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Date: **OCT 02 2017**

Symbol: EPC-DO: 17-286

LA-UR: 17-26993

Locates Action No.:

Mr. John E. Kieling, Chief
 Hazardous Waste Bureau
 New Mexico Environment Department
 2905 Rodeo Park Drive East, Building 1
 Santa Fe, NM 87505

Subject: Notification of Withdrawal and Resubmission of a Class 1 Permit Modification to Attachment D, Contingency Plan, of the Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID # NM0890010515

Dear Mr. Kieling:

The purpose of this letter is to withdraw and resubmit a Class 1 Permit Modification, *Notification of a Class 1 Permit Modification to Update and Provide Clarification to Attachment D of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit*, referenced by EPC-DO: 17-145 and LA-UR-17-22808. The modification was submitted to the New Mexico Environment Department – Hazardous Waste Bureau (NMED-HWB) on May 12, 2017 to provide revisions to Attachment D, *Contingency Plan* of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (Permit) issued to the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), collectively the Permittees, in November 2010. The Permittees hereby withdraw the permit modification referenced above. This modification is being withdrawn for the purpose of retracting a proposed modification in Permit Section D.3.2; correcting an oversight in Permit Section D.2.2.3; and clarifying language in Permit Sections D.1.1, D.5, and D.6 as discussed in a meeting with NMED-HWB technical staff on July 21, 2017.

The modification submitted herein was prepared in accordance with the Code of Federal Regulations [CFR], Title 40 (40 CFR) § 270.42(a), and was determined to be a Class I, consistent with 40 CFR § 270.42, Appendix I, Items A.1, B.6.d, and B.6.b. Included with this permit modification package is this transmittal letter; an enclosure that contains a description of changes and pages of the revised portions of Permit text (LA-UR-17-26993); and a signed certification page.



Included herein are three hard copies and one electronic copy of this submittal. The hardcopy submittal includes pages or sections where text has been changed, rather than copies of the entire collection of Permit attachments. The electronic copy, provided only to the New Mexico Environment Department Hazardous Waste Bureau, includes a reproduction of the hardcopy in portable document format (PDF) and the word processing files used to create the hardcopy.

A notice of this withdrawal and re-submittal will be sent to the NMED-HWB-maintained LANL facility mailing list in accordance with the conditions specified in 40 CFR §270.42(a)(1)(ii).

If you have comments/questions or would like to meet regarding this submittal, please contact Mark P. Haagenstad (LANS) at (505) 665-2014 or Karen Armijo (DOE) at (505) 665-7314.

Sincerely,



John C. Bretzke
Division Leader

Sincerely,



Karen E. Armijo
Permitting and Compliance Program Manager

JCB/KEA/MPH/FDN:am

Enclosure: Class 1 Permit Modification to Attachment D of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit

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Mr. John E. Kieling
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- 3 -

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ENCLOSURE 1

**Class 1 Permit Modification to Attachment D, Contingency
Plan, of the Los Alamos National Laboratory (LANL)
Hazardous Waste Facility Permit**

EPC-DO:17-286

LA-UR-17-26993

OCT 02 2017

Date: _____

Class 1 Permit Modification to Attachment D, Contingency Plan, of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit

This document contains a Class 1 Permit Modification to update the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (Permit). The text modifications are provided herein and have been made to the Permit by the Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), collectively the Permittees. The modifications to the text of the Permit have been identified using underlined, red text for additions and redline strikeout for deletions.

BASIS

This permit modification has been drafted in accordance with 40 CFR § 270.42 (a)(1) and incorporates updated information that meets the conditions for a Class 1 permit modification without prior approval—listed within Appendix I of 40 CFR §270.42. Changes to Permit Sections 2.10.5, D.1.1, D.1.3, and F.1 meet the conditions specified in 40 CFR §270.42, Appendix I, Item B.6.d (changes in name of coordinators or other persons or agencies identified in the plan), and changes to Permit Section D.2.2.3 meet the conditions of Item B.6.b (replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed). Additional changes to Permit Attachment D include administrative and information changes that meet the conditions specified in 40 CFR §270.42, Appendix I, Item A.1.

DESCRIPTION

Attachment 1 of this modification provides updates to Sections 2.10.5; D.1.1, D.1.3, D.2.2.3, D.3.3, D.5, and D.6 of Attachment D, *Contingency Plan*; and F.1 of Attachment F, *Personnel Training Plan*. Updates to the Attachment D - Table of Contents, for consistency and clarity, are also provided. A certification page in accordance with the requirements of Title 40 of the Code of Federal Regulations (40 CFR) § 270.11 is included in Attachment 2.

Permit Section 2.10.5, D.1, and F.1

Permit Section 2.10.5, F.1, and D.1 have been updated to reflect an organization name change: the Security and Emergency Operations – Emergency Management Group (SEO-EM) is now the Security and Emergency Operations – Emergency Operations Group (SEO-EO). For consistency, the name and acronym for this group has been changed throughout Attachment D.

Permit Section D.1.1

Permit Section D.1.1 has been updated to include the contact information for a new Primary Emergency Manager and a new Alternate Emergency Manager. The order in which the telephone numbers are listed for the Primary and Alternate Emergency Managers was also changed to reflect the order in which they prefer to be contacted: 1) Work, 2) Cell, and 3) Home.

Paragraph 4 of Permit Section D.1.1 was revised for clarification and to correct a misleading statement. The intent of this section is to communicate that emergency response personnel shall have access to various tools and information during an emergency response. Previously, this section stated “These tools shall be maintained by the EOC....” Language in this section was revised to clarify that these tools and information, which are maintained by their respective

facility managers and personnel, are accessible at the Emergency Operation Center (EOC); they are not maintained by the EOC personnel.

Permit Section D.1.3

Permit Section D.1.3 of Attachment D, *Contingency Plan* has been updated to reflect an organizational structure change. The LANL Associate Directorate of Environmental Safety and Health underwent a structural re-organization that merged the Environmental Protection and Compliance Division and the Waste Management Division. As of March 20, 2017, the two groups that made up the Waste Management Division will report into the Environmental Protection and Compliance Division. As a result of this organization structure change, the title and language from Permit Section D.1.3 has been revised. The title of the section was also changed in the table of contents.

Permit Section D.2.2.3

Permit Section D.2.2.3 (*Additional Communication Systems*) was revised to add a trunked radio system as a listed mode of available off-site communications, and deleted a reference to the two National Warning System (NAWAS) stations. The NAWAS stations are standalone radio receivers that have been superseded by the continual upgrade of a more modern and robust trunked radio system that is capable of performing in a functionally equivalent manner as the NAWAS stations during an emergency. The backup receivers are no longer supported and the daily used trunked radio system supports both internal and offsite communications.

Permit Section D.3.3

Language was added to line item 1.3 of Permit Section D.3.3 (*Emergency Manager Actions*), which previously stated: “*Proceed directly to the scene,*” so that it now reads “*Proceed directly to the scene, if safe to do so.*” The objective of this added language is to ensure, as far as practicable, the safety, health, and well-being of emergency responders during emergencies.

Permit Section D.5 and D.6

Language in Permit Sections D.5 (*Explosion*) and D.6 (*Fire*) was revised to clarify the role of the Los Alamos Fire Department during an emergency response. The intent of these revisions is to make clear that, during an emergency response, the LAFD will direct all firefighting operations under a unified command with the SEO-EO and other agencies. These revisions do not change or affect any existing procedures. Permit Sections D.5 and D.6 now read as follows:

D.5 EXPLOSION

3. ...*The LAFD Senior Officer will direct firefighting operations under a unified command.*

D.6 FIRE

4. ...*The LAFD Senior Officer will direct firefighting operations under a unified command.*

Attachment 1
Revised Permit Text

ATTACHMENT D
CONTINGENCY PLAN

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ATTACHMENT D

GENERAL CONTINGENCY PLAN

This Attachment presents contingency measures applicable to all permitted hazardous or mixed waste management units. The Permittees shall implement the provisions of this Plan and the applicable provisions of Permit Part 2 (*General Facility Conditions*) immediately to minimize hazards whenever there is a fire, explosion, or release of hazardous or mixed waste or hazardous or mixed waste constituents that could threaten human health or the environment.

D.1 HAZARDOUS AND MIXED WASTE EMERGENCY RESPONSE RESOURCES

1. The management of hazardous and mixed waste emergency incidents at the Facility resides within Permittees' Security and Emergency Operations - Emergency ~~Management Operations~~ Group (~~SEO-EMSEO-EO~~). During an emergency situation, line management (*i.e.*, the Line Manager of the affected area) works with an Emergency Manager serving as the ~~SEO-EMSEO-EO~~ Duty Officer from the ~~SEO-EMSEO-EO~~ Group. The Emergency Manager has primary responsibility for managing emergency response operations, directing the Emergency Operations Support Center (EOSC) to make appropriate notifications, and activating the emergency response organizations. The Emergency Manager has authority to assume the role of Incident Commander (IC) during an emergency and typically assumes full responsibility for management of the emergency response operations at the scene. (Personnel from other organizations, such as the Federal Bureau of Investigation or the Los Alamos Fire Department [LAFD], may also assume the role of IC, depending upon the type of emergency and responding organizations.) Additional Facility resources that may provide assistance in an emergency include personnel from health physics, industrial hygiene, environment compliance, emergency response, and radiation protection personnel at the Facility. These personnel as well as other resources are discussed in Attachment Sections D.1.2, D.1.3, D.1.6, and D.5 of this Attachment.
2. Laboratory-contracted support services and other agencies shall also be available for assistance during emergencies. These are discussed in Attachment Section D.1.5 and include the contracted services for security and the LAFD. These contracted services, if changed, shall be replaced and/or supplemented with functionally equivalent contracted services required to assume the same duties and responsibilities described in this section. Other outside response agencies are discussed in Section D.1.7 and include the Los Alamos Police Department (LAPD) and the Los Alamos Medical Center (LAMC). The LAPD and the LAMC each provide assistance under a memorandum of understanding with the U.S. Department of Energy (DOE).
3. The Permittees shall use the Incident Command System (ICS) in response to all emergencies. The ICS is based on the on-scene management response structure protocols of the National Incident Management System (NIMS). The NIMS is a national standard that provides a solid foundation for an effective and integrated emergency response both locally and nationally, if necessary.

4. The IC (*e.g.*, ~~SEO-EM~~SEO-EO Duty Officer) coordinates all groups and agencies responding to the emergency and personnel operating at the scene using the ICS. The General Hazardous Waste Emergency Notification Structure, illustrated on Figure D-1, is designed to expand and contract, as appropriate, to include the response groups/agencies needed to address any particular emergency. The EOSC provides notification to on-site and off-site groups and agencies for both response requests and information.

5. The IC may appoint and utilize a network of support personnel to assess, plan for, and mitigate emergencies. These personnel can include, but are not limited to, a Safety Officer, a Public Information Officer, and a Liaison Officer that report directly to the IC and are responsible for issues related to safety, information, and the interaction of various groups associated with the overall emergency. Also reporting directly to the IC are an Operations Section Chief, Logistics Section Chief, Planning Section Chief, and an Administrative Section Chief. The Operations Section Chief oversees the Fire Branch, the Emergency Medical Services Branch, and the Hazardous Material Group, and is responsible for mitigating the emergency response. The Logistics Section Chief is responsible for providing support personnel and equipment necessary for the emergency response. The Planning Section Chief is responsible for planning the mitigation and recovery activities for the emergency. The Administrative Section Chief is responsible for keeping records of expenditures. These ICS positions are listed in Figure D-1. The appropriate ICS positions will be activated as the emergency warrants. During an emergency at the Facility, assistance may be provided to the IC and the IC's appointees by a large variety of response groups/agencies. The responsibilities and/or assistance available from the various response groups/agencies are discussed briefly in Attachment Sections D.1.2 through D.1.7 and the appropriate representatives will be contacted during an emergency as appropriate.

6. The Permittees shall provide a copy of this Contingency Plan and any revisions to each of the emergency response groups/agencies (including the LAPD, LAFD, LAMC, and the State of New Mexico's Department of Homeland Security and Emergency Management (DHSEM) Area 3 Emergency Management Coordinator).

D.1.1 Emergency Operations-~~Emergency Management~~Operations Group

1. The Permittees shall delegate the authority and responsibility for administering and implementing the Facility's emergency management program to the Security and Emergency Operations (SEO) Division, which includes ~~SEO-EM~~SEO-EO. SEO Division personnel shall coordinate and issue the Facility's Los Alamos National Laboratory and Los Alamos Field Office Hazardous Materials Program Plan; ~~SEO-EM~~SEO-EO provides response coordination for emergencies. ~~SEO-EM~~SEO-EO provides a 24-hour EOSC for the Facility and an Emergency Manager serving as the 24-hour Duty Officer to respond to emergencies, including hazardous and mixed waste releases. The Facility Emergency Manager (*i.e.*, the ~~SEO-EM~~SEO-EO Duty Officer) is the functional equivalent of the Emergency Coordinator (40 CFR § 264.55). The ~~SEO-EM~~SEO-EO maintains an Emergency Operations Center (EOC) in a ready condition, should a center be required. The primary EOC is located at TA-69, Building 33 (TA-69-33). An alternate mobile EOC is equipped and ready for immediate deployment. Should an EOC be

activated during an emergency, additional emergency personnel can be requested by the IC through the EOSC.

2. Assignment as the ~~SEO-EM~~SEO-EO Duty Officer is rotated. The Duty Officer can be reached 24 hours a day by contacting the EOSC at 667-6211.

3. The ~~SEO-EM~~SEO-EO Duty Officer will respond to emergency incidents involving the release of hazardous or mixed waste to the environment, including spills, fires, and explosions. With input from the appropriate Facility groups, the ~~SEO-EM~~SEO-EO Duty Officer shall initially assess the possible hazards to human health or the environment and, if assuming incident command, shall use whatever response personnel and/or emergency equipment necessary to control and contain the waste. In the event of an emergency, the ~~SEO-EM~~SEO-EO Duty Officer typically becomes the IC with full responsibility for field activities. As described previously, the exception to this is when on-site personnel can adequately address the emergency and maintain incident command internally.

4. The ~~SEO-EM~~SEO-EO Duty Officer responding to an emergency shall have access to various tools to include Emergency Actions Levels with prescribed protective actions and ChemLog with a current chemical inventory of the appropriate building(s) in the area in which the incident is occurring. Access to these tools shall be maintained at the facility and made available to the SEO-EO Duty Officer and other emergency response organization members at the EOC. Additionally, this information may be gained from the facility manager where a waste management unit is located, and shall be available at the EOC at TA-69; located on-site for use by emergency response personnel; and available to SEO-EM Duty Officers by computer. The various response groups shall obtain specific information, if necessary, relating to the facilities involved (including the layout of all affected buildings; the location of evacuation routes, equipment, and personnel; properties of the materials/wastes managed at the facility; and the hazards associated with these materials/wastes) from other site-specific information.

5. The Permittees shall ensure that the names, addresses, and telephone numbers listed below are the current Primary and Alternate Emergency Managers.

Primary:

Peter Salazar
912 Calle Quintana
Espanola, NM
(W) 505-747-1399
(C) 505-500-2594

~~Brenda Andersen~~
~~3926 A Alabama~~
~~Los Alamos, NM~~
~~(H) 505-662-4173~~
~~(W) 505-667-6211~~

~~(C) 505-699-1144~~

Alternates:

Ron Huerta
P.O. Box 923
Alcalde, NM

(W) 505-667-6211

(C) 505-412-8434

(H) 505-852-0286

~~(H) 505-852-0286~~

~~(W) 505-667-6211~~

~~(C) 505-412-8434~~

~~Peter Salazar~~

~~912 Calle Quintana~~

~~Espanola, NM~~

~~(W) 505-747-1399~~

~~(C) 505-500-2594~~

Dave McClard
23 Ojito Drive
Espanola, NM

(W) 505-667-6211

(C) 505-699-0803

(H) 505-412-8945

~~(H) 505-412-8945~~

~~(W) 505-667-6211~~

~~(C) 505-699-0803~~

Ted Ulibarri

County Rd. 88

Santa Fe NM 87506

(W) 505-667-6211

(C) 505-412-8737

(H) 505-614-4218

6. To assure timely notifications and immediate response during an emergency, the Permittees shall ensure that the telephone numbers 911 or 667-6211 are contacted to obtain the on-call ~~SEO-EMSEO-EO~~ Duty Officer.

D.1.2 Hazardous Materials Response

1. The Hazardous Materials (HAZMAT) Group is responsible for the aggressive mitigation of chemical, radiological, hazardous waste, and mixed waste emergencies, including field decontamination of responders and response equipment. At the request of the IC, the HAZMAT

Group may provide limited field decontamination support for victims. The HAZMAT Group is capable of providing a decontamination station at the scene of a hazardous material incident to process people working in a contaminated area and is prepared to perform decontamination of personnel. The HAZMAT Group shall meet the training criteria for emergency response personnel specified in the Code of Federal Regulations, Title 29, §1910.120(q)(6)(iii), (iv), and (v). The HAZMAT Group acts as part of the ICS reporting directly to IC, or the Operations Section Chief if the position is staffed.

2. During an emergency response, the HAZMAT Group may also provide site field monitoring to determine the nature and extent of contamination, provide information on correct handling of chemicals, make recommendations on protective clothing and equipment, and provide exposure and treatment information to responders. The field monitoring team leader supervises field monitoring activities to determine the boundaries of the potential release. The HAZMAT Group may obtain resources from environmental monitoring groups, such as health physics and industrial hygiene personnel.

D.1.3 Environmental Protection and Compliance Division ~~and Waste Management Division~~ Response

At the scene, representatives and technical advisors from the Environmental Protection and Compliance Division ~~and Compliance~~ (EPC), ~~Waste Management Division (WM)~~, and other response personnel are coordinated by the IC. In addition to their post-emergency duties, they may also be responsible for on-scene emergency operations such as planning. Depending on the type of emergency and the associated hazards, an individual from the most relevant group in the EPC shall provide technical support and shall ensure the Permittees' compliance with applicable federal, state, and local regulations.

D.1.3.1 Ecology Personnel

Ecology personnel provide field surveys of soil, foodstuffs, and biota to determine environmental effects of exposure after an emergency.

D.1.3.2 Meteorology and Air Quality Personnel

Meteorology and air quality personnel provide field surveys of air to determine environmental impacts and dose equivalent to members of the public after a radiological emergency. In addition, they provide expertise in meteorology to project short- and long-term environmental effects of emergency conditions.

D.1.3.3 Hazardous Waste Compliance Personnel

Hazardous waste compliance personnel provide guidance on regulatory requirements for proper treatment, storage, and transportation of hazardous and mixed wastes to other Facility groups. After an emergency, waste management sampling personnel may provide field sampling (*e.g.*, of soil, spills, or potentially hazardous waste) to determine environmental effects of exposure.

D.1.7 Outside Response Agencies

During an emergency, outside response agencies report directly to the IC. A Liaison Officer or an Operations Section Chief, designated by the IC, may aid in coordinating and directing the groups responding to an emergency.

D.1.7.1 Los Alamos Police Department

The Los Alamos Police Department (LAPD) may assume IC under unique circumstances, but usually has only minimal interaction with the Facility in an on-site emergency. This interaction normally involves traffic control on DOE roads with public access, handling criminal activity, and criminal investigations.

D.1.7.2 Los Alamos County Emergency Management Coordinator

Los Alamos County has an agreement with the Facility's ~~SEO-EMSEO-EO~~ to provide assistance in certain emergency situations. If an emergency occurs on Facility property that may affect the communities of Los Alamos and White Rock, ~~SEO-EMSEO-EO~~ personnel will notify the Los Alamos County Consolidated Dispatch Center which in turn will notify the Los Alamos County Emergency Management Coordinator, who will coordinate necessary emergency actions throughout the county.

D.1.7.3 Los Alamos Medical Center

The Facility maintains a fully equipped decontamination room adjacent to the emergency room at LAMC. In the event that a case is sent to LAMC, support for the emergency room staff is provided by Facility occupational medical personnel. Radiation protection, industrial hygiene, and HAZMAT personnel also provide assistance to the emergency room staff; assistance from additional Facility resources is provided, as necessary. Assistance is coordinated through ~~SEO-EMSEO-EO~~ personnel.

D.2 EMERGENCY EQUIPMENT AND COMMUNICATIONS

D.2.1 Emergency Equipment

The Permittees shall make available the lists of emergency equipment listed in Table D-1 for use at any of Permittees' hazardous or mixed waste management units. The list includes emergency equipment available in the HAZMAT vehicles and trailers as well as supplemental emergency equipment maintained by the LAFD, Maintenance Site Services, and occupational medicine personnel. A list of emergency equipment available for use at specific hazardous and/or mixed waste management units is identified in Attachment Tables TA-3, D-1; TA-50, D-1; TA-54, Area L, D-1; TA-54, Area G, D-2; TA-54 West, D-3; TA-55 Building 4 First Floor, D-1; TA-55 Building 4 Basement, D-2; TA-55 Container Storage Pad, D-3; TA-55-0355 Pad, D-4; and TA-63 Transuranic Waste Facility, D-1. Emergency equipment listed in these tables may be replaced and/or upgraded with functionally equivalent components and equipment, as necessary, for routine maintenance and repair.

D.2.2 Emergency Communications

The initial phase of an emergency may involve a small number of individuals at the affected area and that requires notification of the ~~SEO-EMSEO-EO~~ Duty Officer, utilizing local communication equipment and/or systems. When responding to hazardous and/or mixed waste emergencies, the Permittees shall ensure that ~~SEO-EMSEO-EO~~ personnel can provide communications between response units and emergency organizations.

D.2.2.1 Fire Alarms

Fire alarms are monitored 24 hours per day by trained personnel in the EOSC. Both the primary and backup buildings where the monitoring takes place have emergency power systems. The ~~SEO-EMSEO-EO~~ Duty Officer is notified when there is confirmed fire or smoke by the EOSC.

D.2.2.2 Power Dispatch

The Permittees shall maintain the Power Dispatch facility 24 hours a day. Alarms at this facility are connected to Facility experiments, equipment, and/or buildings to record outages and hazardous conditions. Any conditions that activate these alarms shall be reported immediately to the building management or to the EOSC operator for notification and response.

D.2.2.3 Additional Communication Systems

Internal communication systems at the Facility include:

1. Preprogrammed telephone system
2. Private telephone lines
3. A variety of frequency modulated very high frequency simplex repeater systems, including:
 - Multiple base stations
 - Mobile and hand-held units
 - Links to New Mexico public safety agencies
4. An ultrahigh frequency radio system, including:
 - Multiple antenna sites
 - Mobile and base units
 - Links with the LAPD, the LAFD, and the State Medical System
5. A trunked radio system that includes a link with the LAFD
6. Transmission and reception (through the EOC) for:
 - Secure telephone
 - Secure fax
 - Secure still video
 - Secure videoconference system (to all DOE EOCs and DOE Headquarters)
7. Access to all radio systems outlined above (through the EOC).
8. Mass Notification System

2. Off-site communications with federal, state, tribal, county, and other agencies are available through the following:

1. A preprogrammed telephone system
2. Private telephone lines
3. ~~Two NAWAS stations~~ Trunked radio system
4. Mass Notification System

3. The Permittees' EOC, maintained by ~~SEO-EM~~SEO-EO personnel, operates radio systems on key Facility and off-site channels. Emergency personnel responding to on-site incidents have the benefit of wide-area radio coverage using EOC facilities. The ~~SEO-EM~~SEO-EO Duty Officer is responsible for activating whatever support personnel, equipment, or services are needed 24 hours a day.

D.3 CONTINGENCY PLAN IMPLEMENTATION

The following sections discuss requirements used to implement this Plan, emergency notification, ~~SEO-EM~~SEO-EO Duty Officer activities and actions to be taken in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents into the environment at the Facility.

D.3.1 Requirements for Implementation

1. The decision to implement this Plan depends upon whether an emergency exists, which for the purposes of this section is defined as an imminent or actual incident arising from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents that could threaten human health or the environment. The ~~SEO-EM~~SEO-EO Duty Officer or IC will use the guidelines listed below to decide whether to implement this Plan. The Permittees shall investigate all adverse environmental, safety, health, and operational occurrences (on-site and off-site) resulting in implementation of the contingency plan to determine causal factors and identify the appropriate corrective actions.

2. This Plan shall be implemented immediately in the following situations involving releases or potential releases of hazardous or mixed waste:

1. Spills:
 - If a hazardous or mixed waste spill cannot be contained with secondary containment or application of sorbents
 - If a hazardous or mixed waste spill causes the release of flammable material, creating a fire or explosion hazard
 - If a hazardous or mixed waste spill results in toxic fumes that threaten human health
2. Explosions:
 - If an unplanned explosion involving hazardous or mixed waste occurs
 - If an imminent danger of an explosion involving hazardous or mixed waste exists.
3. Fires:
 - If a fire involving hazardous or mixed waste occurs

- If any building, grass, forest, or nonhazardous waste fire exists that threatens to volatilize or ignite hazardous or mixed waste.
- 4. Other Acts of Force Majeure
 - If an earthquake or other natural disaster threatens containment integrity, including precipitation that threatens to move spilled material off site.

D.3.2 Emergency Notification

1. Emergency notification requires immediate notification of 667-6211 or ~~SEO-EMSEO-EO~~ personnel upon discovery of an imminent or actual incident involving hazardous and/or mixed waste. During nonworking hours, personnel will report all imminent or actual incidents involving hazardous and/or mixed waste to the Emergency Manager at 667-6211. In the case of fire, notification of these individuals is superseded by the Facility fire alarm system. A fire is reported by dialing 911, activating automatic alarms, or activating a fire alarm pull box. All fire alarms alert EOSC who alerts the ~~SEO-EMSEO-EO~~ Duty Officer and the Los Alamos County Consolidated Dispatch Center, who contacts the LAFD.
2. Upon recognition of a hazardous or mixed waste emergency, the first arriving emergency-trained person will become the Facility Command Leader. Once ~~SEO-EMSEO-EO~~ personnel are notified of the emergency, the ~~SEO-EMSEO-EO~~ Duty Officer will proceed to the scene and be briefed by the Facility Command Leader, building/area personnel, and/or other emergency units/teams. The ~~SEO-EMSEO-EO~~ Duty Officer will then assume the position of IC. If necessary, the IC may recommend activation of the EOC and the emergency management team. The IC will assign ICS positions and update the EOSC and request necessary resources. The EOSC will notify the appropriate emergency response groups. The IC may determine from the list of response groups described in Attachment Sections D.1.2 through D.1.7 which groups to contact in an emergency. Each response group maintains an on-call person and/or a call-down procedure to respond to emergencies.
3. ~~SEO-EMSEO-EO~~ personnel shall be notified of any potential hazardous or mixed waste emergency. The IC will use whatever means are available (including the assistance of other response groups, computer data searches, and sampling) to determine if a hazardous or mixed waste emergency exists.
4. The Facility Emergency Manager or his or her designee shall make best efforts to timely communicate the nature of the emergency and the hazards that may be present to any outside response agency whose assistance may be required.

D.3.3 Emergency Manager Actions

1. Upon notification of an emergency incident, the ~~SEO-EMSEO-EO~~ Duty Officer may:
 1. Make an initial assessment of the incident and, in conjunction with the Facility Command Leader, obtain resources to determine the source, quantities, and types of hazardous and/or mixed waste involved and the areal extent of any released materials.
 2. Request resources needed and have EOSC staff begin notifications.

3. Proceed directly to the scene, if safe to do so.
 4. Assess the nature of the incident (*e.g.*, through communication with the IC).
 5. Assume incident command after a direct briefing with the Facility Command Leader.
 6. Based on the guidelines in Attachment Section D.3.1 of this Plan, determine if implementation of this Plan is warranted.
 7. Activate the EOC, if necessary.
2. Upon deciding to implement this Plan, the IC will, when appropriate:
1. Assess the hazards to human health and the environment, including both direct and indirect effects, such as generation of toxic, irritating, or asphyxiating gases and/or hazards of runoff of water or chemicals used for fire suppression. An individual designated by the IC will use the guidelines in Section D.3.1 to assess the hazards to human health and the environment. If any of the criteria under Section D.3.1 are met and if the responsible Line Manager (or his/her designee) has not already accomplished evacuation of the area, the IC will initiate shelter in place or evacuation of the immediate area.
 2. Direct the EOSC staff to initiate protective actions and immediately notify appropriate response groups and personnel as per the SEO-EMSEO-EO Guidelines. The Los Alamos County Emergency Coordinator may activate one or more of the following community alert mechanisms: reverse 911, the AM 1490 KRSN radio, or the cable television capture system, site wide area network radios, and public radio and television channels.
 3. In the case of fire or release of any type, make reasonable efforts to confirm that all response personnel at the scene are aware of actual or imminent special hazards associated with hazardous or mixed waste.
 4. In emergency situations, contact the appropriate EPC representative to notify the Department's Hazardous Waste Bureau and the National Response Center at (800) 424-8802, reporting:
 - The name and telephone number of the EPC representative
 - The name and address of the facility
 - The time and type of incident
 - The name and quantity of material involved, to the extent known
 - The extent of injuries, if any
 - The possible hazards to human health or the environment outside the facility.
 5. When an emergency occurs at hazardous or mixed waste treatment units, ensure that appropriate Facility personnel monitor for leaks, pressure buildup, gas generation, or equipment ruptures.
3. Once control of the emergency is established, the IC will take all reasonable measures to minimize the occurrence, recurrence, or spread of fires, explosions, or releases. In addition, the IC will delegate cleanup and decontamination responsibilities to the Recovery Manager. These responsibilities may include:

4. If a hazardous/mixed waste spill occurs in an area with flooring, the floor will either be removed in lieu of decontamination, or the floor will be decontaminated. If the decision is made to decontaminate the floor, swipe samples or other types of sampling appropriate for the contaminant will be collected at random and characterized for decontamination verification. If, after several decontamination efforts, it is subsequently determined that the affected floor area cannot be decontaminated, the floor material will be removed. In all cases, wastes generated during the decontamination and/or removal process will be managed appropriately.

D.5 EXPLOSION

1. Explosions and resultant releases may result in a significant threat to human health or the environment. The potential exists for hazardous or mixed waste to be released during an explosion. Implementation of this Plan is required whenever there is an explosion at a permitted unit.

2. In the event of an explosion at the Facility, all personnel will immediately evacuate the area. Any injured personnel will be decontaminated at the site, if required and if time allows. An LAFD ambulance will transport these personnel to LAMC for treatment. If an injury is severe and requires immediate medical evacuation, the injured person will be wrapped to contain contamination, if necessary. In the case of an actual or potential explosion, on-site personnel will contact ~~SEO-EM~~SEO-EO personnel immediately so that the Emergency Manager can ensure that all necessary emergency response personnel are alerted. The LAFD is notified automatically upon fire alarm activation. The Emergency Manager assumes incident command and will remain near but at a safe distance from the site in order to inform personnel responding to the explosion of the known hazards. Where there is more than one agency (personnel from other organizations, such as the Federal Bureau of Investigation, or the Los Alamos Fire Department) with incident jurisdiction or when incidents cross political jurisdictions, agencies will work together through the designated member of the unified command to establish a common set of objectives and strategies and single incident Action Plan.

3. If a fire results from an explosion, the LAFD Senior Officer will, upon arrival at the scene, evaluate all available information and determine the appropriate firefighting methods and tactics. The LAFD Senior Officer will direct firefighting operations ~~as the acting IC until SEO-EM formally assumes command~~under a unified command.

D.6 FIRE

1. Fires and resultant releases of hazardous or mixed waste may result in a significant threat to human health or the environment. Implementation of this Plan is required whenever there is a fire at a permitted unit.

2. Fire alarms will be sounded automatically or manually to alert personnel that a fire hazard exists and to evacuate the area immediately if in the vicinity. Information related to the various fire alarms at the specific units is included in Attachment Tables TA-3, D-1; TA-50, D-1; TA-54, Area L, D-1; TA-54, Area G, D-2; TA-54 West, D-3; TA-55 Building 4 First Floor, D-1; TA-55

Building 4 Basement, D-2; TA-55 Container Storage Pad, D-3; TA-55-0355 Pad, D-4; and TA-63 Transuranic Waste Facility, D-1.

3. Depending on the size of the fire and the fuel source, portable fire extinguishers may be used. However, Facility policy does not encourage the use of portable fire extinguishers by employees unless they are properly trained. Instead, Facility policy encourages immediate evacuation of the area and notification of the Los Alamos County Dispatch Center by dialing 911. For any fire, including a fire that involves hazardous or mixed waste, the responsible Line Manager and ~~SEO-EM~~~~SEO-EO~~ personnel must be contacted immediately. The Emergency Manager will alert the LAFD and all other necessary emergency response personnel. If the fire spreads or increases in intensity, all personnel must follow protective actions as designated by the Emergency Manager. The Emergency Manager assumes incident command or enters unified command and will remain near the scene to advise personnel responding to the fire of the known hazards.

4. Upon arrival at the scene, the LAFD Senior Officer will evaluate all available information and determine the appropriate firefighting methods and tactics. The LAFD Senior Officer will direct firefighting operations ~~as the acting IC until the SEO-EM Duty Officer formally assumes command or enters under a~~ unified command.

D.7 UNPLANNED NONSUDDEN RELEASES

Nonsudden releases include those incidents that, if uncontrolled, impact the environment over a long period of time. Such incidents include minor leaks from containers and loss of secondary containment integrity.

D.7.1 Responsibility

Appropriate Facility personnel are responsible for correction of a nonsudden release from a hazardous or mixed waste unit if the correction can be performed safely with normal maintenance and management procedures. Personnel from ~~SEO-EM~~~~SEO-EO~~ may provide assistance in mitigating releases. Any correction methods for nonsudden releases that have resulted in an impact to the environment will be coordinated with the Department.

D.7.2 Nonsudden Releases

1. In general, the response to a nonsudden release will be to contain the release, to correct the cause of the release, and to clean up any release to a level that protects human health and the environment.

2. Appropriate Facility personnel shall conduct regularly scheduled inspections to detect failure of containment at the unit(s) addressed in this Permit. Secondary containment systems shall be inspected regularly to ensure that the integrity of the containment systems has not deteriorated. If an inspection reveals that containers are leaking or that secondary containment has deteriorated, Facility personnel shall ensure that maintenance or replacement of containment is performed, as appropriate. Inspections will be conducted in accordance with the facility's inspection plan.

D.7.3 Nonsudden Release Surveillance

1. In addition to routine inspection and site-specific sampling and testing, the Permittees shall maintain an area-wide environmental monitoring network. Monitoring and sampling locations for various types of measurements are organized into three main groups. Regional monitoring stations located within the counties surrounding Los Alamos County are placed up to 80 kilometers (50 miles) from the Facility. These stations serve to determine background conditions. Perimeter stations are generally located within four kilometers (2.5 miles) of the Facility boundary and document conditions in residential areas surrounding the Facility. On-site stations, most of which are accessible only to employees during normal working hours, are within the Facility boundary.
2. Different types of surveillance sampling conducted at these stations include measuring radiation and collecting samples of air particulates, surface waters, groundwater, soil, sediment, and foodstuffs for subsequent analysis. Additional samples provide information about particular events, such as major runoff events and nonroutine releases. Data from these efforts are used for comparison with standards, for determining background levels, and for radiation dose calculations.

D.8 EXPOSURE TO HAZARDOUS OR MIXED WASTE

1. If a person is exposed to hazardous or mixed waste, the affected person, a co-worker, or line management will notify ~~SEO-EMSEO-EO~~ personnel. Appropriate first aid should be administered immediately. An ~~SEO-EMSEO-EO~~ representative will make appropriate notifications as soon as possible so that exposure levels and decontamination requirements can be established. The affected person will then be transported to the occupational medical facility or to LAMC for evaluation. If possible, the material involved in the exposure will be ascertained, and the information will be given to the medical staff.
2. Other potential exposures will necessitate evacuation of the area, if appropriate, or under any of the following conditions:
 1. Irritation of the eyes, breathing passages, or skin
 2. Difficulty in breathing
 3. Nausea, lightheadedness, vertigo, or blurred vision.
3. The affected person will be transferred to the occupational medical facility or to LAMC if there is a serious injury. An industrial health and safety, radiation protection, or HAZMAT representative will attempt to ascertain what, if any, exposure occurred and what corrective measure is appropriate.

D.9 PROTECTIVE ACTIONS

A permitted unit shall be evacuated upon the voice command to evacuate the area or upon the sounding of the evacuation or fire alarm. The IC may call for sheltering in place when evacuation is impractical due to significant airborne hazards. Shelter in place may be possible in

a designated area or in a building where all exterior windows and doors may be closed and outdoor air ventilation equipment turned off. Once the airborne hazard has decreased, personnel would then be evacuated.

D.9.1 Emergency Process Shutdown Prior To Evacuation

Personnel are instructed to shut down equipment prior to evacuating a building/area unless an immediate building/area evacuation is announced or signaled. To ensure efficient shutdown, training and exercises addressing the shutdown process are performed. In the case of an immediate evacuation, a selected team may shut down designated equipment in an evacuated area upon approval of command. The team will be equipped with proper equipment and PPE. If they are on location, radiation protection, industrial health and safety, and/or HAZMAT personnel will provide advice and assistance.

D.9.2 Evacuation Plan

1. Emergency situations may warrant the shutdown and evacuation of areas or buildings in order to protect personnel and property, to anticipate the emergency condition, or to enhance the appropriate response. Attachment Table D-3 lists the criteria for evacuation, persons responsible for initiating evacuations, and reentry conditions.

2. To initiate the evacuation of a building/area, the evacuation or fire alarm is sounded and/or the public address (PA) system may be used. Evacuation alarms cannot be silenced and reset by site personnel. Only the Fire Alarm Maintenance Section and the LAFD Battalion Chief can silence and reset alarms. To evacuate a portion of a building or area, use of the PA system may be more appropriate. The PA system will notify the occupants of the area to be evacuated and will advise personnel throughout the building of the existence of a problem in a specific area. Once evacuation has been initiated and if conditions allow, personnel will turn off all equipment that could contribute to the hazard if left unattended. All personnel will then proceed from the affected area to the assembly/muster area.

3. In the event of evacuation of a building, an outbuilding, or an outlying work area, the responsible Line Manager (or his/her designee) will determine a control point at the closest safe location (*e.g.*, considering wind direction). The designated area will be outside the affected area and will serve as an assembly/muster area where the Line Manager (or designee) can oversee evacuation operations and work to prevent further spread of the hazard.

4. As personnel exit an affected building/area, a primary sweep of the building/area may be performed to ensure that all personnel have evacuated. If the building/area is evacuated, a Group Leader designee will take attendance at the assembly/muster area and report personnel accountability to the IC. The evacuation procedure is as follows:

1. The person discovering the accident or emergency will call 911 if the event is life-threatening or LAFD is required, or 667-6211 for all other evacuations. The person will then notify line management.

2. Site-specific BEPs and/or emergency action procedures will be followed concerning evacuation, sweep, personnel accountability, and equipment shutdown procedures.
5. A responsible on-site person may direct the initial evacuation and the fire alarm system may be activated. ~~SEO-EMSEO-EO~~ personnel will be notified and dispatched immediately. A responsible on-site person may implement and direct the evacuation process until the ~~SEO-EMSEO-EO~~ Duty Officer or LAFD arrives at the scene to assume that responsibility.

D.10 SALVAGE AND CLEANUP

1. Appropriate representatives from the EPC groups will survey the affected area before salvage and cleanup begin. They will conduct visual inspections and sampling, as appropriate, of the affected area to determine whether cleanup is complete. If gases or fumes, electrical or radiological problems, or other conditions present a hazardous situation, personnel or selected teams equipped with proper PPE will reenter the area to perform designated decontamination tasks, repairs, and salvage to allow the return to normal operations. After an emergency, the IC will turn the operation over to a designated Recovery Manager, who will:
 1. Provide for proper handling of recovered waste, contaminated soil or surface water, or any other material that results from a spill, fire, or explosion. Contaminated material will be managed appropriately and temporarily stored at one of the hazardous or mixed waste storage areas at the Facility. Waste management personnel will be responsible for determining the final disposition of the waste. This determination will be made in compliance with hazardous waste management regulations.
 2. Arrange to monitor for damage or improper operation of the unit and associated equipment as a result of the emergency or of plant shutdown in response to the emergency.
 3. Arrange for site cleanup procedures to be completed and ensure that no waste that may be incompatible with the released material is treated or stored in the same area.
 4. Ensure that emergency equipment is cleaned, decontaminated, and fit for its intended use before operations are resumed. Equipment will be inspected visually and then sampled, if necessary, to determine the type and degree of contamination and to determine appropriate cleanup measures.
2. Prior to resuming operations, the Permittees shall verify that the previously mentioned tasks have been performed. The Permittees shall notify appropriate state and local authorities that cleanup procedures are completed and that emergency equipment is clean and fit for its intended use.
3. The IC assumes the coordination of post-emergency actions (particularly during the time period immediately following the emergency) until a Recovery Manager is appointed. The Recovery Manager then assumes this coordination role. The Recovery Manager is the functional equivalent of the Emergency Coordinator for post-emergency actions. The post-emergency actions include cleanup operations, vital equipment repair, or interim hazard-removal operations (such as arranging for demolition of unstable walls). The services of affected operational

Table D-3
Evacuation Determination and Re-Entry Conditions

Reason for Evacuation	Evacuation Determination Made by	Reentry Conditions^a
Fire	¹ Fire or evacuation alarm, Line Manager or alternate, Lead Engineer, Senior Staff Member present, Senior Technician, or Emergency Manager	Following survey by the person designated by the IC ^b
Explosion	Same as 1 above	Same as above
Loss of ventilation	² Line Manager or alternate, Senior Staff Member, Lead Engineer, or Senior Technician, or Emergency Manager	Same as above
Loss of electric power	Same as 2 above	Same as above
Extensive contamination	Same as 2 above or health physics representative	Same as above
Airborne contamination	Same as 2 above or Radiation Monitor	Same as above
Escape or release of toxic or hazardous gas or fumes	Line Manager or alternate, Senior Staff Member, Lead Engineer, Senior Technician, or Emergency Manager	Same as above
Bomb or bomb threat	SEO-EMSEO-EO ^c or security personnel, R&D ^d Section Leader or alternate, Senior Staff Member, or Lead Engineer	Same as above

^a All reentries are authorized by the ~~SEO-EMSEO-EO~~ Incident Commander.

^b "IC" refers to the Incident Commander as defined in 29 CFR § 1910.120.

^c "~~SEO-EMSEO-EO~~" refers to the Emergency ~~Operations-Management~~ Group.

^d "R&D" refers to the Research and Development Section

TA-50
ATTACHMENT D
CONTINGENCY PLAN

**TA-50
ATTACHMENT D
CONTINGENCY PLAN**

Specific information on emergency response resources and release prevention/mitigation at TA-50 is provided below.

Emergency equipment currently available for use at the permitted units at TA-50-69 are included in Table D-1 below. A list of emergency equipment (including spill equipment) available from the ~~SEO-EM~~SEO-EO and SEO-ER is presented in Table D-1 in this Attachment.

Hazardous and mixed waste spills are managed by type and severity of the incident. If a hazardous/mixed waste spill occurs, the Incident Commander evaluates the type and severity of the spill and determines if assistance from ~~SEO-EM~~SEO-EO personnel is required. If not, the spill is managed internally by TA-50 personnel.

REFERENCES

LANL, 1998, "Los Alamos National Laboratory General Part B Permit Application," Revision 1.0, Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2002, "Los Alamos National Laboratory Technical Area 50 Part B Permit Renewal Application", Revision 3.0, August 2002, LA-UR-02-4739, Los Alamos National Laboratory, Los Alamos, New Mexico

Table D-1

TA-50

EMERGENCY EQUIPMENT

FIRE CONTROL EQUIPMENT

- **FIRE EXTINGUISHERS**

Description of General Capabilities

The fire extinguishers are portable, manually operated units and may be used by any employee in case of fire. They consist of Class ABC or BC rated.

Locations

2 fire extinguishers are located in TA-50-69, Indoor Unit (Room 102)

1 fire extinguisher is located at the TA-50-69, Outdoor Unit

- **FIRE ALARM PULL BOXES CONNECTED TO THE EMERGENCY OPERATIONS SUPPORT CENTER**

Description of General Capabilities

Fire alarms may be activated by any employee in the event of fire to notify the Emergency Operations Support Center. Upon activation, fire alarm horns and strobes provide audible and visual signals for personnel notification. The fire alarm is a pulsing sound.

Locations

Three fire alarm pull stations are located in the TA-50-69, Indoor Unit. Personnel working at the TA-50-69, Outdoor Unit may use the pull stations at TA-50-69 in the event of a fire.

- **AUTOMATIC FIRE SUPPRESSION SYSTEM**

Description of General Capabilities

A wet-pipe automatic sprinkler system that is hydraulically designed for ordinary hazard Group II coverage is in place throughout TA-50-69. This system is activated at 100°C (212°F).

Locations

Throughout TA-50-69, as described above.

- **FIRE HYDRANT**

Description of General Capabilities

Fire hydrants provide water for fire fighting. All fire hydrants are supplied by an 8-inch (in.) water line connected to the 12-in. water main on Pecos Drive.

Location

A fire hydrant is located approximately 55 ft west of TA-50-69.

SPILL CONTROL EQUIPMENT

• **SPILL CONTROL EQUIPMENT**

Description of General Capabilities

The spill control kits may contain items such as absorbents (*i.e.*, pillows and pigs) or weighted tarps. The ~~SEO-EM~~SEO-EO or SEO-ER provides additional spill control and clean up equipment as needed.

Spill Control Kit Location

The spill kits are located in TA-50-69 and at the TA-50-69 Outdoor Unit

COMMUNICATION EQUIPMENT

Description of General Capabilities

Telephones for internal and external communication are available for use by employees. Alphanumeric pagers or cellular phones with page/text capabilities are also utilized by employees. Employees can be notified of an emergency situation and appropriate response actions through the use of a text message sent to the pagers, phones, or via two-way radios that may also be utilized for communication. Employees can reach emergency personnel in the time of an emergency through cellular telephones and two-way radios. Fire alarms are activated in the event of a fire. The fire alarm is a double slow whoop sound. When working at the permitted units, personnel will have immediate access to emergency communication equipment either directly or through visual or voice contact with another employee.

Location of Communication Equipment

Personnel working at the permitted units at TA-50-69, will carry cellular phones, pagers, or two-way radios, or will have immediate access to communication equipment through visual or voice contact with another employee.

DECONTAMINATION EQUIPMENT

• **SAFETY SHOWERS**

Description of General Capabilities

Safety showers are available to personnel who receive a chemical splash to the skin.

Location of Safety Showers

A safety shower is located in TA-50-69, Room 102. One standard shower is located adjacent to the change room in TA-50-69.

• **EYEWASHES**

Description of General Capabilities

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**TA-55
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CONTINGENCY PLAN**

Specific information on emergency response resources and release prevention/mitigation at TA-55 is provided below.

Emergency equipment currently available for use at TA-55 are included as Tables D-1 through D-4 in this Attachment. A list of emergency equipment (including spill control equipment) available from the TA-55 Emergency Management Team is presented in Table D-1 of this Attachment's General Section. Emergency equipment discussed in this Plan may be replaced and/or upgraded with functionally equivalent components and equipment as necessary for routine maintenance and repairs.

Hazardous waste spills are managed by type and severity of the incident. If a hazardous waste spill occurs, the facility line management evaluates the type and severity of the spill and determines if assistance from ~~SEO-EMSEO-EO~~ and the ~~SEO-EMSEO-EO~~ Duty Officer is required. If not, the spill is managed internally by TA-55 personnel.

REFERENCES

LANL, 2002, "Los Alamos National Laboratory General Part B Permit Renewal Application", Revision 2.0, August 2002, LA-UR-03-5923, Los Alamos National Laboratory, Los Alamos, New Mexico

LANL, 2003, "Los Alamos National Laboratory Technical Area 54 Part B Permit Renewal Application", Revision 3.0, June 2003, LA-UR-03-3579, Los Alamos National Laboratory, Los Alamos, New Mexico

Table D-1
TA-55 Building 4, First Floor
Emergency Equipment

FIRE CONTROL EQUIPMENT

Dry-chemical fire extinguishers are located in Room 401.

Description of General Capabilities:

The fire extinguishers are portable, manually-operated units and can be used by any employee in case of fire. The fire extinguishers in Room 401 are for use only in case of fire outside the gloveboxes.

Fire alarm pull boxes and push button stations are available in Room 401.

Description of General Capabilities:

Fire alarms can be activated by any employee in the event of fire to notify the Emergency Operations and Support Center (EOSC).

An automatic fire suppression sprinkler system is located in Room 401.

Automatic thermal alarms are located in the gloveboxes in Room 401.

Fire hydrants are located outdoors on the north, south, and west sides of TA-55-4.

SPILL CONTROL EQUIPMENT

Room 401 provides secondary containment for the storage tank system and cementation unit.

COMMUNICATION EQUIPMENT

Telephones are located in Room 401. The telephones are capable of handling incoming/outgoing calls and paging.

A telephone is located at each of the two west exit doors of TA-55-4.

Two-way radios are available from the TA-55 Operations Center located at TA-55, Building 0004, Room 218, for personnel working in Room 401.

Alarms at TA-55-4:

The fire alarm is a zone-wide whooping sound. If a drop-box pushbutton station is used, a zone-wide, high-pitched constant tone will be activated and then switch to the standard whooping sound.

The evacuation alarm is a facility-wide mid-range pulsating tone.

The continuous air monitor alarm is a local high-pitched pulsating tone.

The ventilation alarm is a local slow, repeating chime tone.

The public address system may also be used to announce an evacuation.

DECONTAMINATION EQUIPMENT

Safety showers and eyewash stations are located in Room 401.

Description of General Capabilities:

Safety showers and eyewashes are available for decontamination of personnel who receive a chemical splash to the skin or eyes.

Electronic versions of Safety Data Sheets (SDSs) are available in Room 401 and at TA-55-4, the TA-55 Operations Center located at TA-55, Building 0004, Room 218, for personnel working in Room 401.

Specific SDSs may be obtained prior to working with any hazardous waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT

Self-contained breathing apparatus (SCBA) are located in the southside hallway outside of Room 401, in the northside hallway of TA-55-4, and in TA-55-3, Room 179. The SCBAs are available for personnel working in or near Room 401.

Change/decontamination rooms with protective clothing available are located on the first floor of TA-55-4 and in TA-55-3. Protective clothing is also available in a locker located in the hallway near Room 401 for use by personnel working in or near Room 401.

Respirators located in TA-55-3 (Room 107) and in TA-55-4 (Room 515) are available for all personnel working in or near TA-55-4. Respirators are re-issued on a regular basis to TA-55-4 personnel for radiation work. These respirators are stored in the personnel's individual lockers. Combination gas canisters (particulate, organic, and acid) are available in TA-55-4 (Room 515).

OTHER:

If transportation is needed for evacuation, the request for additional assistance should be sent through [SEO-EM/SEO-EO](#).

TABLE D-2
TA-55 Building 4 Basement
Emergency Equipment

FIRE CONTROL EQUIPMENT

Halon, dry chemical, and/or carbon dioxide fire extinguishers are available near B40, B05, K13, B45, B13, G12, and the Vault.

Description of General Capabilities:

The fire extinguishers are portable, manually-operated units and can be used by any employee in case of fire.

Fire alarm pull boxes are located at B05, K13, B45, the Vault, and on each side of the fire door.

Description of General Capabilities:

Fire alarms can be activated by any employee in the event of fire to notify the Emergency Operations Support Center (EOSC).

An automatic fire suppression sprinkler system is located throughout the basement at TA-55-4, including the Vault and the office and corridor associated with the Vault.

Fire hydrants are located outdoors on the north, south, and west sides of TA-55-4.

SPILL CONTROL EQUIPMENT

Self-containment pallets or cabinets are provided for containers of liquid and/or potentially liquid-bearing wastes stored at B40, K13, and the Vault.

COMMUNICATION EQUIPMENT

Telephones and intercom stations are located throughout the basement of TA-55-4. The telephones are capable of handling both incoming and outgoing calls. The intercom system is connected to the TA-55-4 Operations Center and allows the Operations Center to easily mobilize emergency response support.

Two-way radios are available from the TA-55 Operations Center located at TA-55, Building 0004, room 218, for personnel working in the basement at TA-55-4.

Personal pagers are issued to and carried by assigned personnel working in the basement of TA-55-4. These pagers are accessed by telephone.

Alarms at TA-55-4:

The fire alarm is an area-wide whooping sound.

The evacuation alarm is a facility-wide mid-range pulsating tone.

The continuous air monitor alarm is a local high-pitched pulsating tone.

The ventilation alarm is a local slow, repeating chime tone.

The public address system activated from the TA-55-4 Operations Center may be used to announce an evacuation.

A site-wide paging system activated from the TA-55-4 Operations Center can be heard throughout TA-55-4.

DECONTAMINATION EQUIPMENT

Eyewashes are located throughout the basement of TA-55-4.

Description of General Capabilities:

The eyewash stations are available for decontamination of personnel who receive a chemical splash to the eyes.

Safety showers are located near B40, K13 and in the office for the Vault.

Description of General Capabilities:

The safety showers are available for decontamination of personnel who receive a chemical splash to the skin.

Safety Data Sheets (SDSs) are available at TA-55-4. Specific SDSs may be obtained prior to working with any hazardous waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT

Change/decontamination rooms with protective clothing available are located on the first floor of TA-55-4 and in TA-55-3.

Respirators located in TA-55-4 and in TA-55-3 are available for all personnel working in or near TA-55-4. Particulate and toxic gas canisters are available in TA-55-4.

Self-contained breathing apparatus are located in the TA-55, Basement.

OTHER:

If transportation is needed for evacuation, vehicles may be obtained through the ~~SEO-EMSEO-EQ~~ or SEO-ER.

Forklifts stored in the basement are available for use in the basement and are stored near the north basement doorway.

TABLE D-3

TA-55 CONTAINER STORAGE PAD

Emergency Equipment

FIRE CONTROL EQUIPMENT

A dry chemical fire extinguisher is located on the Container Storage Pad.

Description of General Capabilities:

The fire extinguishers are portable, manually-operated units and can be used by any employee in case of fire.

Fire hydrants are located along the north, south, and west sides of TA-55-4.

One fire hydrant is located just south of the Container Storage Pad.

Fire alarm pull boxes are located in TA-55-42 at the northwest corner of TA-55-4.

One fire alarm pull box is located outside on the south side of TA-55-4.

COMMUNICATION EQUIPMENT

A telephone is located on the east side of TA-55-11, and additional phones are located on the south side of TA-55-4.

Two-way radios are available from the TA-55 Operations Center located at TA-55, Building 0004, Room 218, for personnel working at the Container Storage Pad.

Personal pagers are issued to and carried by assigned personnel working at the Container Storage Pad. These pagers are accessed by telephone.

Alarms at TA-55:

The fire alarm is an area-wide whooping sound.

The evacuation alarm is a facility-wide mid-range pulsating tone.

The public address (PA) system activated from the TA-55-4 Operations Center may be used to announce an evacuation. PA speakers are located on the west side of TA-55-4.

Two intercom systems to the TA-55-4 Operations Center are located on the south and north sides of TA-55-4.

DECONTAMINATION EQUIPMENT

A safety shower and eyewash station are located outdoors on the Container Storage Pad.

Description of General Capabilities:

The safety shower and eyewash are available for personnel who receive a chemical splash to the skin or eyes.

Safety Data Sheets (SDSs) are available at TA-55-2. Specific SDSs may be obtained prior to working with any hazardous waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT

Change rooms with protective clothing available are located on the first floor of TA-55-4 and in TA-55-3.

Respirators are located in TA-55-4 and in TA-55-3 for all personnel working in or near TA-55-4.

OTHER:

If transportation is needed for evacuation, vehicles may be obtained through ~~SEO-EM~~SEO-EO or SEO-ER. Two forklifts are available for NPI-7 use.

TABLE D-4
TA-55-0355 PAD
Emergency Equipment

FIRE CONTROL EQUIPMENT

Four ABC rated fire extinguishers are located at the TA-55-0355 Pad. An ABC rated fire extinguisher is located in each vehicle used to transport waste containers to the unit.

Description of General Capabilities:

Portable and manually operated fire extinguishers may be used by any qualified employee in the event of a small fire. For larger fires, the Los Alamos Fire Department (LAFD) is alerted and requested to respond.

COMMUNICATION EQUIPMENT

A telephone is located on the North side of the TA-55-0355 Pad and within the High Energy Neutron Counter (HENC) unit. The facilities public address (PA) system can be heard from the TA-55-0355 Pad.

Description of General Capabilities:

A telephone for internal and external communication is available for use by any employee. Employees can be notified of an emergency situation and appropriate response action through the PA system.

Alarms at TA-55-0355:

No fire alarm station is located at the TA-55-0355 Pad. The nearest fire alarm pull box is located outside of PF-4 on the South dock. In the case of fire, notification will be made via telephone.

Description of General Capabilities:

Manually-operated fire alarms may be activated by any employee in the event of a fire to alert fire personnel, LANL Emergency Response Personnel, and the LAFD.

Fire and PA systems are located throughout the facility.

Description of General Capabilities:

The fire and PA system are activated or used to provide a sound signal to alert personnel of fires or the need to clear the area.

DECONTAMINATION EQUIPMENT

An Eyewash station and any applicable Safety Data Sheets (SDSs) are available at the TA-55-0355 Pad or at the Operation Support Building. SDS information is maintained where appropriate for personnel accessibility and is used for chemicals that will be needed to support operations or emergency activities.

Description of General Capabilities:

The eyewash station may be used by personnel who receive a chemical splash to the eyes. Specific SDSs should be reviewed prior to working with chemicals. No free liquids will be stored on the Pad.

PERSONAL PROTECTIVE EQUIPMENT

Personnel at the TA-55-0355 Pad will be required to use appropriate PPE to protect themselves from hazards found under normal conditions. This PPE may include gloves, steel toe shoes, and eye protection. Additional PPE may be required during unusual hazardous situations. First aid kits and hearing protection will be available.

Description of General Capabilities:

To prevent undue exposure of personnel to hazardous or mixed waste, PPE appropriate for the waste containers being managed will be worn by all on-site personnel at the TA-55-03555 Pad. First aid kits are available and may be used by personnel who sustain minor injuries at the unit in the course of operations. Hearing protection may be used by operations personnel to mitigate noise impacts.

OTHER:

If transportation is needed for evacuation, vehicles may be obtained through the ~~SEO-EMSEO-~~
EO or SEO-ER.

Attachment 2
Certification

CERTIFICATION

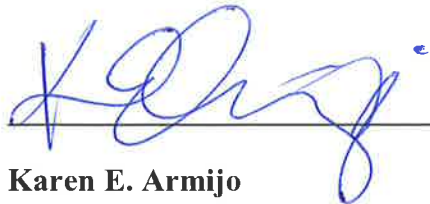
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage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



John C. Bretzke
Division Leader
Environmental Protection and Compliance Division
Los Alamos National Security, LLC



Date Signed



Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
U.S. Department of Energy
Owner/Operator



Date Signed

ATTACHMENT F
PERSONNEL TRAINING PLAN

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F-1	Los Alamos National Laboratory-Wide Training Program Outline
F-2	Outline of Facility-Specific and On-the-Job Training for Treatment and Storage Facility Operations

ATTACHMENT F

PERSONNEL TRAINING

Attachment F describes the personnel training program for Los Alamos National Laboratory (LANL) permitted unit workers. The primary objective of the training program is to prepare personnel to operate and maintain safely those areas managing hazardous and/or mixed waste. This training program applies to all employees of the Permittees and any subcontractors who work regularly at LANL permitted units and manage hazardous and/or mixed waste. The degree of training varies with the job duties.

F.1 HAZARDOUS AND MIXED WASTE MANAGEMENT/RESPONSIBILITIES

Waste management activities and responsibilities at specific hazardous and/or mixed waste management units are handled by the appropriate LANL division or group. Waste management personnel within the Environmental Projects Associate Directorate are responsible for most centralized waste management activities at LANL. Hazardous waste compliance personnel are responsible for providing waste management regulatory guidance to all LANL personnel and operations. Other personnel at LANL who may provide assistance in various waste management activities are discussed in the following paragraph and in Attachment D (*Contingency Plan*).

Laboratory-contracted support services provide trained personnel to assist in waste-handling activities. The Permittees shall ensure that radiation protection, health physics, occupational medicine, industrial hygiene and safety, nuclear criticality safety, occurrence reporting, hazardous material response, meteorology and air quality, water quality and hydrology, ecology, and hazardous waste compliance personnel are trained in their respective specialties to provide emergency response support and that LANL security provides workers trained in traffic and site-access control.

The Security and Emergency Operations – Emergency Management Operations Group (~~EO-EM~~) (~~SEO-EO~~) provide emergency planning and response at LANL and have the overall responsibility for LANL's Emergency Management Plan (EMP) training. Central training personnel are responsible for the analysis, design, development, and delivery of LANL-wide environment, safety, and health (ES&H) training.

Courses on hazardous and/or mixed waste are designed with substantial input from hazardous waste compliance personnel, hazardous waste operations personnel, and other subject matter experts, as appropriate.

F.2 TRAINING CONTENT, FREQUENCY, AND TECHNIQUES

The training program instituted at the Facility includes a combination of Facility-wide courses, permitted unit-specific training, and on-the-job training (OJT). Facility-wide courses are provided internally or through external vendors and are usually classroom-based. Permitted unit-

specific training may be developed and delivered within a particular permitted unit, and OJT consists of supervised and documented training focused primarily on procedures performed by individual workers. Each of these types of training is described in Sections F.2.1 through F.2.3.

The Permittees shall ensure that all Facility employees and contract and support personnel who handle hazardous and/or mixed waste at permitted units receive the appropriate level of training within six months of their date of hire or transfer for work at a permitted unit. The Permittees shall not allow personnel to work in unsupervised waste handling positions at permitted units until they have successfully completed the appropriate level of training for their positions and responsibilities.

The Permittees shall ensure that records of Facility-wide training currently sponsored or administered by central training personnel are entered by that group into UTrain, the official Facility training database, and that these records document that the required training has been successfully completed by the worker. The Permittees shall retain training records of former workers in accordance with Permit Section 2.12.2.

The Permittees shall ensure that the Facility-wide training program depicted in Table F-1 is carried out by the Permittees' central training personnel. Table F-1 includes a listing of the relevant training courses, a summary of topics, and a designation of the relevant courses for each job category. Categories of workers presented in Table F-1 include permitted unit hazardous/mixed waste workers, managers and supervisors of permitted unit hazardous/mixed waste workers, emergency responders, and uncontrolled area potential release site workers. Table F-2 summarizes the components of permitted unit specific training and OJT that workers receive, as applicable.

Permitted unit hazardous/mixed waste workers are responsible for handling hazardous/mixed wastes at a permitted unit. In addition, they are responsible for assisting in permitted unit spill and emergency response activities, as required.

Managers and supervisors of permitted unit hazardous/mixed waste workers are directly responsible for day-to-day operations related to permitted unit waste management activities. They are also responsible for assuring that personnel safety and training requirements are met.

Emergency Responders are trained emergency response personnel who respond to emergencies involving hazardous and/or mixed wastes. Emergency Responders also provide support for emergency response activities.

Uncontrolled Area Potential Release Site Workers conduct investigations and remedial activities at potential release sites. They are also responsible for proper waste management from generation to disposal, including waste characterization, treatment, and storage.

The Permittees shall review course content at least annually and shall update it as required to keep materials current with hazardous waste management regulations. The Permittees shall maintain training materials of Facility-wide training courses on file in the ES&H Training Center

and make them available for review by all hazardous/mixed waste management and handling personnel, and emergency response personnel. The Permittees shall maintain files listing the requisite skills, education, and training for workers who handle hazardous and/or mixed waste at each permitted unit, and the duties and responsibilities for each job description, as well as the name of each worker filling a job description, are maintained in accordance with Permit Section 2.12.2.

F.2.1 Facility-Wide Courses

The Permittees shall require certain hazardous waste management courses for permitted unit personnel, including Waste Generation Overview Live Training, Resource Conservation and Recovery Act (RCRA) Personnel Training, and RCRA Refresher Training.

The RCRA Personnel Training course shall provide an overview of state and federal hazardous waste management regulations, emphasizing compliance with the RCRA requirements that apply to job-related activities, such as the safe handling of hazardous and mixed waste. Instructors shall be trained in hazardous and mixed waste management programs and procedures and in RCRA. Central training personnel, with guidance from hazardous waste compliance personnel, shall provide an annual refresher of applicable hazardous waste management requirements. Permitted unit personnel who handle hazardous and/or mixed waste and/or clean up spills or releases of hazardous and/or mixed waste at permitted units, and the managers and supervisors of these workers, shall receive instruction on the topics listed in Table F-1. Personnel responsible for shipping or transporting hazardous and/or mixed waste shall receive supplementary training, as appropriate.

The Permittees shall ensure that training concerning the use of waste characterization documentation is included in the Waste Generation Overview Live course. This training shall be provided to appropriate personnel and provide detailed instructions on how to complete forms for characterizing wastes.

F.2.2 Unit-Specific Training

Waste-handling personnel shall participate in permitted unit-specific training at their particular work locations. Table F-2 addresses program requirements that ensure that hazardous and mixed waste management and handling personnel know the specific requirements for their particular facilities and are able to respond effectively to emergencies. The Permittees shall ensure that personnel become familiar with emergency procedures, equipment, and systems at their particular facility, including emergency and monitoring equipment use, inspection, repair, and replacement, as appropriate. The Permittees shall ensure that they also receive instruction on contingency plan contents and implementation (as they apply to their particular facility) including, but not limited to, communications or alarm systems, response to fires and explosions at their facility, key parameters for automatic waste-feed cutoff systems, shutdown of facility operations, and response to groundwater contamination incidents.

F.2.3 On-the-Job Training

The Permittees shall provide supervised and documented OJT, if developed, delivered by supervisors or other subject matter experts who are able to evaluate worker proficiency and determine appropriate training for the procedures required of each function-specific position. OJT topics may include implementation of permitted unit-specific procedures, maintenance of operating records, reporting requirements, and permitted unit-specific inspection requirements. Permitted unit emergency response personnel receive permitted unit-specific training regarding emergency response and shutdown procedures at the permitted unit to which they are assigned.

Only properly trained personnel may operate radiography equipment or conduct visual examinations (VE) of waste contents. Radiography and VE procedure operators shall receive on-the-job training in project requirements, system operations and standards, safe operating practices, application techniques, specific waste-generating practices, packaging configurations, parameter estimation, and identification of prohibited items. The Permittees shall train and test operators before they are qualified for radiography operation and VE, and shall requalify operators at least every two years.

F.2.4 Training Coordinator

The Central Training Division shall direct the Facility-wide ES&H training program and that the Division Leader (or designee) serves as the Training Coordinator for Facility-wide waste management training. The Training Coordinator shall be trained in the operation of hazardous and mixed waste management facilities, waste management practices, and emergency procedures and is responsible for coordinating training courses.

F.3 EMERGENCY TRAINING

If called upon by the EM&R Office, additional non-LANL emergency response personnel may assist the Facility Incident Commander at the scene of a hazardous or mixed waste emergency. These workers shall be trained in their specialties (*e.g.*, heavy equipment operation, hazardous material cleanups, traffic control, and security).

Permitted unit personnel involved in waste handling and emergency response shall be knowledgeable about appropriate building and operating area emergency procedures to ensure maximum protection of life and property and to mitigate the consequences of an emergency situation. These workers shall receive training in permitted unit-specific emergency procedures or participate in the Facility-wide emergency training program. Group leaders and immediate supervisors shall be responsible for ensuring that education and training in permitted unit-specific emergency procedures are provided to all personnel under their supervision. Training in permitted unit-specific emergency procedures is given by the operating group.

Immediate supervisors shall ensure that each new or transferred worker is informed on the general and specific emergency procedures related to the work area and that each worker is advised of any changes to emergency procedures and that each worker is provided with an annual refresher of these procedures.

Specialized training shall be given to personnel assigned special functions or specific emergency duties. For example, emergency response personnel are required to attend training on the implementation of Attachment D (*Contingency Plan*), spill response, and Occupational Safety and Health Administration emergency response provisions. The EM&R Office shall provide training related to implementing LANL's EMP. In addition, permitted unit waste management and handling personnel shall participate in a training program in which they are instructed in emergency procedures pertinent to their work areas. The operating group is responsible for providing this site-specific instruction, which shall also include walk-throughs of the areas covered by the Contingency Plan.

F.4 IMPLEMENTATION OF TRAINING PROGRAMS

Waste Generation Overview Live is an introductory course that provides an overview of federal and state waste management regulations and Facility policies and procedures for waste management operations. The training addresses the information needed to identify and properly manage wastes that are subject to hazardous waste regulations in 40 CFR Parts 261, 264, and 268. Course topics include waste characterization and classification including identification of RCRA waste types and their determination, the information needed to characterize the wastes, and the documentation requirements for proper management of the wastes.

In addition, all permitted unit workers who handle hazardous and/or mixed waste are required to complete RCRA Personnel Training and annual RCRA refresher courses. These refresher courses update personnel on LANL procedures and changes in hazardous waste regulations and provide them with an overview of their introductory training. Line managers and group leaders shall be responsible for ensuring that personnel participate in the appropriate introductory and annual training courses.

TABLE F-1
Facility-Wide Training Program Outline

Courses ^a	Permitted Unit ^b Hazardous/ Mixed Waste Worker	Manager/ Supervisor of permitted unit Hazardous/Mixed Waste Workers	Emergency Responder	Uncontrolled Area Potential Release Site Worker
<p>HAZWOPER^c: First Responder (Operations Level)</p> <p>(provides an overview of hazardous materials emergency response, including recognition and identification of hazardous materials and associated risks, required actions, and relationships with other emergency responders)</p>			X ^d	
<p>HAZWOPER: General Site Worker (40 hours)</p> <p>(provides general information on hazardous waste operations and emergency response for general site workers engaged in corrective action, remediation, or decontamination and decommissioning activities)</p>				X
<p>HAZWOPER: Refresher</p> <p>(provides general information on hazardous waste operations)</p>			X	X
<p>RCRA^e Personnel Training</p> <p>(includes an overview of 40 CFR Parts 260-265, 268; the New Mexico Administrative Code, Title 20, Chapter 4, Part 1; Department of Transportation shipping regulations; internal and external protocol for facility)</p>	X	X	* _f	*

Courses ^a	Permitted Unit ^b Hazardous/ Mixed Waste Worker	Manager/ Supervisor of permitted unit Hazardous/Mixed Waste Workers	Emergency Responder	Uncontrolled Area Potential Release Site Worker
inspections; operating equipment, communication systems, security systems; contingency plan; and emergency equipment use, inspection, and repair)				
<p>RCRA Refresher Training</p> <p>(includes regulatory and legislative updates, occurrence reports and lessons learned, audit findings, modification/review of the contingency plan; provides required retraining)</p>	X	X	*	*
<p>Waste Generation Overview Live</p> <p>(includes waste management regulations and policies, definition of hazardous waste, wastes characterization and documentation, waste minimization, cycle of waste management at Los Alamos National Laboratory, storage and disposal)</p>	X	X	X	X
<p>Respirators: Air-Purifying</p> <p>(provides required annual retraining for operation and inspection of device, changing filters, donning and doffing)</p>	*	*	X ^g	*

Courses ^a	Permitted Unit ^b Hazardous/ Mixed Waste Worker	Manager/ Supervisor of permitted unit Hazardous/Mixed Waste Workers	Emergency Responder	Uncontrolled Area Potential Release Site Worker
<p>Respirators: Self-Contained Breathing Apparatus</p> <p>(provides required annual retraining for operation and inspection, changing compressed air bottles, donning and doffing, safety features, care and cleaning, fitting)</p>	*	*	X ^g	*

^a Additional training courses (not listed in this attachment) may also be taken by personnel depending on the types of hazards (e.g., chemical) associated with a particular job description.

^b TSF = Treatment and storage facility

^c HAZWOPER = Hazardous Waste Operations and Emergency Response

^d X indicates a required course.

^e RCRA = Resource Conservation and Recovery Act

^f * indicates that a course may be required for specific job tasks and/or work areas.

^g Only emergency responders who will enter the hazard area as part of the response activities are required to be authorized respirator users. Non-entry responders are not required to complete respirator training or fit testing because they will not enter the hazard area as part of the response activities.

TABLE F-2

**OUTLINE OF PERMITTED UNIT-SPECIFIC AND ON-THE-JOB TRAINING FOR
TREATMENT AND STORAGE FACILITY OPERATIONS**

Permitted unit-specific and/or on-the-job training (OJT) is provided to permitted unit workers to ensure that operations are performed in a safe manner and that actual job tasks are conducted in accordance with safe operating procedures.

Permitted unit-specific training will include, as applicable, the following topics:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
- Key parameters for automatic waste feed cut-off systems
- Communications or alarm systems
- Response to fires or explosions
- Response to groundwater contamination incidents
- Shutdown of operations.

OJT will include the following topics, as applicable:

- Implementation of facility-specific procedures
- Maintenance of operating records
- Reporting requirements
- Permitted unit-specific inspection requirements
- Operation of radiograph equipment
- Visual examination (VE) of waste contents.

OJT and facility-specific training must be documented by the sponsoring organization and training records must be maintained for a minimum of three years from the date that the trainee last worked at the permitted unit.