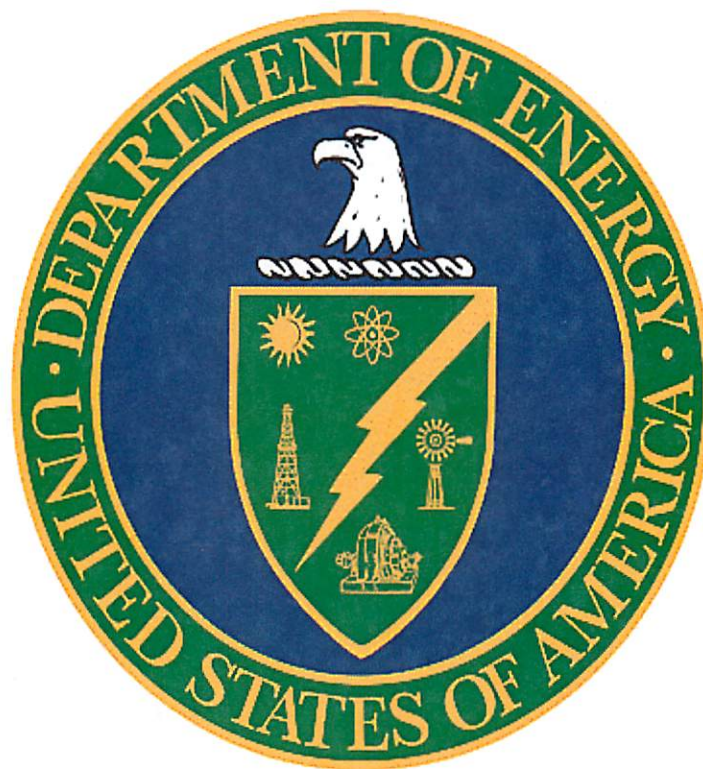


# 2014 ANNUAL MITIGATION REPORT FOR THE WASTE ISOLATION PILOT PLANT



JULY 10, 2014

## TABLE OF CONTENTS

<b>ACRONYMS</b> .....	3
<b>2014 ANNUAL MITIGATION REPORT</b> .....	4
<b>INTRODUCTION</b> .....	4
<b>REFERENCES</b> .....	15

## ACRONYMS

AMR	Annual Mitigation Report
ASER	Annual Site Environmental Report
BECR	Biennial Environmental Compliance Report
CBFO	Carlsbad Field Office
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EMP	Environmental Monitoring Plan
EMS	Environmental Management System
EPA	Environmental Protection Agency
ER	emergency response
FASs	fixed air samplers
FEIS	Final Environmental Impact Statement
FR	Final Environmental Impact Statement Record of Decision
IART	Incident/Accident Response Team
MAP	Mitigation Action Plan
MERRTT	Modular Emergency Response Radiological Transportation Training
MOC	Management and Operating Contractor
NESHAP	National Emission Standards for Hazardous Air Pollutants
NC	National Environmental Policy Act compliance
RC	regulatory compliance
ROD	Record of Decision
SEIS	Supplemental Environmental Impact Statement
TP	test phase
TR	transportation
TRU	<u>transur</u> anic
TRUPACT-II	<u>Transur</u> anic <u>Package</u> <u>Transporter</u> Type B Shipping Container, Model <u>II</u>
VPP	Voluntary Protection Program
WIPP	Waste Isolation Pilot Plant

## 2014 ANNUAL MITIGATION REPORT FOR THE WASTE ISOLATION PILOT PLANT

### INTRODUCTION

The guidance for the development of a Mitigation Action Plan (MAP) is contained in U.S. Department of Energy (DOE) Order 451.1B, *National Environmental Policy Act Compliance Program*, and 10 Code of Federal Regulations (CFR) 1021, *National Environmental Policy Act Implementing Procedures*. These documents specify that a MAP be prepared to mitigate environmental impacts resulting from the implementation of commitments made in the Record of Decision (ROD) for an Environmental Impact Statement. The order further requires that an annual report be prepared to demonstrate the progress made in implementing the commitments and the effectiveness of any mitigation activity until the activity has been completed. The Waste Isolation Pilot Plant (WIPP) MAP was prepared to address commitments made in the RODs for the *WIPP Final Environmental Impact Statement (FEIS)*, and the *WIPP Final Supplemental Environmental Impact Statement (SEIS)*. This *2014 Annual Mitigation Report (2014 AMR)* addresses only those open WIPP project-related mitigation activities. (See shaded Commitment Codes in Table 1, Categories of Commitments made in the FEIS, SEIS-I, SEIS-II RODs).

The mitigative actions for the *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement (SEIS-II)* were addressed and mitigative actions are either in effect or are complete. In addition, these SEIS-II commitments are listed in Table 1 and addressed in the report. (See shaded Commitment codes in Table 1, Categories of Commitments made in the FEIS, SEIS-I, and SEIS-II RODs).

A summary of each ROD commitment and its status is presented in Table 1. Each commitment has been assigned an alpha-numeric code. The alphabetic component designates the source and/or subject area of the commitment as noted below.

#### Alphabetic

Code	Designation
<b>ER</b>	<b>Emergency response (SEIS-I ROD)</b>
<b>FR</b>	<b>Final Environmental Impact Statement Record of Decision – All commitments are included in this code.</b>
<b>NC</b>	<b>National Environmental Policy Act compliance (SEIS-I ROD)</b>
<b>RC</b>	<b>Regulatory compliance (SEIS-I ROD)</b>
<b>TR</b>	<b>Transportation (SEIS-I ROD)</b>
<b>TP</b>	<b>Test phase (SEIS-I ROD)</b>

The numeric component designates the sequential order of the commitment. Commitment numbers are identical to those presented in the original MAP.

The table includes a category code that represents the current status of the mitigation actions for each commitment. As in previous mitigation reports, the 2014 AMR uses the following definitions for the four status categories:

- Category 1: Active commitments with ongoing implementation activities.
- Category 2: Commitments that have been fulfilled.

- Category 3:** Commitments that will not be implemented due to DOE policy changes (such as those related to the cancellation of the WIPP Test Phase).
- Category 4:** Commitments or portions of commitments that are being tracked as environmental compliance or data collection commitments in other DOE reports. Commitments or portions of commitments designated as Category 4 require the DOE to comply with applicable state and federal regulations. The status of compliance with these regulations is tracked in the compliance chapter of the current *WIPP Annual Site Environmental Report (ASER)*, and in the *WIPP Biennial Environmental Compliance Report (BECR)*.

Table 2 contains tracking number(s) for active mitigation commitments (or commitment portions), the relevant text from the ROD, and a description of the implementation status for each commitment.

**Table 1 - Categories of Commitments made in the FEIS, SEIS-I, SEIS-II RODs**

COMMITMENT	CATEGORY	COMMITMENT	CATEGORY	COMMITMENT	CATEGORY
FR-1	2	FR-6h	2	RC-2b	2
FR-2	2	FR-6i	2	RC-2c	2
FR-3	2	FR-7	1	RC-2d	2
FR-4	3	FR-7a	1 & 4	RC-2e	2
FR-5	3	FR-7b	1 & 4	RC-2f	2
FR-6	1	FR-7c	4	RC-2g	4
FR-6a	1 & 4	FR-7d	2	RC-2h	4
FR-6b	2	FR-7e	4	RC-2i	4
FR-6c	2	FR-7f	1 & 4	RC-2j	1
FR-6c(1)	2	FR-8	1	RC-3	4
FR-6c(2)	2	NC-1	2	TR-1	2
FR-6c(3)	2	NC-1	2	TP-1	3
FR-6c(4)	2	NC-2	3	TP-2	3
FR-6d	1 & 4	RC-1	4	TP-3	3
FR-6e	2	RC-2	1	TP-4	3
FR-6f	3	RC-2a	1	ER-1	1
FR-6g	3	S2-1	1	S2-2	1
S2-3	1				

**NOTE:**

Shaded boxes pertain to commitments, or commitment portions, discussed in the 2014 AMR. The non-shaded boxes indicate mitigative actions that have been completed or are not currently relevant.

**Table 2 - Status of Mitigation Implementation for Commitments made in WIPP RODs**

No.	Commitment	Status of Mitigation Implementation
FR-6	<p><b>Commitment:</b> <i>DOE will mitigate adverse impacts of the WIPP project on the quality of the human environment by implementing the proposed mitigation activities as described in Section 9.6 of the FEIS.</i></p> <p><b>Reference:</b> FEIS ROD, p. 9-164</p>	<p>Methodologies for meeting the implementing mitigation activities described in Section 9.6 of the FEIS are described in commitments FR-6a through FR-6i. Of these, FR-6a and FR-6d have not been completed and are therefore discussed in this table.</p>
FR-6a	<p><b>Commitment:</b> <i>Environmental monitoring will allow the DOE to be continuously aware of environmental conditions and will alert them to any unexpected impacts, so appropriate action can be taken.</i></p> <p><b>Reference:</b> FEIS, Vol. I, p. 9-114</p>	<p>Environmental data reported by the WIPP project are collected in accordance with the requirements of the <i>Waste Isolation Pilot Plant Environmental Monitoring Plan (EMP)</i>. The EMP defines the extent and scope of the WIPP environmental monitoring programs. It describes the environmental parameters that are sampled by the WIPP staff, in addition to the criteria and methodologies by which samples are collected.</p> <p>The EMP will continue to define the scope and extent of the WIPP facility emission/effluent and environmental monitoring programs during the operational life of the facility.</p> <p>The WIPP ASER reports on the annual monitoring data collected as part of the environmental monitoring program. The information reported annually in the WIPP ASER includes volatile organic compound and radioactivity. Media examined include: ambient air, soil, meteorological, biota, surface water, sediment, and groundwater.</p>
FR-6d	<p><b>Commitment:</b> <i>Radiation monitors will be used to activate a system whereby the disposal-exhaust air will be diverted to high efficiency particulate air (HEPA) filters if an accident releases radioactivity underground.</i></p> <p><b>Reference:</b> FEIS, Vol. I, p. 9-117</p>	<p>The WIPP facility began receiving transuranic (TRU) waste on March 26, 1999. Continuous air monitors, located at the exit of the active waste disposal panel, provide the capability to activate a system to divert disposal exhaust air to high efficiency particulate air filters if an airborne radioactivity release occurs in the underground. The decision to locate the shift to filtration function to the continuous air monitors at the exits of the active waste disposal rooms is explained in the WIPP Radiological Control Position Paper, No. 96-05, <i>Numbers and Placement of Effluent Continuous Air Monitors for WIPP Disposal-Phase Operations</i>.</p>
FR-7	<p><b>Commitment:</b> <i>In addition to the active mitigation measures to be taken, the monitoring activities described in Section 2, Appendix J, of the FEIS will be implemented.</i></p> <p><b>Reference:</b> FEIS ROD, p. 9164</p>	<p>Implementation of the monitoring activities described in Section 2, Appendix J, of the FEIS is discussed in commitments FR-7a through FR-7f. Commitments FR-7c and FR-7e are no longer being tracked in this report; however, information pertaining to their implementation is provided in the WIPP BECR and the WIPP ASER. Commitment FR-7d has been completed and is not discussed in this table.</p>
FR-7a	<p><b>Commitment:</b> <i>Continuous monitoring of seismic activity will be conducted near the surface.</i></p> <p><b>Reference:</b> FEIS, Vol. II, p. J-28</p>	<p>Currently, two different seismic monitoring programs are underway for the WIPP Project, one to evaluate regional seismic activity and the other to monitor WIPP facility-specific seismic activity. The regional program examines regional seismic activities such as magnitude, depth, and</p>

No.	Commitment	Status of Mitigation Implementation
FR-7a Cont.		<p>patterns. Quarterly summary reports are provided to the DOE. These reports, most recently the <i>Report on the Seismicity of the WIPP Site for the Period January 1, 2014 through March 31, 2014</i>, utilize data from the WIPP off-site network (an eight-instrument array within 300 kilometers of the WIPP facility) and other networks in New Mexico. Seismic monitoring data are presented annually in the ASER.</p> <p>The on-site seismic monitoring program utilizes accelerometers to detect ground motion or ground acceleration at the WIPP site. Earthquakes with ground motion of 0.008 g (gravitational constant) or greater are recorded. In the event of earthquake seismic event of 0.015 g, on-site accelerometers would activate alarms at the Central Monitoring Room, and then physical structures and the mine would be inspected. In the event of a design-basis earthquake (0.10 g), a signal is sent to close the tornado dampers. When the tornado dampers close, the Waste Handling Building ventilation system is automatically stopped.</p>
FR-7b	<p><b>Commitment:</b> <i>It is expected that ground-water sampling for the long-term monitoring will be performed on an annual basis. However, after mining for the WIPP has started, sampling will be performed quarterly until conditions stabilize.</i></p> <p><b>Reference:</b> FEIS, Vol. II, p. J-29</p>	<p>This FEIS commitment pertained to water level measurements that were designed to evaluate the impacts of mining shafts and rooms on the areas formation waters. The groundwater sampling program implemented to meet these commitments involves the collection of water level data only. The U.S. Geological Survey monitored water levels at the WIPP site and surrounding areas from 1977 to 1985. Sandia National Laboratories managed these studies from 1985 through 1988 (<i>WIPP Hydrology Data Reports</i>). The management and operating contractor took over the management of the groundwater level monitoring program in 1988.</p> <p>Under the current program, groundwater level measurements are taken monthly in at least one accessible completed interval at each available well pad. At well pads with two or more wells completed in the same interval, quarterly measurements are taken in the redundant wells.</p> <p>The groundwater sampling program is described in the WIPP EMP, the <i>Waste Isolation Pilot Plant Groundwater Protection Program Plan</i>, and Part 5 and Attachment L of the <i>WIPP Waste Isolation Pilot Plant Hazardous Waste Facility Permit</i>. Water level measurements are collected monthly and submitted semi-annually by May 31 and November 30 in the <i>Waste Isolation Pilot Plant Semi-Annual Groundwater Surface Elevation Report</i> to the New Mexico Environment Department. The November water level data report shall be combined with the <i>Annual Culebra Groundwater Report</i> specified in Permit Part 5.10.2.1.</p>
FR-7f	<p><b>Commitment:</b> <i>Monitoring will be conducted at all gaseous-exhaust locations and will consist of devices to sample airborne particulate radioactivity. Both alpha and beta-</i></p>	<p>The fixed air samplers (FASs) at Stations A, B, and C (and backup FASs at Station D) are used to satisfy the National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements for periodic confirmatory sampling contained in <i>National Emission Standards for Hazardous Air Pollutants</i></p>



No.	Commitment	Status of Mitigation Implementation
FR-7f Cont.	<p><i>gamma continuous air monitors will be located at all release points.</i></p> <p><i>All systems will be designed to withstand the effects of a design-basis earthquake and will be supplied with emergency power.</i></p> <p><b>Reference:</b> FEIS, Vol. II, p. J-32</p>	<p><i>(NESHAPS) 40 CFR Part 61, Subpart .</i></p> <p>Environmental monitoring on and around the WIPP site and at nearby population centers is used to document compliance with the <i>Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes</i>, 40 CFR Part 191, Subpart A.</p> <p>The effluent sampling system is made up of a series of FASs. The FASs at Stations A, B, and C have back-up power in the form of an uninterruptible power supply that can power the monitor for up to 30 minutes. The effluent samplers have also been tested to withstand the effects of a design-basis earthquake. The results of these tests are described in the <i>Seismic Test of Waste Isolation Pilot Plant Station A Effluent Monitoring System Equipment</i>. Any modification to the effluent monitoring systems installed at the WIPP facility would retain back-up power and seismic qualification.</p> <p>The effluent samples are collected and screened for alpha and beta activity, then sorted by sampling station. Composite samples from each of the three stations (A, B, and C) are submitted to a qualified laboratory for radio-analysis. The key isotopes associated with WIPP repository waste streams are reported, reviewed, and assessed using compliant methods and software for estimated public dose from air borne radioactivity emissions.</p>

No.	Commitment	Status of Mitigation Implementation
FR-8	<p><b>Commitment:</b> <i>DOE also intends to implement the Post-operational Monitoring Program described in Section J-3 of the FEIS.</i></p> <p><b>Reference:</b> FEIS, Volume II, Section J.3</p>	<p>The DOE has developed a post-operational monitoring plan based on the requirements of 40 CFR Part 191.14 and Part 194.42. The initial U.S. Environmental Protection Agency (EPA) certification (U.S. Environmental Protection Agency 1998), and the <i>WIPP Compliance Recertification Application</i>, Appendix MON 2004, Attachment A establish a plan for preclosure and postclosure monitoring. Entitled <i>Preclosure and Post Closure (Long-Term) Monitoring Plan</i>, the plan was included as Appendix MON of the Compliance Certification Application submitted to the EPA in October 1996. This plan was updated in the March 24, 2004, <i>WIPP Compliance Recertification Application</i> (DOE/WIPP 04-3231), the March 24, 2009, <i>WIPP Compliance Recertification Application</i> (DOE/WIPP-09-3424) and the March 26, 2014 WIPP Compliance Recertification Application (DOE/WIPP-14-3503).</p> <p>The Postclosure Monitoring Plan will not be finalized until facility closure (sealing of the shafts), and it will not be implemented until after facility closure. Further, post-closure monitoring shall be complementary to monitoring required pursuant to applicable federal hazardous waste regulations at 40 CFR parts 264 and 270 and shall be conducted with techniques that do not jeopardize the containment of waste in the disposal system. The final Postclosure Monitoring Plan will be approved by the appropriate regulatory authorities.</p> <p>The EPA certified on May 18, 1998, that the WIPP disposal system meets the provisions of 40 CFR Part 191 Subparts B and C and the WIPP Compliance Criteria at 40 CFR Part 194. On November 18, 2010, the EPA recertified that the WIPP disposal system continues to comply with these waste disposal regulations.</p>
RC-2	<p><b>Commitment:</b> <i>The DOE is committed...to evaluating further the potential mitigation measures described in Section 6 of the Supplement.</i></p> <p><b>Reference:</b> SEIS-I ROD, p. 25692</p>	<p>Commitments RC-2a and RC-2j are addressed below. Mitigation commitments RC-2b through RC-2f have been completed and are not discussed in this document. Commitments RC-2g, RC-2h, and RC-2i are no longer being tracked in this report; however, information pertaining to their implementation can be found in the WIPP BECR and the WIPP ASER.</p>
RC-2a	<p><b>Commitment:</b> <i>Measures would be incorporated into all of the activities to minimize the health and safety risks to the workers and the general public.</i></p> <p><b>Reference:</b> SEIS-I, Vol. 1, p. 6-2</p>	<p>In addition to complying with the Occupational Safety and Health Administration standards contained in 29 CFR Part 1910 and the Mine Safety and Health Administration standards contained in 30 CFR Part 57, the WIPP facility staff employs a variety of measures to minimize the health and safety risks to workers, the general public, and the environment. The following are some of the programs in place to reduce environmental and safety risks at the WIPP facility:</p> <p>The WIPP Environmental Management System (EMS) and Integrated Safety Management System are implemented to integrate safe and environmentally sound practices into WIPP activities and operations. The WIPP EMS continues to be</p>

No.	Commitment	Status of Mitigation Implementation
		<p>certified to the International Safety Management System 14001:2004 EMS standard. The EMS includes processes that ensure environmental impacts are identified, appropriate controls are in place to minimize impacts, and that routine monitoring is performed to assess impacts to the environment. The environmental monitoring program results continue to demonstrate environmental impacts are minimal. Routine audits (both internal and third party) of the EMS and its implementing programs and procedures confirm that the system is effective.</p> <p>The WIPP Landlord Program provides a safety inspection process that appoints individuals to be accountable for safety concerns in their area or building.</p> <p>The Condition Assessment Survey/Capital Asset Management Process ensures that every structure on the WIPP site is thoroughly inspected, with inspections to include any safety concerns. Inspections are performed by teams including employees, engineers, landlords, managers, and safety professionals.</p> <p>The WIPP Lessons Learned Program provides a disciplined and integrated process to identify, communicate, and ensure understanding by employees of applicable lessons-learned information gleaned from government, industry, and the WIPP project. Lessons Learned materials determined to be applicable to the WIPP Project are disseminated to appropriate personnel for their review and use. Managers at the WIPP site are encouraged to use distributed Lessons Learned at meetings as safety topics and in pre-job briefings, if appropriate.</p> <p>The success in developing and maintaining a safe work environment at the WIPP facility is demonstrated in the following achievements:</p> <p>In 2013, ten different Nuclear Waste Partnership mining sections were recognized by the New Mexico State Bureau of Mine Safety for zero injury rates, and the WIPP facility received its 26<sup>th</sup> Operator of the Year award.</p> <p>On October 3, 1994, the Secretary of Energy inducted the WIPP facility as the first Star Site in the DOE's Voluntary Protection Program (DOE-VPP). The DOE-VPP was initiated in January 1994 to recognize exemplary contractor safety and health programs. The WIPP VPP Program received DOE STAR recertification at each review through March 2010.</p> <p>In 2013, the WIPP Project Management and Operating Contractor (MOC) received a DOE VPP award – the Star of Excellence. This significant achievement was based on the MOC demonstrating strong involvement in VPP outreach and mentoring, performing aggressive self-assessments, and achieving an injury/illness incident rate at least 75 percent below the Bureau of Labor Statistics rate for similar</p>



No.	Commitment	Status of Mitigation Implementation
		<p>Shipping Container, Model II (TRUPACT II) was off the trailer and lying on the roadway. This was the last full scale exercise of this type, to date.</p> <p>On December 27, 2005, following an accident in Blackfoot, Idaho involving a TRUPACT-II transporter carrying three empties, members of the IART were in constant communications via teleconference with the incident commander at the scene; assisting with the recovery efforts. Successful recovery was achieved in less than eight hours.</p>
ER-1	<p><b>Commitment:</b> <i>The DOE will work with all States through which waste will be transported to establish comprehensive training programs for emergency response personnel.</i></p> <p><b>Reference:</b> SEIS-I ROD, p. 25692</p>	<p>The WIPP Education Program is a comprehensive emergency responder training system, which focuses on the training of personnel in the western and southern states. As of January 2014, over 32,000 responders have received this training.</p> <p>In 2003, the program adopted the Transportation Emergency Preparedness Program Modular Emergency Response Radiological Transportation Training (MERRTT) program sponsored by DOE Headquarters for the training of first responders. Incident Command System and hospital training remain stand-alone WIPP States and Tribal Education Program courses.</p> <p>The WIPP Education Program is designed to supplement the hazardous materials training previously received by emergency response personnel. Occupational Safety and Health Administration and the National Institute of Occupational Safety and Health have certified that the MERRTT and the WIPP Education Program courses comply with the applicable hazardous material training requirements of 29 CFR 1910.120(q). The MERRTT and the WIPP Education Program training include Incident Command procedures and emergency actions for response personnel responding to an incident involving TRU waste.</p> <p>The WIPP Project has worked closely with the states and tribes along the transportation corridors to plan and conduct emergency response exercises associated with simulated accident scenarios. Thus far, full-scale exercises have been successfully conducted with the states of Colorado, Georgia, Idaho, Louisiana, Nevada, New Mexico, Oregon, Texas, Utah, and Wyoming. These exercises validate the capability and proficiency of participating state, local, tribal, and DOE emergency systems and personnel.</p> <p>National DOE emergency response exercises have been conducted in Colorado (1990), Idaho (1992), New Mexico (1993), and Oregon/Idaho (border exercise) (1994). This transportation accident exercise program examines the coordination and efficiency of state, local, and DOE emergency responders using simulated TRU waste.</p>

No.	Commitment	Status of Mitigation Implementation
S2-1	DOE will comply with applicable Department of Transportation and Nuclear Regulatory Commission regulations governing the shipment of TRU waste.	As described in SEIS-II, DOE will transport TRU waste to WIPP in such a manner as to alleviate, to the maximum extent possible, potential impacts from transportation of TRU waste over the highways. These measures include tracking shipments with the TRANSCOM satellite tracking system and maintaining constant communication with the driver to provide notice of adverse weather or road conditions along the route. Equipment will be inspected at the beginning of each shipment and periodically every 100 miles or every two hours while on route. If shipments are delayed on route, drivers will park at designated DOE or Department of Defense sites, or State designated parking areas if possible. If no such sites are available, drivers will park in areas away from population concentrations and notify the State Police of the shipment's location.
S2-2	In addition to maintaining its own emergency response capabilities, DOE offers emergency response training to police, fire, and medical personnel located along the WIPP transportation routes.	In the event of an accident involving a WIPP shipment, the driver would notify emergency responders by cellular phone and also the WIPP Central Monitoring Room using the TRANSCOM system. A DOE official would be dispatched to assist at the accident site. DOE resources would be available to support mitigation of the accident, including but not limited to package recovery and site cleanup.
S2-3	The United States Department of the Interior suggested in comments on the draft SEIS-II that DOE should develop a spill contingency plan to address the potential impacts of a diesel fuel spill on fish and wildlife and their habitats.	DOE already has plans in place to address the potential impacts of a truck accident; these plans address potential releases of TRU waste and other materials. Remediation efforts may include excavation and disposal of contaminated environmental media as appropriate.

## REFERENCES

- Occupational Safety and Health Administration, 29 CFR Part 1910, *Occupational Safety and Health Standards*, Washington, DC.
- Mine Safety and Health Administration, 30 CFR Part 57, *Safety and Health Standards, Underground Metal and Nonmetal Mines*, Washington, DC.
- GEO Technical Department, *Report on the Seismicity of the WIPP Site for the Period January 1, 2014 through March 31, 2014*.
- Sandia National Laboratories, *WIPP Hydrology Data Reports* (vols. 1-8), 1985-1990.
- U.S. DOE, 10 CFR 1021, *National Environmental Policy Act Implementing Procedures*, Washington, DC.
- U.S. DOE, *Final Environmental Impact Statement, Waste Isolation Pilot Plant*, DOE/EIS-0026, Vols. I and II, DOE, Washington, DC, 1980.
- U.S. DOE, *Record of Decision for the Final Environmental Impact Statement, Waste Isolation Pilot Plant*, *Federal Register*, Vol. 46, No. 18, pp. 9162-9164, January 28, 1981.
- U.S. DOE, *Final Supplement Environmental Impact Statement, Waste Isolation Pilot Plant*, DOE/EIS-0026-FS, Vols. 1-3, DOE, Washington, DC, 1990.
- U.S. DOE, *Record of Decision for the Final Supplement Environmental Impact Statement, Waste Isolation Pilot Plant*, *Federal Register*, Vol. 55, No. 121, pp. 25689-25692, June 22, 1990.
- U.S. DOE, *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement (SEIS-II)*, DOE/EIS-0026-S-2, Vols. 1-3, DOE, Washington, D.C., September 1997.
- U.S. DOE, *Waste Isolation Pilot Plant Hazardous Waste Facility Permit*, New Mexico Environment Department, February 10, 2014.
- U.S. Department of Energy, DOE Order O 451.1B, *National Environmental Policy Act Compliance Program*, Washington, DC, October 26, 2000.
- U.S. DOE, *Compliance Recertification Application, 40 CFR Part 191 Subparts B and C, Preclosure and Postclosure Long Term-Monitoring Plan*, 2004.
- U.S. DOE, *Recovery Guide for TRU Waste Packages*, DOE/CBFO 94-1007, Revision 5, 2009.
- U.S. DOE, *Waste Isolation Pilot Plant Biennial Environmental Compliance Report*, DOE/WIPP 12-3487, 2012.
- U.S. DOE, *Waste Isolation Pilot Plant Environmental Monitoring Plan*, DOE/WIPP 99-2194, 2013.
- U.S. DOE, *WIPP Compliance Recertification Application* (DOE/WIPP 09-3424), March 24, 2009.
- U.S. DOE, *WIPP Compliance Recertification Application* (DOE/WIPP-14-3503), March 26, 2014.
- U.S. DOE, *Compliance Monitoring Implementation Plan for 40 CFR Section 191.14(b), Assurance Requirement*, Rev. 7 (DOE/WIPP 99-3119), 2012.
- U.S. DOE, *Response to Abnormal Occurrence and Incident Accident Response Team Activation*, (CBFO 10-3448).

*WIPP Incident/Accident Response Team Plan, WP 12-10.*

U.S. Environmental Protection Agency, 40 CFR Part 61, *National Emission Standards for Hazardous Air Pollutants (NESHAPS), Subpart H.*

U.S. Environmental Protection Agency, 40 CFR Part 191, *Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes.*

U.S. Environmental Protection Agency, 40 CFR Part 194, *Criteria for the Certification and Re-Certification of the Waste Isolation Pilot Plant's Compliance with the 40 CFR Part 191 Disposal Regulations.*

U.S. Environmental Protection Agency, 40 CFR Part 264, *Standard for Owners and Operator of Hazardous Waste Treatment, Storage, and Disposal Facilities.*

U.S. Environmental Protection Agency, 40 CFR Part 270, *EPA Administered Permit Programs: The Hazardous Waste Permit Program.*

U.S. Department of Transportation, 49 CFR 392.9(b)(2), *Driving of Commercial Motor Vehicles, Inspection of cargo, cargo securement devices and systems.*

U.S. Department of Transportation, 49 CFR 392.9(b)(3)(i)(ii)(iii), *Driving of Commercial Motor Vehicles, Inspection of cargo, cargo securement devices and systems.*

Westinghouse Electric Corporation, Waste Isolation Division, *Numbers and Placement of Effluent Continuous Air Monitors for WIPP Disposal-Phase Operations*, WIPP Radiological Control Position Paper No. 96-05.

Westinghouse Electric Corporation, Waste Isolation Division, *Seismic Test of Waste Isolation Pilot Plant Station A Effluent Monitoring System Equipment*, IWRA 73811, August 1991, prepared for Westinghouse by Advanced Energy Systems Division.

*Waste Isolation Pilot Plant Groundwater Protection Program Plan*, DOE/WIPP 06-3339, Rev. 2, 2013.

*Waste Isolation Pilot Plant Annual Site Environmental Report for 2012*, DOE/WIPP 13-3507, September 2013.

*Waste Isolation Pilot Plant Semi-Annual Groundwater Surface Elevation Report*, semi-annual report to the NMED.

*Annual Culebra Groundwater Report*, semi-annual report to the NMED.

*International Safety Management System 14001:2004 EMS standard.*