Los Alamos
NATIONAL LABORATORY
EST. 1943

ESHID-603404

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Date: MAY 2 1 2019
Symbol: EPC-DO: 19-097
LA-UR: 19-22967
Locates Action No.: Not applicable

Mr. John E. Kieling, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: **Notification of a Class 1 Permit Modification to the Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID# NM0890010515**

Dear Mr. Kieling:

The purpose of this letter is to notify the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) of a Class 1 permit modification to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The Permit authorizes the U.S. Department of Energy (DOE); Triad National Security, LLC (Triad); and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) to manage, store, and treat hazardous waste at LANL. This permit modification provides an updated description of the Technical Area 54, Building 38 fire suppression system in Attachment A, *Technical Area (TA) - Unit Descriptions* and Attachment D, *Contingency Plan*. Additional changes to Attachment D include an updated phone number for the Emergency Operations Support Center; updated names/titles for those identified as the functional equivalent of the Emergency Coordinator (40 CFR §264.55); and organization names, where appropriate, have been changed to functional designations. The title for the functional equivalent of the Emergency Coordinator and organization names have also been updated in Permit Part 2, *General Facility Conditions* and Attachment F, *Personnel Training Plan*.

Triad and DOE have prepared this permit modification in accordance with Title 40 of the Code of Federal Regulations (40 CFR) §270.42(a)(l). Changes made to the Permit as part of this modification fall under the conditions of Appendix I of 40 CFR §270.42 for Class 1 permit modifications. A full description of the permit modification, rationale for the classification type, pages of revised text from Permit Part 2, Attachment A, Attachment D, Attachment F and a signed certification page are included in Enclosure 1.

EPC-DO: 19-097

Three hard copies and one electronic copy of this submittal will be delivered to the NMED-HWB. The hardcopy submittal contains pages or sections where text has been changed, rather than copies of the entire Permit Attachment. The electronic copy, provided only to the NMED-HWB, contains a reproduction of the hardcopy in portable document format (pdf) along with all the word processing files used to create the hardcopy.

Notice of this permit modification will be sent to the NMED-HWB maintained LANL facility mailing list in accordance with 40 CFR §270.42(a)(1)(ii) within ninety days of the NMED-HWB incorporating the changes. If you have comments or questions regarding this permit modification, please contact Patrick Padilla at (505) 667-3932 (Triad) or Karen Armijo at (505) 665-7314 (NA-LA).

Sincerely,

fw E. Torres

Enrique Torres
Division Leader
Environmental Protection and Compliance Division
Triad National Security, LLC

Sincerely,

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

ET/KEA/PLP/FDN:cm

Enclosures (s): 1) Class 1 Permit Modification to Update Descriptions, Contact Information, and Organizations in the Los Alamos National Laboratory Hazardous Waste Facility Permit

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Subject: **Notification of a Class 1 Permit Modification to the Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID# NM0890010515**

Dear Mr. Kieling:

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Triad and DOE have prepared this permit modification in accordance with Title 40 of the Code of Federal Regulations (40 CFR) §270.42(a)(l). Changes made to the Permit as part of this modification fall under the conditions of Appendix I of 40 CFR §270.42 for Class 1 permit modifications. A full description of the permit modification, rationale for the classification type, pages of revised text from Permit Part 2, Attachment A, Attachment D, Attachment F and a signed certification page are included in Enclosure 1.

ENCLOSURE 1

Class 1 Permit Modification to Update Descriptions, Contact Information, and Organizations in the Los Alamos National Laboratory Hazardous Waste Facility Permit

EPC-DO-19-097

LA-UR-19-22967

Date: MAY 2 1 2019

Class 1 Permit Modification to Update Descriptions, Contact Information, and Organizations in the Los Alamos National Laboratory 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 Permit modifications provided herein have been made by the Department of Energy (DOE) and Triad National Security, LLC (Triad), and are identified using underlined, red text for additions and redline strikeout for deletions.

Attachment 1 of this modification provides an updated description of the Technical Area 54, Building 38 (TA-54-38) fire suppression system in Attachment A, *Technical Area (TA) - Unit Descriptions* and Attachment D, *Contingency Plan*. Organization names (where appropriate), have been changed to functional designations and a phone number was clarified throughout Attachment D for completeness. Organization names in Permit Section 2.10.5, *Arrangements with Local Authorities* have also been updated. A certification page in accordance with the requirements of Title 40 of the Code of Federal Regulations (40 CFR) §270.11 is included as Attachment 2.

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 Section A.4.5 of Attachment A and Table D-3 of Attachment D meet the conditions specified in 40 CFR §270.42, Appendix I, Item B.6.b – replacement with functionally equivalent equipment, equipment upgrade, or relocate emergency equipment listed. Organization, name and title, and phone number updates to Attachment D meet the conditions specified in 40 CFR §270.42, Appendix I, Item B.6.d – changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan. Furthermore, the title and organization name changes throughout Permit Part 2, *General Facility Conditions* and Attachment F, *Personnel Training Plan* meet the conditions specified in 40 CFR §270.42, Appendix I, Item A.1 – administrative and informational changes and Item B.5.b – other changes to the training plan, respectively.

DESCRIPTION

The fire suppression system in Building TA-54-38 includes a pre-action sprinkler system that functions as a dry-pipe system. The fire suppression system can be actuated either by smoke detectors, heat detectors, or by a loss of air pressure at any activated sprinkler head in the building. The dry-pipe valves are charged with nitrogen and act on a pressure differential principle. When a fire occurs and a sufficient amount of heat is generated, one or more sprinklers activates, causing the nitrogen in the piping to escape and the system air pressure to drop. Once the air pressure falls below a predetermined level, the dry-pipe valve opens, allowing water to flow through the system to the open sprinkler.

Due to safety concerns regarding hazards associated with the displacement of oxygen by nitrogen escaping the system, a decision was made to upgrade the fire suppression system and charge the dry-pipe system with compressed air rather than nitrogen. Charging the dry-pipe system with compressed air is functionally equivalent to charging the system with nitrogen, and

it does not pose the same oxygen deficiency hazard as the nitrogen. Revisions to Permit Section A.4.5, *Emergency Equipment* and Table D-3, *TA-54 WEST Emergency Equipment* reflect the replacement of nitrogen with compressed air in the dry-pipe system.

Furthermore, the titles for the functional equivalent of the Emergency Coordinator (40 CFR § 264.55), identified in Permit Part 2 and Attachment D, have been changed from "Facility Emergency Manager"/"Duty Officer" to "Incident Response Commander". Names, addresses, and telephone numbers for the Primary and Alternate Incident Response Commanders (Formerly Emergency Managers) were updated in Permit Section D.1.1. The Emergency Operations and Support Center (EOSC) phone number was also revised to reflect a new phone number for reporting emergencies and incidents at the Laboratory. The new line, 505-667-2400, replaces 505-667-6211 and is available 24 hours a day, 7 days a week. Calls to 505-667-6211 will automatically forward to 505-667-2400.

Additional revisions throughout Attachment D and in Attachment F reflect the organization names (where appropriate), changed to functional designations to reduce the need for non-technical changes to the Contingency Plan and the Personnel Training Plan, and to lessen the frequency of distributions of the Contingency Plan (as required by Permit Section 2.11.3). This will aid in the assurance that outside entities that must receive copies of the LANL Hazardous Waste Facility Permit Contingency Plan are receiving relevant emergency response updates, rather than updates concerning organizational changes at the Facility. The emergency management organization names within Permit Part 2 were deemed necessary for compliance with the certification requirement within the section and have been updated to the new organization names. All changes are identified in Attachment 1 using underlined, red text for additions and redline strikeout for deletions.

Attachment 1

Replacement Pages for Permit Part 2, *General Facility Conditions*; Attachment A, T*echnical Area (TA) - Unit Descriptions*; Attachment D, *Contingency Plan;* and Attachment F, *Personnel Training Plan*

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(3) define the nature and extent of the spilled waste;

(4) package the spilled waste and contaminated materials in containers; and

(5) decontaminate the area, all clean-up equipment, and personnel.

2.10.5 Arrangements with Local Authorities

The Permittees shall maintain its preparedness and prevention agreement with the Los Alamos County Emergency Services Division and support agreements with the Los Alamos Fire Department, the Los Alamos Police Department, and the Los Alamos Medical Center (*see* 40 CFR § 264.37).

The Permittees shall provide the Chief of the Los Alamos Fire Department (LAFD) with information that would ensure that emergency response personnel are at all times familiar with the potential hazards in performing their duties associated with the hazardous wastes at LANL's permitted hazardous waste management units. This information shall be specific to each permitted unit and at a minimum include:

(1) Waste types, *e.g.*, ignitable, reactive, corrosive;

(2) Waste names that identify principle hazardous chemical constituents;

(3) Approximate quantities of each waste type; and

(4) General location of waste types.

The Permittees' ~~Security and Emergency Operations~~Emergency Management Division Leader and ~~Security and Emergency Operations:~~ the Emergency Operations Group Leader shall annually sign a certification stating that the LAFD has been provided with this information to the satisfaction of the Chief of the LAFD. These certification statements shall be maintained in the Facility Operating Record.

2.11 CONTINGENCY PLAN

2.11.1 Implementation of Contingency Plan

The Permittees shall immediately implement Attachment D (*Contingency Plan*) whenever there is an incident (such as a fire, an explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous constituents) at a permitted unit that threatens human health or the environment (*see* 40 CFR § 264.51(b)).

The Contingency Plan shall be implemented immediately and without consideration to potential threat to human health and the environment if any of the following hazards occur at a permitted unit:

(1) release of a hazardous waste:

a. that cannot be contained with secondary containment or application of sorbents;

b. of inflammable material creating a fire or explosion hazard; or

c. that results in toxic fumes;

(2) explosion:

a. if an unplanned explosion involving hazardous waste occurs; or

b. if an imminent danger of an explosion involving hazardous waste exists;

(3) fire:

a. if a fire involving hazardous waste occurs; or

b. if any building, grass, forest, or non-hazardous waste fire exists that threatens to volatilize, react, or ignite hazardous waste.

The Permittees shall ensure that an adequate number of trained emergency response personnel are available at all times, including but not limited to, holidays, nights, and weekends.

2.11.2 Content of the Contingency Plan

The Permittees shall maintain the Contingency Plan to ensure that it at all times includes the following for each permitted unit:

(1) a description of the actions Facility personnel shall take to respond to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous constituents to air, soil, and surface water at a permitted unit;

(2) a description of all arrangements agreed upon by local police and fire departments, hospitals, federal, state, and local emergency response teams, and tribal governments to coordinate emergency services;

(3) a description of all contracts with emergency response contractors and equipment suppliers;

(4) the names and phone numbers (*i.e.,* office, home, cell, pager) of a primary and alternate individual assigned to act as Incident Response Commander~~Emergency Manager~~;

(5) a list of all on-site emergency equipment associated with each permitted unit including fire control, spill control, communication, decontamination, and personal protective equipment including a description of where this equipment is located, and a physical description of each item; and

(6) an evacuation plan, including a description of the signal(s) to be used to begin evacuation as well as primary and alternate evacuation routes, for personnel at a permitted unit where there is a possibility that evacuation may be necessary.

2.11.3 Distribution

The Permittees shall maintain copies of the Contingency Plan, including all revisions and amendments, at or in the following locations:

(1) each permitted unit;

(2) the Emergency Operations Support Center~~Emergency Management and Response Office~~; and

(3) the Facility Operating Record.

The Permittees shall distribute copies of the current Contingency Plan to all entities with which the Permittees have emergency Memorandums of Understanding or Mutual Assistance Agreements, including:

(4) the Los Alamos County Emergency Management Coordinator;

(5) the Los Alamos Fire Department;

(6) the Los Alamos County Police Department; and

(7) the Los Alamos Medical Center.

The Permittees shall also distribute copies of the current Contingency Plan to the State of New Mexico's Department of Homeland Security and Emergency Management (DHSEM) Area 3 Emergency Coordinator.

The Permittees shall distribute the Contingency Plan within ten days of the effective date of this Permit and within ten days of receipt of any Department approval to a modification of the Contingency Plan. The Permittees shall ensure that all copies of the Contingency Plan distributed outside the Facility are sent by certified mail with a return receipt, or by an equivalent method, to ensure distribution. A record of compliance with this requirement shall be maintained in the Facility Operating Record (*see* 40 CFR § 270.32(b)(2)).

The Permittees shall ensure that evacuation routes for a permitted unit are prominently posted at each permitted unit (*see* 40 CFR § 270.32(b)(2)).

2.11.4 Amendments to Plan

Pursuant to 40 CFR § 264.54, which is incorporated herein by reference, the Permittees shall review the Contingency Plan and amend the Plan, if necessary, whenever:

(1) this Permit is revised;

(2) the Permittees' Emergency Management Plan is revised;

(3) a Building Emergency Plan for a building which houses a permitted unit is changed and that change is contrary to a requirement in the Contingency Plan;

(4) the Contingency Plan fails during a drill or an emergency;

(5) the Permittees modify a permitted unit in either its design, construction, operation, maintenance, or other circumstances in a manner that increases the potential for fires, explosions, or releases of hazardous wastes or hazardous waste constituents;

(6) the permitted unit design or operation affects the emergency response;

(7) the Permittees modify the list of ~~Emergency Managers~~Incident Response Commanders;

(8) the Permittees modify the list of emergency response equipment; or

(9) the Permittees review and evaluate their emergency response resources and capabilities with respect to hazardous waste management and find deficiencies.

The Permittees shall ensure that all amendments to the Contingency Plan adhere to the permit modification requirements at 40 CFR §§ 270.41 through 270.43, which are incorporated herein by reference, including the modification classifications at 40 CFR § 270.42 Appendix 1, Category B.6, which is incorporated herein by reference.

The Permittees shall ensure that all primary and alternate ~~Emergency Managers~~Incident Response Commanders listed in Attachment D (*Contingency Plan*), Section D.1.1, review the Contingency Plan at a minimum annually and log each review in the Facility Operating Record (*see* 40 CFR § 270.32(b)(2)).

2.11.5 ~~Emergency Manager~~Incident Response Commander

The Permittees shall designate an ~~Emergency Manager or Incident Commander~~Incident Response Commander equivalent to the Emergency Coordinator required at 40 CFR § 264.55, which is incorporated herein by reference, who shall be responsible for coordinating all emergency response measures related to the management of hazardous wastes. An ~~Emergency Manager~~ Incident Response Commander shall be on call at all times, be familiar with the Contingency Plan, and shall have the authority to commit promptly the personnel and financial resources needed to implement the Contingency Plan (*see* 40 CFR § 264.55).

The Permittees shall notify the Department in writing of changes to the personnel designated as Incident Response Commanders~~Emergency Managers~~ and referenced in Attachment D (*Contingency Plan*), Section D.1.1, and their telephone numbers. This notification shall be a Class 1 permit modification.

2.11.6 Required Emergency Procedures

2.11.6.1 Immediate Actions

In the event of an imminent or actual emergency situation, building or area personnel shall immediately activate the internal facility alarm or communication systems to notify all potentially affected facility personnel. The ~~Emergency Manager~~Incident Response Commander shall ensure that the appropriate federal, tribal, state, and local agencies with designated response roles are notified and shall implement the other requirements specified in 40 CFR § 264.56, which is incorporated herein by reference, and the Contingency Plan. The Permittees shall ensure that one individual shall be named Incident Commander and others shall be identified in the order that they will assume that responsibility as alternates to the Incident Commander.

2.11.6.2 Release, Fire, or Explosion

The Incident Response Commander ~~Emergency Manager~~ shall, in the event of a fire, explosion, or release of hazardous waste or constituents:

(1) as soon as practicable, identify the character source, amount, and areal extent of any released materials by observation, review of facility records, or by chemical analysis (*see* 40 CFR § 264.56(b)); and

(2) assess possible hazards to human health or the environment that may result from the release, fire, or explosion including both direct and indirect effects of the release, fire, or explosion (*e.g.*, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat induced explosions) (*see* 40 CFR § 264.56(c)).

2.11.6.3 Reporting Findings

In the event that the Incident Response Commander ~~Emergency Manager~~ determines that there has been a release, fire, or explosion that may threaten human health or the environment outside the boundaries of the Facility, he or she shall report the findings as follows:

(1) if an assessment indicates that evacuation of local areas may be advisable, he or she shall immediately notify the appropriate local and tribal authorities and shall be available to assist appropriate officials in deciding whether local areas should be evacuated (*see* 40 CFR § 264.56(d)(1)); and

(2) immediately notify either the government official designated as the on-scene coordinator for that geographical area, the New Mexico Department of Public Safety dispatcher (505-827-9329), or the 24-hour National Response Center (800-424-8802) (*see* 40 CFR § 264.56(d)(2)). This notification shall include:

a. the name and telephone number of the person reporting the incident;

b. the specific Facility location where the incident occurred;

c. the time and type of incident;

d. the name and quantities, to the extent known, of materials involved;

e. the extent of any injuries, if any; and

f. the possible hazards to human health and the environment outside the Facility.

2.11.6.4 Mitigative Measures

When the Contingency Plan is implemented under Permit Section 2.11.1, the Incident Response Commander ~~Emergency Manager~~ shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous wastes at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released wastes, and removing or isolating containers (*see* 40 CFR § 264.56(e)).

2.11.6.5 Monitoring

When the Contingency Plan is implemented under Permit Section 2.11.1, the Incident Response Commander ~~Emergency Manager~~ shall utilize available air monitoring resources, as appropriate, to measure and characterize any air emissions both inside and outside the Facility boundary caused by a fire, explosion, or release to the atmosphere (*see* 40 CFR § 270.32(b)(2)).

In the event that the Facility stops operations in response to a fire, release, or explosion, the Incident Response Commander ~~Emergency Manager~~ shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment as appropriate (*see* 40 CFR § 264.56(f)).

2.11.7 Post-Emergency Procedures

Immediately after an emergency in which the Contingency Plan was implemented, the Incident Response Commander ~~Emergency Manager~~ shall provide for the treatment, storage, or disposal of recovered wastes, contaminated soils or surface water, or any other material or contaminated environmental media that resulted from the fire, explosion, or release at the Facility (*see* 40 CFR § 264.56(g)).

The Incident Response Commander ~~Emergency Manager~~ shall ensure that in the affected areas of the Facility:

(1) no waste that may be incompatible with the released material is treated, stored, or disposed of in the impacted area until cleanup procedures are completed; and

ATTACHMENT A

TECHNICAL AREA (TA) - UNIT DESCRIPTIONS

A.4.4 Security and Access Control

The permitted units at TA-54 are provided security by both their locations on top of Mesita del Buey and by 8-foot industrial chain-link fences topped by razor wire or barbed wire. Additional security is provided by a system of facility access controls to ensure that only authorized personnel are granted access. These access controls also ensure that all facility personnel can be identified and located in an emergency. Depending on national security conditions a guard station will be manned west of the TA-54 timed vehicle-access control gate. Guard stations control public access on Pajarito Road east and west of TA-54; only properly identified Facility employees or individuals under their escort will have access to TA-54. During times of low national security, any access to the TA-54 administrative area for Areas L and G is limited by a timed vehicle-access control gate on the entrance road to TA-54. This gate is open during normal working hours from 6:00 a.m. to 6:30 p.m., Monday through Friday (except holidays). Gate hours are subject to change. Access to TA-54 West is by a manually operated gate on the west side of the facility. The gate is also open during normal working hours. Access to any part of TA-54 before or after normal working hours or on weekends requires approval of the appropriate Group Leader or Facility Manager at TA-54. TA-54 is patrolled by security personnel during non-operational hours to ensure that the gates are locked and that unauthorized entry has not occurred. Anyone entering the fenced Area L and Area G waste management areas from the TA-54 administrative area is “badged in” before proceeding. Badging in is the process of identifying the person, assessing his or her security and training status using DOE security badges, and determining the need for an escort. Authorized personnel may enter the fenced portions of Areas L and G only after negotiating additional access controls in the form of walk-through turnstiles and motorized vehicle gates. Each turnstile and vehicle gate is equipped with a badge reader to ensure authorized access only. Resident personnel are required to badge in upon arrival and prior to leaving TA-54. Non-resident personnel and visitors are required to badge or sign in and out at an access control point at the facility operations center. Depending on their level of training, non-resident personnel may be required to be escorted in order to access TA-54 Areas L and G and TA-54 West. Access to the Area L, Area G, and TA-54 West permitted units requires additional controls. Bilingual (*i.e.*, English and Spanish) warning signs are posted on the fence at 50- to 75-ft intervals, are legible from a distance of 25 ft, and can be seen from any approach to this area. The legends on the signs indicate "Danger—Hazardous Waste Storage Area" and "Unauthorized Persons Keep Out." The security fence is inspected by on-site personnel and repairs are made as necessary. The locations of the security fence, entry gates, and entry stations are shown on Figures 7, 8, and 9, in Attachment N (*Figures)*.

A.4.5 Emergency Equipment

Emergency equipment is located throughout TA-54 and includes internal communications, alarm systems, fire alarms, spill kits, and decontamination equipment. Area L is equipped with an audible alarm system to alert personnel of a fire or the need to evacuate the area. These alarms can be activated by pulling a fire alarm or by pushing the evacuation alarm button. The fire alarm pull boxes are located in Dome 215 and are connected to the Los Alamos Fire Department (LAFD) through the Facility’s central alarm system at all times. Evacuation alarms are located adjacent to the fence line crash gates and other locations in Area L (see Attachment D, Table D-1). Alphanumeric pagers, cellular telephones, and/or two-way radios are also

distributed to workers at Area L. Employees can be notified of an emergency situation and appropriate response actions through the use of a text message sent on the emergency alpha-numeric pagers, or cellular telephone, or by two-way radio. The emergency paging system can be utilized to alert workers of an emergency situation as well as appropriate response actions. Emergency paging telephones are also available at the facility so that information can be announced throughout the area and personnel can contact onsite and facility emergency personnel at all times. Windsocks are also located at strategic locations to indicate wind direction and strength. Fire control equipment at Area L includes fire extinguishers (*e.g.*, ABC-rated, water, carbon dioxide, dry chemical), a dry-pipe sprinkler system, and dry chemical systems. The fire extinguishers are available at or near most structures within Area L for use by on-site personnel depending on the size and fuel source of a fire. Dome 215 has an automatic dry-pipe sprinkler system that is heat activated in the event of a fire. Storage sheds 68, 69, and 70 have dry chemical systems. Fire hydrants are located near TA-54-37 and the southeast corner of TA-54-62. Personal decontamination equipment at Area L includes emergency eyewash stations and showers. This equipment is for use by personnel in emergencies involving chemical or radiological materials. These stations are generally located near or inside structures where waste is being handled. Emergency shower and eyewash stations are located at or near TA-54-39, TA-54-31, and TA-54-215. Waste characterization documentation and SDS are also available in the event of a chemical exposure. There are several spill kits available at Area L to mitigate small containable spills. These kits typically contain sorbents, neutralizers, PPE, and other equipment essential for containment of small spills. In addition to the spill kits, shovels for cleanup are stored in TA-54-46. Oversized drums and sorbents are also stored at various locations throughout Area L. For larger spills or other unusual hazardous situations, a variety of equipment is available to emergency personnel. This equipment includes forklifts, self-propelled loaders, and other heavy equipment from Area G.

Area G is equipped with an audible alarm system to alert personnel of a fire or the need to evacuate the area. The alarms can be activated by pulling a fire alarm or by pushing the evacuation alarm button. Fire alarms and evacuation alarms are in place at strategic locations to alert personnel of emergency conditions. The fire alarms are located throughout Area G and are connected to the LAFD through the Facility's central alarm system at all times. Flame or smoke detection equipment is located within structures TA-54-229, TA-54-230, TA-54-231, and TA-54-232. Security personnel and LAFD are notified upon activation of the flame or smoke detectors. Fire control equipment is located throughout Area G. This equipment includes ABC-rated or BC-rated fire extinguishers, dry-chemical fire suppression systems, and several fire hydrants. Trained personnel can use the fire extinguishers to extinguish small, non-chemical fires. For larger fires, security personnel and the LAFD are alerted. Personnel working in Area G carry alphanumeric pagers, cellular phones, or two-way radios as the main form of communication. Emergency paging telephones are in place so that information can be announced throughout the area. This equipment ensures that personnel can contact on-site and Facility emergency personnel at all times. Windsocks are at strategic locations to indicate wind direction and strength. PPE and emergency equipment supplies are stored a various locations throughout Area G. There are different types of monitoring equipment located at the Area G CSUs that are used to qualitatively and quantitatively evaluate airborne contaminants. Alarms and strobe lights warn personnel when airborne concentrations exceed preset limits. They are for use by personnel in emergencies involving chemical or radiological materials.

Waste characterization documentation and SDS are available in the event of a chemical exposure. First aid equipment can be used to treat injuries until trained medical personnel arrive at the scene. Spill control equipment is maintained at various structures within Area G. Trained personnel use this equipment to mitigate small, containable spills if they know what has been spilled and are sure their actions will not put themselves or others at risk. PPE is also maintained at various structures within Area G and is available for use during routine and non-routine operations to protect personnel from exposure to chemical and radiological contaminants. Warning tapes and barricades are used to post areas and prevent unauthorized entry into restricted areas. Heavy equipment is also available at Area G to move heavy objects.

TA-54-38 at TA-54 West is equipped with separate local alarm systems to alert personnel of fire or the need to evacuate the area. Fire alarm pull stations are located throughout the building and can be activated in the event of an emergency. The alarm system can also be activated by using evacuation alarm buttons located near the entrances to the building. Upon activation of the evacuation alarm system, horns sound to alert personnel of emergency conditions. The building's manual fire alarm pull stations at TA-54 West are connected to the LAFD through the Facility's central alarm system at all times. The evacuation alarm system is a local system that notifies occupants in TA-54-38 of a local emergency. Additionally, a roll-up door exists between the high and low bay areas. The roll-up door is fire rated but does not automatically close upon activation of a fire alarm.

Personnel at TA-54-38 are also equipped with cellular telephones and pagers to provide adequate communication and to summon external emergency assistance, if necessary. Paging telephones are located throughout the building and are used to contact on-site personnel. Paging telephones are also used in the event of an emergency to communicate the nature and location of hazardous conditions to personnel in the area. The alarm system is interrupted when the paging telephone system is activated to allow personnel to hear the announcement. Additionally, an emergency telephone is located outside the main entry area. Personnel working within the building can also use these telephones to summon assistance from local emergency response teams in case of emergency.

Fire control equipment is available for use within TA-54-38 and at the outdoor permitted unit. Portable ABC-rated fire extinguishers are located in the high bay, low bay, and at the outdoor permitted unit. The fire extinguisher located by the east personnel entrance door in the low bay can also be used at the loading dock. Depending on the size of the fire and the fuel source, fire extinguishers can be used by on-site personnel. TA-54-38 is equipped with a pre-action sprinkler system activated by loss of compressed air ~~nitrogen~~ pressure (*e.g.*, an open sprinkler) anywhere in the building or by heat detection (high bay and loading dock) or smoke detection (balance of building). A fire hydrant installed according to National Fire Protection Association standards is located approximately 220 ft west of TA-54-38 near the west entrance to TA-54 West.

A portable chemical spill center is maintained within TA-54-38. It contains sorbents and PPE. Personnel working anywhere within the building have access to this spill center. Trained personnel use this equipment to mitigate small containable spills when they are certain their actions will not put themselves or others at risk. Personnel decontamination equipment

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 the Permittees' emergency management organization~~Security and Emergency Operations - Emergency Operations Group~~ (~~SEO-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-EO Duty Officer~~Incident Response Commander from the emergency management organization~~SEO-EO Group~~. The Incident Response Commander ~~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 Incident Response Commander ~~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-EO Duty Officer~~ Incident Response Commander) 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~~emergency response organization, 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 Operations Group~~Management

1. The Permittees shall delegate the authority and responsibility for administering and implementing the Facility's emergency management program to the emergency management organization~~Security and Emergency Operations (SEO) Division, which includes SEO-EO. SEO Division~~. Emergency management -personnel shall coordinate and issue the Facility's Los Alamos National Laboratory and Los Alamos Field Office Hazardous Materials Program Plan; ~~SEO-EO~~ emergency management personnel provide~~s~~ response coordination for emergencies. ~~SEO-EO~~ Emergency management personnel provide~~s~~ a 24-hour EOSC for the Facility and ~~an Emergency Manager serving as~~ the 24-hour Incident Response Commander~~Duty Officer~~ to respond to emergencies, including hazardous and mixed waste releases. The ~~Facility Emergency Manager (*i.e.,* the~~ Incident Response Commander~~SEO-EODuty Officer)~~ is the functional equivalent of the Emergency Coordinator (40 CFR § 264.55). The ~~SEO-EO~~emergency management organization 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 Incident Response Commander ~~SEO-EO Duty Officer~~ is rotated. The Incident Response Commander~~Duty Officer~~ can be reached 24 hours a day by contacting the EOSC at ~~667-6211~~505-667-2400.

3. The~~-~~ Incident Response Commander~~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 Incident Response Commander ~~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 Incident Response Commander~~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 Incident Response Commander ~~SEO-EODuty 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 Incident Response Commander ~~SEO-EODuty Officer~~ and other emergency response members at the EOC. Additionally, this information may be gained from the facility manager where a waste management unit is located. 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 Incident Response Commanders~~Emergency Managers~~.

Primary:

Ron Huerta
P.O. Box 923
Alcalde, NM
(W) 505-667-2400
(C) 505-412-8434
(H) 505-852-0286
~~Peter Salazar~~
~~912 Calle Quintana~~
~~Espanola, NM~~

~~(W) 505-747-1399~~
~~(C) 505-500-2594~~

Alternates:

~~Ron Huerta~~
~~P.O. Box 923~~
~~Alcalde, NM~~
~~(W) 505-667-6211~~
~~(C) 505-412-8434~~
~~(H) 505-852-0286~~

~~Dave McClard~~
~~23 Ojito Drive~~
~~Espanola, NM~~
~~(W) 505-667-6211~~
~~(C) 505-699-0803~~
~~(H) 505-412-8945~~
Jeremy Grondin
6940 Napoleon Road NE,
Rio Rancho, NM 87144
(W) 505-667-2400
(C) 505-695-3353
(H) 505-5007160

Steve Mullins
112 Azure
White Rock, NM 87547
(W) 505-667-2400
(C) 505-695-3161
(H) 505-514-1116

Ted Ulibarri
County Rd. 88
Santa Fe, NM 87506
(W) ~~505-667-6211~~505-667-2400
(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~~505-667-2400 are contacted to obtain the on-call Incident Response Commander~~SEO-EODuty Officer~~.

D.1.2 Hazardous Materials Response

1. ~~The~~ Hazardous Materials (HAZMAT) ~~Group~~personnel are~~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 personnel~~Group~~ may provide limited field decontamination support for victims. ~~The~~

HAZMAT personnel~~Group~~ ~~is~~ are 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 personnel~~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 personnel~~Group~~ act~~s~~ 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 personnel~~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 personnel~~Group~~ may obtain resources from environmental monitoring groups, such as health physics and industrial hygiene personnel.

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

At the scene, representatives and technical advisors from ~~the Environmental Protection and Compliance Division (EPC)~~ environmental regulation and waste compliance personnel 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~~ personnel 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.1.3.4 Water Quality and Hydrology Personnel

After an emergency, water quality and hydrology personnel provide sampling of surface water runoff and sediments to determine the environmental effects of an emergency and perform assessments for regulatory reporting requirements. They also provide expertise in hydrogeology to establish short- and long-term environmental effects of emergency conditions.

D.1.4 Other Facility Response Resources

Emergency response personnel ~~from the Plutonium Manufacturing and Technology Division~~ at TA-55 are trained to respond to emergencies at that facility. Personnel from the Los Alamos National Laboratory (LANL) Transuranic Program may provide guidance on proper treatment, storage, and transportation of hazardous and mixed waste at TA-50 and TA-54.

D.1.5 Contracted Response

Contracted response groups' representatives may report directly to the Incident Command Post (ICP), if requested. If the IC deems it necessary, the IC may designate an Operations Section Chief to aid in the coordination and direction of these groups. In addition, contracted response groups may report to a staging area, with a representative going either to the ICP or, if activated, to the EOC.

D.1.5.1 Security Services

Security personnel provide security service to the Facility. During an emergency, these activities include maintaining security, directing traffic within the Facility, and controlling access to the emergency scene. Security personnel maintain the necessary equipment (such as crowd-control equipment and patrol vehicles) to perform these functions.

D.1.5.2 Maintenance and Site Services

Maintenance and Site Services (MSS) provides a maintenance support force to the Facility. This support force is under the Permittees' direction in an emergency. MSS also provides a representative to the Facility in the event of an emergency and participates, as necessary, in post-emergency cleanup under the direction of a Recovery Manager designated by the IC. The duties of the Recovery Manager are discussed in Attachment Section D.10.

D.1.5.3 Los Alamos Fire Department

The LAFD provides fire protection and ambulance coverage for the residential communities of Los Alamos and White Rock and for the Facility. In the case of an emergency within the Facility, the LAFD coordinates fire suppression and Emergency Medical Services. The IC retains overall responsibility for the emergency response effort.

D.1.6 Facility Support

D.1.6.1 Health Physics Operations

Radiation protection personnel perform routine site evaluation and monitoring to determine radiological conditions in facilities. They also provide guidance on radiological decontamination. In addition, this group augments the assessment and monitoring functions of the HAZMAT ~~Group~~personnel.

D.1.6.2 Occupational Medicine Personnel

1. The Facility maintains its own medical facility operated by occupational medicine personnel. Occupational medicine personnel provide appropriate medical treatment for occupation-related illnesses and injuries and monitors employees to assess the effectiveness of health protection programs.

2. Although occupational medicine personnel are not routinely involved with on-scene emergency response, the group maintains a central medical facility with a fully equipped emergency room and decontamination facilities at TA-3, Building 1411. The location of this and other emergency facilities are shown on Figure 49 in Attachment N (*Figures)*. Medical staff at these facilities includes physicians, physician assistants, nurse practitioners, nurses, technicians, psychologists and counselors. All full-time medical providers and nurses receive radiation accident training. Occupational medicine personnel also maintain access to a database that provides the clinical staff with timely toxic exposure and treatment information.

D.1.6.3 Industrial Hygiene and Safety Personnel

Industrial hygiene and safety personnel assist occupational medicine personnel with their ability to obtain additional exposure and treatment information. In addition, they maintain computer access to the National Institute of Occupational Safety and Health Technical Information Center and the Registry of Toxic Effects of Chemical Substances. During routine operations, these personnel perform site evaluations and field testing to determine the nature and extent of chemical contamination and specify protective clothing and equipment.

D.1.6.4 Performance Assurance Office

The Performance Assurance Office assists the facility manager in investigating all adverse environmental, safety, health, and operational occurrences (on-site and off-site), determining the causal factors, identifying the appropriate corrective actions, and assisting in the preparation of reports documenting the occurrence to DOE. This group tracks corrective actions associated with such occurrences and maintains the information in an on-site database.

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-EO~~emergency management organization 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-EO~~ emergency management 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-EO~~emergency management 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~~MSS, 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 Incident Response Commander~~SEO-EODuty Officer~~, utilizing local communication equipment and/or systems. When responding to hazardous and/or mixed waste emergencies, the Permittees shall ensure that ~~SEO-EO~~emergency management 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 Incident Response Commander~~SEO-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. Trunked radio system
4. Mass Notification System

3. The Permittees' EOC, maintained by ~~SEO-EO~~emergency management 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 Incident Response Commander ~~SEO-EODuty 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, Incident Response Commander~~SEO-EODuty 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 Incident Response Commander~~SEO-EODuty 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 ~~505-667-6211~~505-667-2400 or ~~SEO-EO~~emergency management 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 Incident Response Commander ~~Emergency Manager~~ at 505-667-2400~~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. The EOSC alerts the Incident Response Commander ~~SEO-EODuty 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-EO~~emergency management personnel are notified of the emergency, the Incident Response Commander ~~SEO-EODuty Officer~~ will proceed to the scene and be briefed by the Facility Command Leader, building/area personnel, and/or other emergency units/teams. The Incident Response Commander ~~SEO-EODuty 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-EO~~Emergency management 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 Incident Response Commander ~~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 Incident Response Commander ~~Emergency Manager~~ Actions

1. Upon notification of an emergency incident, the Incident Response Commander ~~SEO-EODuty 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-EO~~emergency operations organization 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~~ environmental or waste compliance 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 environmental or waste compliance~~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:

1. Arranging for site cleanup.
2. Assisting with arrangements for proper handling of recovered waste, contaminated soil, or contaminated surface/groundwater.
3. Assisting with arrangements for decontamination of equipment, as needed.
4. Arranging for replacement and/or repair of equipment, as needed.
5. Requesting that testing is conducted to verify successful cleanup.

4. The Permittees shall report implementation of this Plan in accordance with Permit Sections 1.9.12, 1.9.13, and 2.11.6.3.

D.4 SPILLS

1. Sudden releases may include spills of hazardous or mixed waste that pose a significant threat to human health or the environment. Spill incidents resulting in a sudden release of hazardous or mixed waste that present a potential threat to human health or the environment, as listed in Attachment Section D.3.1, require implementation of this Plan.

2. Hazardous and mixed wastes are stored on site at the Facility in a variety of containers. The general steps in handling hazardous and/or mixed waste spills are as follows:

1. Isolate the immediate area and deny entry to all unauthorized personnel;
2. Contain the spill by spreading sorbents or forming temporary dikes to prevent further migration (performed by properly trained personnel, if safe);
3. Monitor the spill area and sample the spilled waste and contaminated media.
4. Package the waste and contaminated media in sound containers;
5. Decontaminate the area and all involved equipment and personnel (followed by testing to assure adequate cleanup); and
6. Remove the waste and contaminated media (performed by appropriate waste management personnel).

3. The IC will determine the steps to be taken for spill mitigation. If initial mitigation of the spill is necessary and can be accomplished safely (by appropriately trained personnel) before the Incident Response Commander ~~Emergency Manager~~ arrives, a qualified member of the affected area's operating group will serve as the Facility Command Leader.

for Evaluating Solid Waste, Physical/Chemical Methods" (EPA, 1986), and approved updates, as applicable.

3. If a hazardous/mixed waste spill occurs on soil, any free liquid present will be collected and containerized. Liquids may be sorbed with a compatible nonbiodegradable sorbent prior to containerization. For such a spill, contaminated soil will either be excavated and containerized or remediated in situ. Industrial health and safety personnel will conduct industrial hygiene monitoring and, if mixed waste is involved, radiation protection personnel will conduct health physics monitoring, if deemed necessary, to minimize exposure during soil removal or remediation operations. Excavation or remediation will continue until soil contaminant concentrations are at a level approved by the Department.

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-EO~~emergency management personnel immediately so that the ~~Emergency Manager~~Incident Response Commander can ensure that all necessary emergency response personnel are alerted. The LAFD is notified automatically upon fire alarm activation. The Incident Response Commander ~~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 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-EO~~emergency management personnel must be contacted immediately. The Incident Response Commander ~~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 Incident Response Commander~~Emergency Manager~~. The Incident Response Commander ~~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 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. Emergency management personnel ~~Personnel from 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-EO~~emergency management personnel. Appropriate first aid should be administered immediately. An ~~SEO-EO~~emergency management 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 ~~505-667-6211~~505-667-2400 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-EO~~emergency operations personnel will be notified and dispatched immediately. A responsible on-site person may implement and direct the evacuation process until the Incident Response Commander~~SEO-EODuty Officer~~ or LAFD arrives at the scene to assume that responsibility.

D.10 SALVAGE AND CLEANUP

1. Appropriate environmental compliance 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 organizations, ~~EPC groups~~environmental compliance personnel, waste management compliance personnel, maintenance personnel, and other on-site resources will also be used to estimate cleanup costs and operational impact.

D.11 EMERGENCY RESPONSE RECORDS AND REPORTS

The Permittees shall ensure that any emergency that requires implementation of this Plan will be documented and reported in accordance with Permit Section 1.9.12, 1.9.13, and 2.11.6.3. This information will be maintained in the facility operating record.

D.12 CONTINGENCY PLAN AMENDMENT

The Permittees shall review this Plan at a minimum annually. The Plan will be amended immediately if determined to be inadequate to handle releases (spills, explosions, and/or fires) and whenever:

1. The facility permit is revised;
2. There is change in the design or operation of the facility (*e.g.*, quantities of waste handled and handling techniques) that increases the likelihood of an emergency and requires changes in emergency response;
3. The Primary Incident Response Commander ~~Emergency Manager~~ changes; and
4. The list of emergency equipment changes significantly.

D.13 REFERENCES

EPA, 1986 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *EPA-SW-846*, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, U.S. Government Printing Office, Washington, D.C.

LANL, 2014. *LANL Emergency Procedures and Protective Actions, P1201-4, R3.* Los Alamos National Laboratory, Security and Emergency Operations Division, Los Alamos, New Mexico

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.

Table D-1

Los Alamos National Laboratory-Wide Emergency Equipment

Hazardous Materials (HAZMAT) Vehicles and Associated Emergency Equipment

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HAZMAT vehicles and trailers are located at Technical Area (TA) 64, Building 39 (TA-64-39). They are available to the emergency management organization ~~Security and Emergency Operations Division's Emergency Response Group (SEO-ER)~~ for emergency response to all of the TAs at the Facility. ~~SEO-ER~~Emergency management personnel ~~is~~are responsible for maintaining the supplies of appropriate emergency equipment in each vehicle and trailer.

The HAZMAT vehicles and trailers are equipped with safety and emergency equipment, personal protective clothing, and other supplies, which may include, but are not limited to, some or all of the following:

Assorted personal protective equipment, T-shirts, and gloves
Safety goggles, safety glasses, and face shields
Boots and booties
Totally encapsulating suits and boots
Level A and B suits
Flash suits
Self-contained breathing apparatus (SCBA) and SCBA bottles
Respirators and cartridges
Hazardous chemical reference books and other reference materials
Shovels
Siphon pumps
Assorted spill kits and sorbents
Neutralizing solutions: acids, bases, and caustics
Two-way radios, cellular phones, facsimile, and other communication equipment
Bottles of leak detector and leak repair kits
Emergency repair packs
HAZMAT bags
Gas detectors and chemical monitoring equipment
Radiological monitoring equipment
Sponges and cleaners
Warning signs and barricade tape
Traffic control barriers
Flashlights
Cameras and film
Knives
Portable power supplies
Warning and signal horns
Harnesses and belts

Table D-3

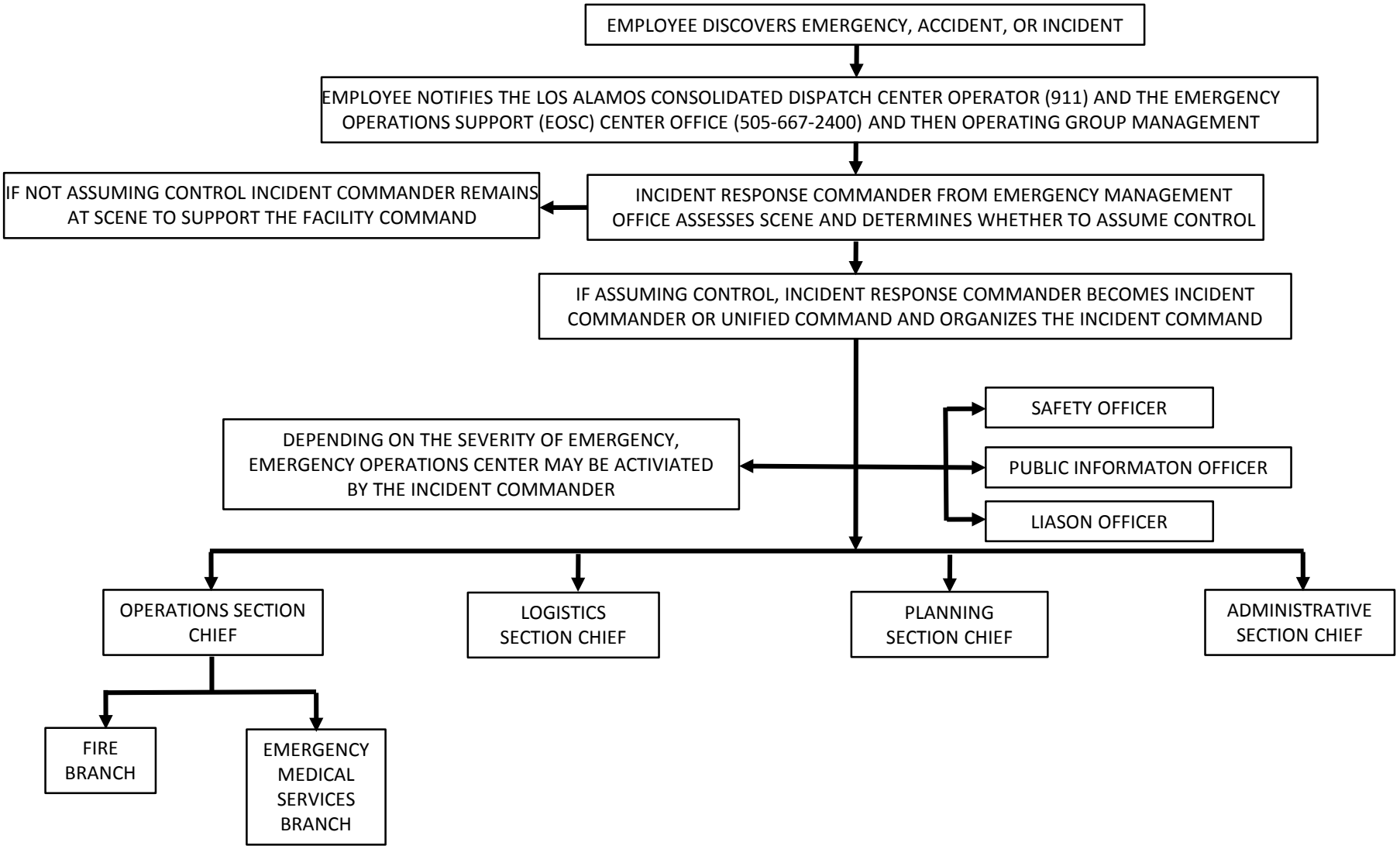
Evacuation Determination and Re-Entry Conditions

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 Incident Response Commander~~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 Incident Response Commander~~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 Incident Response Commander~~Emergency Manager~~	Same as above
Bomb or bomb threat	~~SEO-EO~~[e]Emergency management or security personnel , R&D[cd] Section Leader or alternate, Senior Staff Member, or Lead Engineer	Same as above

[a] All reentries are authorized by the ~~SEO-EO~~emergency management Incident Commander.
[b] "IC" refers to the Incident Commander as defined in 29 CFR § 1910.120.
[e] ~~"SEO-EO" refers to the Emergency Operations Group.~~
[dc] "R&D" refers to the Research and Development Section

Figure D-1

General Hazardous and Mixed Waste Emergency Notification System



TA-3

ATTACHMENT D
CONTINGENCY PLAN

Specific information on emergency response resources and release prevention/mitigation at TA-3 is provided below.

The CMR Building at the Facility has a facility-specific Alarm/Emergency Response Instruction (AERI) to ensure that emergency planning and preparedness for the CMR Building are commensurate with the facility and the nature of work performed there and to provide sufficient subject matter experts at the facility, should an emergency occur.

The Alarm/Emergency Response Instruction (AERI) establishes emergency response activities at the CMR ~~Facility Emergency Response~~, which is comprised of a Facility Command Leader, and the CMR Operations Center. The Facility Command is comprised of division and line managers and key personnel who respond to pre-designated locations for the purpose of initial command and control of events that occur during CMR Building emergencies. The CMR Operations Center is the emergency communications focal point and has the responsibility of development and maintenance of alarm response instructions, notification lists, and call-out lists. When mitigation of the emergency is beyond the capabilities of CMR or when injuries occur or could potentially occur due to the emergency, ~~EO-EM~~emergency management personnel and the Incident Response Commander ~~EO-EM Duty Officer~~ are~~is~~ required to respond.

The EMP has been superseded by the AERI which includes information on emergency equipment (*see* Table TA-3, D-1 of this Attachment Section); evacuation routes and primary and secondary evacuation assembly areas; and evacuation procedures for the Facility Command Leader, persons wearing anti-C clothing, and persons in non-anti-C clothing. The CMR EMP also includes emergency categorization, lists of potential facility emergencies, their associated alarms, and the appropriate response to the emergency and/or the alarms. Evacuation routes, evacuation area locations, and emergency equipment are subject to change.

TABLE D-1

TA-3

Emergency Equipment

FIRE CONTROL EQUIPMENT

Fire extinguishers are available in Rooms 9010, 9020, and 9030.

Description of General Capabilities:
Each fire extinguisher has a 10-pound minimum capacity and may be used by any qualified employee in the event of a small fire.

Twelve fire hydrants are located around the outside perimeter of Technical Area (TA) 3, Building 29 (TA-3-29). The nearest fire hydrants to Rooms 9010, 9020, and 9030 are located on the south side of Wing 9 and west of Wing 5.

Description of General Capabilities:
The fire hydrants supply water at an adequate volume and pressure to satisfy the requirements of 40 CFR § 264.32(d).

Fire alarm pull boxes are located in Rooms 9010 and 9020.

Description of General Capabilities:
Manually-operated fire alarms may be activated by any employee in the event of fire to notify the Los Alamos Fire Department (LAFD) and the Emergency Operations and Support Center (EOSC).

Sprinkler systems are located in Rooms 9010, 9020, and 9030.

Automatic thermal alarm systems are located in Rooms 9010, 9020, and 9030.

Description of General Capabilities:
The sprinkler systems and thermal alarm systems are heat activated. The EOSC and the LAFD are alerted when a system has been activated.

SPILL CONTROL EQUIPMENT

Spill control kits are located in Rooms 9010, 9020, and 9030. Spill kits include (but are not limited to) sorbent pillows, and/or absorbent.

Description of General Capabilities:
Sorbent is used in the event of a small spill.

COMMUNICATION EQUIPMENT

Telephones are located in the north enclosure of Room 9010, in Room 9020, and in Room 9030.

Paging phones and evacuation alarms are located in Rooms 9010, 9020, and 9030.

Description of General Capabilities:
Telephones are used for internal and external communication and have paging capabilities. The evacuation alarm is a pulsating sound that can be heard over the public address system. The fire alarm is a double slow-whoop sound.

DECONTAMINATION EQUIPMENT

Emergency shower and eyewash stations are located in the two enclosures in Rooms 9010, 9020, and in Room 9030.

Safety data sheets (SDS) are available hard copy or via online database.

Description of General Capabilities:
Emergency shower and eyewash stations are used by personnel who receive a chemical splash to the skin or eyes. Specific SDSs for the chemicals should be obtained prior to working with hazardous or mixed waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT

Personnel at TA-3-29 are required to use appropriate personal protective equipment (PPE) to protect themselves from hazards found in the workplace under normal conditions. This PPE may include gloves, steel-toed shoes, and safety glasses. Additional PPE may be required during an unusual hazardous situation or during sampling activities.

Self-contained breathing apparatus are made available if necessary in the event of an emergency by HAZMAT Personnel.

Room 9102 is a change room with protective clothing available.

Full-mask negative pressure respirators are available as needed; radioactive particulate filters are available.

OTHER

See Table D-1 of this Contingency Plan for equipment available in the ~~Hazardous Materials Response Group~~ HAZMAT vehicles and trailers.

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 emergency management organization ~~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-EO~~emergency management 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-EO or SEO-ER~~emergency management organization 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

TABLE D-3

TA-54 WEST

Emergency Equipment

FIRE CONTROL EQUIPMENT

ABC and/or BC fire extinguishers are available at TA-54-38 in the high and low bays and at the outdoor container storage unit.

Description of General Capabilities:
Fire extinguishers may be used by any employee in the event of a small fire. The Emergency Operations and Support Center (EOSC) and the Los Alamos Fire Department (LAFD) are alerted when the automatic dry-pipe sprinkler system has been activated.

A pre-action sprinkler system is available throughout TA-54-38, including the loading dock area. The sprinkler system is activated by loss of ~~nitrogen~~ compressed air pressure (e.g., an open sprinkler) anywhere in the system or by heat detection in the high bay and at the loading dock and by smoke detection in the remainder of the building.

Fire alarm pull boxes are available inside TA-54-38 at the main entrance, in the high bay, and in the low bay.

Description of General Capabilities:
Fire alarms may be activated by any employee in the event of a fire to notify the LAFD and the EOSC.

A fire hydrant is located west of TA-54-38 near the entrance to TA-54 West. This fire hydrant supplies water at adequate volume and pressure to satisfy 40 CFR § 264.32(d).

A wall hydrant is located on the west side of TA-54-38.

Freeze-proof faucets are located on the west, south, and east sides of TA-54-38.

SPILL CONTROL EQUIPMENT

A mobile response kit is located at TA-54-38. The kit includes absorbent socks, pillows, and sheets; goggles; and large plastic bags.

COMMUNICATION EQUIPMENT

Evacuation alarm buttons are located at the high bay, the low bay, and the main entrance to TA-54-38.

TA-55

ATTACHMENT D
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 the emergency management organization ~~SEO-EO~~ and the Incident Response Commander ~~SEO-EODuty 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-EO~~ the emergency management organization.

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-EO or SEO-ER~~emergency management organization.

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-EO or SEO-ER~~the emergency management organization. Two forklifts are available for TA-55 personnel ~~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 cased 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-55-0355 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-EO or SEO-ER~~emergency management organization.

ATTACHMENT F

PERSONNEL TRAINING PLAN

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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 Operations Group (SEO-EO)~~emergency management organization provides 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-

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~~institutional training organization 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~~emergency management organization, 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~~emergency management organization 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.

Attachment 2

Certification

CERTIFICATION

CERTIFICATION STATEMENT OF AUTHORIZATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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.

5/16/19

Enrique Torres
Division Leader
Environmental Protection and Compliance Division
Triad National Security, LLC

Date Signed

20 May 2019

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
U.S. Department of Energy

Date Signed

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