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DEPARTMENT OF ENERGY
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

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AUG 18 2011

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

John Kieling, Manager
RCRA Permits Management Program
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303



Dear Mr. Kieling:

Subject: Transmittal of Technical Area 3 and Technical Area 55 Class 1 Permit
Modifications to the Los Alamos National Laboratory Hazardous Waste Facility
Permit, EPA ID No. NM0890010515

The purpose of this letter is to submit a Class 1 permit modification to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit issued to the Department of Energy and Los Alamos National Security, LLC (DOE/LANS) in November, 2010. The modifications revise the descriptions in Sections A.1 and A.5 in Attachment A, Section E.1 in Attachment E, and Section 2.0 in Attachment G.18.

The proposed modifications have been prepared in accordance with the New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20.4.1.900 NMAC) (incorporating Code of Federal Regulations [CFR], Title 40 § 270.42(a)), revised March 1, 2009. In this case, the Class 1 modifications are strictly administrative and informational changes in accordance with 40 CFR § 270.42, Appendix I (a)(1).

The permit modification request package includes this transmittal letter and enclosed pages of the revised portions of the Permit Attachments A, E and G.18 (LA-UR-11-04774). The revisions consist of informational and description changes to the language in the attachments to the Permit associated with the container storage units at Technical Areas (TAs) 3 and 55. The changes within Section A.1 of Attachment A describe the exhaust system at Building TA-3-29 in more detail, and clarify access control at the site. For accuracy purposes only, the modification also removes the following statement, “The alarm system is interrupted when the paging telephone system is activated to allow personnel to hear the announcement.” This modification does not change any emergency procedures or equipment at TA-3. Changes within Section A.5 of Attachment A include the removal of the description of a rectangular strip at the container storage pad and dimension corrections for the container storage unit at TA-55-4, K13. The modification in Attachment E removes the word “monthly” and revises the statement to reiterate that standards are followed. The modification in Attachment G.18 revises the dimensions of the container storage unit at TA-55-4, B40 for correction purposes only.

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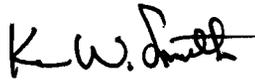


AUG 18 2011

Included herein are three hard copies and one electronic copy of this submittal. The hardcopy submittal contains only the pages or sections where text has been changed rather than copies of full attachments of the Permit. The electronic copy contains a reproduction of the hardcopy in portable document format (pdf) along with all the word processing files used to create the hardcopy.

Notification of this modification will be sent to the New Mexico Environment Department Hazardous Waste Bureau-maintained LANL facility mailing list in accordance with 40 CFR § 270.42(a)(1)(ii) within seven days of the transmittal of this permit modification request.

If you have comments or questions regarding this permit modification, you may contact Gene Turner of my staff at (505) 667-5794, or Mark Haagenstad, LANS, at (505) 665-2014.



Kevin W. Smith
Manager

Enclosure

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ENV-DO File, LANS, MS-J978
EPO File

EPO-18GT-252-371510

LA-UR-11-04774

Approved for public release;
distribution is unlimited.

<i>Title:</i>	Technical Area 3 and Technical Area 55 Class 1 Permit Modifications to the Los Alamos National Laboratory Hazardous Waste Facility Permit, August 2011
<i>Author(s):</i>	Tammy A. Diaz, ENV-RCRA
<i>Intended for:</i>	New Mexico Environment Department- Hazardous Waste Bureau



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ATTACHMENT A
TECHNICAL AREA (TA) - UNIT DESCRIPTIONS

ATTACHMENT A

This attachment contains TA-specific unit descriptions, including the dimensions, materials of construction, security procedures, and emergency equipment of each unit provided by the Permittees in their permit application.

A.1 TA-3

TA-3 is located in the northern portion of the Facility on South Mesa between Los Alamos Canyon on the north and Two Mile Canyon on the south. Sandia and Mortandad Canyons head on the east margin of TA-3 forming steep cliffs at the top of canyon walls.

A.1.1 TA-3 Building 29

TA-3-29, the Chemistry Metallurgy Research Building (CMR), was established in 1952 as a research facility (*see* Figure 12 in Permit Attachment N (*Figures*)). It is a three story structure containing offices, laboratories, and one permitted container storage unit located in the basement at TA-3 building 29 of Wing 9. The TA-3-29 permitted unit consists of a room (9010) and portions of two other rooms (9020 and 9030) where storage of hazardous and mixed waste occurs. The following provides a description of the permitted unit.

A.1.2 TA-3-29 Room 9010

Room 9010 measures 21 feet by 8 inches wide by 106 feet, 9 inches (in) long (*see* Figure 13 in Permit Attachment N (*Figures*)). The floor is concrete and is painted with an epoxy sealant. Waste storage takes place in the lower level portion of Room 9010 but may also take place in or near the two room enclosures 9010A and 9010B.

The northern enclosure is approximately 10 ft wide by 24 ft long; the southern enclosure measures approximately 17 ft wide by 54 ft long. The enclosures have ceilings, walls with windows, and doors for entry through airlocks; the enclosures are anchored to the floor. The wall to floor joints are sealed with grout. Floors and the lower six inches of the interior enclosure walls are coated with an epoxy sealant. Each enclosure includes emergency and communication equipment as well as ventilation, fire sprinkler, water, and electrical support functions connected to the main building systems. ~~The enclosures are kept at negative pressure by exhaust fans ducted to the building's high-efficiency particulate air filters to provide radioactive material air release protection.~~ The enclosures are kept at negative pressure by the building's exhaust system via exhaust ports in the enclosures which are ducted through high-efficiency particulate air filters to provide radioactive material air release protection.

A.1.3 TA-3-29 Portion of Room 9020

Room 9020 is approximately 27 feet wide by 141 feet long. The permitted container storage area measures 19 feet wide by 25 feet long (*see* Figure 14 in Permit Attachment N (*Figures*)) and is located in the northeast side of the room. The floor is concrete and painted with an epoxy sealant.

A.1.4 TA-3-29 Portion of Room 9030

Room 9030 is approximately 62 feet wide by 141 feet long. The permitted container storage area within Room 9030 measures approximately 30 feet long by 8 feet wide (*see* Figure 15 in Permit Attachment N (*Figures*)) and is located in the southwest corner of the room. The floor is concrete and has been painted with an epoxy sealant. Hand trucks, dollies, or casters will be used to move waste containers from the loading area to the storage portions of the permitted unit. Should a spill occur during waste handling activities, management of the spill and residual material will be performed in accordance with Attachment D (*Contingency Plan*). Drums on dollies will be moved manually and a pallet jack will be used to move standard waste boxes.

A.1.5 Security and Access

Security at TA-3-29 is maintained with physical and administratively-controlled barriers. These barriers prevent the unknowing entry and minimize the possibility for unauthorized entry of persons or livestock into the areas. Eight-foot-high chain-link security fences with barbed wire at the top surround the entire perimeter of the building. Bilingual (*i.e.*, English and Spanish) warning signs are also posted at the entrances to each portion of the permitted unit within the building and can be seen from any approach to these locations. The legends on the signs indicate "Danger: Hazardous Waste Storage Area" and "Unauthorized Persons Keep Out." The signs are legible from a distance of at least 25 ft. There are four entry gates through the security fence at TA-3-29 (*see* Figure 4 in Permit Attachment N (*Figures*)). A fire access and shipping gate is located south of TA-3-29 and is routinely closed and locked. When the gate is opened for shipments of material or waste, personnel are present at the gate to restrict the entry and exit of unauthorized persons. ~~The northwest entrance is an open gate which allows vehicular and pedestrian entry. Access is controlled through a manned gate at the western entrance to the TA-3 Security Area. One combined pedestrian and vehicular unmanned badge reader entry gate is located at the northwest corner of the TA-3-29 fence line.~~ Another unmanned badge reader entry pedestrian gate is located at the southeast corner of the building's fence line. This gate is combined with a double vehicular gate which allows access from the parking area south of the building. Security personnel are present at each of these gates during operational hours to restrict the entry and exit of unauthorized persons. Outside doors to the main wings of TA-3-29 are always locked. ~~Access for visitors to the operational portion of the building is controlled through a manned security station in the east side lobby and another on the west side of the building.~~ Access for visitors to the operational portion of the building is controlled by turnstiles located in the east side lobby and another on the west side of the building. Roll-up doors to the building can only be opened from inside the building and are also locked; opening these doors must be coordinated with security personnel. The building site is patrolled by security personnel during nonoperational hours to ensure that the gates are locked and that unauthorized entry has not occurred.

A.1.6 Emergency Equipment

TA-3-29 is equipped with an audible alarm system to alert personnel to evacuate the area. The evacuation alarm system may be activated by facility personnel pushing one of the evacuation

buttons located throughout TA-3-29. The building also contains a fire alarm system which may be activated by manual pull stations, heat and smoke detectors, and sprinkler system flow valves found throughout TA-3-29. Rooms 9010, 9020, and 9030 contain wet-pipe sprinkler systems that are equipped with fusible-link heads that actuate at 212 degrees Fahrenheit. Wing 9 of TA-3-29 contains gamma alarms that monitor for the presence of gamma radioactive contamination. Continuous air monitors are utilized throughout TA-3-29 to detect airborne radioactive contamination and, when detected, sound an alarm. The building also has a public address system for announcing fires or evacuations. Telephones with paging capabilities are located throughout TA-3-29. Paging telephones are used to page on-site personnel and may be used in the event of an emergency to communicate the location and nature 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.~~ Personnel working in Rooms 9010, 9020, and 9030 can also use these phones to summons assistance from local emergency response teams in case of emergency. Rooms 9010, 9020, and 9030 are equipped with fire extinguishers and pull stations. Depending on the size of a fire and the fuel source, fire extinguishers may be used by on-site personnel. However, the Facility policy encourages immediate evacuation of the area and notification of appropriate emergency personnel. The fire alarm control panel continuously monitors all fire-suppression and detection systems and transmits signals to the Los Alamos County Fire Department through the Facility's central alarm system.

Fire hydrants installed according to National Fire Protection Association standards are located around the outside of TA-3-29. Water is supplied to the fire hydrants by a municipal water system through 8-in. pipes at an adequate volume and pressure (*i.e.*, 200 gallons per minute and 90 pounds per square inch static pressure) to supply a water hose in the event of a fire. Spill kits, which contain sorbent pillows, safety glasses, and gloves, are located at the south end of Room 9010 in enclosures 9010a and 9010b. Trained personnel may use this equipment to mitigate small containable spills when they are certain their actions will not put themselves or others at risk. Available personnel decontamination equipment includes safety showers and emergency eyewashes in enclosures 9010a and 9010b.

Personnel working in Room 9020 have access to the eyewashes in enclosures 9010a and 9010b and a safety shower and emergency eyewash in Room 9030. The buddy system will always be employed when containers are actively managed in Rooms 9010, 9020, and 9030 to assure that safety showers and eyewashes can be reached in an emergency. Material Safety Data Sheets provide useful exposure information and are available in Rooms 9010, Room 9030, and outside Room 9130.

A.2 RESERVED

A.3 TA-50

TA-50 is located at the northeast corner of the intersection of Pajarito Drive and Pecos Road, on the finger mesa bounded by Mortandad Canyon to the north and Two-Mile Canyon to the south (*see* Figure 22 in Attachment N (*Figures*)). The container storage units at TA-50 include the TA-50-69 Indoor unit (Rooms 102 and 103) and the TA-50-69 Outdoor unit.

Figure 42 in Attachment N (*Figures*). The permitted unit is rectangular shaped and is 26 ft long by 10 ft wide. The maximum storage capacity of this unit is 3,600 gal, the equivalent of 66 55-gal drums. The types of waste containers holding hazardous or mixed waste that will be stored in B05 include 30-, 55-, and 85-gal drums, large waste boxes; and SWBs.

A.5.3 K13

The K13 permitted unit is used to store containers of hazardous and mixed waste that may contain liquids. K13 is located in the northwest section of the TA-55-4 basement, as shown on Figure 41 in Attachment N (*Figures*). The permitted unit is rectangular shaped and is ~~16~~12 ft long by 13 ft wide. The maximum storage capacity of this unit is 2,500 gal, the equivalent of 46 55-gal drums. The types of waste containers holding hazardous or mixed waste that will be stored in K13 include: 0.25-, 0.5-, 0.75-, 1-, 2-, 4-, and 6-liter/quart containers; 5-, 10-, 12-, and 15-gal containers; 30-, 55-, and 85-gal drums; and large waste boxes.

A.5.4 B45

The B45 permitted unit is used to store containers of hazardous and mixed waste that do not contain liquids. B45 is located in the northeast section of the TA-55-4 basement, as shown on Figure 43 in Attachment N (*Figures*). The permitted unit is rectangular shaped and is 45 ft long by 17.5 ft wide. The maximum storage capacity of this unit is 11,000 gal, the equivalent of 200 55-gal drums. The types of waste containers holding hazardous or mixed waste that will be stored in B45 include: 5-, 10-, 12-, and 15-gal containers; 55- and 85-gal drums; large waste boxes; and SWBs.

A.5.5 Vault

The Vault permitted unit is used to store containers of mixed waste that may contain liquids. The Vault is located along the eastern wall of the basement at TA-55-4, as shown on Figure 42 in Attachment N (*Figures*) and is approximately 79.5 ft long by 50.5 ft wide. The maximum storage capacity of this unit is 4,000 gal, the equivalent of approximately 73 55-gal drums. The types of waste containers holding mixed waste that will be stored in the Vault include: 0.25-, 0.5-, 0.75-, 1-, 2-, 4-, and 6-liter/quart containers; and 5-, 10-, 12-, 15-, 30- and 55-gal drums.

A.5.6 Container Storage Pad

The Container Storage Pad is used to store containers of hazardous and mixed waste that may contain liquids. The pad is located outside and south southwest of TA-55-4, as shown on Figure 45 in Attachment N (*Figures*). It was installed in the mid-1980s and is constructed of asphaltic-concrete with a variable thickness of 4 to 6 inches (in.). The Container Storage Pad permitted unit is shaped like a trapezoid and measures 102 ft, 86 ft, 156 ft, and 105 ft. ~~It also includes a rectangular strip measuring 70 ft by 10 ft on the southeast side.~~ The pad is sloped, is elevated 2 to 4 in. above ground level, and has a culvert beneath the pad running from the northwest side to the southeast corner to minimize run-on of precipitation. The storage capacity of this area is 135,000 gal, the equivalent of approximately 2,455 55-gal drums. The

ATTACHMENT E
INSPECTION PLAN

The IRF encompasses requirements for permitted hazardous and mixed waste management units, and additional requirements directed by the Permittees' policy. Instructions included with the IRF provide specific guidance for each inspection item listed.

The Permittees shall complete the IRF or equivalent form according to the daily and/or weekly schedules provided in Attachment Sections E.2 through E.8. The Permittees shall conduct and record inspections in Parts I and II of the IRF for each working day or week that waste is opened, moved, received, stored, treated, removed, or remains open, as appropriate. The Permittees shall use other records, such as a memo to file, to document a condition of "No Use" at a unit.

For every item requiring inspection, the Permittees shall enter a response indicating the condition of each item in the column under the appropriate day of the week. Responses may include "OK," "NA" (Not Applicable), or "AR" (Action Required). If the response is AR, the Permittees shall note the action required in Part II of the IRF. If more than one AR is listed, the Permittees shall number the ARs. The Permittees shall identify and number all ARs, even if corrected immediately by the inspector. If inspection results indicate that corrective measures are warranted, the Permittees shall record any and all actions taken (along with time, date, and other pertinent information) in Part II of the IRF and shall note the AR on all subsequent IRFs until corrective measures are completed. When corrective measures have been completed and recorded on an IRF, the Permittees shall enter an "OK" in the "Condition" column on the IRF.

The Permittees shall conduct and document **monthly** inspections **in accordance with applicable standards**, of the items listed below to ensure that the equipment is fully functional for its intended purpose:

1. evacuation alarms;
2. ventilation alarms;
3. fire alarms; and
4. fire pumps.

E.1.2 Actions Resulting from Inspections

If the Permittees discover any defects, deterioration, operator errors, discharges, or potential hazards during an inspection, the Permittees shall complete appropriate corrective measures (e.g., transfer of waste from a defective container to an appropriate container in good condition, repair or replacement of nonfunctioning equipment and/or systems, or removal of any accumulated liquids) promptly so that the problem does not lead to an environmental or human health hazard. The Permittees shall note any action taken in response to an inspection on the IRF or IRF documentation.

If a hazardous condition is imminent or has already occurred, the Permittees shall assess the condition immediately and follow up with appropriate remedial action. If this assessment indicates that human health or the environment may be or may have been adversely affected, the Permittees may implement Permit Attachment D, (*Contingency Plan*). In any case, the Permittees shall document the remedial action that is required and is taken.

ATTACHMENT G.18
TECHNICAL AREA 55, BUILDING 4 ROOM B40
INDOOR CONTAINER STORAGE UNIT
CLOSURE PLAN

1.0 INTRODUCTION

This closure plan describes the activities necessary to close the indoor hazardous waste container storage unit which is located in Room B40 in the basement of Technical Area 55, Building 4 (TA-55-4) at the Los Alamos National Laboratory (Facility), hereinafter referred to as the permitted unit. The information provided in this closure plan addresses the closure requirements specified in Permit Part 9, the Code of Federal Regulations (CFR), Title 40, Part 264, Subparts G and I for hazardous waste management units operated at the Facility under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act.

Until closure is complete and has been certified in accordance with Permit Section 9.5, a copy of the approved closure plan or the hazardous waste facility permit containing the plan, any approved revisions, and closure activity documentation associated with the closure will be on file with hazardous waste compliance personnel at the Facility and at the U.S. Department of Energy (DOE) Los Alamos Site Office. Prior to closure of the permitted unit, this closure plan may be amended in accordance with Permit Section 9.4.8, as necessary and appropriate, to provide updated sampling and analysis plans and to incorporate updated decontamination technologies. Amended closure plans shall be submitted to the New Mexico Environment Department (Department) for approval prior to implementing closure activities.

2.0 DESCRIPTION OF UNIT TO BE CLOSED

A specific description of the permitted unit can be found in Permit Attachment A (*Technical Area Unit Descriptions*). Additional features and equipment located at the permitted unit and not discussed elsewhere within the Permit are described below.

The entire floor of the permitted unit has been used for storage of hazardous waste. The permitted unit is L-shaped and has long (outside) dimensions of 61 feet (ft), 5 inches (in.) and 54 ft., 10 in., and short (inside) dimensions of 40 ft, 9 in. and ~~28 ft~~~~30 ft, 2 in.~~. The unit is ~~27 ft~~~~24 ft 8 in.~~ wide on one end and 20 ft, 8 in. wide on the other. The floor space also includes a vestibule, which has four ~~walls~~~~pillars~~, that is completely enclosed except for two access doorways.

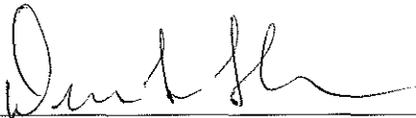
The waste stored at the permitted unit consists of hazardous and mixed waste in both solid and liquid form. The permitted unit was constructed in 1979 and has been subject to hazardous waste management regulations under RCRA since July 25, 1990. Due to the scope of process operations at the permitted unit, the wastes stored include sludge, debris, oils, and chemical wastes with metals and volatile and semi-volatile organic constituents. Permit Part 3 (*Storage in Containers*), Permit Attachment A (*Technical Area Unit Descriptions*), Permit Attachment B (*Part A Application*), and Permit Attachment C (*Waste Analysis Plan*) include information regarding waste management procedures and hazardous waste constituents stored at the permitted unit.

3.0 ESTIMATE OF MAXIMUM WASTE STORED

Approximately 649 cubic meters of waste have been stored in the permitted unit. Throughout the life of this Permit, it is estimated that an additional 360 cubic meters of waste will be stored in the permitted unit.

CERTIFICATION

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



Dennis L. Hjeresen
Division Leader
Environmental Protection Division
Los Alamos National Laboratory
Operator

8/17/11

Date Signed



Kevin W. Smith
Manager, Los Alamos Site Office
National Nuclear Security Administration
U.S. Department of Energy
Owner/Operator

8/18/2011

Date Signed