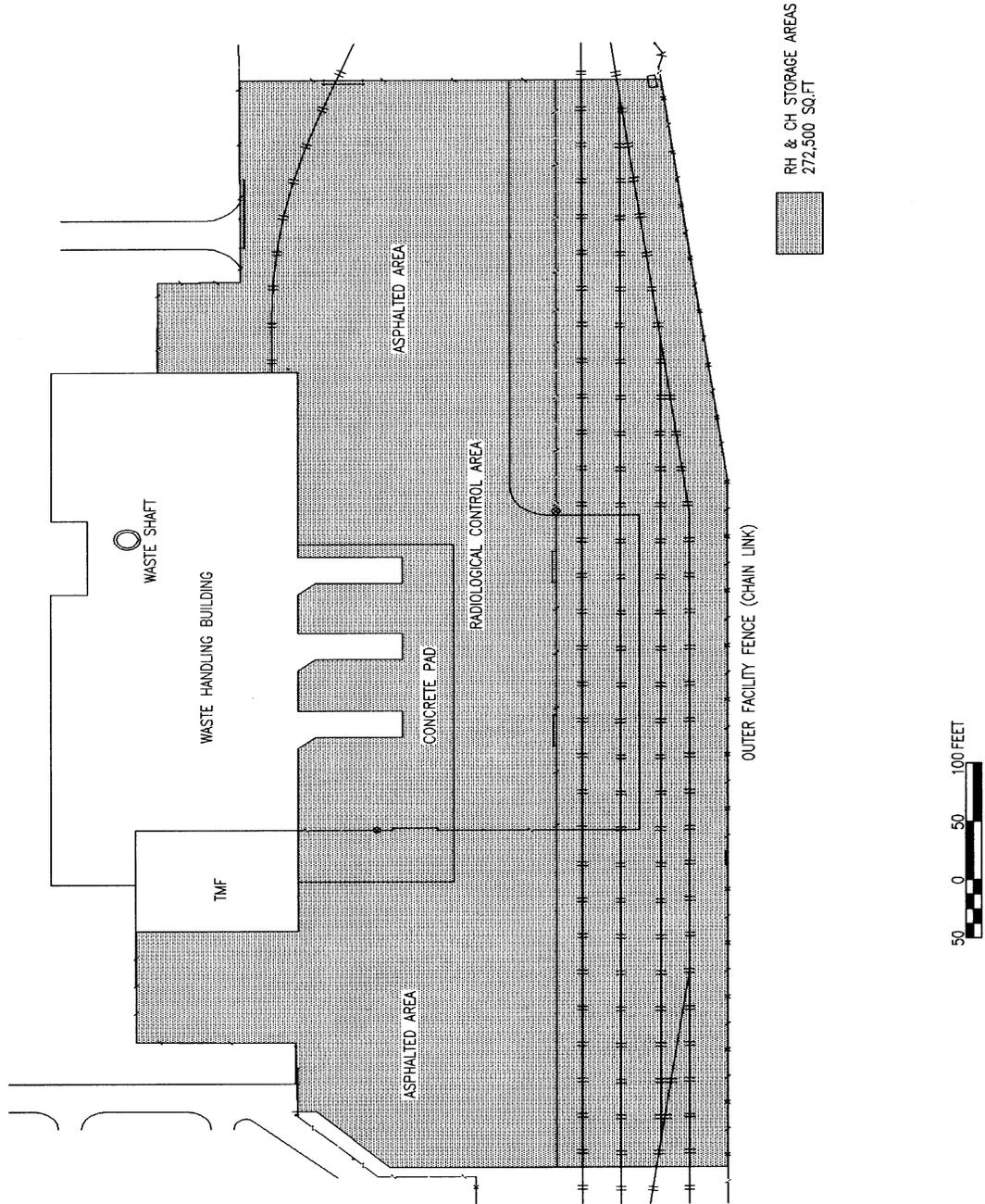


Figure O3-4
Parking Area-Container Storage Unit