



ESHID-602849

***Environmental Protection & Compliance Division***

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**JAN 18 2018**

*Date:*

*Symbol:* EPC-DO: 17-535

*LA-UR:* 17-31181

*Locates Action No.:* N/A

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

**Subject: Transmittal of Class 1 Permit Modification Request to Remove a Refrigeration Unit from Technical Area 54, Pad 11, Dome 375**

Dear Mr. Kieling:

This letter transmits a Class 1 permit modification request to remove a structure from the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit issued to the Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), collectively the Permittees, in November 2010. The permit modification request provides proposed revisions to Permit Attachments A, J, G.12, and N.

This permit modification request has been prepared as required by Permit Section 3.1(3) in accordance with the Code of Federal Regulations, Title 40 (40 CFR) § 270.42(a)(2) as a permit modification requiring prior approval from the New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB). This Class 1 permit modification request consists solely of changes associated with the removal of a structure from a permitted unit and administrative changes associated with that removal in accordance with 40 CFR § 270.42, Appendix I, Item A.1. Permit Section 3.1(3) requires that all figures accurately reflect the location of all buildings and structures, regardless of whether they manage hazardous waste.

Included in this permit modification request package is the transmittal letter, a signed certification, and an enclosure that provides a description of the proposed changes and pages of revised text and/or figures from Permit Attachments A, J, G.12, and N.

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.

Upon approval by the NMED-HWB, 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 approval of this permit modification request. If you have comments/questions or would like to meet regarding this submittal, please contact Mark P. Haagenstad, LANS, at (505) 665-2014 or David S. Rhodes, Environmental Management Los Alamos Field Office, at (505) 665-5325.

Sincerely,



Benjamine B. Roberts  
Division Leader

Sincerely,



David S. Rhodes  
Director, Office of Quality & Regulatory Compliance

BBR/DSR/MPH: am

Enclosure(s)

1) Class 1 Permit Modification Request to Remove a Refrigeration Unit from Technical Area 54, Pad 11, Dome 375

Copy: Laurie King, USEPA/Region 6, Dallas, TX (E-File)  
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COPY



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**Subject: Transmittal of Class 1 Permit Modification Request to Remove a Refrigeration Unit from Technical Area 54, Pad 11, Dome 375**

Dear Mr. Kieling:

This letter transmits a Class 1 permit modification request to remove a structure from the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit issued to the Department of Energy (DOE) and Los Alamos National Security, LLC (LANS), collectively the Permittees, in November 2010. The permit modification request provides proposed revisions to Permit Attachments A, J, G.12, and N.

This permit modification request has been prepared as required by Permit Section 3.1(3) in accordance with the Code of Federal Regulations, Title 40 (40 CFR) § 270.42(a)(2) as a permit modification requiring prior approval from the New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB). This Class 1 permit modification request consists solely of changes associated with the removal of a structure from a permitted unit and administrative changes associated with that removal in accordance with 40 CFR § 270.42, Appendix I, Item A.1. Permit Section 3.1(3) requires that all figures accurately reflect the location of all buildings and structures, regardless of whether they manage hazardous waste.

Included in this permit modification request package is the transmittal letter, a signed certification, and an enclosure that provides a description of the proposed changes and pages of revised text and/or figures from Permit Attachments A, J, G.12, and N.

## **ENCLOSURE 1**

**Class 1 Permit Modification Request to  
Remove a Refrigeration Unit from  
Technical Area 54, Pad 11, Dome 375**

**EPC-DO: 17-535**

**LA-UR-17-31181**

**JAN 18 2018**

**Date:** \_\_\_\_\_

**Class 1 Permit Modification Request to Remove a Refrigeration Unit from  
Technical Area 54, Pad 11, Dome 375**

This document consists of a Class 1 permit modification request for the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (Permit) issued to the Department of Energy and the Los Alamos National Security, LLC, collectively known as the Permittees, in November 2010 (EPA ID # NM0890010515). All proposed text revisions are included with red editing marks to indicate changes within Permit Attachments A, J, and G.12. These changes, as well as the replacement figures for Permit Attachments G.12 and N, are provided in this modification. A signed certification, as required by Title 40 of the Code of Federal Regulations (40 CFR) 270.11, is provided with the transmittal letter.

**Description**

This modification request includes the proposed removal of a refrigeration unit located within the Technical Area (TA) 54, Pad 11, Dome 375 storage unit. The refrigeration unit (structure 124C) was utilized for the temperature controlled storage of waste containers during a single treatment campaign for remediated nitrate salt-bearing waste. Processing of the remediated nitrate salt-bearing waste at LANL was completed on November 3, 2017. Temperature controlled storage of waste at the unit is no longer necessary; therefore, the refrigeration unit will be decommissioned and removed from the permitted unit.

Removal of the refrigeration unit will entail revisions to the following Permit Attachments: Attachment A, *Technical Area (TA) – Unit Descriptions*; Attachment G.12, *Technical Area 54, Area G, Pad 11 Outdoor Container Storage Unit Closure Plan*, Attachment J, *Hazardous Waste Management Units*, and Attachment N, *Figures*.

Prior to decommissioning, a thorough records review will be performed to determine if there were any releases located within the refrigeration unit; to-date there have been no releases of hazardous material from the refrigeration unit. The unit will be dispositioned in accordance with LANL waste management procedures as required by Permit Attachment G.12, *Technical Area 54, Area G, Pad 11 Outdoor Container Storage Unit Closure Plan*. Documentation of these efforts will be kept as part of the Facility Operating Record as required by the Permit, and will be utilized when closure activities at the permitted unit begin. The permitted unit will continue to be used for the storage of hazardous waste.

**Basis**

This modification has been prepared in accordance with 40 CFR § 270.42(a)(2) as required by Permit Section 3.1(3). The permit condition at Permit Section 3.1(3) requires that buildings or

structures located at permitted units be accurately reflected within the figures in Attachments G and N of the Permit. Proposed changes to figures and text will reflect the removal of the refrigeration unit from figures within the Permit. The refrigeration unit within the TA-54-375 Indoor Permitted Unit was utilized for hazardous waste management at a permitted unit; therefore, the permit modification has been prepared as a Class 1 permit modification that requires prior approval from the NMED-HWB.

### **Discussion of Changes**

Proposed Permit changes are described below and the applicable changes are shown within Attachment 1 of this document with red editing marks to indicate changes.

#### ***Attachment A, Technical Area (TA) – Unit Descriptions***

Section A.4.2.9, *Pad 11* reflects the removal of language related to the refrigeration unit at Dome 375.

#### ***Attachment G.12, Technical Area 54, Area G, Pad 11 Outdoor Container Storage Unit Closure Plan***

Proposed changes to the closure plan include changing the description of the refrigeration unit within Section 2.0, *Description of Unit to be Closed*, to past tense. Additionally, the refrigeration unit footprint has been removed from Figure G.12-1: *Technical Area 54, Area G, Pad 11 Outdoor Container Storage Unit Sampling Grid and Additional Sampling Locations*.

#### ***Attachment J, Hazardous Waste Management Units***

Attachment J, Hazardous Waste Management Units (page 4), was modified to remove the reference to the refrigeration unit (structure 124C) from Table J-1.

#### ***Attachment N, Figures***

Figure 36: Technical Area (TA)-54, *Area G, Pad 11* was revised to reflect the removal of the refrigeration unit.

**Document:** Class 1 Modification Remove TA-54, Dome 375  
Refrigeration Unit  
**Date:** January 2018

## **Attachment 1**

### **Text Changes and Replacement Figures for Permit Attachments A, G.12, J, and N**



**ATTACHMENT A**  
**TECHNICAL AREA (TA) - UNIT DESCRIPTIONS**

equipped with a badge reader and is locked at all times unless used by authorized personnel for maintenance purposes.

#### **A.4.2.9 Pad 11**

This asphalt pad is approximately 4 inches thick, measures approximately 478 ft long by 137 ft wide, and is sloped approximately 1 to 2% to the southeast. Storage dome 375 is located on the western portion of pad 11 and is used for storage of hazardous, mixed low level, and mixed transuranic waste. It measures approximately 300 ft long by 100 ft wide (*see* Figure 36 in Attachment N (*Figures*)). The building is an aluminum A-frame truss design that is anchored to a concrete ring wall. The dome is of modular construction utilizing a membrane or fabric covering. It is equipped with 14 personnel doors and two roll-up doors, one each at the east and west ends of the building. Ramped entrances allow for safe movement of container handling equipment and vehicle access. Dome 375 contains a modular panel containment structure (approximately 120 feet long x 60 feet wide) used for size reduction, decontamination, segregation, waste assay, reclassification activities, and repackaging of transuranic waste prior to shipment offsite. Dome 375 also contains four structures that serve as an office area, a control area, and rooms for donning and doffing anti-contamination clothing. These structures are support structures and will not be used to store hazardous waste. ~~Dome 375 also has an additional structure (124 C). The external dimension of the structure is approximately 20 feet long, 8 feet wide and 8.5 feet high. The structure is a refrigeration unit, electrically driven and is constructed of stainless steel internal and external panels. Structure 124C is connected to the roll-up door opening for the modular containment structure, with the doors facing into the modular containment structure.~~ There is a restroom trailer (approximately 15 feet long x 8.5 feet wide) on the south eastern portion of Pad 11.

#### **A.4.3 TA-54 West**

The two permitted units at TA-54 West include the indoor low bay and the high bay at TA-54-38 and the outdoor storage pad which surrounds the north, east, and south sides of TA-54-38 and the loading dock at TA-54-38. The permitted units at TA-54 West are used to store solid mixed low level and mixed transuranic waste (*see* Figure 37 in Attachment N (*Figures*)).

The permitted units at TA-54-38 West may receive any container that may be stored at the units in accordance with Permit Section 3.3 (e.g. 85-gallon drums, 100-gallon drums, and ten-drum overpacks); however, most often the units receive WIPP-ready 55-gallon drums and SWBs for final preparation and packaging. All waste containers are handled in a manner that will not cause them to rupture.

Waste is generally brought into the TA-54-38 West Outdoor Pad through the south-eastern vehicle gate and placed in storage on the northern portion of the TA-54-38 West Outdoor Pad. At the outdoor unit, waste is not stored in front of gates or within 10 feet of the fence line or within 60 feet of the building. No paved or unpaved roadways are located within 5 feet of the waste storage area. From the outdoor permitted unit, containers are generally moved into the Low Bay at TA-54-38 West and made amenable for placement in a WIPP-compliant shipping container. Normal operations for making the individual waste containers ready for shipment include stretch wrapping 14 drum configurations (or drum payloads) and ratchet strapping

**ATTACHMENT G.12**  
**TECHNICAL AREA 54, AREA G, PAD 11**  
**OUTDOOR CONTAINER STORAGE UNIT**  
**CLOSURE PLAN**

## 1.0 INTRODUCTION

This closure plan describes the activities necessary to close the outdoor hazardous waste container storage unit at Technical Area (TA)-54, Area G, Pad 11 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 and 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 to the plan, 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.

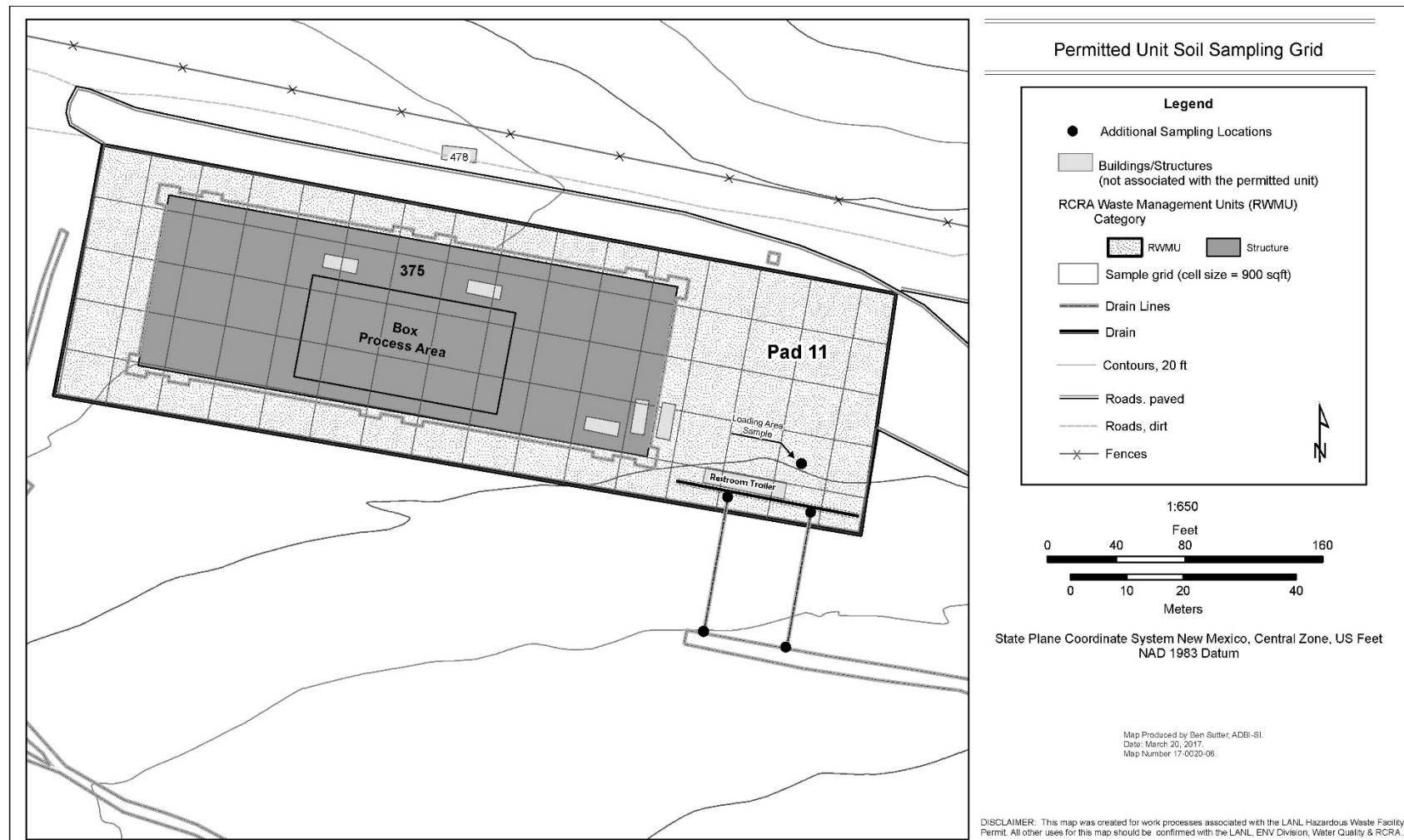
## 2.0 DESCRIPTION OF UNIT TO BE CLOSED

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

The permitted unit, which was constructed in 1998, is located in the western portion of Area G and consists of an asphalt pad that measures 478 feet long and 137 feet wide or approximately 65,500 square feet. It consists of four inches of asphalt built over underlying base course which overlies a minimum of six inches of tuff fill. It also has a dome (Dome 375).

The permitted unit is sloped from 1% to 2% to the south/southeast for drainage and has curbing on the south and east sides as well. Drainage is directed to a series of four 5 inch-wide by 27 foot-long drains, all connected to two underground 8-inch diameter polyvinyl chloride pipes which discharge to a concrete lined ditch located near the southeast corner of the pad.

The permitted unit stores hazardous waste in both liquid and solid form in Dome 375. The dome, which is an aluminum framework of trusses covered with tension-fitted ultraviolet resistant, fire-retardant coated, polyester fabric, is 300 feet long by 100 feet wide and covers a surface area of approximately 30,000 square feet. It is anchored with anchor bolts to the interior concrete ring wall and is equipped with two double-panel rolling doors, one at the east end of the dome and the other on the west end. It also has 14 personnel doors located approximately every 31 to 57 feet along the dome's length. These doors allow for adequate access both by vehicles and by personnel. The interior perimeter of the dome is surrounded by a concrete ring wall, which helps prevent run-on into and runoff from the dome. Asphalt ramps located at the vehicle entrances allow vehicles and container handling equipment to pass safely over the curb. Dome 375 contains a modular panel containment structure (approximately 120 feet long x 60 feet wide) used for size reduction, decontamination, segregation, waste assay, reclassification activities, and repackaging of transuranic waste prior to shipment offsite. ~~Structure 124 C is connected to the modular panel containment structure. The external dimension of the structure is approximately 20 feet long, 8 feet wide and 8.5 feet high. The structure is refrigeration unit, electrically driven, and is constructed of stainless steel internal and external panels. The structure 124C is connected to the roll up door opening for the modular containment structure, with the doors facing into the modular containment structure. Structure 124 C, a refrigeration unit that was connected to the roll up door opening of the modular panel containment structure, was removed and dispositioned in early 2018. The refrigeration unit measured 20 feet by 8 feet by 8.5 feet and was used for the remediated nitrate salt-bearing waste campaign.~~



**Figure G.12-1:** Technical Area 54, Area G, Pad 11 Outdoor Container Storage Unit Grid Sampling and Additional Sampling Locations

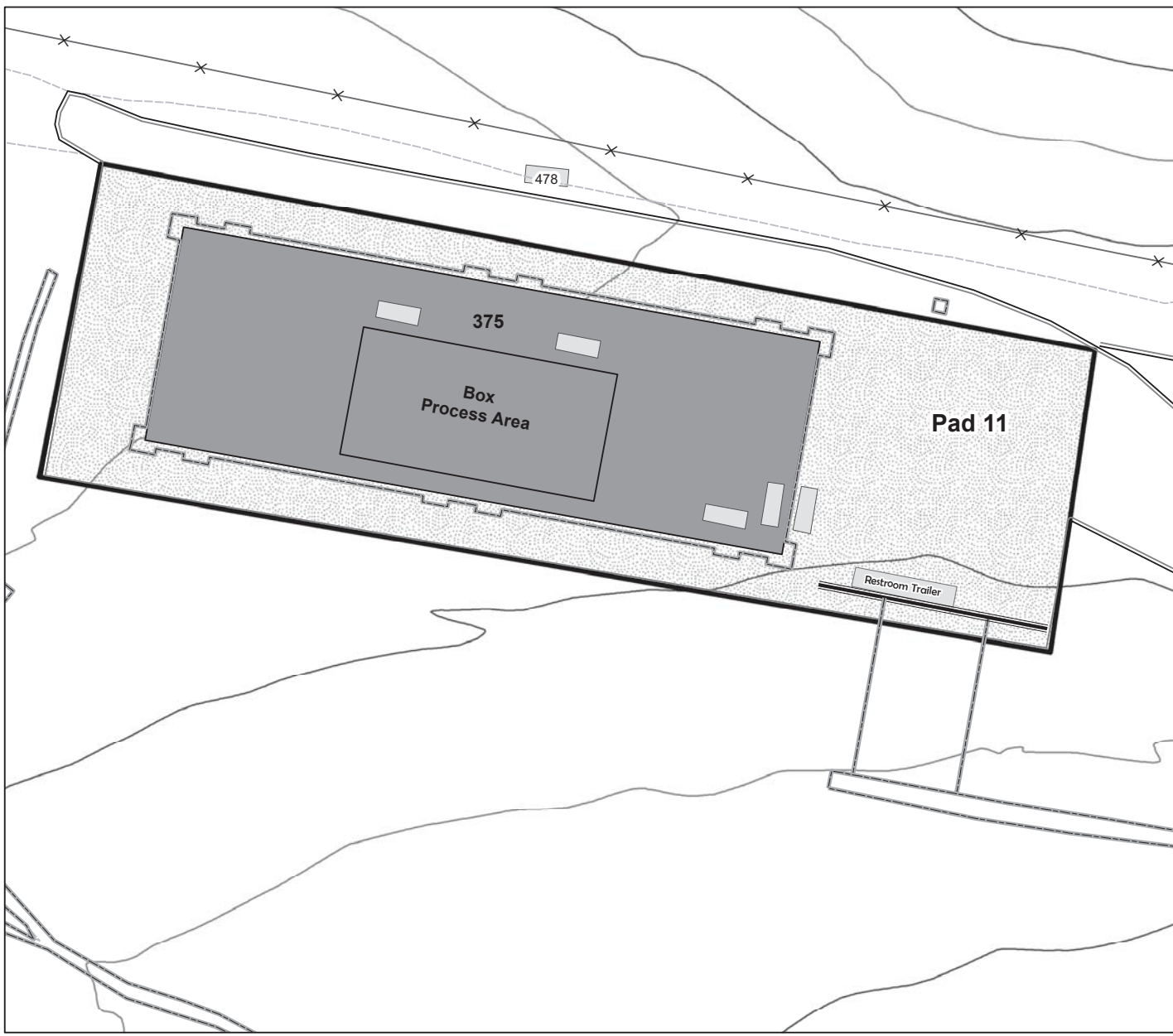
**ATTACHMENT J**  
**HAZARDOUS WASTE MANAGEMENT UNITS**

Unit Identifier	Process Codes	Operating Capacity	General Information	Type of Unit
			144, 145, 146, 177, 1027, 1028, 1030, and 1041  Pad 5 is a consolidation of former Pads 5, 7, and 8.  Total square footage – 59,900	a regulated unit)
TA-54 Area G Pad 6	S01	597,300 gal	Includes Storage Domes 153 and 283; and Transportainer 491.  Approximately 62,700 square feet	Outdoor (associated with an regulated unit)
TA-54 Area G Pad 9	S01	1,446,720 gal	Includes Storage Domes 229, 230, 231, and 232.  Total square footage – 158,000	Outdoor (associated with a regulated unit)
TA-54 Area G Pad 10	S01	159,770 gal	Includes Transuranic (TRU) Waste Characterization Facilities: TA-54-0547 (SuperHENC), TA-54-0498 (LANL HENC), TA-54-0545 and 546 (Storage trailers), <u>and 438.</u>  Pad 10 is a consolidation of former Pads 2 and 4.  Approximately 89,600 square feet	Outdoor (associated with a regulated unit)
TA-54 Area G Pad 11	S01	682,440 gal	Includes Storage Dome 375; <del>and 124C</del> . Total square footage – 65,500	Outdoor (associated with a regulated unit)
TA-54 Area G Storage Shed 8	S01	11,880 gal	Also referred to as TA-54-8  Total square footage - 640	Indoor
TA-54 Area G TA-54-33	S01	108,240 gal	Also referred to as Drum Prep Facility  Total square footage – 8,570	Indoor

**ATTACHMENT N**

**FIGURES**





## Permitted Unit Soil Sampling Grid

### Legend

Buildings/Structures  
(not associated with the permitted unit)

RCRA Waste Management Units (RWMU)  
Category

RWMU Structure

Drain Lines

Drain

Contours, 20 ft

Roads, paved

Roads, dirt

Fences



1:650

Feet

0 40 80 160

0 10 20 40

Meters

State Plane Coordinate System New Mexico, Central Zone, US Feet  
NAD 1983 Datum

Map Produced by Ben Sutter, ADBI-SI.  
Date: March 20, 2017.  
Map Number 17-0020-05

DISCLAIMER: This map was created for work processes associated with the LANL Hazardous Waste Facility Permit. All other uses for this map should be confirmed with the LANL, ENV Division, Water Quality & RCRA.

Figure 36: TA-54, Area G, Pad 11

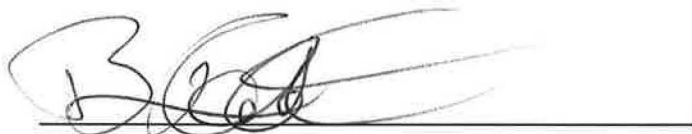
**Document:** Class 1 Modification Remove TA-54, Dome 375  
Refrigeration Unit  
**Date:** January 2018

## **Attachment 2**

### **Certification**

## CERTIFICATION

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



**Benjamine B. Roberts**  
Division Leader  
Environmental Protection and Compliance Division  
Los Alamos National Security, LLC

01/12/2018

**Date Signed**



**David S. Rhodes**  
Director, Office of Quality & Regulatory Compliance  
Environmental Management  
Los Alamos Field Office

1-18-2018

**Date Signed**