ATTACHMENT D RCRA CONTINGENCY PLAN

Waste Isolation Pilot Plant
Hazardous Waste Permit
March 2018

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ATTACHMENT D

RCRA CONTINGENCY PLAN

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ATTACHMENT D

RCRA CONTINGENCY PLAN

3 Introduction

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- This attachment contains the RCRA Contingency Plan prepared in accordance with the
- 5 Resource Conservation and Recovery Act (RCRA) requirements codified in 20.4.1.500 New
- 6 Mexico Administrative Code (NMAC) (incorporating 40 CFR Part 264, Subpart D), "Contingency
- 7 Plan and Emergency Procedures." The purpose of this document is to define responsibilities
- and to describe the coordination of activities necessary to minimize hazards to human health
- and the environment from fires, explosions, or any sudden or non-sudden release of hazardous
- waste, or hazardous waste constituents to air, soil, or surface water (20.4.1.500 NMAC
- (incorporating 40 CFR §264.51 [a])). This plan consists of descriptions of emergency responses
- specific to contact-handled (CH) and remote-handled (RH) transuranic (TRU) mixed waste and
- site-generated hazardous waste handled at the WIPP facility.

14 D-1 Scope and Applicability

- The regulated units at the WIPP facility subject to this permit include the hazardous waste
- management units (**HWMUs**) including the Waste Handling Building (**WHB**) Container Storage
- Unit (i.e., WHB Unit) and the Parking Area Container Storage Unit (i.e., Parking Area Unit), ,
- and the hazardous waste disposal units (**HWDUs**) in the underground disposal panels.
- Pursuant to 20.4.1.500 NMAC (incorporating 40 CFR §264.51(b)), owners/operators of
- treatment, storage, and disposal facilities are required to have formal contingency plans in place
- that describe actions that facility personnel will take in response to any fire, explosion, or
- release of hazardous waste or hazardous waste constituents which could threaten human
- health or the environment. The contingency plan must meet the requirements of NMAC
- 20.4.1.500 NMAC (incorporating 40 CFR Part 264, Subpart D). The provisions of the RCRA
- 25 Contingency Plan apply to HWDUs in the underground waste disposal panels, HWMUs in the
- 26 WHB Unit and the Parking Area Unit, the Waste Shaft, and supporting TRU mixed waste
- 27 handling areas. These areas are shown in Figures D-1 through D-3.
- The WIPP facility is a large quantity generator of hazardous waste pursuant to 20.4.1.300
- NMAC (incorporating 40 CFR Part 262, "Standards for Generators of Hazardous Waste").
- 30 20.4.1.300 NMAC (incorporating 40 CFR §262.34(a)(4), which references 40 CFR Part 265,
- Subpart D) requires that a contingency plan be in place that describes actions that facility
- personnel will take in response to any fire, explosion, or release of hazardous waste or
- hazardous waste constituents which could threaten human health or the environment. The
- provisions of the RCRA Contingency Plan also apply to the Hazardous Waste Staging Areas for
- site-generated hazardous waste, which are located in Buildings 474A and 474B on the surface,
- as shown in Figure D-1, and in the underground at S550/E140.
- Wastes may also be generated at the WIPP facility as a direct result of managing the TRU and
- TRU mixed wastes received from the off-site generators. Throughout the remainder of this plan,
- this waste is referred to as "derived waste." Derived waste will be placed in the rooms in
- 40 HWDUs along with the TRU mixed waste for disposal. Every reasonable effort to minimize the
- amount of derived waste, while providing for the health and safety of personnel, will be made.

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- Wastes generated as a result of emergency response actions will be categorized into one of
- three groups and disposed of accordingly. These are: 1) nonhazardous wastes to be disposed
- of at an appropriate disposal facility (e.g., low-level waste facility or approved landfill), 2)
- 4 hazardous nonradioactive wastes (site-generated hazardous waste) to be disposed of at an off-
- site RCRA permitted facility, and 3) derived waste to be disposed of in the underground HWDUs
 - as TRU mixed waste. Hazardous liquid wastes that may be generated as a result of emergency
- 7 response actions will be managed as follows:
 - Non-Mixed Accumulated liquids contaminated only with hazardous constituents will be placed into containers and managed in accordance with 20.4.1.300 NMAC (incorporating 40 CFR §262.34) requirements. The waste will be shipped to an approved off-site treatment, storage, or disposal facility.
 - Mixed Accumulated liquids contaminated with TRU mixed waste will be solidified and the solidified materials will be disposed of in the underground WIPP repository as TRU mixed waste.
- Waste containing liquid in excess of treatment, storage, or disposal facility Waste Acceptance
- 16 Criteria (TSDF-WAC) limits shall not be emplaced in the underground HWDUs (See Permit
- 17 Attachment C, Section C-1c).
- Off-site waste managed and disposed of at the WIPP facility is radioactive mixed waste, and as
- a result, response to emergencies must consider the dual hazard associated with this waste. In
- responding to emergencies involving TRU mixed waste, the actions necessary to protect human
- 21 health and the environment from the effects of radioactivity may be similar to those actions
- necessary to provide protection from hazardous waste and hazardous waste constituents. Such
- responses may require the use of equipment and processes specific to events resulting in
- radiological contamination (e.g., continuous air monitors, decontamination shower equipment,
- 45 HEPA vacuums, paint/fixatives) and are not included in the RCRA Contingency Plan.
- Furthermore, the RCRA Contingency Plan may require additional actions to be taken to mitigate
- the hazards associated with the hazardous component of the waste. These measures are not
- intended to replace actions required to protect human health and the environment in response
- to radiological emergencies. In this manner, the RCRA Contingency Plan complements the
- 30 radiological response activities.
- 31 D-2 Emergency Response Personnel and Training
- 32 <u>D-2a Emergency Response Personnel</u>
- A RCRA Emergency Coordinator will be on-site at the WIPP facility 24 hours a day, seven days
- a week, with the responsibility for coordinating emergency response measures. In accordance
- with 20.4.1.500 NMAC (incorporating 40 CFR §264.52(d)), qualified RCRA Emergency
- Coordinators are listed in Table D-1 and are trained to the requirements found in Permit
- 37 Attachment F, under "Emergency Coordinator".
- In addition, persons qualified to act as the RCRA Emergency Coordinator have the authority to
- commit the necessary resources to implement this RCRA Contingency Plan.
- 40 During emergencies, the RCRA Emergency Coordinator has three primary responsibilities:

- Assess the Situation—The RCRA Emergency Coordinator shall gather information relevant to the incident, such as the type of event, quantity and type of released waste, and existing or potential hazards to human health and the environment.
 - Protect Personnel—The RCRA Emergency Coordinator shall take reasonable measures to ensure the safety of personnel, such as ensuring that alarms have been activated, personnel have been accounted for, any injuries have been attended to, and evacuation of personnel has occurred, if necessary.
 - Contain the Release—The RCRA Emergency Coordinator shall take reasonable measures to ensure that fires, explosions, or releases of hazardous waste or hazardous waste constituents do not occur, recur, or spread.

In addition to the RCRA Emergency Coordinator, the following individuals, groups, and organizations have specified responsibilities during any WIPP facility emergency:

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- <u>WIPP Fire Department</u>—The primary providers of fire suppression, technical rescue, Emergency Medical Services (EMS), and hazardous materials response for the protection of personnel in both surface and underground facilities.
- <u>Facility Shift Manager (FSM)</u>—A member of the Facility Operations organization
 who is in charge of plant operations and is the senior shift representative
 responsible for maintaining the facility in a safe configuration during normal and
 abnormal conditions. The FSM can concurrently serve as the RCRA Emergency
 Coordinator, if trained to the requirements of Permit Attachment F(*Facility Personnel Permit Training Program*), or provide support to the qualified RCRA
 Emergency Coordinator on shift.
- <u>Central Monitoring Room Operator (CMRO)</u>—An on-shift operator responsible for Central Monitoring Room (CMR) operations, including coordination of facility communications. The CMRO documents these activities (e.g., communications, notifications) in a facility log. The CMRO is a member of Facility Operations, and during emergencies, the CMRO supports the RCRA Emergency Coordinator.
- Emergency Response Team (ERT) WIPP facility personnel who serve as an Industrial Fire Brigade and are trained to respond to surface and underground emergencies on site, including fires, medical emergencies, and releases of hazardous materials. The ERT members supplement WIPP Fire Department response capabilities. The ERT member assigned to the underground will not perform any coordinated firefighting underground and will only respond to incipient-stage fires that threaten TRU mixed waste, if is it safe to do so.
- <u>Firefighter</u>—A WIPP Fire Department member who serves as a primary responder
 to surface and underground emergencies, including fires, medical emergencies,
 and releases of hazardous materials. Firefighters assigned to the underground will
 not perform any coordinated firefighting underground and will only respond to
 incipient-stage fires that threaten TRU mixed waste, if is it safe to do so.
- <u>Fire Department Incident Commander</u>—Upon delegation by the RCRA Emergency Coordinator, and once incident command has been established, the Incident Commander is responsible for direction and supervision of emergency responders

- during an incident resulting in implementation of the *RCRA Contingency Plan*. The Incident Commander will be a member of the WIPP Fire Department. For security-related incidents that invoke implementation of the *RCRA Contingency Plan*, the Fire Department Incident Commander will establish a unified command with the WIPP Protective Force.
 - Mine Rescue Team (MRT)— The MRT is responsible for emergency rescue and recovery of trapped or missing personnel in the underground, conducting mine facility assessments, and underground firefighting once the underground has been evacuated and only if needed to rescue unaccounted personnel.
 - Emergency Operations Center (EOC) Staff- Upon activation, the EOC supports the RCRA Emergency Coordinator and Incident Commander with emergency management decision-making and associated notifications. Since EOC staff performs duties similar to their normal job functions during an emergency response and provides support related to their area(s) of expertise, no specific RCRA training is required.

16 <u>D-2b Emergency Response Training</u>

- 17 The WIPP Fire Department personnel are trained in accordance with the WIPP Fire Department
- 18 Training Plan, which is kept on file at the WIPP facility. The training plan incorporates current
- National Fire Protection Association (NFPA) standards for training Firefighters and ERT
- 20 members.

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- 21 Fire Department Incident Commanders are also trained in accordance with the WIPP Fire
- 22 Department Training Plan, which incorporates the Federal Emergency Management Agency
- (FEMA), Incident Command System (ICS), and the National Incident Management System
- 24 (NIMS) standards.
- 25 WIPP personnel who perform EMS duties are licensed through the State of New Mexico
- 26 Emergency Medical Systems Bureau. Licensure requirements for training, continuing education,
- 27 and skills maintenance are set forth through state requirements. Licenses are maintained by
- 28 attending training seminars or conferences.
- As described above, emergency response training is conducted in accordance with the WIPP
- 30 Fire Department Training Plan, which is updated whenever the applicable standards are
- revised. In addition to the emergency response training, WIPP Fire Department personnel are
- required to complete applicable site-specific training, which is described in Permit Attachment F,
- 33 Facility Personnel Permit Training Program.

D-3 Criteria for Implementation of the RCRA Contingency Plan

- The provisions of the RCRA Contingency Plan shall be implemented immediately whenever
- there is a fire, an explosion, or a release of hazardous wastes or hazardous waste constituents
- that could threaten human health or the environment, or whenever the potential for such an
- event exists as determined by the RCRA Emergency Coordinator, as required under 20.4.1.500
- NMAC (incorporating 40 CFR §264.51(b)).

- 1 There may be situations which do not readily lend themselves to an immediate assessment of
- the possible hazards to human health and the environment. In these cases, the RCRA
- 3 Emergency Coordinator will implement the RCRA Contingency Plan as a precautionary
- 4 measure, regardless of the emergency situation or occurrence, if the RCRA Emergency
- 5 Coordinator has reason to believe that a fire, explosion, or release of hazardous waste or
- 6 hazardous waste constituents has occurred that could threaten human health or the
- 7 environment.
- 8 In accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.56(i)), the RCRA Emergency
- 9 Coordinator, on behalf of the Permittees, will record the time, date, and details of the incident
- that required implementation of the RCRA Contingency Plan. The Secretary of the NMED will
- be immediately notified by the Permittees. Additionally, the Permittees shall submit a written
- report to the NMED within 15 days of the incident, as specified in Section D-5. The following
- emergency situations, as they pertain to TRU mixed waste and generated hazardous wastes,
- warrant immediate implementation of the RCRA Contingency Plan by the RCRA Emergency
- 15 Coordinator in accordance with standard operating procedures on file at the WIPP facility:
 - Fires

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- If a fire involving TRU mixed waste or site-generated hazardous waste occurs
- If a fire (e.g., building, grass, nonhazardous waste fire) occurs within or near the Hazardous Waste Staging Areas that threatens to involve site-generated hazardous waste
 - If a fire (e.g., building, grass, nonhazardous waste fire) occurs within or near the permitted HWMUs that threatens to involve TRU mixed waste
 - If a fire occurs in underground that results in immediate personnel evacuation or prevents normal personnel access to the underground
- For any fire which does not meet the above criteria, the RCRA Emergency Coordinator shall document the rationale for not implementing the *RCRA Contingency Plan* (e.g., there is no threat to human health or the environment).
- Explosions
 - If an explosion involving TRU mixed waste or site-generated hazardous waste occurs
 - If an explosion occurs within or near the Hazardous Waste Staging Areas which threatens to involve site-generated hazardous waste
 - If an explosion occurs within or near the permitted HWMUs which threatens to involve TRU mixed waste
- If an explosion occurs in the underground that results in immediate personnel evacuation
 or prevents normal personnel access to the underground
 - If there is an imminent danger of an explosion occurring (e.g., gas leak with an ignition source nearby) which could involve TRU mixed or site-generated hazardous waste

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- For any explosion which does not meet the above criteria, the RCRA Emergency Coordinator shall document the rationale for not implementing the *RCRA Contingency Plan* (e.g., there is no threat to human health or the environment).
- Unplanned Sudden/Non-Sudden Releases
 - If, prior to waste emplacement, one or more containers of TRU mixed waste has spilled or been breached due to dropping, puncturing, container failure or degradation, or any other physical or chemical means, resulting in a release
 - If, after waste emplacement, one or more containers of TRU mixed waste in an active room has been breached
 - If a continuous air monitor confirms a release of radioactive particulates to the ambient atmosphere, indicating a possible release of TRU mixed waste constituents from the permitted facility
 - If a spill of site-generated hazardous waste occurs in a Hazardous Waste Staging Area and cannot be contained with secondary containment methods or absorbents, thereby threatening a release to air, soil, or surface water
 - If a site-generated hazardous waste spill occurs in a Hazardous Waste Staging Area and results in the release of potentially flammable material, thereby threatening to create a fire or explosion hazard
 - If a site-generated hazardous waste spill occurs in a Hazardous Waste Staging Area and results in the release of potentially toxic fumes that would threaten human health
- For any release of hazardous waste or hazardous waste constituents that does not meet the above criteria, the RCRA Emergency Coordinator shall document the rationale for not implementing the *RCRA Contingency Plan* (e.g., there is no threat to human health or the environment).
 - Other Occurrences
 - If a natural phenomenon (e.g., earthquake, flood, lightning strike, tornado) occurs that involves TRU mixed waste or site-generated hazardous waste or threatens to involve TRU mixed waste or site-generated hazardous waste
 - If an underground structural integrity emergency (e.g., roof fall in an active room) occurs that involves TRU mixed waste, threatens to involve TRU mixed waste results in immediate personnel evacuation, or prevents normal personnel access to the underground
 - For any natural phenomenon or underground structural emergency that does not meet the above criteria, the RCRA Emergency Coordinator shall document the rationale for not implementing the *RCRA Contingency Plan* (e.g., there is no threat to human health or the environment).

1 <u>D-4 Emergency Response Method</u>

- Methods that describe implementation of the *RCRA Contingency Plan* cover the following six areas:
 - 1. Immediate Notifications (Section D-4a)
- 2. Identification of Released Materials and Assessment of Extent of Emergency (Section D-4b)
 - 3. Assessment of the Potential Hazards (Section D-4c)
- 4. Post-Assessment Notifications (Section D-4d)
- 5. Control and Containment of the Emergency (Section D-4e)
- 6. Post-Emergency Activities (Section D-4f)

17 D-4a Immediate Notifications

- Notification requirements in the event of implementation of the RCRA Contingency Plan are
- defined by 20.4.1.500 NMAC (incorporating 40 CFR §§264.56(a). Personnel at the WIPP facility
- are trained to respond to emergency notifications.
- 21 Whenever an emergency situation occurs that warrants implementation of this RCRA
- 22 Contingency Plan, as described in Section D-3, the Permittees will immediately notify the
- 23 Secretary of the NMED.
- 24 D-4a(1) Initial Emergency Response and Alerting the RCRA Emergency Coordinator
- The first person to become aware of an incident shall immediately report the situation to the
- 26 CMRO and, as requested by the CMRO, provide the relevant information. Facility personnel are
- trained in the process for notifying the CMRO as part of General Employee Training (**GET**).
- In addition to receiving incident reports from facility personnel, the CMRO continuously monitors
- 29 (24 hours a day) the status of alarms, takes telephone calls and radio messages, initiates calls
- to emergency staff, and initiates emergency response procedures regarding evacuation, if
- 31 needed.

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- Once the CMRO is notified of a fire, explosion, or a release anywhere in the facility (either by
- eyewitness notification or an alarm), the RCRA Emergency Coordinator is immediately notified.
- The RCRA Emergency Coordinator ensures that the emergency responders, including the
- WIPP Fire Department, the ERT, and the MRT, have been notified, as needed. Once incident
- command has been established, the RCRA Emergency Coordinator has the authority to
- 37 delegate the responsibilities for mitigation of the incident to the Incident Commander.
- The response to an unplanned event will be performed in accordance with standard operating
- procedures and guides based on the applicable Federal, State, or local regulations and/or
- quidelines for that response. These include DOE Order 151.1C, Comprehensive Emergency
- 41 Management System; the U.S. Mine Safety and Health Administration (MSHA); NMAC;

- 1 Comprehensive Environmental Response, Compensation, and Liability Act; Chapter 74, Article
- 4B, New Mexico Statutes Annotated 1978; and the New Mexico Emergency Management Act.
- 3 If needed, the RCRA Emergency Coordinator will immediately notify the appropriate State and
- 4 local agencies, listed in Section D-7, with designated response roles.
- 5 Depending on the emergency, the EOC may be activated for additional support. In the event
- 6 that the EOC is activated, decision-making responsibilities related to emergency management
- 7 and associated notifications may be delegated to the EOC by the RCRA Emergency
- 8 Coordinator. The EOC will assist in the mitigation of the incident with the use of appropriate
- 9 communications equipment and technical expertise from available resources. During the
- emergency, the RCRA Emergency Coordinator will remain in contact with and advise the EOC
- of the known hazards.

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- The EOC staff assesses opportunities for coordination and the use of mutual-aid agreements
- with local agencies making additional emergency personnel and equipment available (Section
- D-7), as well as the use of specialized response teams available through various State and
- Federal agencies. Because the WIPP facility is a DOE-owned facility, the Permittees may also
- use the resources available from the *National Response Framework*.
- 17 D-4a(2) Communication of Emergency Conditions to Facility Employees
- Procedures for immediately notifying facility personnel of emergencies are as follows:
 - Local Fire Alarms
 - The local fire alarms sound an audible tone and may be activated automatically or manually in the event of a fire.
 - Surface Evacuation Signal
 - The evacuation signal is a yelp tone and is manually activated by the CMRO when needed. The CMRO follows the evacuation signal with verbal instructions and ensure the Site Notification System has been activated.
 - Underground Evacuation Warning System
 - The underground evacuation signal is a yelp tone and flashing strobe light. In the event of an evacuation signal, underground personnel will follow escape routes to egress hoist stations. Underground personnel are trained to report to the underground assembly areas and await further instruction if all power fails or if ventilation stops. If evacuation of underground personnel is required, this will be done using the backup electric generators and in accordance with the applicable requirements of MSHA.
 - WIPP facility personnel are trained and given instruction during GET to recognize the various alarm signals and the significance of each alarm. WIPP facility employees and site visitors are required to comply with directions from emergency personnel and alarm system notifications and to follow instructions concerning emergency equipment, shutdown procedures, and emergency evacuation routes and exits.

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2 D-4b Identification of Released Materials and Assessment of the Extent of the Emergency

- 3 The identification of hazardous wastes or hazardous waste constituents involved in a fire, an
- 4 explosion, or a release to the environment is a necessary part of the RCRA Emergency
- 5 Coordinator's assessment of an incident, as described in 20.4.1.500 NMAC (incorporating 40
- 6 CFR §264.56(b)). Immediately after alarms have been activated and required notifications have
- 5 been made, the RCRA Emergency Coordinator shall direct an investigation to determine
- 8 pertinent information relevant to the actual or potential threat posed to human health or the
- environment. The information will include the character, exact source, amount, and areal extent
- of any released material. This may be done by observation or review of facility records or
- manifests and, if necessary, by chemical analysis.
- The identification of the character and source of released materials at any location is enhanced
- because hazardous wastes are stored, managed, or disposed at specified locations throughout
- the WIPP facility.
- Sources of information available to identify the hazardous wastes involved in a fire, an
- explosion, or a release at the WIPP facility include operator/supervisor knowledge of their work
- areas, materials used, and work activities underway; the WIPP Waste Information System
- (WWIS), which identifies the location within the facility of emplaced TRU mixed waste, including
- emplaced derived waste; and waste manifests and other waste characterization information in
- 20 the operating record. The WWIS also includes information on wastes that are in the waste
- 21 handling process. Also available are Safety Data Sheets (SDSs) for hazardous materials in the
- various user areas throughout the facility, waste acceptance records, and materials inventories
- for buildings and operating groups at the WIPP facility. Information or data from the derived
- waste accumulation areas, the Hazardous Waste Staging Areas, satellite staging areas, and
- nonregulated waste accumulation areas are included. It is anticipated that this information is
- sufficient for identifying the nature and extent of the released materials. The RCRA Emergency
- 27 Coordinator has access to this information when needed.
- The waste received at the WIPP facility must meet TSDF-WAC (e.g., no more than one percent
- liquid), which minimizes the possibility of waste container degradation and liquid spills. Should a
- spill or release occur from a container of site-generated hazardous or TRU mixed waste,
- following an initial assessment of the event, the RCRA Emergency Coordinator will ensure that
- the following actions are immediately taken, consistent with radiological control procedures, in
- compliance with 20.4.1.500 NMAC (incorporating 40 CFR §264.52(a) and §264.171):
 - Assemble the required response equipment, such as protective clothing and gear, heavy equipment, empty drums, overpack drums, hand tools, and absorbent materials
 - Transfer the released material to a container that is in good condition and patch or overpack the leaking container into another container that is in good condition
 - Once the release has been contained, determine the areal extent of the release and proceed with appropriate cleanup action, such as chemical neutralization, vacuuming, or excavation

D-4c Assessment of the Potential Hazards

- 2 Concurrent with the actions described in Sections D-4a and D-4b, and in accordance with
- 3 20.4.1.500 NMAC (incorporating 40 CFR §264.56(c)), the RCRA Emergency Coordinator shall
- 4 assess possible hazards to human health or the environment that may result from the release,
- 5 fire, or explosion. This assessment will consider both direct and indirect effects of the release,
- fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are
- 7 generated, or the effects of any hazardous surface water run-off from water or chemical agents
- 8 used to control fire and heat-induced explosions). The RCRA Emergency Coordinator will be
- 9 responsible for identifying and responding to immediate and potential hazards, using the
- services of trained personnel.
- After the materials involved in an emergency are identified, the specific information (e.g.,
- associated hazards, appropriate personal protective equipment (**PPE**), decontamination) may
- be obtained from SDSs and from appropriate chemical reference materials at the same location.
- These information sources are available to the RCRA Emergency Coordinator or may be
- accessed through several WIPP facility organizations.
- 16 If, upon completion of the hazards assessment, the RCRA Emergency Coordinator determines
- that there are no actual or potential hazards to human health or the environment present, this
- 18 RCRA Contingency Plan may be terminated. The RCRA Emergency Coordinator will record the
- time, date, and details of the incident in the operating record, and the Permittees will ensure that
- the reporting requirements of Section D-5 are fulfilled.

21 D-4d Post-Assessment Notifications

- 22 Upon RCRA Contingency Plan implementation, post-assessment notifications may be
- necessary in order to satisfy 20.4.1.500 NMAC (incorporating 40 CFR §264.56(d)). If it has been
- determined that the facility has had a fire, an explosion, or a release of hazardous waste or
- 25 hazardous waste constituents that could threaten human health or the environment outside the
- 26 facility (i.e., outside the Land Withdrawal Boundary), the RCRA Emergency Coordinator, after
- consultation with the DOE as the owner of the facility, will ensure that the appropriate local
- 28 authorities are immediately notified by telephone and/or radio in the event that evacuation is
- needed. The following notifications satisfy the requirements of 20.4.1.500 NMAC (incorporating
- 30 40 CFR §264.56(d)(1)):

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- New Mexico Department of Homeland Security and Emergency Management (telephone number: (505) 476-9635)
- Eddy County via the Regional Emergency Dispatch Authority (telephone number: (575) 616-7155)
- Lea County via the Regional Emergency Dispatch Authority (telephone number: (575) 397-9265)
- The RCRA Emergency Coordinator must be available to help appropriate officials decide whether local areas should be evacuated.
- 41 After local authorities are notified, the RCRA Emergency Coordinator must immediately notify
- either the government official designated as the on-scene coordinator for that geographical

- area, or the National Response Center. For the purposes of the RCRA Contingency Plan, the
- following notifications satisfy the requirements of 20.4.1.500 NMAC (incorporating 40 CFR
- 3 §264.56(d)(2)):
- New Mexico Environment Department (NMED)
- 5 Department of Public Safety
- 6 24-Hour Emergency Reporting Telephone Number: (505) 827-9329
- 7 FAX number: (505) 827-9368

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- National Response Center
- Telephone number: 1-800-424-8802
- 11 FAX number: (202) 479-7181
- 12 This notification shall include the following information:
- The name and phone number of the reporter
- The name and address of the facility
- The type of incident (fire, explosion, or release)
- The date and time of the incident
- The name and quantity of material(s) involved, to the extent known
- The extent of injuries, if any
- Possible hazards to human health and the environment (air, soil, water, wildlife, etc.) outside the facility
- 21 Communications beyond those required by the RCRA Contingency Plan are the responsibility of
- the Permittees in accordance with plans and policies on file at the WIPP facility.
- 23 D-4e Control and Containment of the Emergency
- 24 The RCRA Emergency Coordinator is required to ensure control of an emergency and to
- 25 minimize the potential for the occurrence, recurrence, or spread of releases due to the
- emergency situation, as described in 20.4.1.500 NMAC (incorporating 40 CFR §264.56 (e) and
- 27 (f)). Standard operating procedures and guides are used to implement initial response
- measures with priority being control of the emergency, and those actions necessary to ensure
- confinement and containment in the early, critical stages of a spill or leak. The RCRA
- 30 Emergency Coordinator, in conjunction with the Incident Commander, is responsible for
- implementing the following measures:
 - Stopping processes and operations
 - Collecting and containing released wastes and materials
 - Removing or isolating containers of hazardous waste posing a threat

- Ensuring that wastes managed during an emergency are handled, stored, or treated with
 due consideration for compatibility with other wastes and materials on site and with
 containers utilized (Section D-4f(2))
 - Restricting personnel not needed for response activities from the scene of the incident
- Evacuating the area
 - Curtailing nonessential activities in the area
- Conducting preliminary inspections of adjacent facilities and equipment to assess
 damage
 - Maintaining fire equipment on standby at the incident site in cases where ignitable
 liquids have been or may be released and ensuring that ignition sources are kept out of
 the area. Ignitable liquids will be segregated, contained, confined, diluted, or otherwise
 controlled to preclude inadvertent explosion or detonation.
- No operation that has been shut down in response to the incident will be restarted until
- authorized by the RCRA Emergency Coordinator. If a release occurs that involves radioactivity,
- the RCRA Emergency Coordinator actions will be consistent with radiation control policies and
- 16 practices.

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- The standard operating procedures for emergency response may include, but are not limited to, the following actions appropriate for control of releases:
 - 1. Isolating the area from unauthorized entry by fences, barricades, warning signs, or other security and site control precautions. Isolation and evacuation distances vary, depending upon the chemical/product, fire, and weather situations.
 - Establishing drainage controls.
 - Stabilizing physical controls (such as dikes or impoundment[s]).
- 4. Capping contaminated soils to reduce migration.
- 5. Using chemicals and other materials to retard the spread of the release or to mitigate its effects.
- 27 6. Excavating, consolidating, or removing contaminated soils.
 - 7. Removing wastes containers to reduce exposure risk during situations such as fires.
- If the facility stops operations in response to a fire, explosion, or release, the RCRA Emergency
- Coordinator shall ensure continued monitoring for leaks, pressure buildup, gas generation, or
- ruptures in valves, pipes, or other equipment, wherever appropriate.
- Natural and/or synthetic methods will be employed to limit the releases of hazardous wastes or
- hazardous waste constituents so that effective recovery and treatment can be accomplished
- with minimal additional risk to human health or the environment.

- Emergency response actions taken to mitigate releases may include, but are not limited to, the following:
- 1. Physical methods of control may involve any of several processes to reduce the area of the spill/leak, or other release mechanism (such as fire suppression).
 - Absorption (e.g., absorbent sheets; spill control bucket materials specifically for solvents, neutralization, or acids/caustics; and absorbent socks for general liquids or oils)
 - b. Dikes or Diversions (e.g., absorbent socks or earth)
 - c. Overpacking
 - d. Plug and Patch
 - e. Transfers from leaking container to new container f. Vapor Suppression (e.g., aqueous foam blanket)
- 2. Chemical methods of mitigation may include the following:
 - a. Neutralization
 - b. Solidification
- Once the Incident Commander informs the RCRA Emergency Coordinator that the emergency
- scene is stable, the release has been stopped, any reactions have been controlled, the released
- hazardous materials have been contained within a localized area, and the area of contamination
- has been secured from unauthorized entry, the field emergency response activity can be
- 20 terminated.

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- 21 D-4e(1) Fires
- In the event of a fire that involves or threatens TRU mixed waste or site-generated hazardous waste, emergency response actions may include, but are not limited to, the following:
 - 1. The RCRA Emergency Coordinator will remain in contact with and advise the Incident Commander of the known hazards.
 - The Incident Commander will maintain overall control of the emergency and may accept and evaluate the advice of WIPP facility personnel and emergency response organization members, but retains overall responsibility until the emergency is terminated.
 - Only fire extinguishing materials that are compatible with the materials involved in the fire will be used to extinguish fires. Water and dry chemical materials have been determined to be compatible with all components of the TRU mixed waste.
 - 4. In order to ensure that storm drains and/or sewers do not receive potentially hazardous runoff, dikes will be built around storm drains to control discharge as needed. Collected waste will be sampled and analyzed for hazardous constituents, and appropriately disposed.

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- 5. The RCRA Emergency Coordinator will ensure that measures are taken to shut down operational units (e.g., process equipment and ventilation equipment) that have been affected directly or indirectly by the fire.
 - 6. Fire suppression materials used in response to incidents will be retained on-scene, where an evaluation will be performed to determine appropriate recovery and disposal methods.
 - 7. Upon underground evacuation due to a fire in the underground that involves or threatens to involve TRU mixed waste, a response plan will be developed depending on the status of the fire. The plan may include ventilation control, barrier erection, and waiting for the fire to self-extinguish or implement active ventilation.

D-4e(2) Explosions

- In the event of an explosion that involves or threatens TRU mixed waste or site-generated hazardous waste, emergency response actions may include, but are not limited to, the following:
 - 1. The RCRA Emergency Coordinator will remain in contact with and advise the Incident Commander of the known hazards.
 - 2. The Incident Commander will maintain overall control of the emergency and may accept and evaluate the advice of WIPP facility personnel and emergency response organization members, but retains overall responsibility until the emergency is terminated.
 - 3. The RCRA Emergency Coordinator will ensure measures are taken to shut down operational units (e.g., process equipment and ventilation equipment) that have been affected directly or indirectly by the explosion.
 - 4. If, following an explosion, there is an ensuing fire, see Section D-4e(1).
- 5. If, following an explosion, there is an underground structural integrity emergency, see Section D-4e(4).

26 D-4e(3) Unplanned Sudden/Non-Sudden Releases

27 Spills of Site-Generated Hazardous Waste

- If a spill of site-generated hazardous waste has occurred, and 1) the spill cannot be contained with secondary containment methods or absorbents, 2) the spill causes a release of flammable material, or 3) the spill results in toxic fumes, the RCRA Emergency Coordinator will ensure implementation of measures that may include, but are not limited to, the following actions:
 - 1. The RCRA Emergency Coordinator will remain in contact with and advise the Incident Commander of the known hazards.
 - 2. The Incident Commander will maintain overall control of the emergency and may accept and evaluate the advice of WIPP facility personnel and emergency response

- organization members, but retains overall responsibility until the emergency is terminated.
- 3. The immediate area will be evacuated.
- 4. The source of the release will be mitigated, if possible.
 - 5. A dike to contain runoff will be built, if necessary.
- 6. Dikes around storm drains to control discharge will be built, as needed, to ensure that storm drains and/or sewers do not receive potentially hazardous runoff.
 - 7. Fire equipment will be maintained on standby at the incident site in cases where ignitable liquids have been or may be released, and ignition sources will be kept out of the area of ignitable liquids.
 - 8. Released waste and contaminated media will be collected and placed into drums or other appropriate containers.

Releases of TRU Mixed Waste

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- If a release of TRU mixed waste has occurred, the emergency will be managed as a potential radiological release, and radiological control measures will determine the activities that can be performed safely, which may include the following:
- 17 1. The RCRA Emergency Coordinator will remain in contact with and advise the Incident Commander of the known hazards.
 - The Incident Commander will maintain overall control of the emergency and may accept and evaluate the advice of WIPP facility personnel and emergency response organization members, but retains overall responsibility until the emergency is terminated.
 - 3. Prior to the re-entry following an event involving containers that are managed as TRU mixed waste, a Radiological Work Permit (**RWP**) will be prepared.
 - 4. During the re-entry phase, the extent of radiological contamination will be determined. This information is used by the RCRA Emergency Coordinator to determine an appropriate course of action to recover the area.
 - 5. During the recovery phase, the necessary resources to conduct decontamination and/or overpacking operations will be used as needed.
 - 6. Prior to returning the affected area and/or equipment to normal activities, the RCRA Emergency Coordinator will determine if additional measures are required by the *RCRA Contingency Plan* (e.g., characterization and disposal of contaminated media).
 - 7. The recovery phase will include activities (e.g., placing the waste material in another container, vacuuming the waste material, overpacking or plugging/patching the affected waste container(s), decontaminating or covering the affected area), as specified in the RWP, to minimize the spread of contamination to other areas.

1 8. The RWPs and other administrative controls will provide protective measures to help
2 ensure that new hazardous constituents will not be added during decontamination
3 activities.

4 <u>D-4e(4)</u> Other Occurrences

5 Natural Phenomena

- In the event of a natural phenomenon (e.g., earthquake, flood, lightning strike, tornado) that
- 7 involves hazardous waste or has threatened to cause a release of hazardous waste or
- 8 hazardous waste constituents, emergency response actions may include, but are not limited to,
- 9 the following:

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- 1. The RCRA Emergency Coordinator will remain in contact with and advise the Incident Commander of the known hazards.
 - The Incident Commander will maintain overall control of the emergency and may accept and evaluate the advice of WIPP facility personnel and emergency response organization members, but retains overall responsibility until the emergency is terminated.
- 3. Containers which have not been disposed will be inspected for signs of leakage or damage, and containment systems will be inspected for deterioration.
 - 4. Affected equipment or areas associated with hazardous waste management activities will be inspected, and the operability of monitoring systems will be ensured.
 - 5. Affected electrical equipment and lines will be inspected for damage.
 - 6. Affected buildings and fencing directly related to hazardous waste management activities will be inspected for damage.
 - 7. A general survey of the site will be conducted to check for signs of physical damage.
 - 8. The RCRA Emergency Coordinator will ensure that measures are taken to shut down operational units (e.g., process equipment and ventilation equipment) that have been affected by the natural phenomenon.

Underground Structural Integrity Emergencies

- In the event of an underground structural integrity emergency that involves or threatens TRU
 mixed waste (i.e., occurs in an active disposal room), the emergency will be managed as a
 potential radiological release, and radiological control measures will determine the activities that
 can be performed safely, and may include the following:
 - 1. The RCRA Emergency Coordinator will remain in contact with and advise the Incident Commander of the known hazards.
 - 2. The Incident Commander will maintain overall control of the emergency and may accept and evaluate the advice of WIPP facility personnel and emergency response

- organization members, but retains overall responsibility until the emergency is terminated.
- 3. The RCRA Emergency Coordinator will ascertain whether the roof conditions allow for safe entry and if the waste container or containers in question are accessible.
 - 4. The RCRA Emergency Coordinator may recommend closing the entire panel, or the affected room of waste containers, based on the location of the event and the stability of the roof and walls in the panel as a method to ensure that measures are taken to shut down affected operational units.
- 5. Access to the ventilation flow path downstream of the incident will be restricted, as appropriate.
 - 6. Ventilation to the affected room will be restricted to ensure that there is no spread of contamination that may have been released, as appropriate.
 - Accessible containers will be inspected for signs of leakage or damage.
- 8. The spill area will be covered with material (e.g., plastic, fabric sheets) in a manner that safely isolates the contamination in the area.
 - 9. The RCRA Emergency Coordinator will determine if the covered spill area safely allows for continued waste disposal operations or whether further action is required to reinitiate operations.

19 D-4f Post-Emergency Activities

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- 20 Immediately after the emergency, and once initial release or spill control and containment have
- been completed, the RCRA Emergency Coordinator will ensure that necessary decontamination
- occurs and that recovered hazardous waste is properly managed, stored, and/or disposed, as
- 23 required by 20.4.1.500 NMAC (incorporating 40 CFR §264.56(g)). As required by 20.4.1.500
- NMAC (incorporating 40 CFR §264.56(h)), the RCRA Emergency Coordinator will ensure that
- incompatibility of waste and restoration of emergency equipment are addressed.

26 D-4f(1) Management and Disposition of Released Material

- 27 When a release of TRU mixed waste has occurred, priority is given to actions required to
- minimize radiological exposure to workers and the public. In most cases, these actions are
- sufficient to mitigate any health effects associated with contamination by hazardous waste or
- 30 hazardous waste constituents.
- If a release of site-generated hazardous waste occurs, the contaminated surface will be
- cleaned, and decontamination materials will be placed in containers and dispositioned
- appropriately. If the release is TRU mixed waste, decontamination and disposition will be in
- accordance with the RWP.
- If radioactive contamination is detected on equipment or on structures, radiological cleanup
- standards will be used to determine the effectiveness of decontamination efforts and/or the final
- disposition of the equipment or structures. Many types of equipment are difficult to

- decontaminate and may have to be discarded as derived waste. Fixatives (e.g., paint) may be
- 2 used on contaminated structures if the contamination cannot be safely removed.
- 3 Following decontamination, the RCRA Emergency Coordinator will ensure that nonradioactive
- 4 hazardous waste resulting from the cleanup of a fire, an explosion, or a release involving a
- 5 nonradioactive hazardous waste at the WIPP facility will be contained and managed as a
- 6 hazardous waste until such time as the waste is disposed of, or determined to be
- 7 nonhazardous, as defined in 20.4.1.200 NMAC (incorporating 40 CFR Part 261, Subparts C and
- 8 D). In most cases, knowledge of the material inventories for the various buildings and areas at
- 9 the facility will allow a hazardous waste determination for the material resulting from the cleanup
- of a release. When knowledge of the material inventories is not sufficient, samples of the waste
- will be collected and analyzed using U.S. Environmental Protection Agency (**EPA**)-approved
- methods to determine the presence of any hazardous characteristics and/or hazardous waste
- 13 constituents.

14 D-4f(2) Incompatible Waste

- The RCRA Emergency Coordinator will ensure, in accordance with 20.4.1.500 NMAC
- (incorporating 40 CFR §264.56(h)(1)), that in the affected area(s) of the facility, no waste that
- may be incompatible with the released material is treated, stored, or disposed of until cleanup
- has been completed. The RCRA Emergency Coordinator will not allow hazardous or TRU mixed
- waste operations to resume in a building or area in which incompatible materials have been
- 20 released prior to completion of necessary post-emergency cleanup operations to remove
- 21 potentially incompatible materials. In making the determination of compatibility, the RCRA
- 22 Emergency Coordinator will have available the resources and information described in Section
- 23 D-4b, Identification of Released Materials and Assessment of the Extent of the Emergency.

24 <u>D-4f(3) Cleaning and Restoration of Equipment</u>

- 25 The RCRA Emergency Coordinator will take measures to ensure, in accordance with 20.4.1.500
- NMAC (incorporating 40 CFR §264.56(h)(2)), that in the affected area(s) of the facility,
- emergency equipment listed in the RCRA Contingency Plan, and used in the emergency
- response, is cleaned and fit for its intended use or replaced before operations are resumed.
- Any equipment that cannot be decontaminated will be discarded as waste (e.g., hazardous,
- mixed, solid), as appropriate. After the equipment has been cleaned, repaired, or replaced, a
- post-emergency facility and equipment inspection will be performed, and the results will be
- 32 documented.

33 D-5 Required Reporting

- The RCRA Emergency Coordinator, on behalf of the Permittees, will note in the operating
- record the time, date, and details of the incident that required implementation of the RCRA
- 36 Contingency Plan. In compliance with 20.4.1.500 NMAC (incorporating 40 CFR §264.56(i)),
- within 15 days after the incident, the Permittees will ensure that a written report on the incident
- will be submitted to the Secretary of the NMED and the EPA Region VI Administrator. The
- 39 report will include:

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• The name, address, and telephone number of the Owner/Operator

- The name, address, and telephone number of the facility
- The date, time, and type of incident (e.g., fire, explosion, or release)
- The name and quantity of material(s) involved
- The extent of injuries, if any
- An assessment of actual or potential hazards to human health or the environment,
 where this is applicable
 - The estimated quantity and disposition of recovered material that resulted from the incident

9 <u>D-6 Emergency Equipment</u>

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- A variety of equipment is available at the facility for emergency response, containment, and
- cleanup operations in the surface HWMUs, the underground HWDUs, and the WIPP facility in
- general. This includes equipment for spill control, fire control, personnel protection, monitoring,
- first aid and medical attention, communications, and alarms. This equipment is immediately
- available to emergency response personnel. A listing of major emergency equipment available
- at the WIPP facility, as required by 20.4.1.500 NMAC (incorporating 40 CFR §264.52(e)), is
- shown in Table D-2. Table D-2 also includes the location and a physical description of each item
- on the list along with a brief outline of its capabilities. The fire-water distribution system map is
- show in Figure D-5. Equipment specified at the locations listed in Table D-2 are inspected in
- accordance with the inspection schedule specified in Attachment E, Table E-1, as required by
- 20 20.4.1.500 NMAC (incorporating 40 CFR §264.52(e)).

21 D-7 Agreements with Local Emergency Response Agencies

- The Permittees have established agreements with local emergency response agencies for
- 23 firefighting, medical assistance, hazardous materials response, and law enforcement. In the
- event that on-site response resources are unable to provide the needed response actions
- during a medical, fire, hazardous materials, or security emergency, the RCRA Emergency
- 26 Coordinator will notify appropriate response agencies and request assistance. Once on site,
- 27 local emergency response agency personnel will perform emergency response activities under
- the direction of the Incident Commander.
- The agreements with local agencies for emergency response capabilities are on file at the WIPP
- facility. Additional agreements may be established when needed. A description of the
- agreements with State and local agencies and mining operations in the vicinity of the WIPP
- facility, as required by 20.4.1.500 NMAC (incorporating 40 CFR §264.37 and §264.52(c)),
- include, but is not limited to, the following:
 - Agreements with local mining companies, including Intrepid Potash NM LLC and Mosaic Potash Carlsbad Inc. provide for mutual aid and assistance, in the form of MRTs, in the event of a mine disaster or other circumstance at either of the facilities. This provision ensures that the WIPP MOC will have two MRTs available at all times when miners are underground.

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- An agreement with the U.S. Department of Interior (DOI), represented by the Bureau of
 Land Management (BLM), Roswell District, for wildland firefighting support within the
 WIPP Land Withdrawal Area.
 - Agreements for mutual-aid firefighting with Eddy County, the City of Hobbs, and the City of Carlsbad for assistance, including equipment and personnel.
 - A mutual-aid Agreements with the City of Hobbs and the City of Carlsbad for mutual ambulance, medical, rescue, and hazardous material response services; for use of WIPP facility radio frequencies during emergencies; and for mutual security and law enforcement services, within the appropriate jurisdiction limits of each party.
 - Agreements with the Lea Regional Medical Center and the Carlsbad Medical Center for the treatment of persons with radiological contamination who have incurred injuries beyond the treatment capabilities at the WIPP site. The WIPP facility provides transport of the patient(s) to the medical center.
 - Agreements with the Sheriff of Eddy County and the Sheriff of Lea County for mutual law enforcement services support.
 - An agreement with the New Mexico Department of Homeland Security and Emergency Management for mutual emergency management support, access to state law enforcement, public works, and transportation assets.

19 D-8 Evacuation Plan

- 20 If it becomes necessary to evacuate all or part of the WIPP facility, on-site assembly and off-site
- staging areas have been established. The off-site staging areas are outside the security fence.
- 22 The Permittees have plans and implementation procedures for both surface and underground
- evacuations. Drills are performed on these procedures at the WIPP facility at least annually. The
- following sections describe the evacuation plan for the WIPP facility, as required under
- 25 20.4.1.500 NMAC (incorporating 40 CFR §264.52(f)).

26 D-8a Surface Evacuation On-site and Off-site Staging Areas

- 27 Figure D-6 shows the surface assembly and staging areas. Security officers remain at the
- primary staging area gate 24 hours a day, and the vehicle trap is opened for personnel during
- emergency evacuations. The north gate has a single-person gate and a large gate which can be
- opened, similar to the main gates for the primary staging area. The east gate is a turnstile gate.
- Upon notification, security personnel will respond, open gates, and facilitate egress for
- 32 evacuation.
- If a building or area evacuation is necessary, the RCRA Emergency Coordinator, in conjunction
- with the Incident Commander, will determine which assembly area is to be used and will
- communicate the selection to facility personnel. The preferred evacuation route is determined
- based on the nature of the event, prevailing weather conditions, and actual or potential
- radiological release. If site evacuation is necessary, the RCRA Emergency Coordinator, in
- conjunction with the Incident Commander, will decide which staging area is to be used and will
- communicate the selection to facility personnel. The WIPP site evacuation routes are shown in
- Figure D-8. The surface evacuation alarm and public address system are used to direct

- personnel evacuation. Persons responsible for surface accountability will direct personnel to the
- 2 selected staging area outside the security fence.
- 3 Personnel report to the designated assembly or staging area where accountability is conducted
- 4 (Figure D-6). Personnel who are working in a contaminated area when site evacuation is
- 5 announced will assemble at specific staging areas for potentially contaminated personnel in
- order to minimize contact with other personnel during the evacuation.

7 <u>D-8b</u> <u>Underground Assembly Areas and Egress Hoist Stations</u>

- 8 Depending upon the type of emergency and level of response, it may be necessary for
- 9 personnel in the underground to shelter in place, report top designated assembly areas (Figure
- D-7), or to evacuate the underground. Underground personnel are trained to immediately report
- to assembly areas under specific circumstances (i.e., loss of underground power or ventilation).
- 12 Underground accountability is taken when the underground is sheltered in place or evacuated.
- The Underground Controller is responsible for underground personnel accountability. Each
- assembly area contains a mine page phone, miner's aid station, and evacuation maps.
- In accordance with 30 CFR §57.11050, the mine maintains two escapeways. These
- escapeways are designated as Egress Hoist Stations. When the need for an underground
- evacuation has been determined, underground personnel report to the Egress Hoist Stations.
- Decontamination of underground personnel will be conducted the same way as described for
- surface decontamination. Contaminated personnel are trained to remain segregated from other
- personnel until radiological contamination control personnel can respond.

21 D-8c Plan for Surface Evacuation

- Surface evacuation notification is initiated by the CMRO, as directed by the RCRA Emergency
- 23 Coordinator, via sound-ing of the surface evacuation alarm and providing incident information
- via the public address system. The persons responsible for surface accountability assist
- personnel in evacuation from their areas. Egress routes from buildings and site evacuation
- routes and instructions are posted in designated areas throughout the site. Egress routes from
- the WHB Unit are shown in Figures D-6a, D-6b, and D-6c.
- If the ERT members have been notified to respond to an identified area, these members will not
- depart the site during an evacuation, but will report to the Incident Commander for instructions
- and accountability. The ERT members will not evacuate until released by the Incident
- 31 Commander.

32 D-8d Plan for Underground Evacuation

- Notification for underground evacuation will be made using the underground evacuation alarm
- 34 and strobe light signals.
- 35 Personnel will evacuate to the nearest Egress Hoist Station. Primary underground escape
- routes (identified by green reflectors on the rib) will be used, if possible. Secondary underground
- escape routes (identified by red reflectors on the rib) will be used if necessary (Figure D-4).
- 38 Detailed descriptions of escapeways and an underground escape map are included in the
- 39 Underground Escape and Evacuation Plan on file at the WIPP facility, as required by MSHA, 30
- 40 CFR §57.11053, for underground mining situations. The MSHA required map takes precedence

- over Figure D-4, *Underground Escape/Evacuation Routes*, should an underground mine related
- event occur necessitating a change to the evacuation routes. The Underground Controller is
- 3 responsible for underground personnel accountability and for reporting accountability to the
- 4 RCRA Emergency Coordinator.
- 5 Upon reaching the surface, personnel will report to their on-site surface assembly or off-site
- 6 staging area, as directed, to receive further instructions.
- 7 Members of the WIPP Fire Department and the MRT who may be underground, will assist in the
- 8 evacuation of the underground when an underground evacuation is called for. A reentry by the
- 9 MRT will be performed according to 30 CFR Part 49 and MSHA regulations for reentry into a
- mine. The two MRTs are trained in compliance with 30 CFR Part 49 in mine mapping, mine
- gases, ventilation, exploration, mine fires, rescue, and recovery.

12 D-8e Further Site Evacuation

- In the event of an evacuation involving the need to transport employees, the following
- transportation will be available:
- Buses/vans—WIPP facility buses/vans will be available for evacuation of personnel. The
 buses/vans are stationed in the employee parking lot.
 - Privately Owned Vehicles—Because many employees drive to work in their own vehicles, these vehicles may be used in an emergency. Personnel will be provided routes to be taken when leaving the facility.
- These vehicles may be used to transport personnel who have been released from the site by the RCRA Emergency Coordinator.
- The primary evacuation routes for the WIPP facility are the main DOE north/south access road,
- which connects to U.S. Highways 62/180 (north) and State Highway 128 (south). Alternate
- evacuation routes from the facility are provided at the south side and the east side of the facility
- 25 (Figure D-8).

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26 <u>D-9 Location of the RCRA Contingency Plan and Plan Revision</u>

- In accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.53(a)), the owner/operator of
- the WIPP facility will ensure that copies of this RCRA Contingency Plan are maintained at the
- 29 WIPP facility and are available to the emergency personnel and organizations described in
- 30 Section D-2. When the RCRA Contingency Plan is revised, updated copies are distributed
- (electronically or via site mail) or hand delivered to applicable WIPP facility emergency
- personnel and Emergency Operations Centers. In addition, the Permittees will make copies
- available to the following State and local agencies, as required by 20.4.1.500 NMAC
- 34 (incorporating 40 CFR §264.53(b)):
 - Intrepid Potash New Mexico LLC
 - Mosaic Potash Carlsbad Inc.
- City of Carlsbad
 - Carlsbad Medical Center, Carlsbad
 - Lea Regional Medical Center, Hobbs

- City of Hobbs
- BLM, Carlsbad
- New Mexico State Police
- New Mexico Department of Homeland Security and Emergency Management
- Eddy County Commission
- Sheriff of Eddy County
- Sheriff of Lea County
- 8 In accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.54), the Permittees will
- 9 ensure that this plan is reviewed and amended whenever:
- The Permit for the WIPP facility is revised in any way that would affect the RCRA Contingency Plan;
- This plan fails in an emergency;
- The WIPP facility design, construction, operation, maintenance, or other circumstances change in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous constituents or change the response necessary in an emergency;
- The list of RCRA Emergency Coordinators change; or
- The list of WIPP facility emergency equipment changes.

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1 TABLES

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Table D-1 Resource Conservation and Recovery Act Emergency Coordinators¹

Name	Address*	Office Phone	Personal Phone*
R. C. (Russ) Stroble		234-8276 or 234-8554	
J. E. (Joseph) Bealler		234-8276 or 234-8916	
M. G. (Mike) Proctor		234-8276 or 234-8143	
G. L. (Gary) Kessler		234-8326	
P. J. (Paul) Paneral		234-8498	
J. B. (James) Wheeler		234-8273	
M. L. (Mark) Long		234-8170	
A.C. (Andy) Cooper		234-8197	

^{*} NOTE: Personal information (home addresses and personal phone numbers) has been removed from informational copies of this Permit.

¹ For every shift, one qualified RCRA Emergency Coordinator serves as the primary, and a second qualified RCRA Emergency Coordinator is available to serve as the alternate.

Table D-2 Emergency Equipment Maintained at the Waste Isolation Pilot Plant

Equipment	Description and Capabilities	Location
	Communications	
Building Fire Alarms	Fire alarm panels, fire alarm transmitter, audible alarm devices (e.g., horns, bells, tones) that provide notification of fires; transmitted to the CMR	Guard and Security Building (Building 458), Water Pumphouse (Building 456), Warehouse/Shops Building (Building 453), Exhaust Shaft Filter Building (Building 413), New Filter Building (NFB) (Building 416), Salt Reduction Building (SRB) (Building 417), Support Building (Building 451), CMR/Computer Room, Waste Handling Building (Building 411), TRUPACT Maintenance Building (Building 412), Salt Handling (SH) Shaft Hoisthouse (Building 384), Auxiliary Warehouse Building (Building 455), Engineering Building (Building 486), Training Building (Building 489), Safety and Emergency Services Facility (Building 452), and surface Hazardous Waste Staging Areas (Buildings 474A and 474B)
Underground Fire Alarms	Fire alarm panels, fire alarm transmitter, and audible/visual alarm devices (e.g., horns, bells, strobes) that provide notification of fires; transmitted to the CMR	Fire detection and control panel locations: Waste Shaft Underground Station, SH Shaft Underground Station, Between E-140 and E-300 in S-2180 Drift, Fuel Station (N150/W170)
Site Notification System; Underground Evacuation Alarm System	For surface, alarms and notifications transmitted over paging channel of the public address system, manually initiated; for underground, audible alarm	Site-wide
Public Address System	Includes intercom phones; handset stations and loudspeaker assemblies	Site-wide

Equipment	Description and Canabilities	Location		
Equipment Mine Pager Phones	Description and Capabilities Battery-operated paging system	Location Underground at S550/W30, S1000/W30, S1950/E140, SH Shaft Collar and Underground Station Waste Shaft Collar and Underground Station; — surface at Support Building (Building 451, FSM desk, CMR, lamproom), Safety and Emergency Services Facility (Building 452, Fire Department workstation area, Mine Rescue Room)		
Portable Radios	Two-way, portable; transmits and monitors information to/from other transmitters	Issued to individuals		
Plant Base Radios	Two-way, stationary; transmits and monitors information to/from other transmitters	Safety and Emergency Services Facility (Building 452), Guard and Security Building (Building 458), Support Building (Building 451, CMR, FSM desk)		
Mobile Phones	Provide communications link between emergency response personnel, as needed	Issued to individuals plus emergency vehicles		
	Spill Response Equipment and Materials			
HAZMAT Equipment	Spill response equipment and supplies, PPE, and decontamination supplies stored and maintained in accordance with NFPA 1901 and as documented in WIPP facility files	Surface, in designated areas near Safety and Emergency Services Facility (Building 452)		
Absorbent Materials	Containment or cleanup of spills, including: Pressurized spill-response gun; Absorbent sheets and/or dikes for containment or cleanup of spills of oil, petroleum-based chemicals, and general liquids; Spill-control material for solvents and neutralizing absorbents and for acids/caustics	Surface, in designated areas near Safety and Emergency Services Facility (Building 452)		
	Medical Resources			
Ambulance	A minimum of one ambulance, maintained and equipped in accordance with the New Mexico Ambulance Standard, 18.3.14 NMAC, and as documented in WIPP facility files	Surface at Safety and Emergency Services Facility (Building 452, Vehicle Bay)		
Medical Cart	A minimum of one medical cart, equipped to provide basic life support operations, as documented in WIPP facility files	Underground (Emergency Vehicle Parking/Charging Area at S700/E140)		
Miners First Aid Stations	Equipped per 30 CFR 57.15001	Underground (Salt Shaft Area, Waste Shaft Area, E300 Maintenance Shop, and at S1000/W30, S1300/W30, and S1950/E140)		

Equipment	Description and Capabilities	Location
	Fire Detection and Fire Suppression Equipment	
Building Smoke, Thermal Detectors, or Manual Pull Stations	Devices that trigger an alarm and/or fire suppression system	Guard and Security Building (Building 458), Warehouse/Shops Building (Building 453), Support Building 453), Support Building (Building 451, CMR/Computer Room), Waste Handling Building (Building 411), TRUPACT Maintenance Building (Building 412), Underground Fuel Station (N150/W170), SH Shaft Hoisthouse (Building 384), Engineering Building (Building 486), Safety and Emergency Services Facility (Building 452), and Training Building (Building 489)
Fire Trucks	A minimum of two fire trucks to assist in fighting fires; firefighter equipped in accordance with NFPA 1901 and/or 1906 and as documented in WIPP facility files	Surface at Safety and Emergency Services Facility (Building 452, Vehicle Bay)
Rescue Cart/Truck	A minimum of two special-purpose vehicles, one on the surface and one in the underground; light rescue units, equipped in accordance with the NFPA 1901 and as documented in WIPP facility files	Surface at Safety and Emergency Services Facility (Building 452, Vehicle Bay) and Underground (Emergency Vehicle Parking/Charging Area at S700/E140)
Fire Suppression Cart	A minimum of one special-purpose electric cart to assist in fighting fires; equipped with a minimum of one fire extinguisher	Underground (Emergency Vehicle Parking/Charging Area at S700/E140)
Fire Extinguishers	Hand-held fire extinguishers; located throughout the facility in accordance with NFPA-10	Surface and underground locations used for hazardous waste management, as documented in WIPP facility files
Automatic Dry Chemical Extinguishing Systems	Automatic; actuated by thermal detectors or by manual pull stations	Underground fuel station (N150/W170)
Automatic Fire Suppression Systems on liquid fueled vehicles	Individual automatic fire suppression systems installed on applicable liquid-fueled vehicles, as determined by a fire risk assessment performed in accordance with NFPA 122	Surface and underground locations used for hazardous waste management, as documented in WIPP facility files

Equipment	Description and Capabilities	Location		
Sprinkler Systems	NFPA water-based fire suppression systems	Water Pumphouse (Building 456), Guard and Security Building (Building 458), Waste Handling Building (Building 411, CH Bay, RH Bay, and Overpack Repair Areas only),TRUPACT Maintenance Building (Building 412), Exhaust Shaft Filter Building (Building 413), NFB (Building 416), SRB (Building 417), and surface Hazardous Waste Staging Areas (Buildings 474A and 474B)		
Water Tanks, Hydrants	Fire suppression water supply; one 180,000-gallon capacity tank, plus a second tank with 100,000-gallon reserve	Tanks are at southwestern edge of WIPP facility; pipelines and hydrants are throughout the surface		
Fire Water Pumps	Fire suppression water supply; pumps are minimally rated at 125 pounds per square inch, 1,500 gallons per minute centrifugal pump, one with electric motor drive, the other with diesel engine; pressure maintenance jockey pump	Water Pumphouse (Building 456)		
	Personal Protection Equipment			
Head Lamps	Mounted on hard hat; battery operated	Each person underground		
Underground Self- Rescuer Units	Short-term self-rescue devices per 30 CFR 57.15030	Each person underground		
Self-Contained Self-Rescuer	Air supply; a minimum of 12 caches in the underground; self-contained rescue units shall be adequate to protect an individual for one hour or longer or, alternatively, sufficient to allow the employee time to reach an additional self-contained self-rescue device in the underground per NMSA 69-8-16	Cached throughout the underground		
Mine Rescue Self- Contained Breathing Apparatus (SCBA)	Oxygen supply; 4-hour closed circuit units consistent with 30 CFR 49.6; a minimum of 12 units, one for each Mine Rescue Team member	Safety and Emergency Services Facility (Building 452, Mine Rescue Training Room)		
Fire Department Self-Contained Breathing Apparatus (SCBA)	Air supply; a minimum of 12 units; SCBAs shall meet the minimum requirements established per NFPA 1981	Surface Fire Trucks and Rescue Truck; Underground Rescue Cart		
	General Plant Emergency Equipment			
Emergency Lighting	For employee evacuation, and fire/spill containment; linked to main power supply, and selectively linked to back up diesel power supply and/or battery-backed power supply Maintenance Bu (Building 412), E Filter Building (Building 417)			
Backup Power Sources	A minimum of two diesel generators, and battery-powered uninterruptible power supply (UPS)	Generators are located on the surface. UPS is located at the essential loads		

Equipment	Description and Capabilities	Location		
Emergency Hoist	Hoist in Air Intake Shaft	Air Intake Shaft (Building 361)		
Emergency Showers	For emergency flushing of chemical contact or injury	Waste Handling Building (Building 411) is served by the decontamination shower trailer located north of Building 411, in front of Building 952, between Buildings 243 and 455; and surface Hazardous Waste Staging Areas (Building 474A)		
Emergency Eyewash Equipment	For emergency flushing of affected eyes	Waste Handling Building (Building 411, RH Bay, Site Derived Waste Area, Waste Shaft Collar, and Room 108 TRUPACT III only), TRUPACT Maintenance Building (Building 412), Exhaust Shaft Filter Building (Building 413), NFB (Building 416), SRB (Building 417), surface, Hazardous Waste Staging Areas (Building 474A, Waste Oil Retainer Area), and the underground Hazardous Waste Staging Area (S550/E140)		
Overpack containers for TRU Mixed Waste	85 Gallon drums SWBs TDOP	Warehouse Annex (Building 481)		
Aquaset or Cement	Material for solidification of liquid waste generated as a result of fire fighting water or decontamination solutions	Surface Connex A, located south of Waste Handling Building (Building 411)		
TDOP Upender	Upender facilitates overpacking standard waste boxes	Waste Handling Building (Building 411)		
Non hazardous Decontaminating Agents	For decontamination of surfaces, equipment, and personnel	Waste Handling Building (Building 411); Surface Connex A, located south of Building 411		

FIGURES

Waste Isolation Pilot Plant Hazardous Waste Permit March 2018

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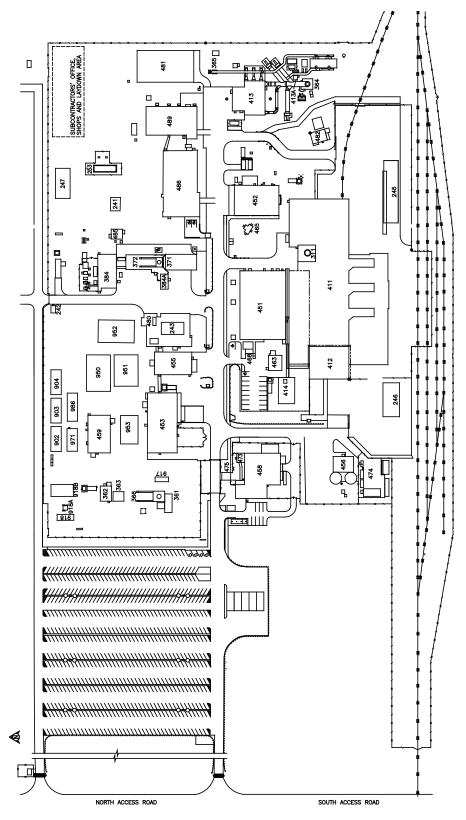


Figure D-1
WIPP Surface Structures

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BLDG./ FAC.#	DESCRIPTION	BLDG./ FAC.#	DESCRIPTION	BLDG./ FAC.#	DESCRIPT	TION
#241	EQUIPMENT SHED	#384	SALT HANDLING SHAFT HOISTHOUSE	#475	GATEHOU	95
#242		#384A		#475		
	GUARDSHACK		MINING OPERATIONS			FUEL STATION
#243	SALT HAULING TRUCKS SHELTER	#411	WASTE HANDLING BUILDING	#481		JSE ANNEX
#245	TRUPACT TRAILER SHELTER	#412	TRUPACT MAINTENANCE BUILDING	#482		SHAFT HOIST EQUIP, WAREHOUSE
#246	MgO STORAGE SHELTER	#413	EXHAUST SHAFT FILTER BUILDING	#485		COMPRESSOR BUILDING
#253	13.8 KV SWITCHGEAR 25p-SWG15/1	#413A	MONITORING STATION A	#486		RING BUILDING
#254.1	AREA SUBSTATION NO. 1 25P-SW15.1	#413B	MONITORING STATION B	#489	TRAINING	
#254.2	AREA SUBSTATION NO. 2 25P-SW15.2	#414	WATER CHILLER FACILITY & BLDG	#H-16	SANDIA T	
#254.3	AREA SUBSTATION NO. 3 25P-SW15.3	#451	SUPPORT BUILDING SAFETY & EMERGENCY SERVICES	#917	AIS MONIT	ORING
#254.4	AREA SUBSTATION NO. 4 25P-SW15.4	#452	FACILITY	#918	VOC TRAI	LER
#254.5	AREA SUBSTATION NO. 5 25P-SW15.5	#453	WAREHOUSE/SHOPS BUILDING	#918A	VOC AIR N	MONITORING STATION
#254.6	AREA SUBSTATION NO. 6 25P-SW15.6	#455	AUXILIARY WAREHOUSE BUILDING	#918B	VOC LAB	TRAILER
#254.7	AREA SUBSTATION NO. 7 25P-SW15.7	#456	WATER PUMPHOUSE	#950	WORK CO	NTROL TRAILER
#254.8	AREA SUBSTATION NO. 8 25P-SW15.8	#457N	WATER TANK 25-D-001B	#951	PROCURE	MENT/PURCHASING
#254.9	480V SWITCHGEAR (25P-SWGO4/9)	#457S	WATER TANK 25-D-001A	#952	TRAILER	
#255.1	BACK-UP DIESEL GENERATOR #1 25-PE 503	#458	GUARD AND SECURITY BUILDING	#953	MODULAR	OFFICE COMPLEX
#255.2	BACK-UP DIESEL GENERATOR #2 25-PE 504	#459	CORE STORAGE BUILDING	#971	HUMAN R	ESOURCES TRAILER
#256.4	SWITCHBOARD #4 (25P-SBD04/4)	#463	COMPRESSOR BUILDING	#986	PUBLICAT	IONS & PROCEDURES TRAILER
#311	WASTE SHAFT	#465	AUXILIARY AIR INTAKE	SWR NO. 6 SWR NO.		SWITCHRACK NO. 6
#351	EXHAUST SHAFT	#468	TELEPHONE HUT	7 SWR NO.	7A, 7B	SWITCHRACK NO. 7, 7A, 7B
#361	AIR INTAKE SHAFT	#473	ARMORY BUILDING	7C SWR NO.		SWITCHRACK NO. 7C
#362	AIR INTAKE SHAFT/HOIST HOUSE	#474	HAZARDOUS WASTE STORAGE FACILITY	10 SWR NO.		SWITCHRACK NO. 10
#363	AIR INTAKE SHAFT/WINCH HOUSE EFFLUENT MONITORING INSTRUMENT	#474A	HAZARDOUS WASTE STORAGE BUILDING	11 SWR NO.		SWITCHRACK NO. 11
#364	SHED A EFFLUENT MONITORING INSTRUMENT	#474B	HAZARDOUS WASTE STORAGE BUILDING	12 SWR NO.		SWITCHRACK NO. 12
#365	SHED B	#474C	OIL & GREASE STORAGE BUILDING	15		SWITCHRACK NO. 15
#366	AIR INTAKE SHAFT HEADFRAME	#474D	GAS BOTTLE STORAGE BUILDING			
#371	SALT HANDLING SHAFT	#474E	HAZARD MATERIAL STORAGE BUILDING			
#372	SALT HANDLING SHAFT HEADFRAME	#474F	WASTE OIL RETAINER			

Figure D-1a Legend to Figure D-1

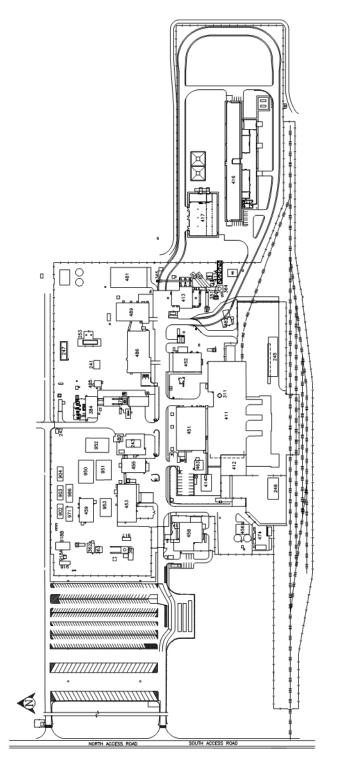


Figure D-1-NFB WIPP Surface Structures with Building 416

BLDG/		BLDG/		PLDG/	
FAC.#	DESCRIPTION		DESCRIPTION	BLDG/ FAC.#	DESCRIPTION
241	EQUIPMENT SHED		MINING OPERATIONS	#475	GATEHOUSE
241	GUARDSHACK	#411	WASTE HANDLING BUILDING	#480	VEHICLE FUEL STATION
243	SALT HAULING TRUCKS SHELTER	#412	TRUPACT MAINTENANCE BUILDING	#481	WAREHOUSE ANNEX
		#413		#482	
‡245 ‡246	TRUPACT TRAILER SHELTER		ECHAUST SHAFT FILTER BUILDING	#485	EXHAUST SHAFT HOIST EQUIP. WAREHOUSI
	MgO STORAGE SHELTER		MONITORING STATION A		SULLAIR COMPRESSOR BUILDING
253	13.8 KV SWITCHGEAR 25p-SWG 15/1		MONITORING STATION B	#486	ENGINEERING BUILDING
	AREA SUBSTATION NO. 1 25P-SW15.1	#414	WATER CHILLER FACILITY & BLDG	#489	TRAINING BUILDING
	AREA SUBSTATION NO. 2 25P-SW15.2	#416	NEW FILTER BUILDING	#H-16	SANDIA TEST WELL
	AREA SUBSTATION NO. 3 25P-SW15.3	#417	SALT REDUCTION BUILDING	#902	TRAILER
254.4	AREA SUBSTATION NO. 425P-SW15.4	#451	SUPPORT BUILDING	#903	TRAILER
		#452	SAFETY & EMERGENCY SERVICES		
	AREA SUBSTATION NO. 5 25P-SW15.5		FACILITY	#904	TRAILER
	AREA SUBSTATION NO. 6 25P-SW15.6	#453	WAREHOUSE/SHOPS BUILDING	#917	AIS MONITORING
	AREA SUBSTATION NO. 7 25P-SW15.7	#455	AUXILIARY WAREHOUSE BUILDING	#918	VOC TRAILER
254.8	AREA SUBSTATION NO. 8 25P-SW15.8	#456	WATER PUMPHOUSE	#918A	VOC AIR MONITORING STATION
254.9	480V SWITCHGEAR (25P-SWGO4/9)	#457N	WATER TANK 25-D-001B	#918B	VOC LAB TRAILER
255.1	BACK-UP DIESEL GENERATOR #1 25-PE 503	#4578	WATER TANK 25-D-001A	#950	WORK CONTROL TRAILER
255.2	BACK-UP DIESEL GENERATOR #2 25-PE 504	#458	GUARD AND SECURITY BUILDING	#951	PROCURE MENT/PURCHASING
256.4	SWITCHBOARD #4 (25P-SBDO4/4)	#459	CORE STORAGE BUILDING	#952	TRAILER
311	WASTE SHAFT	#463	COMPRESSOR BUILDING	#953	MODULAR OFFICE COMPLEX
351	EXHAUST SHAFT	#465	AUXILIARY AIR INTAKE	#971	HUMAN RESOURCES TRAILER
f36 1	AIR INTAKE SHAFT	#468	TELEPHONE HUT	#986	PUBLICATIONS & PROCEDURES TRAILER
362	AIR INTAKE SHAFT/HOIST HOUSE	#473	ARMORY BUILDING	SWR NO. 6	SWITCHTRACK NO. 6
363	AIR INTAKE SHAFT/WINCH HOUSE	#474	HAZARDOUS WASTE STORAGE FACILITY	SWR NO. 7, 7A, 7B	SWITCHTRACK NO. 7, 7A, 7B
364	EFFLUENT MONITORING INSTRUMENT SHED A	#474A	HAZARDOUS WASTE STORAGE BUILDING	SWR NO. 7C	SWITCHTRACK NO. 7C
365	EFFLUENT MONITORING INSTRUMENT SHED B	#474B	HAZARDOUS WASTE STORAGE BUILDING	SWR NO. 10	SWITCHTRACK NO. 10
366	AIR INTAKE SHAFT HEADFRAME	#474C	OIL & GREASE STORAGE BUILDING	SWR NO. 11	SWITCHTRACK NO. 11
371	SALT HANDLING SHAFT	#474D	GAS BOTTLE STORAGE BUILDING	SWR NO. 12	SWITCHTRACK NO. 12
372	SALT HANDLING SHAFT HEADFRAME	#474E	HAZARD MATERIAL STORAGE BUILDING	SWR NO. 15	SWITCHTRACK NO. 15
384	SALT HANDLING SHAFT HOISTHOUSE	#474F	WASTE OIL RETAINER		

Figure D-1a-NFB Legend to Figure D-1-NFB (Building 416)

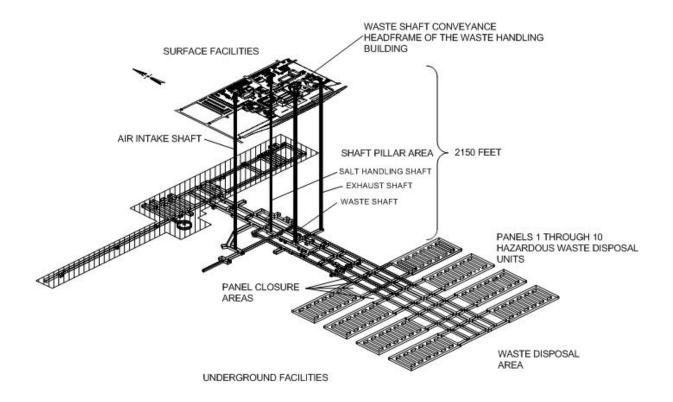


Figure D-2 Spatial View of the WIPP Facility

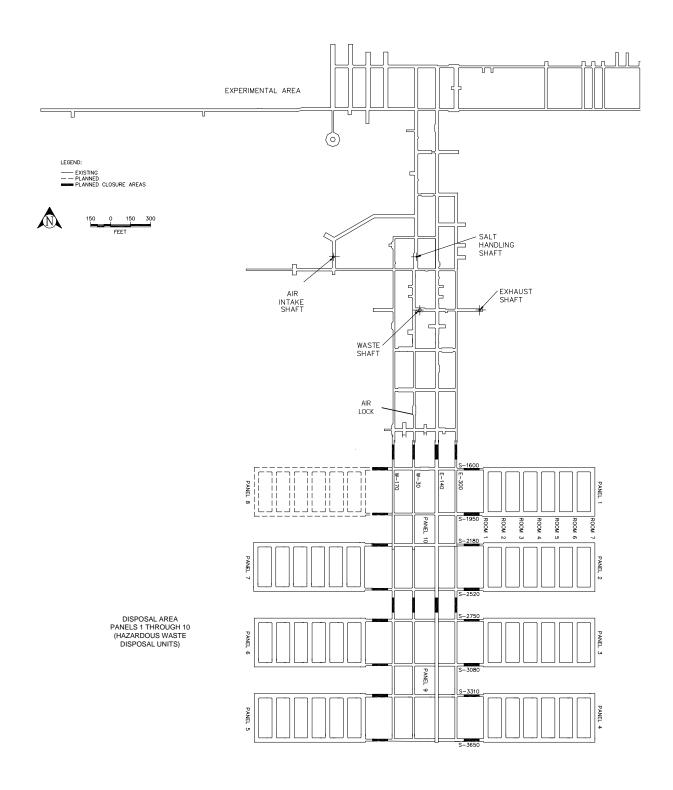


Figure D-3
WIPP Underground Facilities

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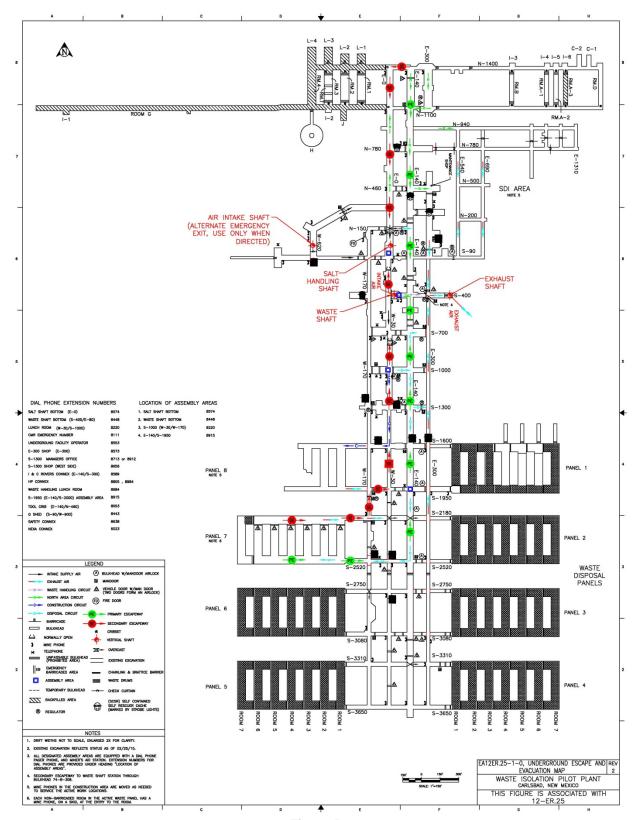


Figure D-4
Underground Escapeways/Evacuation Routes

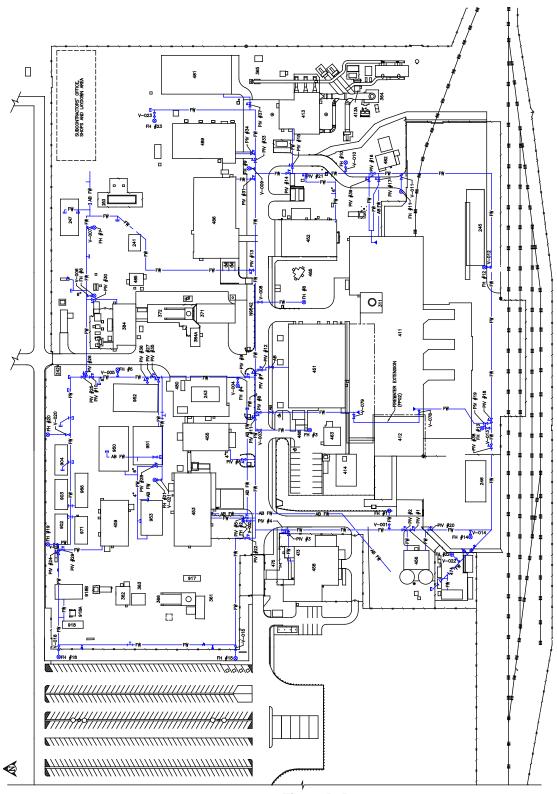


Figure D-5
Fire-Water Distribution System

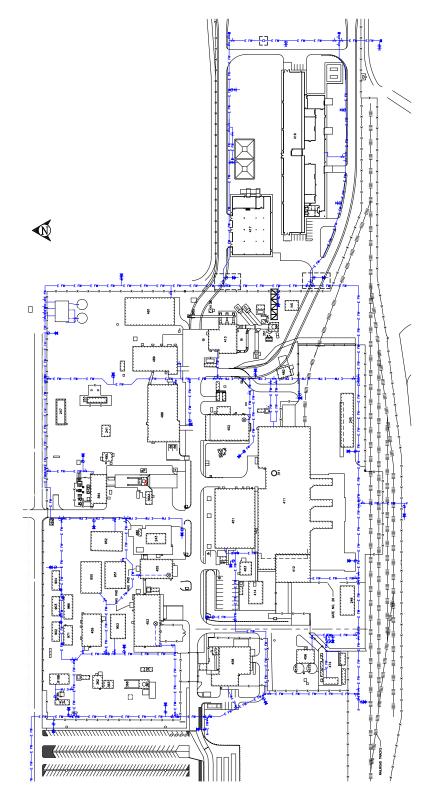


Figure D-5-NFB Fire-Water Distribution System with Building 416

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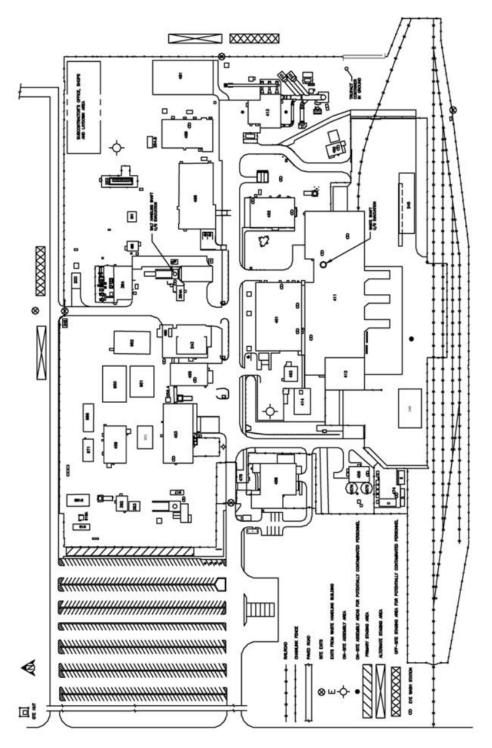


Figure D-6 WIPP On-Site Assembly Areas and Off-Site Staging Areas

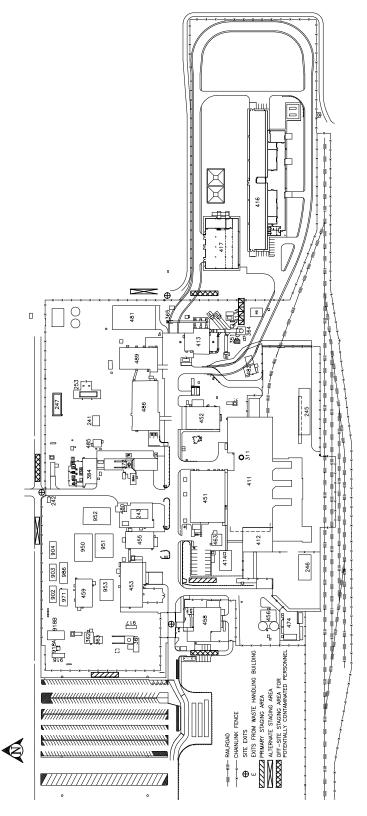


Figure D-6-NFB WIPP On-Site Assembly Areas and Off-Site Staging Areas with Building 416

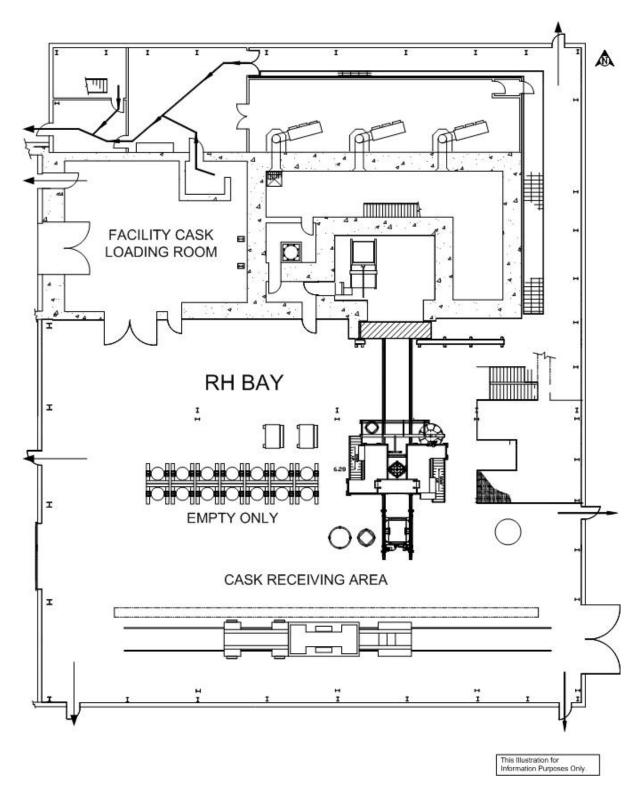


Figure D-6a RH Bay Evacuation Routes

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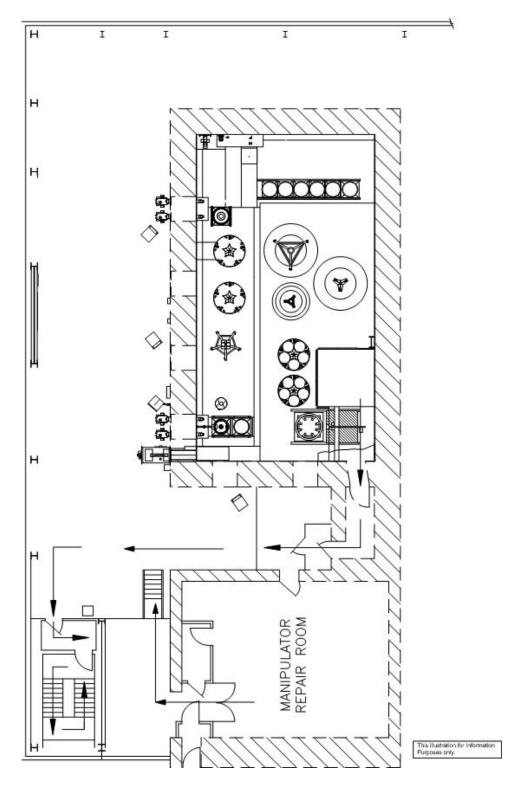


Figure D-6b RH Bay Hot Cell Evacuation Route

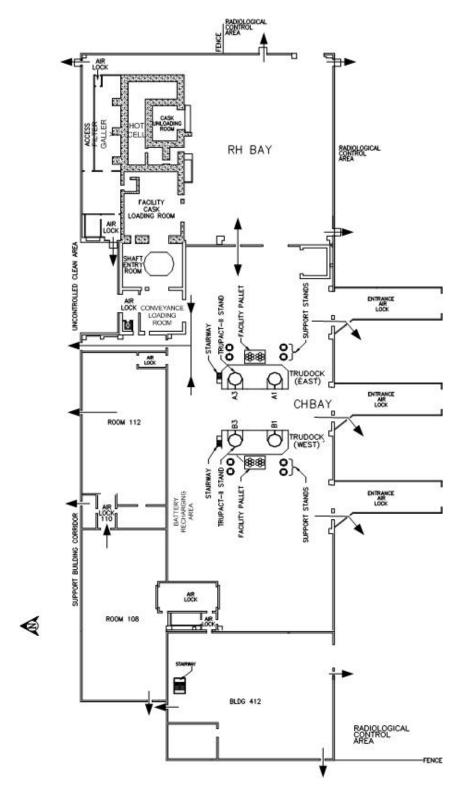


Figure D-6c Evacuation Routes in the Waste Handling Building

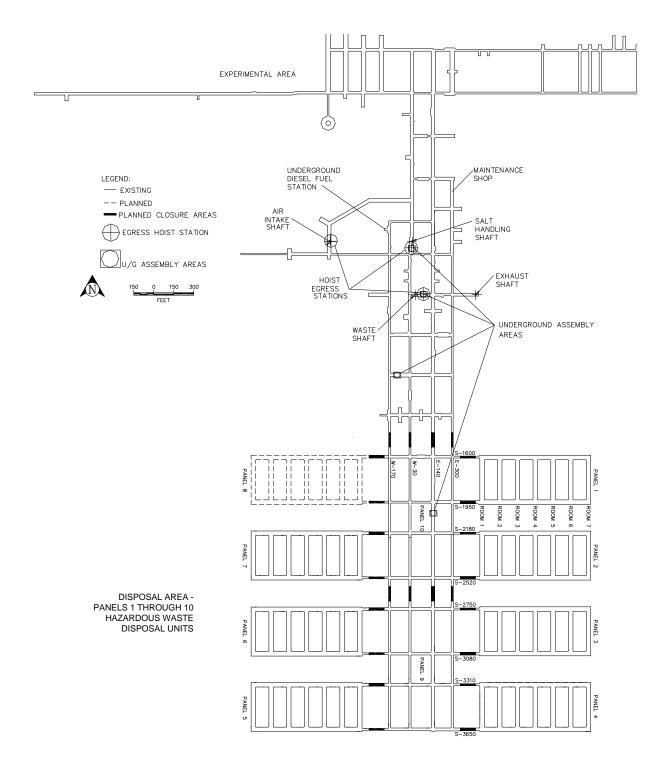


Figure D-7
Designated Underground Assembly Areas

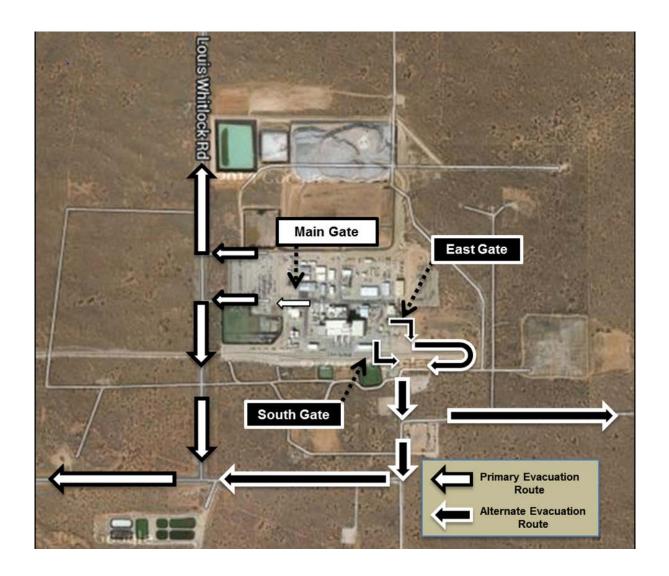


Figure D-8
WIPP Site Evacuation Routes

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