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

DEC 3 1 2015

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NMED
Hazardous Waste Bureau

Mr. John E. Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87508-6303

Ms. Kathryn Roberts, Director
Resource Protection Division
New Mexico Environment Department
Harold Runnels Building
1190 Saint Francis Drive, Room 4050
Santa Fe, NM 87502-5469

Subject: Monthly Report for the Reporting Period ending November 30, 2015, as required by NMED Administrative Orders dated February 27, 2014, and May 12, 2014, as amended by NMED Directives dated August 29, 2014, December 9, 2014, and July 15, 2015

Dear Mr. Kieling and Ms. Roberts:

The purpose of this letter is to transmit the monthly report for the reporting period ending November 30, 2015, as required by the February 27, 2014, and May 12, 2014, Administrative Orders, issued under the authority of the New Mexico Hazardous Waste Act § 74-4-13 from Mr. Ryan Flynn to Messrs. Hellstrom, Franco, Cook, and McQuinn, and as amended by the August 29, 2014 and December 9, 2014, directives from Mr. Ryan Flynn to Messrs. Franco and McQuinn and the July 15, 2015, directive from Ms. Kathryn Roberts to Messrs. Bryson and Breidenbach. The paper copy of the report is enclosed along with a compact disc containing the electronic version of the report.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our 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 our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. George T. Basabilvazo at (575) 234-7488.

Sincerely,

Todd Shrader, Manager
Carlsbad Field Office

FOR
Philip J. Breidenbach, Project Manager
Nuclear Waste Partnership LLC

Enclosure

cc: w/enclosure

R. Maestas, NMED	*ED
S. Holmes, NMED	ED
C. Smith, NMED	ED
J. Sales, EPA	ED
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Monthly Status Report for the New Mexico Environment Department Administrative Orders

Reporting Period November 1, 2015, through November 30, 2015

Introduction

The New Mexico Environment Department (NMED) issued two Administrative Orders (AOs) to provide requirements for monitoring and reporting to the NMED concerning the status of recovery from two events. On February 5, 2014, a vehicle fire occurred in the Waste Isolation Pilot Plant (WIPP) underground, resulting in temporary suspension of normal operations and waste shipments from generator sites. On February 14, 2014, while the fire investigation was still underway, a radiological event occurred in the WIPP underground facility.

The first administrative order (AO1) issued on February 27, 2014, addressed above-ground compliance, and required a weekly report to be submitted with regard to surface-related requirements of the Permit. On May 12, 2014, a second administrative order (AO2) was issued to address, in part, Permit-required activities that cannot currently be performed due to restriction on access to the underground. The second administrative order changed the reporting period from weekly to biweekly, with additional information required to supplement the information required by AO1. A directive from the Secretary of the NMED was issued on August 29, 2014, which amended the reporting frequency from biweekly to monthly for reporting required under AO1 and AO2 with the submittal being due to NMED no later than the 15th of the month for activities conducted during the previous month. A new directive from the Secretary of the NMED was issued on December 9, 2014, which amended the submittal frequency for this report. The new due date for the monthly submittal shall be the last day of the subsequent month for activities conducted during the previous month.

On May 20, 2014, NMED issued a third administrative order (AO3) requiring the submittal of a WIPP Nitrate Salt Bearing Waste Container Isolation Plan. The order prescribed that updates be provided on the plan's implementation via technical calls and written updates. On July 15, 2015, NMED issued a letter describing modification to the May 20, 2014, administrative order and amendment to the reporting requirements pertaining to all CY 2014 administrative orders. Initial closure of Panel 6 and closure of Panel 7, Room 7 were completed in accordance with the plan; therefore, the technical calls and written updates memorializing those calls have ceased pursuant to the July 15, 2015, letter from the NMED.

This report serves to fulfill the monitoring and reporting requirements set forth by AO1, AO2, and AO3 as amended by the NMED directives dated August 29, 2014, December 9, 2014, and July 15, 2015. In accordance with Paragraph 18(a) of AO2, subsequent reports will identify new information since the previous reporting period. The following sections combine the information required by the three orders and provide references to the respective paragraphs from AO1, AO2, and AO3.

1.0 Status of Permit-related surface and underground inspections for this reporting period, as requested per Paragraph 14(a) of AO1 and Paragraphs 18(c) and 18(e)(iii) of AO2, including the accessibility for personnel performing these Permit-required activities per Paragraph 18(e)(i) of AO2 and the status of recovery activities per Paragraph 18(e)(ii) of AO2:

Attachment 1, *Surface and Underground Inspections*, shows the current status of each Permit-required inspection, including accessibility of underground equipment for personnel performing the inspections. The Permit-related inspection list was taken from Permit Attachment E, Table E-1.

2.0 Status of Permit-related monitoring activities for this reporting period, as requested per Paragraph 14(a) of AO1 and Paragraph 18(c) of AO2, including the accessibility for personnel performing these Permit-required activities per Paragraph 18(e)(i) of AO2 and the status of recovery activities per Paragraph 18(e)(ii) of AO2:

In accordance with Paragraph 17(a) of AO2, and a subsequent letter from the NMED dated September 24, 2014, the Permittees submitted a revised draft of the underground compliance plan (UCP) on October 30, 2014, for NMED's review and comment. The UCP contains a compliance schedule including a proposed timeline, including dates, for achieving underground recovery and attaining compliance with these Permit-required activities. A status of these activities, as described in future updates to the UCP, will be reflected in the monthly reports, as required by Paragraph 18(c) of AO2.

Volatile Organic Compound (VOC) Monitoring

Repository VOC monitoring activities (required by Permit Part 4, Section 4.6.2, including Table 4.6.2.3, and associated requirements in Attachment N) including room-based VOC monitoring activities (required by Permit Part 4, Sections 4.4.3 and 4.6.3, Tables 4.4.1 and 4.6.3.2, and associated requirements in Attachment N) are not currently being performed due to radioactive contamination.

Surface VOC monitoring is being conducted in lieu of underground monitoring during recovery operations utilizing portable passive air sampling kits. Surface monitoring is being performed to assure that the Permit environmental performance standards (i.e., carcinogenic and non-carcinogenic risk due to VOC emissions from the disposed waste) for surface non-waste workers are satisfied. Samples are being collected twice each week at one location on-site and one location off-site. The two monitoring locations, which are 24-hour VOC samples, are collected on the surface near the Training Building and at an off-site location (WQSP-4) approximately a mile southeast of the Training Building. These samples are used to quantify VOC exposure to a receptor (surface worker) in the Training Building. The sample on-site and the sample at location WQSP-4 are used to quantify VOC concentrations in the ambient air. In accordance with Paragraph 19 of AO2, the Permittees began monitoring for trichloroethylene as a target analyte on May 12, 2014.

Disposal room VOC monitoring is not being conducted in the underground as stated above. This does not pose a threat to underground waste workers because waste handling is not underway in the underground. Disposal room monitoring will be restarted prior to resuming waste emplacement activities.

Geomechanical Monitoring

The purpose of geomechanical monitoring is to confirm the structural integrity of the underground repository. Geomechanical monitoring data are transmitted electronically via remote instruments located in Room 6 of Panel 7 in accordance with Permit Part 4, Section 4.6.1, associated requirements in Attachment A2-5b(2), and Attachment E, Table E-2. More than 4,500 bolts have been installed in the underground since bolting activities resumed in November 2014, and catchup bolting is approximately 85 percent complete.

Hydrogen and Methane Monitoring

Hydrogen and methane monitoring activities (required by Permit Part 4, Section 4.6.5 and associated requirements in Attachment N1) are not currently being performed due to radioactive contamination. This does not pose a threat to underground waste workers because underground activities are not underway in the vicinity of Panels 3 and 4. Hydrogen and methane monitoring is being addressed during recovery.

Mine Ventilation Rate Monitoring

Mine ventilation rate monitoring activities (required by Permit Part 4, Section 4.6.4 and associated requirements of Permit Attachment O) are currently being performed. However, due to reduced air flow in the underground because of operating in filtration mode, the minimum running annual average ventilation rate set forth by the Permit cannot be maintained. Pursuant to the Nitrate Salt Bearing Waste Container Isolation Plan, Revision 2, Section 3, high-efficiency particulate air (HEPA) filtration of underground exhaust air is continuing. The ventilation system has been operating in filtration mode since February 14, 2014, with a flow rate of approximately 60,000 standard cubic feet per minute (SCFM). The calculated running annual average ventilation flow rate as of November 30, 2015, was 59,868 SCFM. Surface VOC monitoring is being used to ensure the reduced flow rate does not pose a threat to the surface non-waste worker.

3.0 Summary of waste shipment information and any other relevant records that document the site of origin, volumes and receipt dates of TRU waste that is currently located at the facility WHB and parking area unit, as requested per Paragraph 14(c) of AO1, and information specifying the deadlines for each individual waste assembly as it relates to AO1, as requested per Paragraph 14(d) of AO1:

Waste is currently being stored in the Waste Handling Building (WHB). Since the submittal of the last monthly report, there has been no additional waste placed in storage in the WHB, and there were no changes to the storage deadlines during this reporting period. Therefore, Attachment 2, *TRU Mixed Waste Currently in Storage at the WIPP Facility*, is currently reserved. Attachment 2 was last updated June 30, 2015.

4.0 Location of any environmental monitoring equipment, including the identification of whether they are stationary, mobile, or permanent. This includes, but is not limited to, VOC monitoring stations, radiological monitoring stations, meteorological monitoring, surface water monitoring, vegetation sampling. The reports shall include dates of deployment and sampling, and all data that has been produced by these monitoring stations for this reporting period, as requested per Paragraph 14(f) of AO1:

See Attachment 3, *Environmental Monitoring,* which includes tables with the locations of environmental monitoring equipment (including identification whether they are stationary, mobile, or permanent) and new data for this reporting period. Aerial photos and diagrams displaying monitoring locations are included. The following briefly describes the monitoring information in Attachment 3, *Environmental Monitoring*.

- VOC monitoring stations – Portable surface monitoring equipment has been deployed since February 25, 2014. Samples are being collected twice each week at the locations indicated in Attachment 3.
    - No validated data were available during this reporting period. The latest update occurred October 31, 2015.
- Radiological monitoring – During this reporting period, monitoring results were below minimum detectable concentrations. The results are included in Attachment 3, *Environmental Monitoring*.
    - Biota/Fauna samples – Fauna samples were obtained on the dates shown in Attachment 3.

5.0 Updates on activities performed pursuant to the Underground Derived Waste Storage Plan, including a description of any surface and underground derived waste produced, whether the derived waste is mixed or non-mixed, the contents, container type, container location, total container count, and approximate volume of derived waste per container, as requested per Paragraph 14(i) of AO1 and Paragraph 18(d) of AO2:

In accordance with Paragraph 17(b) of AO2, the draft *Underground Derived Waste Storage Plan (UDWSP)* was submitted to the NMED by June 26, 2014 for review and comment. On December 2, 2014, NMED provided comments on the UDWSP and notified the Permittees that the draft UDWSP had been approved. The Permittees addressed the comments, incorporated changes and resubmitted the UDWSP to NMED on January 6, 2015. Since the submittal of the last monthly report, no additional derived waste was generated; therefore, Attachment 4, *Surface and Underground Derived Waste Currently in Storage at the WIPP Facility,* is currently reserved. Attachment 4 was last updated June 30, 2015.

6.0 The current status of activities required by the RCRA Contingency Plan, Permit Attachment D, including identification of applicable sections of the Contingency Plan, the schedule for actions required under the Contingency Plan, and any deviations from any Contingency Plan requirements, as requested per Paragraph 18(b) of AO2. Non-applicable sections shall also be identified and explanations shall be provided as to why such sections do not apply:

During this reporting period, the *Sixth Supplement to the Report of Implementation of the Waste Isolation Pilot Plan Facility Resource Conservation and Recovery Act Contingency Plan on April 11, 2014*, was submitted to the NMED on November 25, 2015, as a result of the provisional application of EPA Hazardous Waste Number (HWN) D001 to an additional sixty-six (66) waste containers that have been disposed at the WIPP facility, as described in Section 11.0 of this report.

Since the submittal of the last monthly report, there has been no changes to the RCRA Contingency Plan. Therefore, Attachment 5, *Status of RCRA Contingency Plan Required Activities*, is currently reserved. Attachment 5 was last updated September 30, 2015.

7.0 The monthly report shall include the submission of a list containing all additional requirements placed upon the WIPP by any state or federal agency relating to corrective actions or recovery and as a result of the incidents referenced in Paragraphs 8 and 9 of the May 12, 2014, Administrative Order, including requirements by other segments of DOE, as requested by Paragraph 18(f) of AO2:

During this reporting period, no additional requirements were placed upon the Permittees by any other state or federal agency relating to corrective actions or recovery and as a result of the incidents referenced in Paragraphs 8 and 9 of AO2, including requirements by other segments of the U.S. Department of Energy (DOE). Attachment 6, *Corrective Actions Required for Recovery*, is currently reserved and was last updated October 31, 2015.

8.0 The Permittees shall provide documentation of the "as found" condition of Panel 7, including relevant photographs of the waste, as requested per Paragraph 18(i) of AO2:

On May 20, 2015, isolation of nitrate salt bearing waste containers was completed with the closure of Panel 7, Room 7. This action item is complete; therefore, status updates are no longer required.

9.0 The Permittees shall provide documentation of the "as found" condition of Panel 6 partial closure system, including relevant photographs, as requested per Paragraph 18(j) of AO2:

WIPP personnel completed the initial closure of Panel 6 in May 2015. This action item is complete; therefore, status updates are no longer required.

10.0 The Permittees shall provide a status of recovery-related activities relative to the underground per Paragraph 18I(ii) of AO2 and a summary of recovery-related work performed in Panel 7, including relevant photographs, as requested per Paragraph 18(k) of AO2:

During this reporting period, progress has continued on the Interim Ventilation System (IVS). Attachment 8, *Interim Ventilation System & Supplemental Ventilation System Equipment and Work Activities*, shows photographs of the IVS work progress.

During this reporting period, progress continued on contamination mitigation in Panel 7, Rooms 1-5, and the S-2520 drift. An updated radiological rollback map is shown in Attachment 7*, Panel 7 & Other Recovery-Related Work.*

The WIPP site has made significant safety improvements. Recently, eight underground safe havens (or refuge chambers) were delivered to the site and will be downloaded into the underground. The units will become operable after waste disposal operations resume. Each unit is equipped to house 20 people for at least 36 hours in the event of an emergency. These units are being installed at the WIPP facility as part of the overarching safety and emergency program enhancements associated with the WIPP recovery efforts. A photograph of a safe haven unit can be found in Attachment 7*, Panel 7 & Other Recovery-Related Work.*

As the Permittees continue to conduct recovery-related activities, additional descriptions will be provided in subsequent reports.

11.0 The Permittees shall submit a WIPP Nitrate Salt Bearing Waste Container Isolation Plan per Paragraph 22(a) of AO3. The plan shall contain a detailed proposal for the expedited closure of Panel 6 per Paragraph 22(a)(i) of AO3 and the expedited closure of Panel 7, Room 7 per Paragraph 22(a)(iii) of AO3:

On May 20, 2015, isolation of nitrate salt bearing waste containers was completed with the closure of Panel 7, Room 7. WIPP personnel also completed the initial closure of Panel 6 in May 2015. Initial closure of Panel 6, and closure of Panel 7, Room 7 were completed in accordance with the plan. Any written updates to information in the Plan will be provided with the existing monthly report in accordance with an NMED letter dated July 15, 2015.

During this reporting period, there has been a change to the status of TRU mixed waste currently disposed of at the WIPP facility. A letter dated November 25, 2015, was submitted to the NMED, which provisionally applied the D001 hazardous waste number to an additional sixty-six (66) containers disposed of at the WIPP facility. The hazardous waste number applies specifically to containers from the Los Alamos National Laboratory (LANL) homogeneous solids waste stream LA-CIN01.001. The sixty-six (66) containers are located in Panel 6. Attachment 9, *WIPP Nitrate Salt Bearing Waste Container Isolation Plan Information Required by Administrative Order 3*, contains a listing by container number, of the containers to which the additional hazardous waste number was provisionally applied including their disposal location and respective shipment numbers.

Attachment 1
Surface and Underground Inspections

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Air Intake Shaft Hoist	Underground Operations	Preoperational	WP 04-HO1004 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability in accordance with Mine Safety and Health Administration (MSHA) requirements	Current	11/26/15	N/A	
Exhaust Shaft	Underground Operations	Quarterly	PM041099 Inspecting for Deterioration and Leaks/Spills	Current	9/14/15	N/A	
Salt Handling Shaft Hoist	Underground Operations	Preoperational	WP 04-HO1002 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability in accordance with MSHA requirements	Current	11/24/15	N/A	
Self-Rescuers	Underground Operations	Quarterly	WP 04-AU1026 Inspecting for Deterioration and Functionality in accordance with MSHA requirements	Current	9/30/15	N/A	
Underground Openings—Roof Bolts and Travelways	Underground Operations	Weekly	WP 04-AU1007 Inspecting for Deterioration	Current	11/26/15	N/A	
Waste Hoist	Underground Operations	Preoperational	WP 04-HO1003 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability, Leaks/Spills, in accordance with MSHA requirements	Current	11/30/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Explosion-Isolation Walls	Underground Operations	Quarterly	Integrity and Deterioration of Accessible Areas	Current	10/8/15	N/A	
Bulkhead in Filled Panels	Underground Operations	Monthly	Integrity and Deterioration of Accessible Areas	Current	11/25/15	N/A	
MSHA Air Quality Monitor	Maintenance/ Underground Operations	Daily	WP 12-IH1828 Inspecting for Air Quality Monitoring Equipment Functional Check	Current	11/30/15	N/A	
Ambulances (Surface) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	11/29/15	N/A	
Ambulances (Underground) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current For in-service ambulance #2	11/28/15	12/31/15	The underground ambulance #2 is in service. Underground ambulance #3 arrived at the WIPP site on August 20, 2015. The new ambulance is awaiting procedural changes prior to starting inspections. It is expected to go into service in December 2015.
Fire Detection and Alarm System (Underground)	Emergency Services	Semiannually	12-FP0027 Inspecting for Deterioration, Operability of indicator lights and, underground fuel station dry chemical suppression system. Inspection is per NFPA 17	Current	7/1/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Fire Extinguishers (Surface)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	11/30/15	N/A	
Fire Extinguishers (Underground)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	11/30/15	N/A	
Fire Hoses	Emergency Services	Annually (minimum)	12-FP0031 Inspecting for Deterioration and Leaks/Spills	Current	2/28/15	N/A	
Fire Hydrants	Emergency Services	Semiannual/ annually	12-FP0034 Inspecting for Deterioration and Leaks/Spills	Current	3/28/15: (Semiannual) 8/1/15 – 8/6/15: (Annual)	N/A	
Fire Pumps	Emergency Services	Weekly/ annually	WP 12-FP0026 Inspecting for Deterioration, Leaks/Spills, valves, and panel lights	Current	11/23/15	N/A	
Fire Sprinkler Systems	Emergency Services	Monthly/ quarterly	WP 12-FP0025 Inspecting for Deterioration, Leaks/Spills, static pressures, and removable strainers	Current	11/23/15, 11/24/15, 11/25/15,	N/A	
Fire and Emergency Response Trucks (Surface Fire Trucks)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	11/27/15, 11/28/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Fire and Emergency Response Trucks (Underground Fire Suppression Vehicles)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current for two vehicles on site.	11/29/15	12/31/15	There are 8 underground fire suppression vehicles on the equipment list. Weekly inspections have been performed on two vehicles, which are currently in-service. The other underground fire suppression vehicles are pending.
Automatic on-board fire suppression systems	Emergency Services	Semiannual	WP 12-FP0060 Inspecting for Mechanical Operability, Deterioration	Current	9/30/15	N/A	The manual fire suppression systems on certain vehicles, such as waste handling equipment in the underground and on the surface, have been replaced with automatic on-board fire suppression systems.
Hazardous Material Response Equipment	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	11/24/15	N/A	
Miners First Aid Station	Emergency Services	Quarterly	12-FP0035 Inspecting for Required Equipment	Current	9/30/15	N/A	
Personal Protective Equipment (not otherwise contained in emergency vehicles or issued to individuals): —Self-Contained Breathing Apparatus	Emergency Services	Weekly	12-FP0029 Inspecting for Deterioration and Pressure	Current	11/30/15	N/A	Self-Contained Breathing Apparatuses are currently located on the emergency vehicles and weekly inspections are being performed as related emergency supplies and equipment are updated.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Rescue Truck (Surface)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	11/26/15	N/A	
Rescue Trucks (Underground)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Not Current for truck on site.	2/8/14	12/31/15	There are two underground rescue trucks on the equipment list, but one is still awaiting arrival to the site. The arrival of the second rescue truck is pending. Because the on-site rescue truck is currently not operating, underground emergency response compensatory measures have been implemented including fire and medical.
Vehicle Siren (Surface Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	11/26/15, 11/27/15, 11/28/15	N/A	
Vehicle Siren (Underground Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	11/29/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Adjustable Center of Gravity Lift Fixture	Waste Handling	Preoperational	WP 05-WH1410 Inspecting for Mechanical Operability and Deterioration	Current	11/28/15 (41-T-037) 10/23/14 (41-T-038) 7/10/15 (41-T-032) 4/13/15 (41-T-036)	N/A	
Contact-Handled (CH) TRU Underground Transporter	Waste Handling	Preoperational	WP 05-WH1603 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and area around transporter clear of obstacles	Current	7/23/15 (52-H-008A)	N/A	One of three transporters is now in service. This is a pre-operational check needed only prior to use. This transporter is in the uncontaminated area of the mine.
Conveyance Loading Car	Waste Handling	Preoperational	WP 05-1406 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles and guards in the proper place	Current	7/13/15 (41-H-018)	N/A	This is a pre-operational inspection and is not needed for daily operations. Pre-operational inspection performed for training.
Facility Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1204 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles, and guards in the proper place	Current	7/14/15 (41-H-020A) 7/10/15 (41-H-020B)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) on Surface	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and On board fire suppression system	Current	7/09/15 (41-H-009) 7/8/15 (41-H-013) 9/24/15 (41-H-051) 11/28/15 (41-H-012D) 11/24/15 (41-H-012E) 5/23/15 (74-H-010B)	N/A	
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) in Underground	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and On board fire suppression system	Current	5/20/15 (52-H-126)	N/A	One 6-ton forklift in the underground is now in service in Panel 7. The inspection was completed as shown as pre-operational. Other forklifts are not in use due to the fire and radiological event.
Surface TRU Mixed Waste Handling Area	Waste Handling	Preoperational or Weekly	WP 05-WH1101 Inspecting for Deterioration, Leaks/Spills, Required Aisle Space, Posted Warnings, Communication Systems, Container Condition, and Floor coating integrity	Current	11/25/15 (Weekly) 11/29/15 (Daily)	N/A	
TRU Mixed Waste Decontamination Equipment	Waste Handling	Annually	WP 05-WH1101 Inspecting for Required Equipment	Current	12/30/14	N/A	Annual 2014 Inspection. This is an annual inspection and not needed for daily operation.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Underground TRU Mixed Waste Disposal Area	Waste Handling	Preoperational	WP 05-WH1810 Inspecting for Deterioration, Leaks/Spills, mine pager phones, equipment, unobstructed access, signs, debris, and ventilation	Current	2/5/14	When waste disposal operations resume	Waste handling operations are suspended therefore preoperational inspections are not being performed.
TDOP Upender	Waste Handling	Preoperational	WP 05-WH1010 Inspecting for Mechanical Operability and Deterioration	Current	10/9/13	When waste disposal operations resume	No change. This is a pre-operational inspection and is not needed for daily operations.
Waste Handling Cranes	Waste Handling	Preoperational	WP 05-WH1407 Inspecting for Mechanical Operability, Deterioration, and Leaks/Spills	Current	1/6/15 (41-T-151A) 7/7/15 (41-T-151B) 7/23/15 (41-T-151C) 11/28/15 (41-T-151D)	N/A	There are four cranes, but the pre-operational inspections were only performed on the cranes listed. The other crane will be inspected prior to use.
Push-Pull Attachment (Surface)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Current	7/08/15 (41-T-160A) 9/1/15 (41-T-160B)	N/A	
Push-Pull Attachment (Underground)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Current	2/5/14	When waste disposal operations resume	Equipment not in use due to the fire and radiological events. The preoperational inspection was completed for training purposes and in support of preventive maintenance only. Inspection not intended for daily operations.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Trailer Jockey	Waste Handling	Preoperational	WP 05-WH1405 Inspecting for Leaks/Spills, Mechanical Operability and Deterioration	Current	11/25/15 (41-H-151A) 11/14/15 (41-H-151B) 9/27/15 (41-H-046)	N/A	There are three trailer jockeys. Inspections are only performed if the equipment is used on the shift.
Bolting Robot	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability	Current	6/29/12	When waste disposal operations resume	Equipment not in use due to the fire and radiological events. The preoperational inspection was completed for training purposes and in support of preventive maintenance only. Inspection not intended for daily operations.
Yard Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1205 Mechanical Operability, clear of obstacles and Guards in proper place	Current	7/29/14 (41-H-021A) 7/21/15 (41-H-021B)	N/A	
Payload Transfer Station	Waste Handling	Preoperational	WP 05-WH1208 Mechanical Operability, Deterioration, and Guards in proper place	Current	12/16/14 (41-Z-041)	N/A	
Monorail Hoist	Waste Handling	Preoperational	WP 05-WH1202 Mechanical Operability, and Leaks/Spills	Current	8/07/15 (41-H-027)	N/A	
Bolting Station	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability, Deterioration, and Guards in proper place	Current	3/23/15 (41-T-053A) (41-T-054A)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Backup Power Supply Diesel Generators	Facility Operations	Monthly	WP 04-ED1301 Inspecting for Mechanical Operability and Leaks/Spills by starting and operating both generators. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	11/29/15 (#1) 11/29/15 (#2)	N/A	
Central Monitoring System (CMS)	Facility Operations	Continuous	Automatic Self-Checking	Current	11/29/15	N/A	
Mine Pager Phones (between surface and underground)	Facility Operations	Monthly (see comment)	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	11/25/15	N/A	Mine pager phones in non-essential locations are not routinely inspected. Many are used in day-to-day operations. They are used until they fail, at which time they are repaired. Mine pager phones are used routinely by Underground Operations.
Mine Pager Phones (underground)	Facility Operations	Monthly (see comment)	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	11/25/15	N/A	Mine pager phones in non-essential locations are not routinely inspected. Many are used in day-to-day operations. They are used until they fail, at which time they are repaired. Mine pager phones are used routinely by Underground Operations.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Public Address (and Intercom System) on Surface	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations Systems operated in test mode	Current	11/25/15	N/A	
Public Address (and Intercom System) in Underground	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations Systems operated in test mode	Current	11/25/15	N/A	
Radio Equipment	Facility Operations	Daily	Radios are operated daily and are repaired upon failure	Current	11/30/15	N/A	
Uninterruptible Power Supply (Central UPS)	Facility Operations	Daily	WP 04-ED1542 Inspecting for Mechanical Operability and Deterioration with no malfunction alarms. Results of this inspection are logged in accordance with WP 04- AD3008.	Current	11/30/15	N/A	
Water Tank Level	Facility Operations	Daily	SDD-WD00 Inspecting for Deterioration, and water levels. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	11/30/15	N/A	
Facility Inspections (Water Diversion Berms)	Facility Engineering	Annually	WP 10-WC3008 Inspecting for Damage, Impediments to water flow, and Deterioration	Current	9/7/14	N/A	
Eye Wash and Shower Equipment (Surface)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	11/23/15-11/25/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[1]	Comments
Eye Wash and Shower Equipment (Underground)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	11/23/15- 11/25/15	N/A	
Perimeter Fence, Gates, Signs	Security	Daily	PF0-008 Inspecting for Deterioration and Posted Warnings	Current	11/30/15	N/A	
Underground—Geomechanical Instrumentation System (GIS)	Geotechnical Engineering	Monthly	WP 07-EU1301 Inspecting for Deterioration	Current	11/24/15	N/A	Complete at accessible areas.
Ventilation Exhaust	Maintenance Operations	Quarterly	IC041098 Check for Deterioration and Calibration of Mine Ventilation Rate Monitoring Equipment	Not Current	41F30703 Fan A (11/9/13) 41F30704 Fan B (5/20/13) 41F30702 Fan C (12/18/13)	No date set because the 700 fans are not used while in filtration mode.	The 700 horsepower fans are not in use because underground ventilation system is operating in filtration mode.

[1] Routine inspections are proposed to begin with resumption of normal operations.

Attachment 2

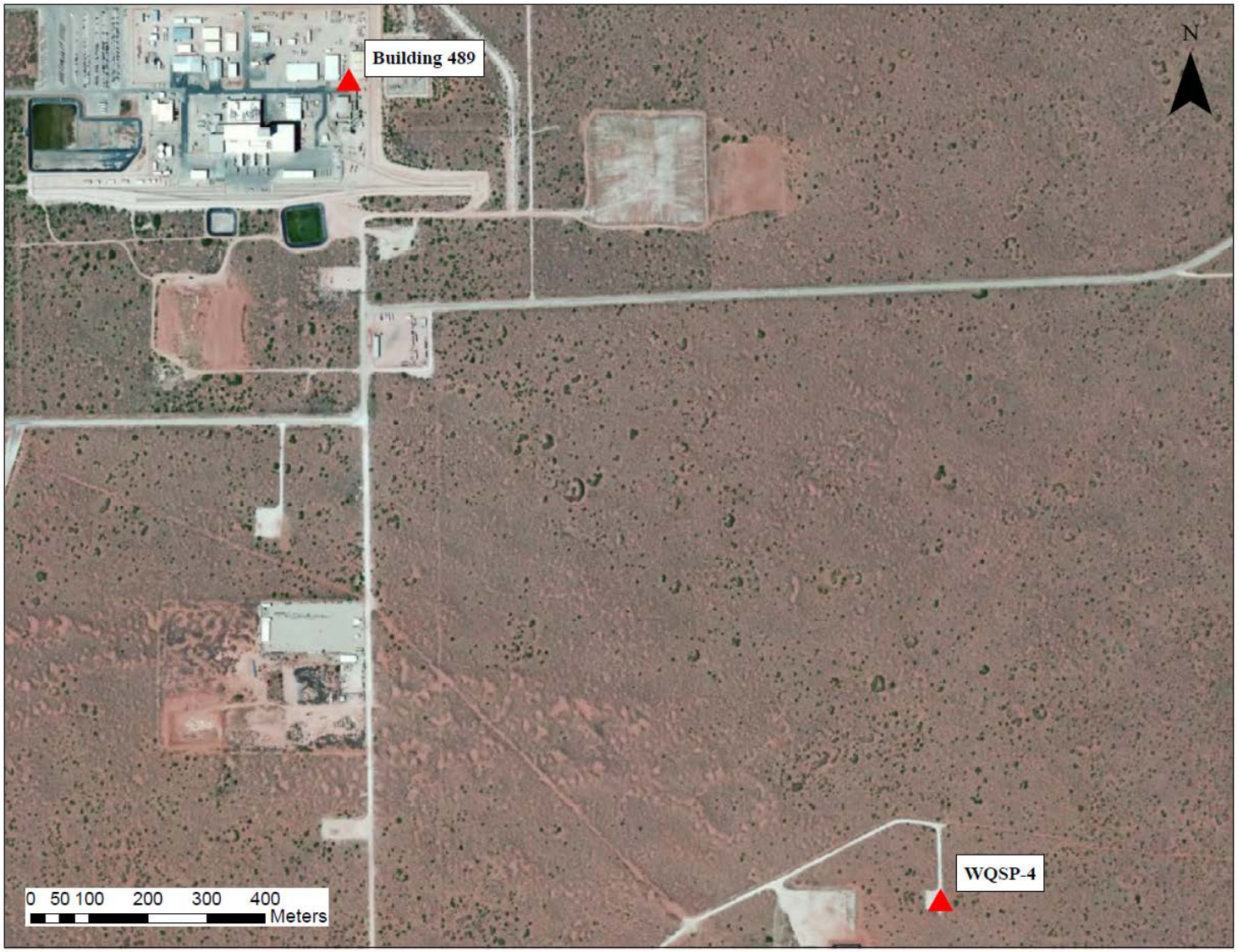
TRU Mixed Waste Currently in Storage at the WIPP Facility (reserved)

[Last updated June 30, 2015]

Attachment 3
Environmental Monitoring

Attachment 3 contains the following environmental monitoring information:

- VOC Monitoring Map
  - No validated data were available during this reporting period. **[Last update occurred October 31, 2015]**
- Radiological Monitoring Maps & Data
  - Validated biota/fauna sample data



VOC Sampling Locations

No validated data were available during this reporting period

Environmental Monitoring & Hydrology Biota Sampling – Fauna

Tissue Type/Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/g)	Pu-238 (dpm/g)	Pu-239/240 (dpm/g)
Biotic Fish/Brantley Lake	BF-BRA-20150918-1.1	9/18/2015	Below MDC	Below MDC	Below MDC

MDCs ranges are:

MDC Am-241 (dpm/g): 2.01E-02 to 5.60E-02

MDC Pu-238 (dpm/g): 1.27E-02 to 2.64E-02

MDC Pu-239/240 (dpm/g): 8.63E-03 to 2.52E-02

Attachment 4

Surface & Underground Derived Waste Currently in Storage at the WIPP Facility (reserved)

[Last updated June 30, 2015]

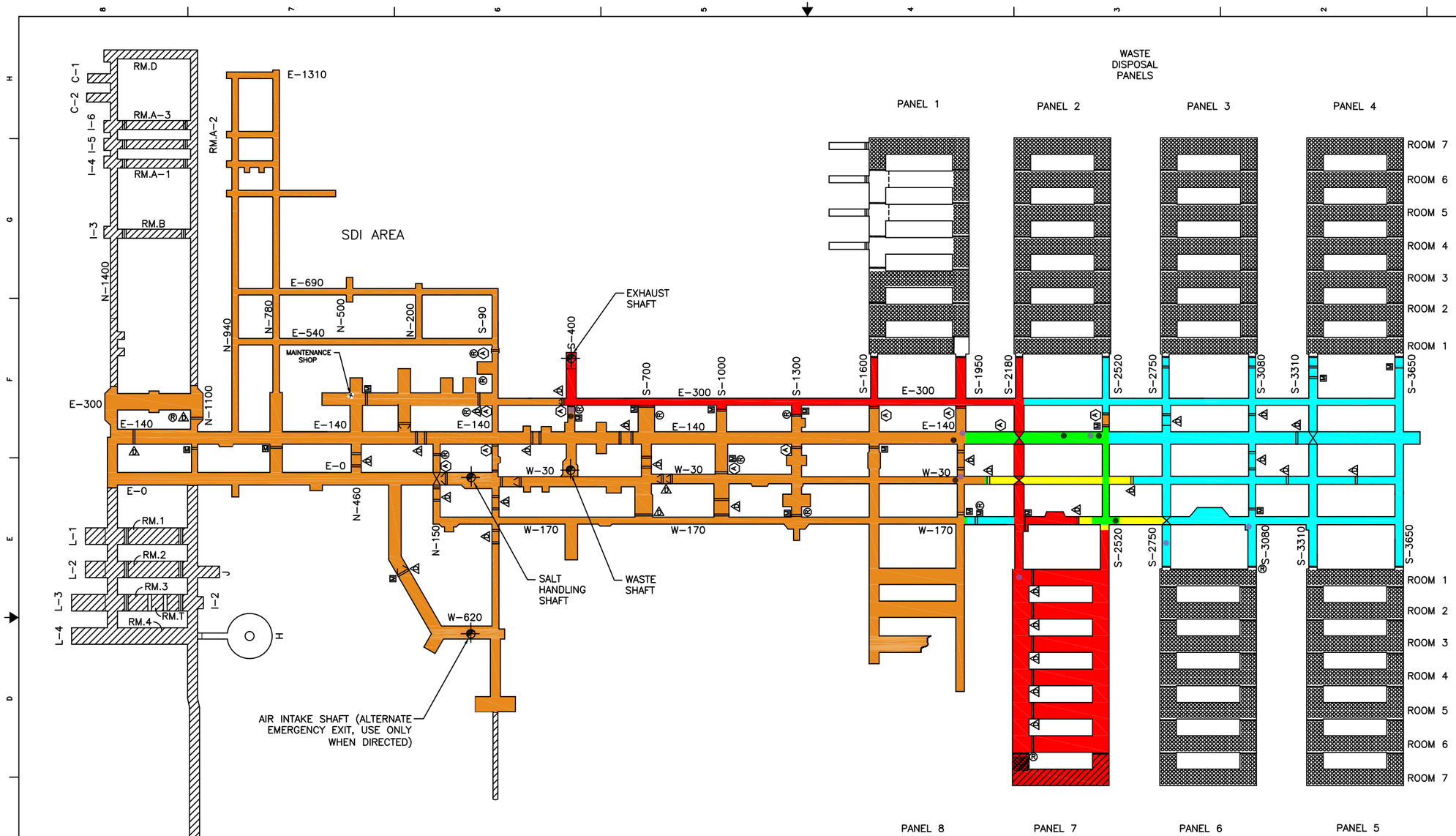
Attachment 5

Status of RCRA Contingency Plan Required Activities (reserved)

[Last updated September 30, 2015]

Attachment 6
Corrective Actions Required for Recovery (reserved)
[Last updated October 31, 2015]

Attachment 7
Panel 7 & Other Recovery-Related Work



REV AV	
NOVEMBER 09, 2015	RAD-014-066

WASTE ISOLATION PILOT PLANT
CARLSBAD, NEW MEXICO

UNDERGROUND RBA MAP

DEFINITIONS

RBA – < 20 dpm/100cm² ALPHA REMOVABLE
< 200 dpm/100cm² BETA REMOVABLE

CA – > 20 dpm/100cm² ALPHA REMOVABLE
> 200 dpm/100cm² BETA REMOVABLE

HCA – > 2,000 dpm/100cm² ALPHA REMOVABLE
> 20,000 dpm/100cm² BETA REMOVABLE

ARA – > 0.3 DAC

PANEL 7 – 2,000–17,000 dpm/100cm²

PANEL 7, ROOM 7 – > 1 million dpm/cm² ALPHA ON THE EXPOSED WASTE

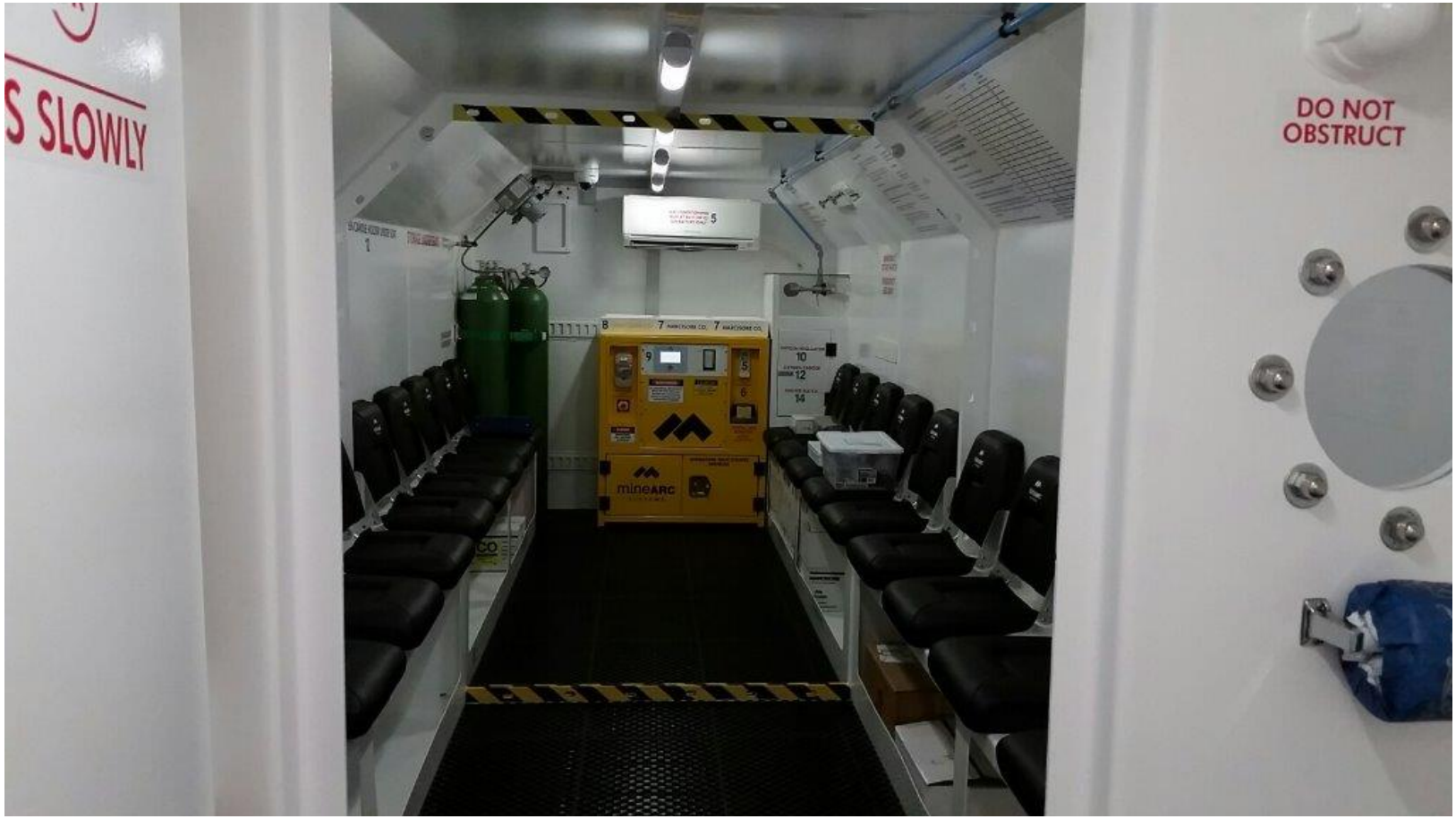
LEGEND

- CONTROLLED AREA
- RBA
- CONTAMINATION AREA
- CONTAMINATION AREA/AIRBORNE RADIOACTIVITY AREA
- HIGH CONTAMINATION AREA/AIRBORNE RADIOACTIVITY AREA
- CAM
- PAS
- INACCESSIBLE

NOTES

1. DRIFT WIDTHS NOT TO SCALE, ENLARGED 2X FOR CLARITY.
2. EXISTING EXCAVATION REFLECTS STATUS AS OF 08/19/14.

WIPP Underground Safe Haven Unit



WIPP Underground Safe Haven Unit

Attachment 8
Interim Ventilation System & Supplemental Ventilation System
Equipment and Work Activities

IVS Ductwork Installation Progress

IVS Ductwork Installation Progress

Attachment 9
WIPP Nitrate Salt Bearing Waste Container Isolation Plan
Information Required by Administrative Order 3

#	Container ID#	EPA HWN	Waste Stream	Shipment #	Emplacement Location
1.	LA00000068302	D001	LA-CIN01.001	LA130177	Panel 6, Room 1, Row 52, Column 2, Height B
2.	LA00000068303	D001	LA-CIN01.001	LA130176	Panel 6, Room 1, Row 54, Column 4, Height B
3.	LA00000093842	D001	LA-CIN01.001	LA130110	Panel 6, Room 2, Row 71, Column 5, Height T
4.	LA00000093843	D001	LA-CIN01.001	LA130110	Panel 6, Room 2, Row 71, Column 5, Height T
5.	LA00000093844	D001	LA-CIN01.001	LA130110	Panel 6, Room 2, Row 62, Column 6, Height T
6.	LA00000093846	D001	LA-CIN01.001	LA130134	Panel 6, Room 2, Row 97, Column 3, Height T
7.	LA00000093847	D001	LA-CIN01.001	LA130131	Panel 6, Room 2, Row 91, Column 5, Height M
8.	LA00000093848	D001	LA-CIN01.001	LA130117	Panel 6, Room 2, Row 71, Column 1, Height M
9.	LA00000093859	D001	LA-CIN01.001	LA130125	Panel 6, Room 2, Row 88, Column 6, Height T
10.	LA00000093860	D001	LA-CIN01.001	LA130117	Panel 6, Room 2, Row 71, Column 1, Height M
11.	LA00000093861	D001	LA-CIN01.001	LA130110	Panel 6, Room 2, Row 62, Column 6, Height T
12.	LA00000093866	D001	LA-CIN01.001	LA130111	Panel 6, Room 2, Row 67, Column 3, Height T
13.	LA00000093867	D001	LA-CIN01.001	LA130113	Panel 6, Room 2, Row 67, Column 1, Height T
14.	LA00000093884	D001	LA-CIN01.001	LA130110	Panel 6, Room 2, Row 64, Column 2, Height T
15.	LA00000093885	D001	LA-CIN01.001	LA130132	Panel 6, Room 2, Row 91, Column 3, Height B
16.	LA00000093886	D001	LA-CIN01.001	LA130129	Panel 6, Room 2, Row 89, Column 5, Height B
17.	LA00000093900	D001	LA-CIN01.001	LA130111	Panel 6, Room 2, Row 66, Column 6, Height T
18.	LA00000093902	D001	LA-CIN01.001	LA130130	Panel 6, Room 2, Row 90, Column 4, Height M
19.	LA00000093903	D001	LA-CIN01.001	LA130118	Panel 6, Room 2, Row 74, Column 6, Height T
20.	LA00000093904	D001	LA-CIN01.001	LA130116	Panel 6, Room 2, Row 70, Column 2, Height T
21.	LA00000093906	D001	LA-CIN01.001	LA130136	Panel 6, Room 2, Row 97, Column 3, Height M
22.	LA00000093907	D001	LA-CIN01.001	LA130117	Panel 6, Room 2, Row 71, Column 3, Height B
23.	LA00000093909	D001	LA-CIN01.001	LA130113	Panel 6, Room 2, Row 67, Column 1, Height T
24.	LA00000093945	D001	LA-CIN01.001	LA130129	Panel 6, Room 2, Row 89, Column 5, Height T
25.	LA00000093947	D001	LA-CIN01.001	LA130128	Panel 6, Room 2, Row 90, Column 6, Height T
26.	LA00000093949	D001	LA-CIN01.001	LA130116	Panel 6, Room 2, Row 71, Column 1, Height B
27.	LA00000093962	D001	LA-CIN01.001	LA130119	Panel 6, Room 2, Row 75, Column 1, Height T
28.	LA00000093965	D001	LA-CIN01.001	LA130117	Panel 6, Room 2, Row 71, Column 1, Height M
29.	LA00000093976	D001	LA-CIN01.001	LA130117	Panel 6, Room 2, Row 71, Column 3, Height M

#	Container ID#	EPA HWN	Waste Stream	Shipment #	Emplacement Location
30.	LA00000094005	D001	LA-CIN01.001	LA130119	Panel 6, Room 2, Row 75, Column 1, Height T
31.	LA00000094007	D001	LA-CIN01.001	LA130119	Panel 6, Room 2, Row 75, Column 1, Height T
32.	LA00000094008	D001	LA-CIN01.001	LA130119	Panel 6, Room 2, Row 77, Column 1, Height T
33.	LA00000094011	D001	LA-CIN01.001	LA130132	Panel 6, Room 2, Row 91, Column 3, Height M
34.	LA00000094012	D001	LA-CIN01.001	LA130132	Panel 6, Room 2, Row 91, Column 3, Height M
35.	LA00000094013	D001	LA-CIN01.001	LA130131	Panel 6, Room 2, Row 91, Column 5, Height B
36.	LA00000094014	D001	LA-CIN01.001	LA130119	Panel 6, Room 2, Row 77, Column 1, Height T
37.	LA00000094016	D001	LA-CIN01.001	LA130119	Panel 6, Room 2, Row 77, Column 1, Height T
38.	LA00000094034	D001	LA-CIN01.001	LA130171	Panel 6, Room 1, Row 39, Column 3, Height B
39.	LA00000094036	D001	LA-CIN01.001	LA130131	Panel 6, Room 2, Row 91, Column 5, Height M
40.	LA00000094037	D001	LA-CIN01.001	LA130132	Panel 6, Room 2, Row 93, Column 5, Height M
41.	LA00000094050	D001	LA-CIN01.001	LA130131	Panel 6, Room 2, Row 91, Column 5, Height M
42.	LA00000094051	D001	LA-CIN01.001	LA130133	Panel 6, Room 2, Row 96, Column 2, Height M
43.	LA00000094069	D001	LA-CIN01.001	LA130130	Panel 6, Room 2, Row 91, Column 3, Height T
44.	LA00000094074	D001	LA-CIN01.001	LA130131	Panel 6, Room 2, Row 91, Column 5, Height B
45.	LA00000094075	D001	LA-CIN01.001	LA130132	Panel 6, Room 2, Row 91, Column 3, Height B
46.	LA00000094076	D001	LA-CIN01.001	LA130171	Panel 6, Room 1, Row 39, Column 3, Height B
47.	LA00000094078	D001	LA-CIN01.001	LA130173	Panel 6, Room 1, Row 49, Column 3, Height M
48.	LA00000094079	D001	LA-CIN01.001	LA130130	Panel 6, Room 2, Row 91, Column 3, Height T
49.	LA00000094087	D001	LA-CIN01.001	LA130134	Panel 6, Room 2, Row 97, Column 3, Height T
50.	LA00000094088	D001	LA-CIN01.001	LA130173	Panel 6, Room 1, Row 45, Column 1, Height T
51.	LA00000094142	D001	LA-CIN01.001	LA130150	Panel 6, Room 1, Row 4, Column 4, Height M
52.	LA00000094144	D001	LA-CIN01.001	LA130165	Panel 6, Room 1, Row 32, Column 6, Height B
53.	LA00000094145	D001	LA-CIN01.001	LA130167	Panel 6, Room 1, Row 35, Column 5, Height T
54.	LA00000094146	D001	LA-CIN01.001	LA130173	Panel 6, Room 1, Row 45, Column 1, Height T
55.	LA00000094203	D001	LA-CIN01.001	LA130167	Panel 6, Room 1, Row 33, Column 1, Height B
56.	LA00000094205	D001	LA-CIN01.001	LA130163	Panel 6, Room 1, Row 24, Column 2, Height B
57.	LA00000094206	D001	LA-CIN01.001	LA130163	Panel 6, Room 1, Row 31, Column 5, Height B
58.	LA00000094208	D001	LA-CIN01.001	LA130170	Panel 6, Room 1, Row 44, Column 4, Height B
59.	LA00000094209	D001	LA-CIN01.001	LA130159	Panel 6, Room 1, Row 22, Column 2, Height T
60.	LA00000094210	D001	LA-CIN01.001	LA130163	Panel 6, Room 1, Row 31, Column 5, Height B

#	Container ID#	EPA HWN	Waste Stream	Shipment #	Emplacement Location
61.	LA00000094212	D001	LA-CIN01.001	LA130161	Panel 6, Room 1, Row 23, Column 3, Height T
62.	LA00000094215	D001	LA-CIN01.001	LA130168	Panel 6, Room 1, Row 35, Column 5, Height M
63.	LA00000094217	D001	LA-CIN01.001	LA130163	Panel 6, Room 1, Row 31, Column 5, Height M
64.	LA00000094223	D001	LA-CIN01.001	LA130170	Panel 6, Room 1, Row 44, Column 4, Height B
65.	LA00000094225	D001	LA-CIN01.001	LA130161	Panel 6, Room 1, Row 23, Column 3, Height T
66.	LAS835376	D001	LA-CIN01.001	LA130072	Panel 6, Room 3, Row 143, Column 1, Height B