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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 24, 2007

Donald L. Winchell, Jr., Manager
Los Alamos Site Office
Department of Energy
528 35th Street, Mail Stop A316
Los Alamos, NM 87544

Richard S. Watkins, Associate Director
Environment, Safety, Health, & Quality
Los Alamos National Security, LLC
Los Alamos Research Park
4200 Jemez Road, Suite 400
Los Alamos, NM 87544

RE: FINAL DETERMINATION, CLASS 2 MODIFICATION REQUEST
THE LOS ALAMOS NATIONAL LABORATORY HAZARDOUS WASTE FACILITY PERMIT,
EPA ID# NM890010515-1
HWB-LANL-07-006

Dear Messrs. Winchell and Watkins:

On March 30, 2007, the New Mexico Environment Department (**NMED**) received Los Alamos National Laboratory's (**LANL's**) *2007 Request for Four Class 2 Permit Modifications to the Los Alamos National Laboratory Hazardous Waste Facility Permit No. NM890010515-1*, dated March 29, 2007.

This Class 2 Permit Modification Request (**PMR**) was processed in accordance with the requirements specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)). It was subject to a sixty (60) day public comment period running from April 3 through June 1, 2007, during which NMED received written comments on the PMR from LANL only.

NMED hereby approves this modification with changes as proposed in LANL's comments dated May 31, 2007. The attachment contains redline/strikeout pages of the modified permit to help the reader rapidly identify each modification. Language deleted from the permit is ~~stricken out~~. Language added to the permit is highlighted in redline. Also enclosed is a CD-ROM containing the modified files in MS Word redline/strikeout format as well as files with markings and comments removed. An electronic version of the modified permit with markings removed will be

publicly posted on NMED Hazardous Waste Bureau's LANL Permit page at <http://www.nmenv.state.nm.us/hwb/lanlperm.html>.

For purposes of version control, please note that NMED has established the date of these modified modules and permit attachments as July 24, 2007. The effective date of the permit modification approval is your date of receipt of this letter.

As NMED accepted LANL's comments on the PMR and there were no other comments submitted, there is no need for a specific response to public comments under 20.4.1.901.A(9) NMAC. However, LANL's May 31, 2007 comments will also be publicly posted on the Hazardous Waste Bureau web page identified above, and NMED will notify the LANL mailing list of this final determination.

If you have any questions regarding this matter, please contact Steve Zappe of my staff at (505) 476-6051.

Sincerely,

Jon Goldstein
Director
Water and Waste Management Division

JG:soz

Attachment

cc: James Bearzi, NMED HWB
John Kieling, NMED HWB
File: LANL 2007 and Reading
HWB-LANL-07-006

Attachment
Redline/Strikeout Pages

MODULE III STORAGE IN CONTAINERS-

III.A. DESIGNATED STORAGE UNITS

1. Technical Area 54, Area L The Permittee may store for more than ninety days hazardous wastes in containers only in the following designated storage areas:

   a. Containers containing free liquids may be stored on the concrete containment structures, Facility Numbers 54-32, 54-36, and 54-58.

   b. Containers containing free liquids may be stored in the packaging building, Facility Number 54-31.

   c. Containers not containing free liquids may be stored, on pallets or otherwise elevated four inches, in a single layer in cleared areas within the fenced portion of Area L, subject to the limitations of HWMR-5, as amended 1989, Part V, 40 CFR Sections 264.175(c) and 264.175(d). Such containers shall not be stored within five feet of the perimeter fence, nor five feet of any structure, nor five feet of the paved or unpaved roadway. Disposal unit covers designed to serve as storage areas are not subject to this exclusion. See Figure 6.

   d. Gas cylinders will be stored in cylinder racks, or on specially constructed pallets that provide support and restraint, under a self-supporting canopy located in cleared areas within the fenced portion of Area L, within the restrictions of permit paragraph II.G. above.

   e. The fence line around Area L as shown in permit Figure 6 shall not be altered without prior notice to the Secretary and permit modification in accordance with HWMR-5, as amended 1989, Part IX, 40 CFR Section 270.41 or 270.42 as appropriate. The "New Area L Fenceline" on Figure 6 indicates a future, but not yet approved, northern boundary to Area L.

   f. Containers containing free liquids may be stored in the modular storage buildings, Model 22 or equivalent, Facility Numbers 54-68 and 54-69, 54-70 for container storage located as shown in Figure 6.

2. Technical Area 50 The Permittee may store for more than ninety days hazardous wastes in containers only in the following designated storage areas:

   b. Building 50-37. Containers may be stored within storage room 115, 117, and 118 of ~~the of~~ TA-50-37 as shown in Figure 4.

   c. Containers containing free liquids may be stored in the modular storage buildings, 0Model 22 or equivalent, Facility Number 50-114.

3. Technical Area 50 The Permittee may store for more than ninety days hazardous and/or mixed wastes in containers only in the following designated storage areas:

   b. Containers not containing free liquids may be stored on pallets, dollies, or otherwise elevated in Building 50-69, Indoor Container Storage Area (Rooms 102 and 103), and at the Building 50-69 Outdoor Container Storage Area (CSA). Containers containing suspect or known free liquids may be stored on self-containment pallets in Building 50-69, Rooms 102 and 103, and at the Building 50-69 Outdoor CSA. Containers will not be stacked at the Building 50-69, Rooms 102 and 103, storage areas. Containers may be stacked two high at the Building 50-69 Outdoor CSA. See Figure 12.

4. Technical Area 54 West The Permittee may store for more than ninety days mixed wastes in containers only in the following designated storage areas.

   a. Building 54-38 Low Bay CSA. Containers not containing free liquids may be stored on pallets or dollies in the Low Bay CSA. Containers containing suspect or known liquids may be stored on self-containment pallets in the Low Bay CSA. Containers will not be stacked at this storage area. See Figure 13.

   b. Building 54-38 High Bay CSA. Containers not containing free liquids may be stored on pallets or dollies or otherwise elevated in the High Bay CSA. Containers containing suspect or known liquids may be stored on self-containment pallets in the High Bay CSA. Containers will not be stacked at this storage area. See Figure 13.

   c. Building 54-38 Loading Dock CSA. Containers may be stored on self-containment pallets in the Loading Dock CSA. Containers will not be stacked at this storage area. See Figure 13.

   d. Building 54-38 Outdoor CSA. Drums of waste may be stored on self-containment pallets in the Outdoor CSA. Other types of waste containers that are elevated by design may be stored in the Outdoor CSA. Containers will not be stacked at this storage area. Containers will not be stored within five feet of the perimeter fence, within five feet of any structure, or within five feet of the paved or unpaved roadway. Waste stored in the outside storage area may be stored in transportainers or modular buildings. Drums stored in modular buildings or transportainers will be stored on wheeled drum dollies, steel pallets, or otherwise elevated. See Figure 13.

~~3~~5. Technical Area 54, Area G The Permittee may store for more than ninety days mixed wastes in containers only in the following designated storage areas:

   a. Waste containers potentially containing free liquids may be stored at TA-54-230, TA-54-231, and on Storage Pads 9 and 10. Secondary containment will be used for containers with liquid items stored on the asphalt pads and in TA-54-231. See Figure 11.

   b. Waste containers not containing free liquids may be stored at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and on Storage Pads 9 and 10. See Figure 11.

c. All waste containers stored at TA-54-226, TA-54-229, TA-54-230, TA-54-231, and TA-54-232 will be placed on pallets or otherwise elevated four inches. Palletized 55-gallon containers may be stored in groups of four and stacked three high. Palletized overpack containers may be stacked two high. Large containers (80-, 83-, 85-, and 99-gallon drums) will also be stored on pallets but will not be stacked. Fiberglass-reinforced plywood (FRP) boxes may be stacked two high, at a maximum. Within the modular units at Storage Pad 10, the drums will be elevated above the storage area floor on wheeled drum dollies or steel pallets. For waste stored outdoors on the pad, containers will be protected from storm water run-on/runoff through the use of pallets (or otherwise elevated four inches). Tarpaulins or covers will be used to protect containers and containment pallets from precipitation. Waste stored on Pad 9 will be stored in transportainers or modular buildings. The drums will be stored on wheeled drum dollies, steel pallets, or otherwise elevated.

III.B. AUTHORIZED WASTES

1. Identification Only hazardous and/or mixed wastes identified in Permit Attachment G. with the process code "S01" in column D.1. "Processes" shall be stored.

2. Quantities The cumulative quantity of individual hazardous and/or mixed wastes in storage at any one time at the facility shall not exceed the quantity indicated in Permit Attachment G. Column B. "Estimated Annual Quantity of Waste".

3. Land Ban The Permittee must also comply with the following regarding storage of its wastes in containers which are prohibited from land disposal. These restrictions are imposed on any waste as it becomes prohibited from land disposal. (New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart VIII, 268.50, revised November 1, 1995)

   a. A storage period of one year is permitted. A storage period beyond one year is permitted provided there is proof that such storage is solely for the purpose of accumulation of such quantities as are necessary to facilitate proper recovery, treatment or disposal.

   b. Each container must be clearly marked as to its contents and the date each period of accumulation begins.

   c. Hazardous wastes meeting the treatment standards in 20 NMAC 4.1, Subpart VIII, 268.41, 268.42, 268.43, revised November 1, 1995, are not subject to the storage prohibition. Hazardous wastes meeting the treatment standards specified under the variance in 20 NMAC 4.1, Subpart VIII, 268.44, revised November 1, 1995, are not subject to the storage prohibition.

III.C. CONTAINERS

1. Capacity

a. Lab-packed wastes shall be stored in containers not to exceed 55-gallon nominal capacity.

b. Bulk liquids may be stored in drums of a nominal capacity of 55-gallons or less.

c. Solidified hazardous and/or mixed wastes not containing free liquids may be stored in containers meeting U.S. Department of Transportation (DOT) requirements for transportation.

d. Compressed gases may be stored in any sized cylinder. Small cylinders may be packed in drums or crates complying with DOT shipping regulations.

e. Polyethylene containers of 220-gallon or 330-gallon capacity may be used in place of 55-gallon drums as long as secondary containment capacity criteria of HWMR-5, as amended 1989, Part V, 40 CFR Section 264.175(b)(3) are not exceeded.

2. Type Containers must be of a type specified in the DOT hazardous materials regulations, 49 CFR parts 171 to 179, which specify authorized containers for the waste. As applicable, the containers shall be either: (1) previously unused or reused according to DOT requirements; (2) the original shipping containers in which the material was first marketed; or (3) any other suitable container which satisfies the requirements of permit paragraph III.C. If the hazardous and/or mixed wastes are to be received and stored in their original shipping containers, the Permittee must ensure that the requirements of permit paragraph III.C. are satisfied. Polyethylene bulk containers shall meet or exceed DOT requirements. Compressed gas cylinders not meeting DOT requirements shall be segregated in a safe area.

3. Quantity The following quantities include all stored liquid materials, whether regulated or not. Solid materials which do not displace containment capacity may be collocated without affecting these volumes. Solid materials which displace containment volume shall be included in calculating the stored volume as if they were liquids. The Permittee shall keep current accurate records of the quantity of waste in storage at each location below to ensure that these capacities are not exceeded.

a. No more than 440 gallons of liquid shall be stored at Technical Area 54, Area L, Building Number 54-31.

b. No more than 17,220 gallons of liquid shall be stored at ~~each~~ concrete containment structure~~:~~ ~~f~~Facility Number 54-32. No more than 13,200 gallons of liquid shall be stored at concrete containment structure Facility Number 54-36. No more than 15,840 gallons of liquid shall be stored at concrete containment structure Facility Number 54-58.

c. No more than 3600 containers of 55-gallon capacity or less, or the equivalent volume of 26,470 cubic feet, 980 cubic yards or 749 cubic meters, shall be used to store solidified wastes at Technical Area 54, Area L.

d. No more than 3,630 gallons of liquid shall be stored in Building 50-37, Rooms 115, 117, and 118 combined.

e. No more than 1,650 gallons of waste shall be stored in each modular storage unit.

~~h~~f. No more than 1,500 gallons of waste shall be stored at the Building 50-69 Indoor CSA (Rooms 102 and 103). No more than 30,000 gallons of waste shall be stored at the Building 50-69 Outdoor CSA.

~~i~~g. No more than 2,200 gallons of waste shall be stored at the Building 54-38 High Bay CSA. No more than 880 gallons of waste shall be stored at the Building 54-38 Low Bay CSA. No more than 660 gallons of waste shall be stored at the Building 54-38 Loading Dock CSA. No more than 7,920 gallons of waste shall be stored at the Building 54-38 Outdoor CSA.

~~g~~h. No more than 970,000 gallons of waste shall be stored at TA-54-226. ~~–~~No more than ~~790,000~~a total of 3,160,000 gallons of waste shall be stored at ~~each of~~ the ~~following~~ combined locations: TA-54-229, TA-54-230, TA-54-231, ~~and~~ TA-54-232, and Storage Pad 9. ~~Of the 790,000 gallon total that may be stored in TA-54-230, no~~No more than 93,995 gallons ~~shall be~~of potential liquid-bearing waste may be stored in TA-54-230. No more than 970,000 gallons of waste shall be stored at TA-54, Area G, Pad 10.

4. Condition

a. If a container holding hazardous or mixed waste is not in good condition (e.g. severe rusting, structural defects) or if it begins to leak, the Permittee shall transfer the hazardous or mixed waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit.

b. The Permittee may use overpack containers of more than 55-gallon capacity to manage defective waste storage containers. Each overpacked container shall be recorded in the facility record.

5. Compatibility of Waste with Containers

a. The Permittee shall assure, as required by 20 NMAC 4.1, Subpart V, 264.172, revised November 1, 1995, that the ability of the container to contain the waste is not impaired. When necessary, this shall include procedures for determining whether the hazardous or mixed waste is no longer compatible with the shipping container if it is to be stored in its original container (e.g. determination of container adequacy for chemicals that have a finite shelf life or may change in composition upon aging).

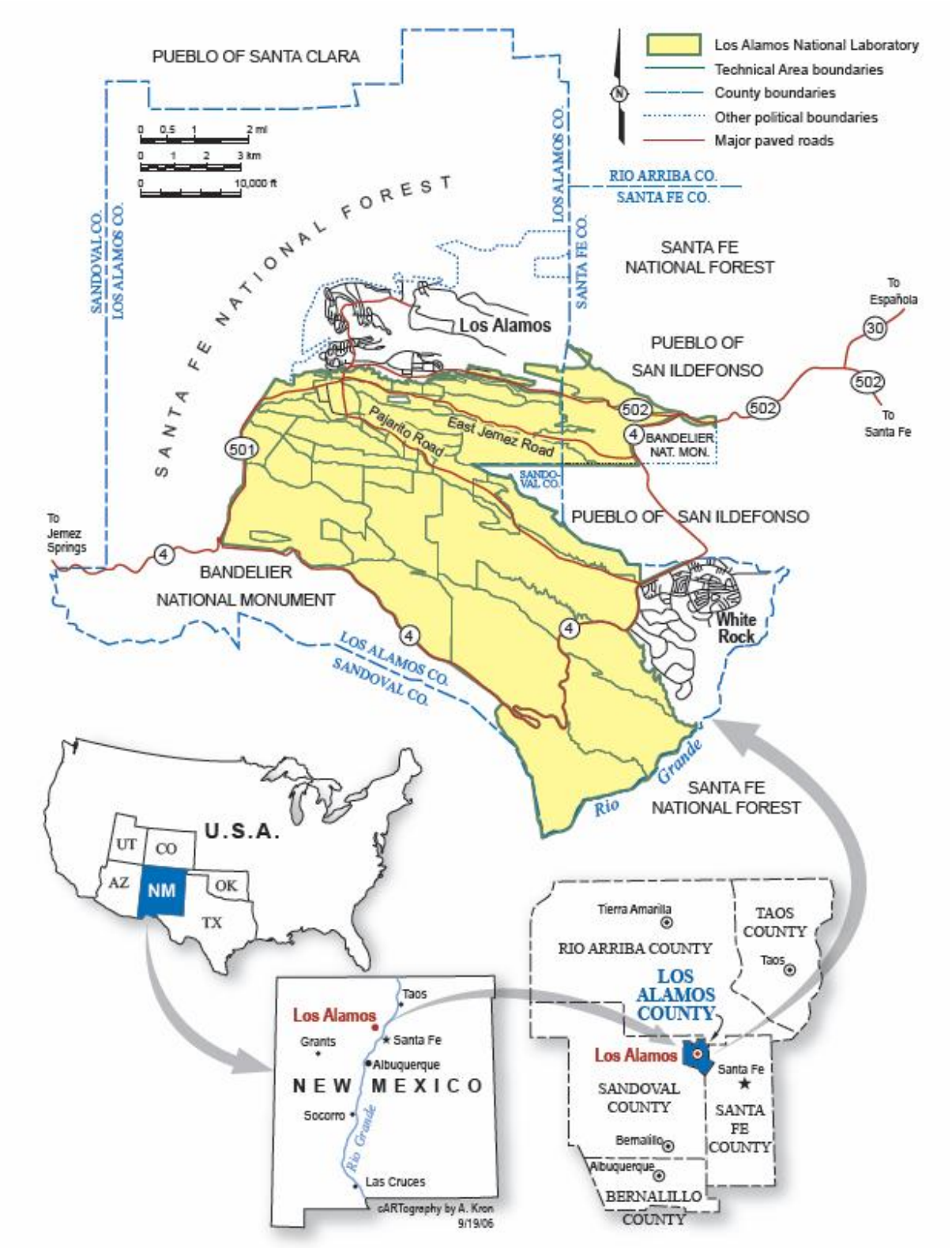

Figure 1

Regional Location Map of Los Alamos National Laboratory and Surrounding Land Use

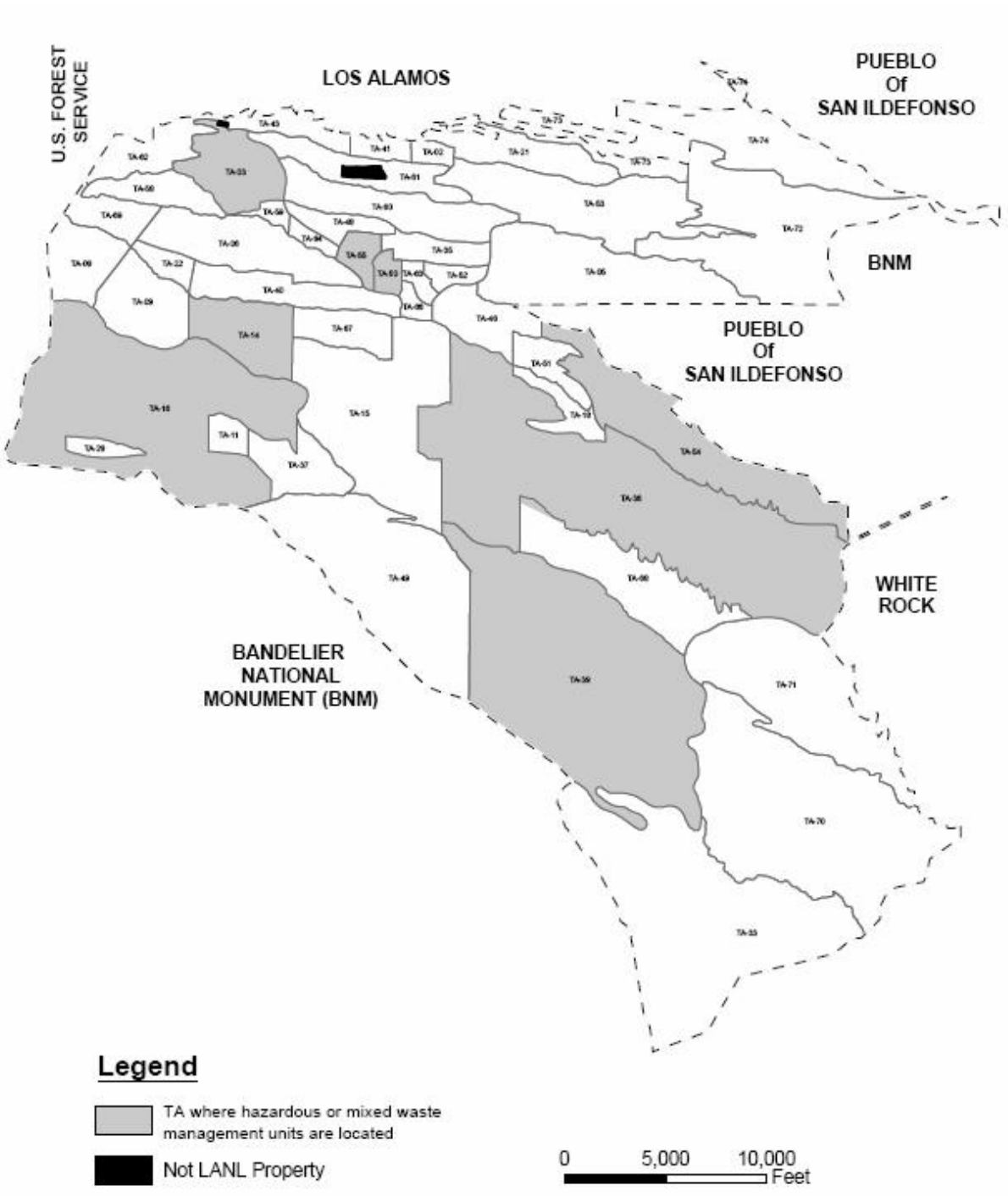

Figure 2

Location Map of Los Alamos National Laboratory (LANL) Technical Areas (TAs)

Created by ERSS GIS TEAM. Map Number 06-0105 September 12, 2006
State Plane Coordinate System: New Mexico Central Zone North American Datum 1983 (ft)
This map was created for work processes associated with the Environmental &Remediation Support Services. All other uses for this map should be confirmed with LANL EP-ERSS staff.
Boundary of Department of Energy Property I Around the Los Alamos National Laboratory; Los Alamos National Laboratory, SSMO Site Planning & Project Initiation; Infrastructure Planning Office. 10 February 2006
Boundary of Department of Energy Property In and Around the Los Alamos National Laboratory; Los Alamos National Laboratory, SSMO Site Planning & Project Initiation; 01 February 2003 as captured 07 September 2004.

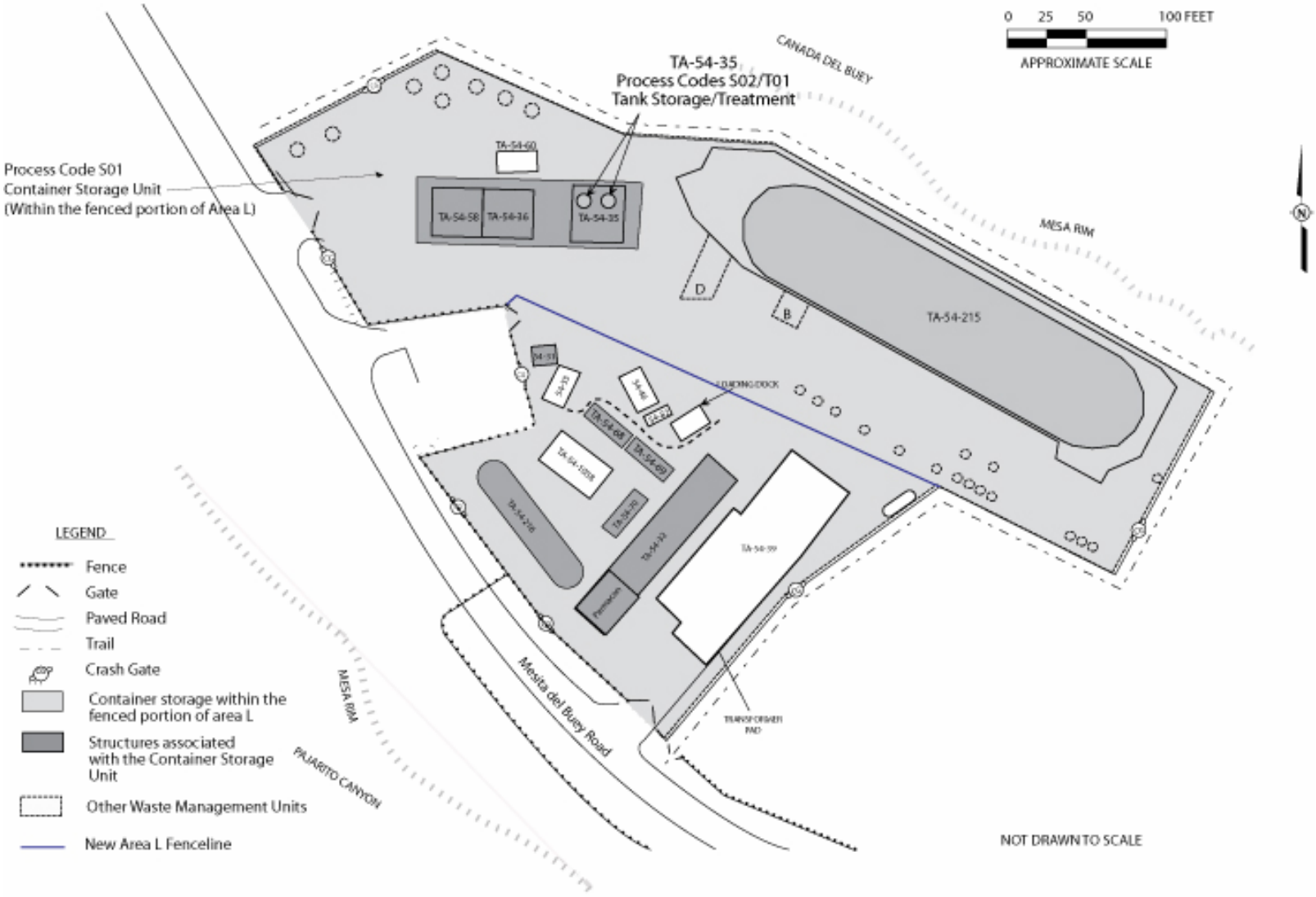

Figure 6
Technical Area (TA) 54, Area L, Container Storage Area and Storage/Treatment Tanks

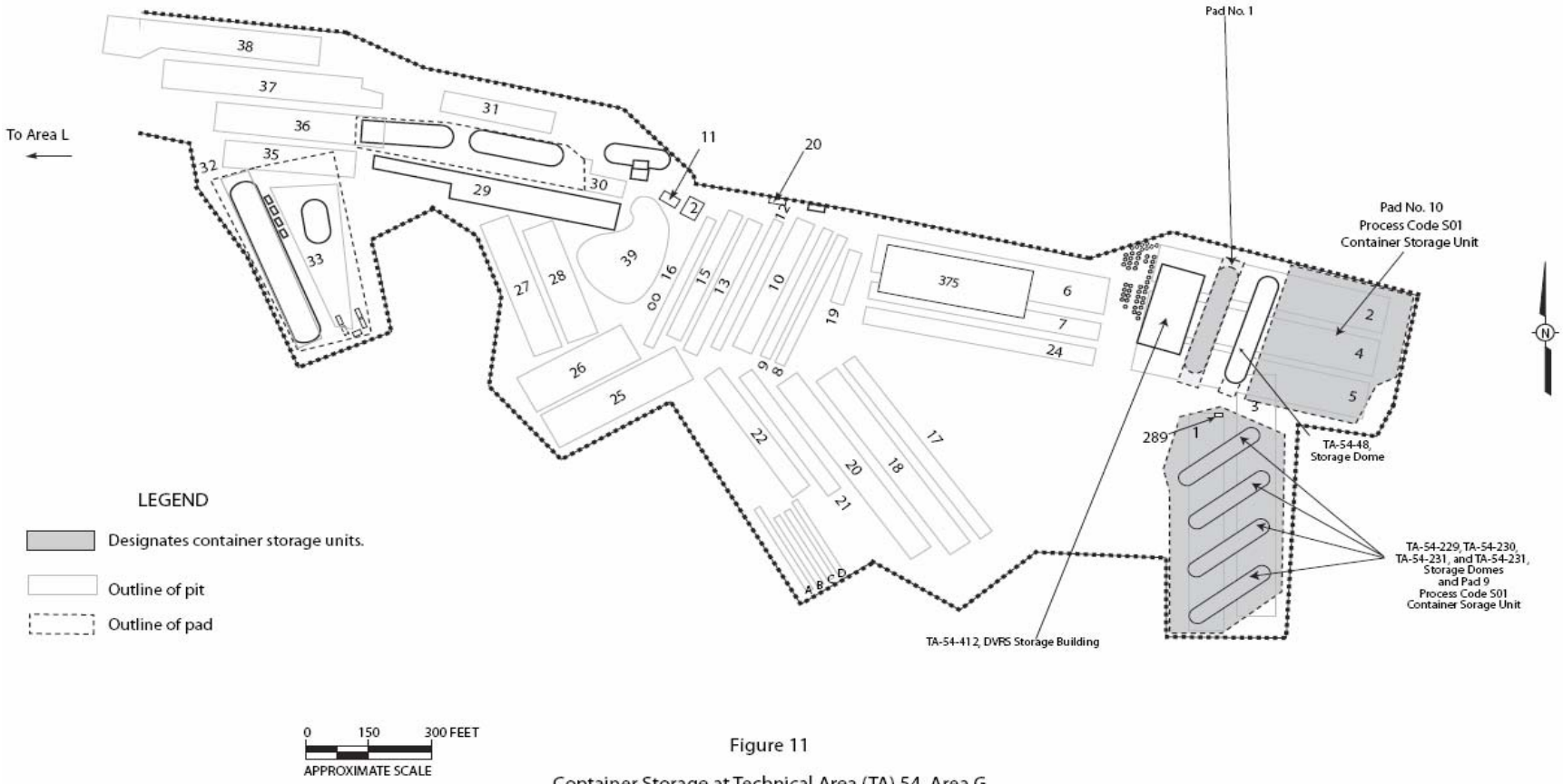

Figure 11

Container Storage at Technical Area (TA) 54, Area G
TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Storage Pad 10

~~**Figure 11**~~
~~**Technical Area (TA) 54, Area G, TA-54-226, -229, -230, -231, -232, Pad 2, and Pad 4**~~

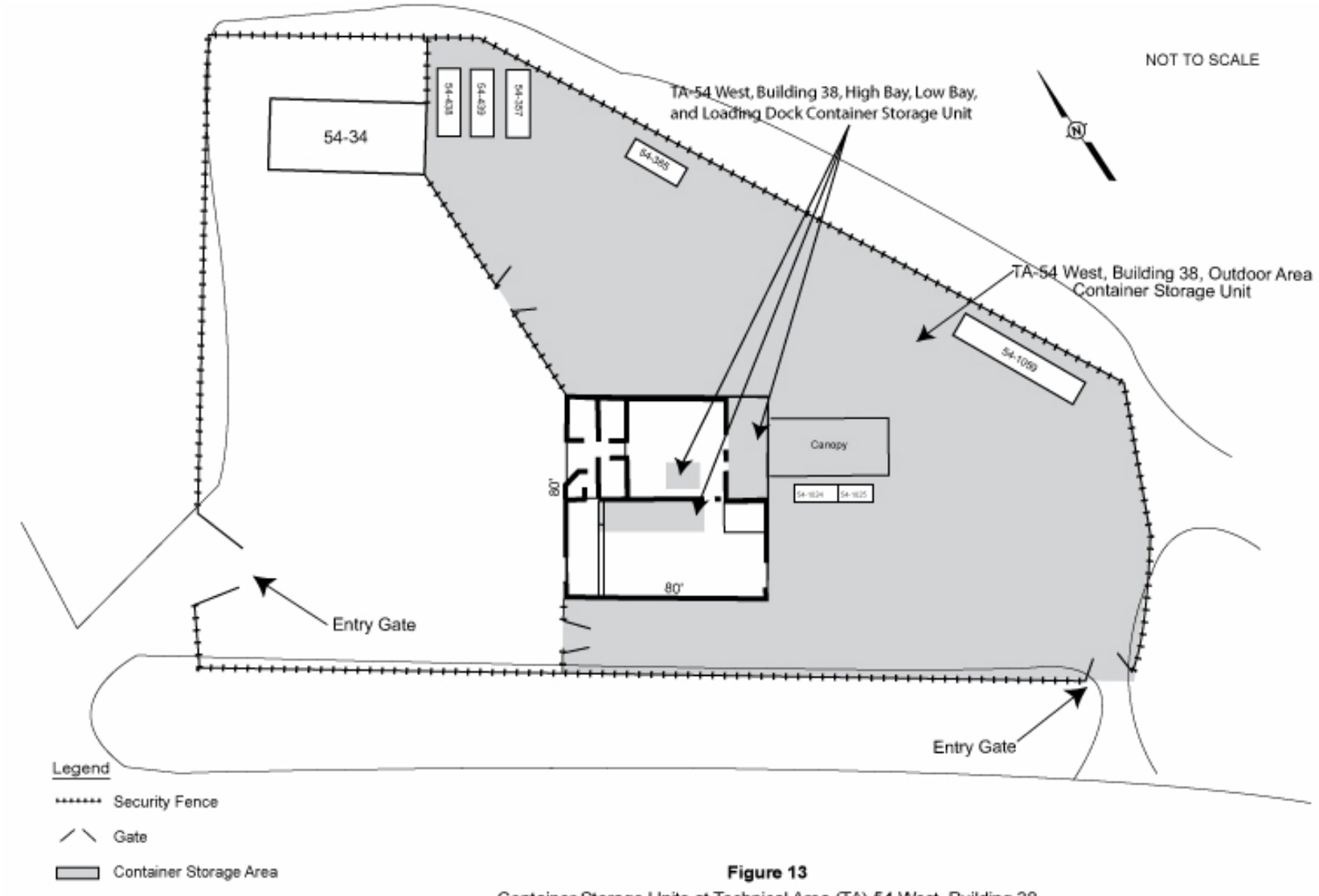

Figure 13
Container Storage Units at Technical Area (TA) 54 West, Building 38

~~**Figure 13**~~
~~**Technical Area (TA) 54 West, Building 38, First Floor Plan**~~

Hydrant flow tests and block valve inspections are performed annually. Pressure regulating valves are inspected and adjusted every 60 days. Flow rates for hydrants are specified by FSS-21, an experienced fire protection engineering staff, and are dependent upon site needs, including size of building and presence of sprinkler systems.

B.6 AISLE SPACE REQUIREMENTS

Aisle space between waste containers at all container storage areas is inspected weekly to insure it is adequate to provide access for inspection purposes, and movement of personnel, containers, and equipment.

There are no ramps provided for fork lifts or drum handling equipment at the TA-50 modular container storage area. Drums are placed in the container storage using drum slings or hydraulically powered drum tongs on a forklift.

Aisles between rows of drums at the Area L transfer, packaging and storage facilities are maintained at a minimum width of two feet to permit access for inspection and handling.

When waste volumes necessitate aisle spacing at the TA-50-69 Outdoor CSA; and the CSAs at TA-54-38, a minimum aisle space of 26 inches is maintained to permit access for inspection and handling. The limited number of containers in the TA-50-69 Indoor CSA does not require aisle spaces. Containers are placed in the storage areas either manually or with hoists, cranes, forklifts, or dollies. A minimum aisle space of 28 inches will be maintained between rows of containers at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Storage Pads 9 & 10. In addition, 44-inch-wide emergency egress aisles will be located at every 100 feet of dome length. Curbed storage dome areas will be ramped at the entrance to each dome to facilitate access of forklifts and drum handling equipment.

B.7 TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, AND PADS 9 & 10 STORAGE AREAS

B.7.1 Potential Problems

The container storage areas (CSA) located at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Pads 9 and 10 will be routinely inspected for various items, including integrity of containers and self-containment systems as well as conditions of safety and emergency equipment, security devices, and loading/unloading areas. Potential problems may include leaks, containment failure, and equipment deterioration or malfunction. Identified problems will be recorded in Part II of the Inspection Record Form (IRF). The IRF may be revised, as needed.

B.7.2 Frequency and Content of Inspection

CSAs and associated equipment located at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Pads 9 and 10 will be inspected in accordance with the schedule in Table B-1. Items to be inspected daily include structural integrity of containers, condition of secondary containment structures, appropriate aisle space and stacking, and conditions of loading/unloading areas. Items to be inspected weekly include conditions of safety equipment, security devices, emergency equipment, and pallets. Inspectors will use the IRF when conducting daily and weekly inspections.

B.7.3 Preventive and Remedial Action

After Storms	Special Report
EMERGENCY VEHICLES	
Quarterly	Special Report
FIRE CONTROL SYSTEM	
Annually	Special Report
TA-50-69 INDOOR AND OUTDOOR STORAGE AREAS	
Daily when conducting waste handling operations	IRF
Weekly	IRF
TA-54-38 STORAGE AREAS	
Daily when conducting waste handling operations	IRF
Weekly	IRF
TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, AND PADS 9 & 10 STORAGE AREAS	
Daily when conducting waste handling operations	Inspection Record Form (IRF)
Weekly	IRF

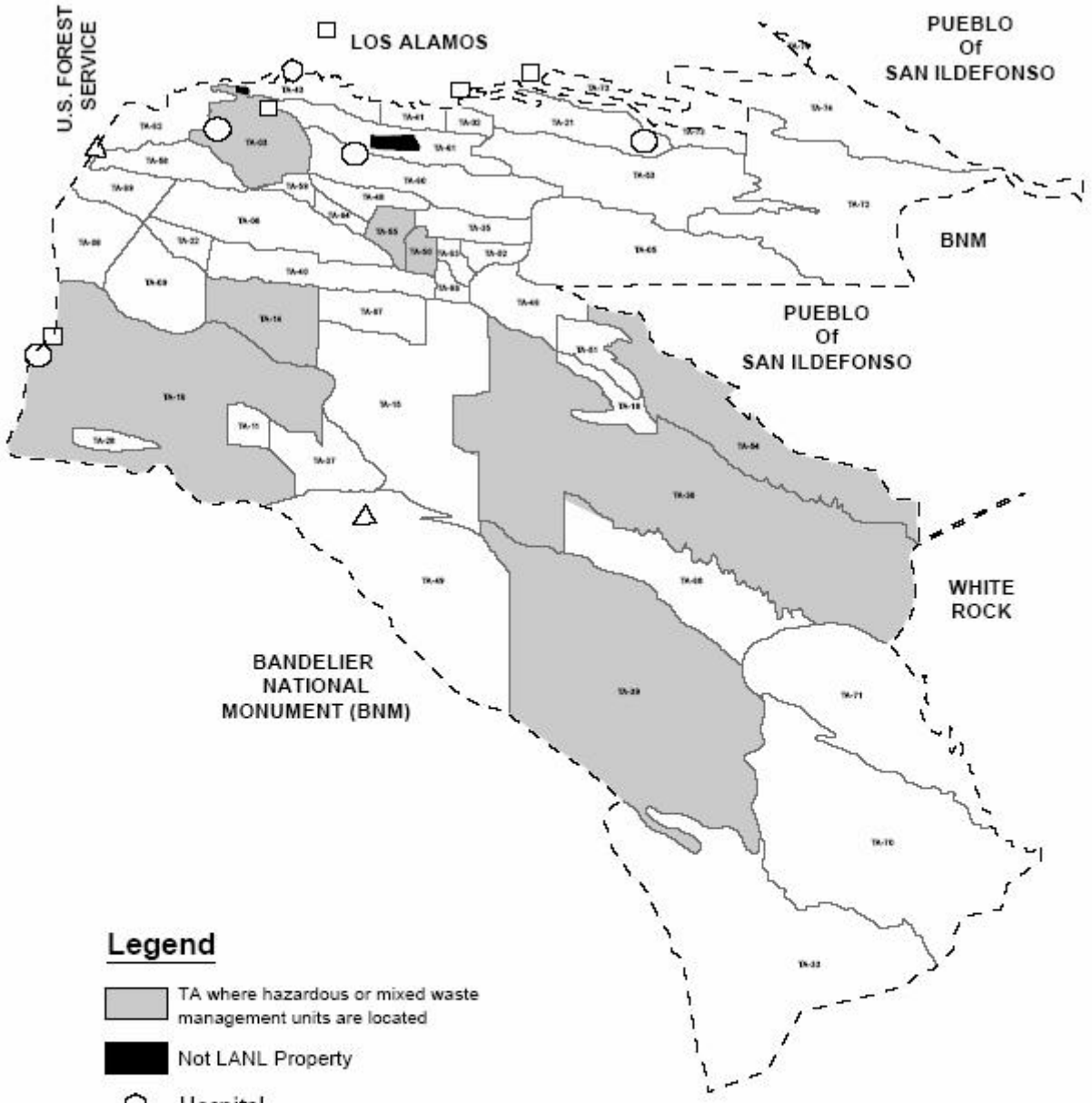

FIGURE D-3

EMERGENCY FACILITIES

Created by ERSS GIS TEAM. Map Number 06-0106 September12, 2006
State Plane Coordinate System New Mexico Central Zone North American Datum 1983 (ft)
This map was created for work processes associated with the Environmental Remediation Support Services. All other uses for this map should be confirmed with LANL EP-ERSS staff.
Boundary of Department of Energy Property I Around the Los Alamos National Laboratory; Los Alamos National Laboratory, SSMO Site Planning & Project Initiation; Infrastructure Planning Office. 10 February 2006
Boundary of Department of Energy Property In and Around the Los Alamos National Laboratory; Los Alamos National Laboratory, SSMO Site Planning & Project Initiation; 01 February 2003 as captured 07 September 2004.

APPENDIX D-1
EMERGENCY EQUIPMENT
(continued)

TA-54

Emergency equipment at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Pads 9 & 10:

FIRE CONTROL EQUIPMENT:

ABC and/or BC rated fire extinguishers will be located in TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and on Pads 9 & 10.

Description of General Capabilities:
These portable, manually operated units are available for use by technicians and/or firefighters in the event of a small fire. Security personnel and the LACFD are alerted for larger fires.

Flame or smoke detection equipment and fire alarm pull stations will be located within structures at TA-54-226, TA-54-229, TA-54-230, TA-54-231, and TA-54-232.

Description of General Capabilities:
Fire alarms may be activated by any employee in the event of a fire to notify security personnel and the LACFD. Security personnel and LACFD are also notified upon activation of the flame or smoke detectors.

The sprinkler systems will automatically activate in the event of a fire.

Several fire hydrants are located in Area G.

Description of General Capabilities:
The fire hydrants will supply water at adequate volume and pressure (i.e., approximately 800 gallons per minute and 90 pounds per square inch) to satisfy the requirements of the New Mexico Administrative Code, Title 20, Chapter 4, Part 1, Subpart V, 264.32, revised October 1, 2003.

SPILL CONTROL EQUIPMENT:

Spill control stations and/or portable spill kits are located at TA-54-226, TA-54-229, TA-54-230, TA-54-231 and TA-54-232. Spill kits may include items suck as: bags of absorbent, absorbent pads or socks, and an inventory of tools and supplies.

APPENDIX D-1
EMERGENCY EQUIPMENT
(continued)

Emergency equipment at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Pads 9 & 10 (continued):

COMMUNICATION EQUIPMENT:

Alpha-numeric emergency pagers are given to employees working in the area.

Emergency paging system- loud speakers located throughout the site.

Additional equipment includes cellular telephones and two-way radios.

Evacuation alarm buttons are located at or near TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Pads 9 & 10

Description of General Capabilities:
Telephones and alarms are located throughout Area G. Evacuation alarms have horns mounted on telephone poles throughout Area G. The evacuation alarm is an audible alarm that can be heard throughout Area G. 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. The emergency paging system can be utilized to alert workers of an emergency situation as well as appropriate response actions.

DECONTAMINATION EQUIPMENT:

A portable eyewash station is available at TA-54-230 during active waste management operations involving free liquids in this location.
Material Safety Data Sheets (MSDS) are available hard copy of via online database.

Description of General Capabilities:
Showers and/or eyewash stations are used by personnel who receive chemical exposure to the skin or to the eyes. Specific MSDS for the chemical(s) being managed should be obtained prior to working with mixed waste to determine if the application of water is indicated for decontamination.

APPENDIX D-1
EMERGENCY EQUIPMENT
(continued)

Emergency equipment at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Pads 9 & 10 (continued):

PERSONAL PROTECTIVE EQUIPMENT:

Appropriate personal protective equipment (PPE) will be worn to protect 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 and may be found in the spill kits or at various locations throughout the site. Gloves and goggles or safety glasses are available in many of the spill kits located throughout the site.

OTHER:

Continuous air monitors, giraffe monitors, or other appropriate air monitoring equipment (as determined by health physics personnel) are located in many of the container storage units for detection of airborne radioactive constituents.

Heavy equipment available on site includes: scraper, back hoe, bulldozer, and front-end loader. Vehicles are also available to evacuate personnel from Area G (all-terrain vehicles, pick-up trucks, flat-bed trucks, micro trucks and vans).

CLOSURE PLAN
PERMIT ATTACHMENT E.3
NM 0890010515-1

E.3 MODULAR STORAGE UNITS AND TRANSPORTAINERS

Some containerized wastes are stored in prefabricated modular storage buildings or transportainers at various locations in TA-50; TA-54-38 West; TA-54 Area G; and TA-54, Area L. See Figures E.3.1, ~~and~~ E.3.2, E.10-1 (Attachment E-10), and E-12-1 (Attachment E.12). ~~These storage units are self-contained and are equipped with chemical resistant walls to provide separation of incompatible wastes, a corrosion resistant fiberglass floor grating, and a polypropylene building sump liner~~Hazardous waste metal storage sheds are prefabricated metal sheds/buildings with elevated grated flooring. The sumps allow for segregation of hazard classes within the same shed. Partitions, such as those in 54-68, -69, and -70 separate storage areas with the metal storage sheds. Non-partitioned metal storage sheds/buildings may be used at LANL and are constructed in the same manner as above. Modular buildings or trailers may have climate control and can be stand alone structures or be attached to similar structures either end-to-end or side-to-side. This allows modules to be added/subtracted based on operational need and available space. Wheeled trailers that are stand alone units can also be climate controlled and are typically used to house characterization equipment and activities. Transportainers are typically metal cargo shipping containers and are elevated by design with wood or metal flooring. The sidewalls are typically welded to 5 inch channel beam supports and all joints and seams are continuously welded. The transportainers are equipped with four corner castings and lifting eyes to allow them to be stacked or hooked together. Transportainers will typically be used for waste storage on regulated asphalt pad container storage units.

E.3.1 Estimate of Maximum Waste in Storage

Each storage unit can store a maximum of thirty 55 gallons drums or a total of 1650 gallons of liquid wastes. The maximum total inventory of waste in storage at any time in the TA-50-114 CSU is 1,210 gallons.

E.3.2 Description of Waste Handled

Three waste streams compose the bulk of the waste stored in the modular units at TA-50, although the system is flexible enough to allow storage of other wastes that may be generated through new Laboratory projects. These streams are an acid/base waste that contains copper, chromate plating waste, and waste cyanide plating solutions. These structures may also be used to store any regulated waste while awaiting lab packing.

The modular units at TA-54, Area L will be used primarily for the storage of lab-packed waste. Since six separate cells are available for storage, there may be up to six different categories of waste stored there while waiting treatment or disposal.

The modular unit at TA-54, Area L (TA-54-~~36~~32) will be used primarily for:

(1) sorting, surveying, and decontaminating certain wastes currently in storage and labeled "suspect mixed waste.", and;

(2) staging, inspecting, sampling, and analyzing specific mixed waste streams for which commercial treatment and/or disposal is currently available.

The following paragraphs provide examples of the delineated waste streams for the mixed transuranic waste (MTRUW) stored and, in some cases, treated at LANL:

LA-TA-55-19: Mixed Combustible Debris Waste
This waste stream consists of mixed combustible debris waste generated by plutonium recovery, R&D processes, and facility and equipment operations and maintenance. The debris waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and other plastic-based and cellulose-based items.

LA-TA-55-30: Mixed Heterogeneous Debris Waste
This waste stream consists of mixed heterogeneous debris waste generated by plutonium recovery, R&D processes, and facility and equipment operations and maintenance. The waste includes plutonium-contaminated noncombustible and combustible debris waste.

LA-MIN01-CIN: Mixed Inorganic Homogeneous Waste, Cemented Inorganics
This waste stream consists of mixed inorganic homogeneous waste generated by plutonium recovery, R&D processes, facility and equipment operations and maintenance, and liquid waste treatment operations. The waste includes cemented sludge, solidified aqueous waste, and solidified inorganic process solids.

LA-MIN02-V: Mixed Inorganic Homogeneous Waste, Organics on Vermiculite
This waste stream consists of mixed inorganic homogeneous waste generated by plutonium recovery, R&D processes, and facility and equipment operations and maintenance. The waste is comprised of organic liquids (oils and solvents) adsorbed on vermiculite.

LA-MIN03-NC: Mixed Inorganic Homogeneous Waste, Non-cemented
This waste stream consists of mixed inorganic homogeneous waste generated by plutonium recovery, R&D processes, and liquid waste treatment operations. It consists of vacuum filter cake solid waste.

LA-MIN04-S: Mixed Inorganic Homogeneous Waste, Salts
This waste stream consists of mixed inorganic homogeneous waste generated by plutonium recovery, R&D processes, and facility and equipment operations and maintenance. It is comprised of non-cemented inorganic process solids (salts).

LA-MIN05-COR: Mixed Inorganic Homogeneous Waste, Cemented Organics
This waste stream consists of mixed inorganic homogeneous solidified (cemented) organic process solids and emulsified solvents and oils generated by plutonium recovery, R&D processes, and facility and equipment operations and maintenance.

LA-MHD02-238: Mixed Heterogeneous Debris Waste, Pu-238
This waste stream consists of mixed heterogeneous debris waste generated by Pu-238 processing operations (primarily heat-source fabrication) and facility and equipment operations and maintenance. The waste includes Pu-238 contaminated noncombustible and combustible debris waste.

LA-MIN06-C238: Mixed Inorganic Homogeneous Waste, Cemented Inorganics, Pu-238

This waste stream consists of mixed inorganic homogeneous waste comprised of solidified (cemented) inorganic process solids. This waste stream is generated by Pu-238 processing operations (primarily heat-source fabrication) and facility and equipment operations and maintenance.

LA-MHD03-DD: Mixed Heterogeneous Debris Waste, D&D
This waste stream consists of mixed heterogeneous debris waste generated from facility and equipment D&D, including associated sectioning, size reduction, and packaging operations. The waste is comprised of plutonium-contaminated noncombustible and combustible debris waste.

LA-MHD05-ITRI: Mixed Heterogeneous Debris Waste, ITRI
This waste stream consists of mixed heterogeneous debris generated between 1975 and 1984 by the Inhalation Toxicology Research Institute, which is currently operated by Lovelace at the Kirtland Air Force Base, New Mexico. The waste is comprised of laboratory waste that may contain rags, tools, and biological waste contaminated with Pu-239.

LA-MHD07-SNL: Mixed Heterogeneous Debris Waste, Sandia National Laboratory
This waste stream consists of mixed heterogeneous debris waste generated by Sandia National Laboratories. This waste stream may contain lead (D008).

LA-MHD04-RH: Mixed Heterogeneous Debris Waste, Remote-Handled
This waste stream consists of mixed remote-handled heterogeneous debris waste generated by hot cell operations. This waste is comprised of combustible and noncombustible waste.

E.3.3 Closure Procedures and Decontamination

E.3.3.1 Partial Closure

Partial closure would consist of closure of one unit or more, while leaving other units in service. In such an event, the following procedures would apply to the unit(s) to be closed.

E.3.3.2 Unit Closure

Personnel involved in disassembly and handling of equipment will wear protective equipment, including: acid/solvent-resistant coveralls, head protection, neoprene coated gloves and boots. Wrists and ankles are to be taped to protect against upward and inward splash. As a minimum protection, face shields will be worn. Full face respirators will be used if specified by the Laboratory's ~~Industrial Hygiene and Safety Group, ESH-5HSR-5~~industrial hygiene and safety personnel, following a field inspection.

The inside of the unit will be scrubbed and rinsed with a warm solution of Liquinox~~(@)~~® or Alconox~~(@)~~® in water. The cleaning solutions will accumulate in the internal sumps and will be pumped into drums with a small manually operated drum pump. Samples of this solution will be taken from the drum to verify decontamination. Washdown will be repeated until decontamination is verified. The drummed liquid will be transported to TA-54, Area L for sampling, analysis and off site treatment and/or disposal.

The unit will be disassembled by removing all removable walls, grates etc. and then visually inspected. Any residual matter found will be scraped or brushed off the area where the residue occurred, then washed and rinsed. Dry residues will be placed in drums for transport to TA-54, Area L, for storage, sampling and analysis prior to off site disposal at a permitted facility. Liquids from washing and rinsing will be placed in

Sample containers appropriate for the requested analyses will be used for all samples. Sampling will be conducted in accordance with procedures given in *Samplers and Sampling Procedures for Hazardous Waste Streams*, EPA 600/2-80-0 1 8 and/or SW-846.

E.3.7.1 Soil and Solid Residues Sampling

Under normal circumstances the following soil sampling information will be inapplicable. Should however, spills occur outside the modular unit, sampling of the area will be required to verify that no hazardous constituents remain upon closure. The sampling procedures outlined below are used to determine the amount of hazardous material deposited on a particular area of land, or to determine the leaching rate of the material, or determine the residue level on the soil. Adequate preparation ensures that proper sampling is accomplished.

Surface soil samples will be collected with a trowel or scoop. To sample below 3 in. (8 cm), samples will be collected with a Veihmeyer soil sampler. Drums of solid residues will be sampled with a core sampler or Veihmeyer soil sampler. Drums not capable of being sampled will be assumed to be hazardous waste.

E.3.7.1.1 Cleaning of sampler

It is important to clean the samplers after each site is sampled. An unused disposable sampler may be presumed clean if still in a factory sealed wrapper. Unsealed samplers will be cleaned prior to use. The samplers will be washed with a warm Liquinox~~(@)~~ ® or Alconox~~(@)~~ ® solution, rinsed several times with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry. Prevention of cross contamination is of particular importance in these samples.

E.3.7.1.2 Sampling procedures

Trowel or Scoop

- Take small, equal portions of sample from the surface or near the surface of the material to be sampled.
- Combine the samples in a glass container.
- Cap the container, attach a label and seal, record in field log book, and complete the sample analysis request sheet and chain-of-custody record.

Veihmeyer Sampler

- Assemble the sampler by screwing in the tip and drive head on the sampling tube.
- Insert the tapered handle (drive guide) of the drive hammer through the drive head.
- Place the sampler in a perpendicular position on the material to be sampled.
- With the left hand holding the tube, drive the sampler into the material to the desired sampling depth by pounding the drive head with the drive hammer. Do not drive the tube further than the tip of the hammer's drive guide.

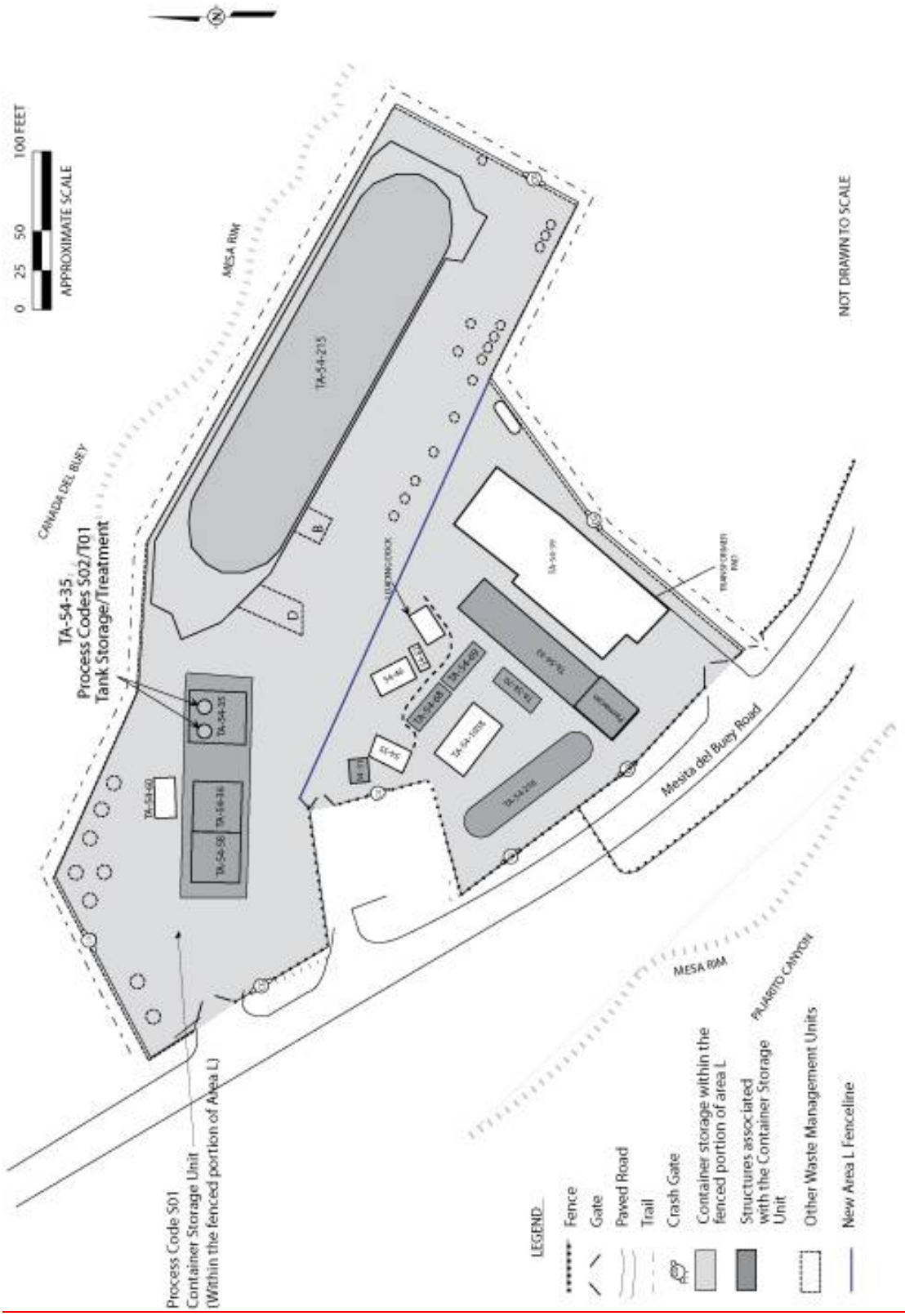

Figure E.3.2
TA-54 Area L Map

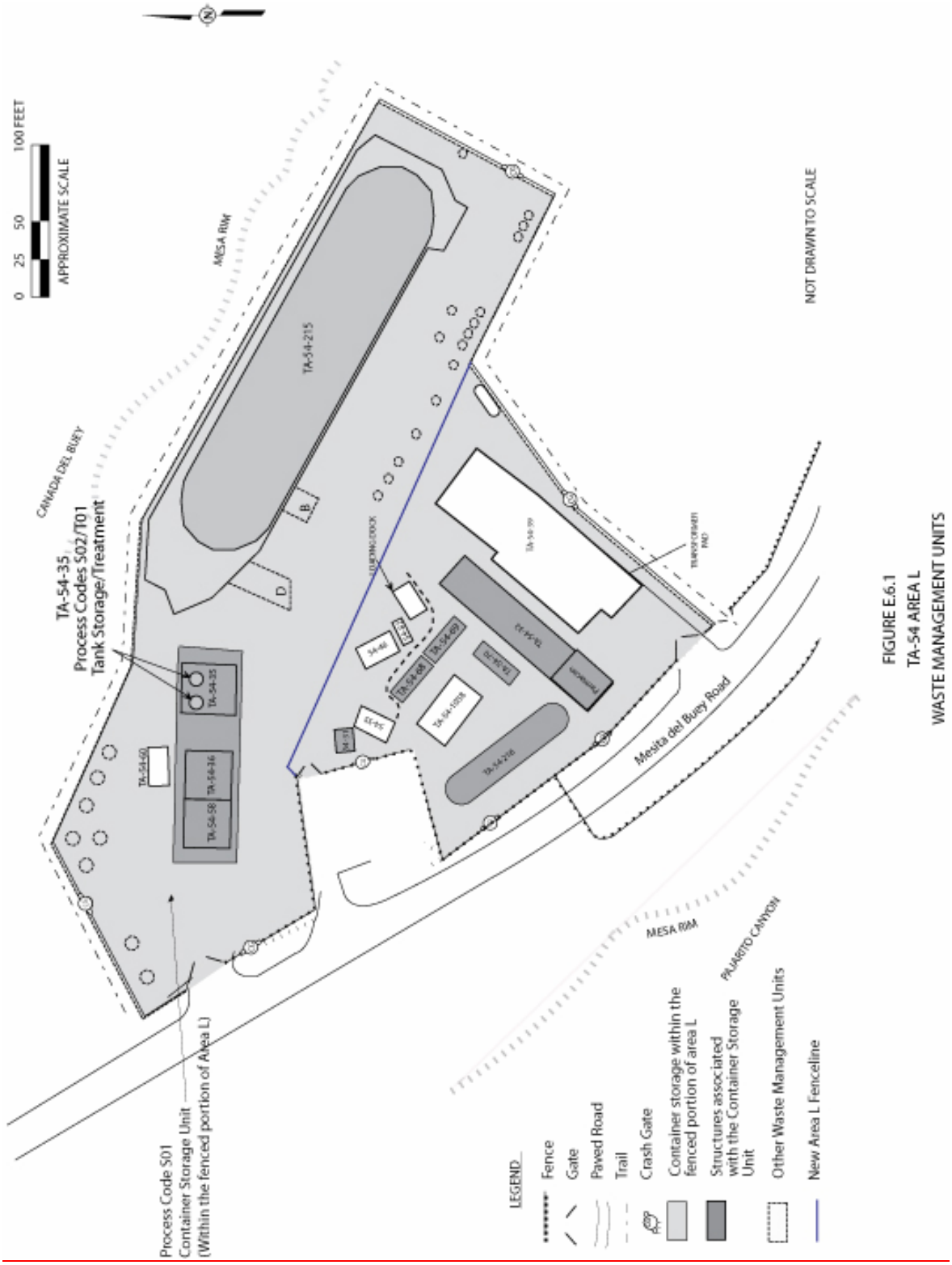

FIGURE E.6.1
TA-54 AREA L
WASTE MANAGEMENT UNITS

CLOSURE PLAN
PERMIT ATTACHMENT E.7
NM0890010515-1

E.7 STORAGE CONCRETE CONTAINMENT UNITS

E.7.1 Description

There are ~~two~~ four units used to store hazardous chemical waste lab packs in 55-gallon drums and other DOT-approved storage containers, one at TA-50 and ~~one~~ three at TA-54, Area L. Each unit consists of a roofed concrete containment structure encompassing 1,596 square feet. The wastes are segregated into compatible waste types upon arrival at the unit and placed within one of the six storage cells. Wastes are stored in 55-gallon drums, 220-gallon polyethylene containers or 330-gallon polyethylene containers. All containers meet DOT specifications. ~~Two~~ One unit~~s are~~ is located south of Building TA-50-37 (Figure E.7.1) and the other ~~is~~ three are at TA-54, Area L: TA-54-32, TA-54-36, and TA-54-58 (Figure E.7.2).

E.7.2 Estimate of Maximum Waste in Storage

The maximum amount of waste in storage at any one unit is 65 cubic meters (17,220 gallons).

E.7.3 Description of Waste Handled

A wide variety of wastes generated throughout the Laboratory are stored at the units, including wastes from basic and applied chemistry R & D programs (small quantities of different acids, bases, organics, inorganics, and reactive metals), processing waste (sludge resulting from treatment at TA-50-1 Batch Treatment Plant), and chemically contaminated equipment packed for off site disposal at a permitted facility. Any characteristic or listed waste used at the laboratory may be stored at any unit. The units at TA-50 normally store only characteristic waste code D002 and listed wastes F001 through F009, but may store any regulated waste generated by the Laboratory.

E.7.4 Closure

E.7.4.1 Partial Closure

Partial closure would consist of one unit while leaving the other units in service. In such an event, the following procedures would apply to the unit to be closed.

E.7.4.2 Closure Procedure

Personnel involved in decontaminating the unit will wear protective equipment, including, acid/solvent resistant coveralls, head protection, neoprene-coated gloves, and boots.. Wrists and ankles are to be taped to protect against upward and inward splash. As a minimum protection, face shields will be worn. Full face respirators or other protective equipment will be used if specified by the Laboratory's Industrial Hygiene and Safety Group, (ESH-5), following a field inspection. Before decontamination, all wastes in storage will either be treated or shipped off site for disposal at a permitted facility. Given the diversity of wastes handled, it is not possible to estimate the exact wastes on hand at the initiation of closure and, therefore, the final disposition of the wastes. In general, recyclable wastes will be reused internally or recycled to users off

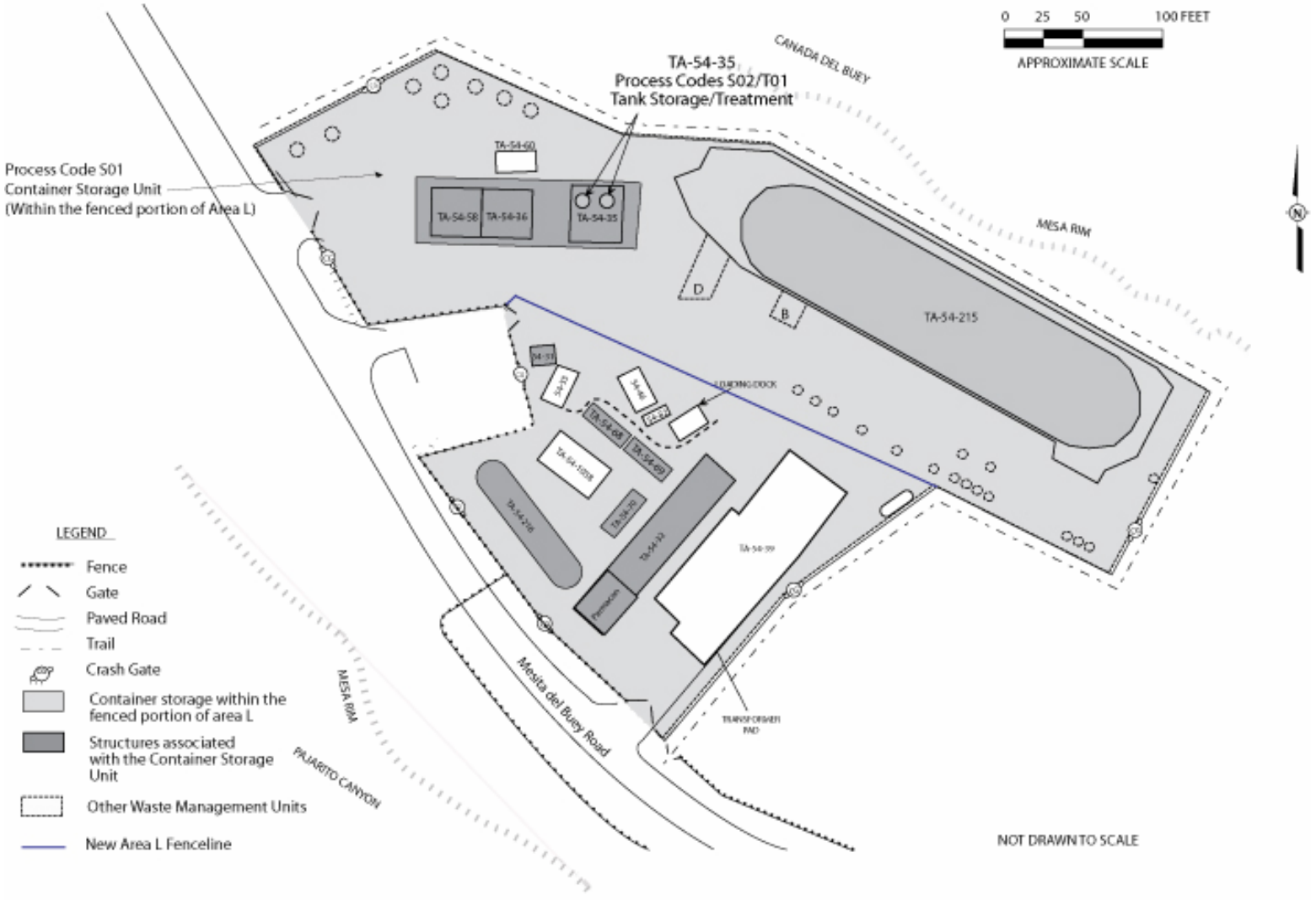

FIGURE E.7.2
TA-54 AREA L
WASTE MANAGEMENT UNITS

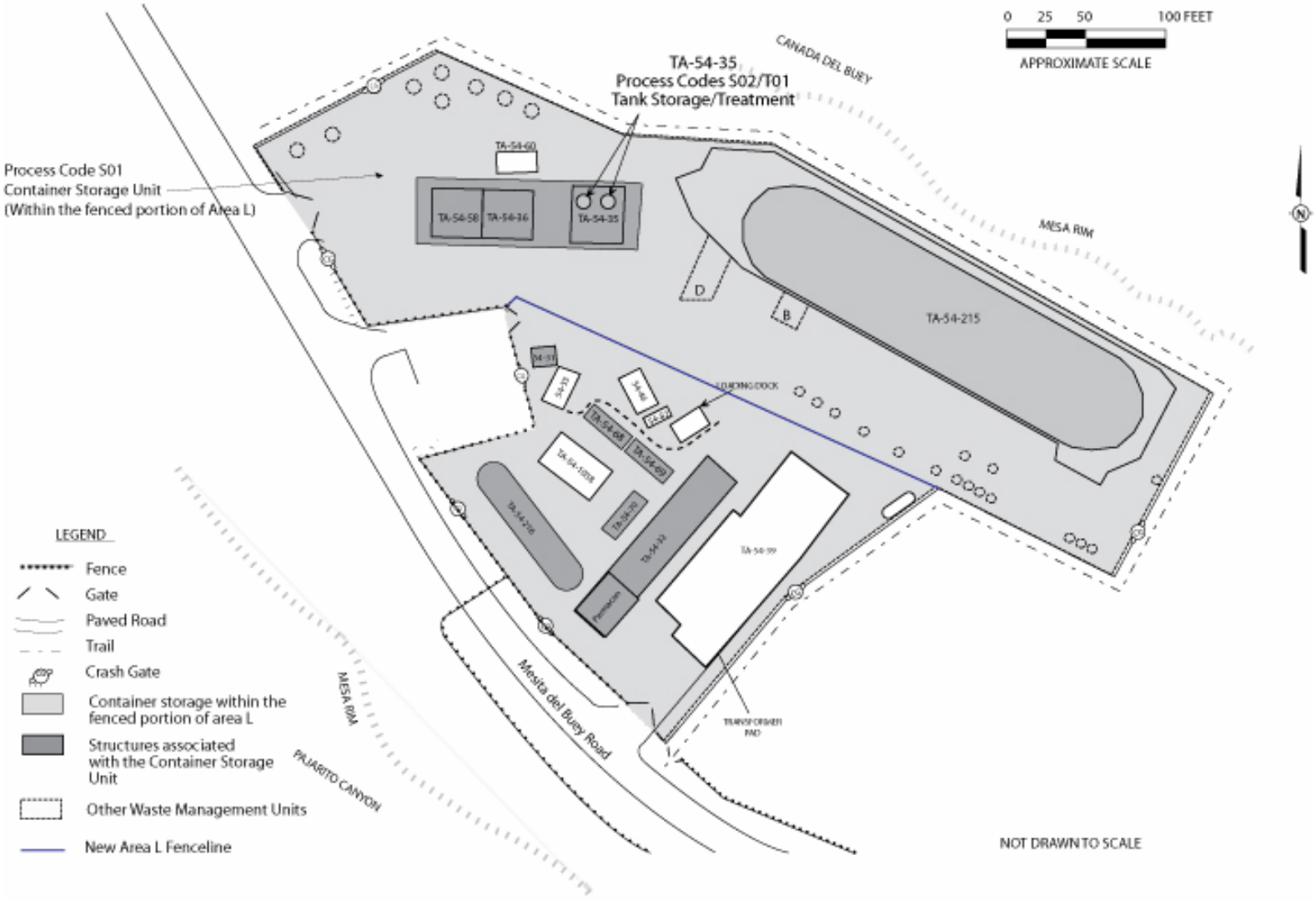

FIGURE E.9.1
TA-54 AREA L
WASTE MANAGEMENT UNITS

CLOSURE PLAN
PERMIT ATTACHMENT E.10
NM0890010515-1

E.10 TECHNICAL AREA 54, AREA G, CONTAINER STORAGE AREAS TA-54-226, -229, -230, -231, -232, AND PADS 9 & 10

The container storage areas (CSA) addressed in this closure plan include TA-54-226, -229, -230, -231, -232, and Pads 9 & 10 at Technical Area (TA) 54, Area G. These CSAs are located at the east end of Area G and will be used to store containerized transuranic (TRU) mixed waste retrieved from under earthen cover. The existing asphalt pad at TA-54-226 is approximately 43 feet wide and 300 feet long. A 6- to 8-inch-high asphalt berm surrounds the perimeter of the pad. Once all of the drums are retrieved for characterization and subsequent drum venting operations, the existing pad will either be retrofitted or replaced to fit the dome currently covering the pad. The dome is 88 feet, 7 inches wide and 286 feet long, with a maximum design capacity of 970,000 gallons. Pad 10 is also constructed of asphalt. TA-54-229, -230, -231, and -232 are being constructed on Pad 9 an approximately 275 feet wide by 570 feet long asphalt pad, which is gently sloped (from 1 to 1.5 percent). TA-54-230 and TA-54-231 will store containers of potential liquid-bearing TRU mixed waste whereas TA-54-229, ~~-231,~~ and -232 will be used solely to store solid TRU mixed waste. TA-54-229, -230, -231, and -232, are 88 feet, 7 inches wide and 246 feet long, with a maximum design storage capacity of 790,000 gallons each.

E.10.1 Estimate of Maximum Waste in Storage

The maximum total inventory of waste in storage at any time at the CSAs mentioned above is estimated at ~~5,530,045~~5,100,000 gallons. A breakdown of the maximum inventories for each of these areas is as follows:

- TA-54-226 - 970,000 gallons
- TA-54-229~~, - 790,000 gallons~~
- ~~TA-54-230, - 790,000 gallons~~
- ~~TA-54-231, - 790,000 gallons~~
- ~~TA-54-232~~, and Pad 9 - 3,160,000 ~~- 790,000~~ gallons
- Pad 10 - 970,000 gallons

E.10.2 Description of Waste

TRU mixed waste stored in the TA-54, Area G, CSAs mentioned above was generated during research activities, processing and recovery operations, and decontamination and decommissioning operations primarily at TA-3, TA-21, TA-50, and TA-55. These wastes are classified as mixed wastes because Resource Conservation and Recovery Act (RCRA) characteristic and/or listed wastes[1] are or may be present in the waste, along with a radioactive component.

[1]Use of the terms, "RCRA characteristic and/or listed waste" or "RCRA constituents" refers to hazardous wastes or hazardous constituents as defined in 20 NMAC 4.1, Subpart II, Part 261, revised November 1, 1995.

E.10.3 Closure Procedure and Decontamination

E.10.3.1 Partial Closure

Partial closure would consist of closing one or more of the regulated hazardous/mixed waste management units or subunits at the LANL facility, while leaving the other regulated hazardous/mixed waste management units at LANL in service. In the event of a partial closure, the following procedures would apply to the unit(s) being closed.

E.10.3.2 Unit Closure

To the extent possible, all contaminated structures and equipment at the CSAs addressed in this closure plan will be decontaminated. Structures, equipment, and media that cannot be decontaminated will be containerized and managed in compliance with appropriate regulations. All sampling conducted during closure and decontamination will be done in accordance with quality assurance/quality control (QA/QC) procedures (see Section E.10.7).

Before proceeding with any closure activities, the CSAs will be surveyed for radiological contamination. Personal protective equipment (PPE) and monitoring requirements will be determined by LANL's ~~Health Physics Operations (ESH-1) and Industrial Hygiene and Safety (ESH-5) Groups~~health physics and industrial hygiene and safety personnel following a field inspection. Radiation and chemical monitoring will occur throughout closure activities. If any contamination is found, the contaminated materials, equipment, and/or structures will be decontaminated (if possible) or containerized and taken to an approved storage location at LANL appropriate for the waste type.

Personnel involved in closure activities will wear appropriate PPE, specified by health physics and industrial hygiene and safety personnel~~ESH-1 and ESH-5~~, and will follow good hygiene practices to protect employees from exposure to hazardous and/or mixed waste. The level of PPE that will be required will depend upon the levels of radiological and/or chemical contamination that are detected, if any. If health physics and industrial hygiene and safety personnel~~ESH-1 and ESH-5~~ surveys do not indicate detectable contamination levels, minimum PPE requirements will consist of coveralls, steel-toed boots, and safety glasses or face shields. If an overhead danger is present, a hard hat will be worn. All workers involved in closure activities will be required to have training and medical monitoring. Contaminated PPE will either be decontaminated or managed in compliance with appropriate regulations.

All wastes will be removed from the CSA scheduled to be closed prior to the initiation of closure activities. Containers will be removed from each storage area primarily with forklifts. Small containers may be handled manually or with dollies. All containers will be placed onto flatbed trucks or trailers for transport. All appropriate shipping papers will accompany the wastes during transport. Containers holding regulated hazardous/mixed wastes will be moved to an approved on-site facility or permitted off-site disposal facility.

Before decontamination activities begin, samples of the clean water and detergent (wash water) solution squeezed from mops and/or sponges prior to use will be collected for analysis of the parameters listed in Table E.10-1. The analytical results from these samples will be used to provide a baseline for decontamination verification.

E.10.4 Closure Schedule

Closure will not commence until all of the wastes have been removed from the CSA scheduled to be closed. Closure activities will begin in accordance with the approved closure plan, as required by the New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart V, 264.113(a), revised November 1, 1995, within 90 days after final receipt of waste at the CSA. This timeframe will be met as long as facilities are available for disposal of these wastes. In the event that waste removal activities cannot be completed at the CSA within 90 days, LANL will notify the Secretary of the NMED in accordance with the extension requirements cited in 20 NMAC 4.1, Subpart V, 264.113(a), revised November 1, 1995. Closure activities and reporting requirements will be completed within 180 days of the receipt of the final volume of waste at the waste management area to be closed. Closure will be conducted in accordance with the schedule presented in Table E.10-2. In the event that closure of a CSA is prevented from proceeding according to schedule, LANL will notify the Secretary of the NMED in accordance with extension request requirements in 20 NMAC 4.1, Subpart V, 264.113(b), revised November 1, 1995. In addition, the demonstrations in 20 NMAC 4.1, Subpart V, 264.113(a)(1) and (b)(1), revised November 1, 1995, will be made in accordance with 20 NMAC 4.1, Subpart V, 264.113(c), revised November 1, 1995.

E.10.5 Closure Certification

Within 60 days after completion of closure activities for each of the CSAs, the U.S. Department of Energy (DOE) will submit to the Secretary of the NMED, via certified mail, a certification that the area has been closed in accordance with the specifications of the closure plan. The certification will be attested to by an independent, registered professional engineer and will be signed by the appropriate DOE and LANL officials, in accordance with 20 NMAC 4.1, Subpart V, 264.115, revised November 1, 1995. Documentation supporting the independent registered engineer's certification will be furnished to the Secretary of the NMED with the original certification. A copy of the certification and supporting documentation shall be maintained by both the DOE/Los Alamos ~~Area~~ Site Office and LANL's ~~Hazardous and Solid Waste Group~~hazardous waste compliance personnel.

E.10.6 Sampling and Analytical Procedures

The following sections describe procedures and methods for sampling, analysis, and documentation applicable to closure activities. While the procedures and methods are specific, other applicable procedures or methods given in SW-846 may be used if conditions or experience show the alternate method to be more appropriate. All sampling and analytical procedures actually used will be annotated in the final closure report. Sampling will be conducted in accordance with procedures given in SW-846~~ (for hazardous components) and LANL's Inorganic Trace Analysis Group (CST-9) procedures (for radiological analysis)~~. Analysis will be conducted by a DOE certified analytical laboratory.

E.10.6.1 Soil Sampling

Soil samples will be collected at the CSAs at TA-54, Area G, to determine if contaminants have migrated from the CSAs and, if so, to determine the horizontal and vertical extent of such migration.

E.10.6.1.1 Cleaning of Samplers

To prevent cross contamination, it is important to clean the samplers after each sample is collected. An unused, disposable sampler may be presumed clean if still in a factory-sealed wrapper. Unsealed samplers will be cleaned prior to use. The samplers will be washed with a detergent and water solution, rinsed several times with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry.

E.10.6.1.2 Sampling Procedures

The sampling procedures outlined below will be used to obtain samples to determine the amount of RCRA constituents,[2] if any, in soil associated with the units undergoing closure. Soil samples will be collected from the 6-inch depth with a trowel or scoop or with a Veihmeyer soil sampler. Sampling procedures will be performed as follows:

- Trowel or Scoop
  - Take small, equal portions of sample from the surface or near the surface of the material to be sampled.
  - Combine the samples in a container appropriate for the required analysis.
  - Cap the container, attach a label and seal, and preserve as required (see Table E.10-3). Record in the field logbook, and complete the sample analysis request sheet and chain-of-custody form. Deliver the samples ~~to CST-9 for radiological screening and~~ to the laboratory for analysis.
- Veihmeyer Sampler
  - Assemble the sampler by screwing in the tip and drive head on the sampling tube.
  - Insert the tapered handle (drive guide) of the drive hammer through the drive head.
  - Place the sampler in a perpendicular position on the soil to be sampled.
  - With the left hand holding the tube, drive the sampler into the soil to the desired sampling depth by pounding the drive head with the drive hammer. Do not drive the tube further than the tip of the hammer's drive guide.
  - Record the length of the tube that penetrated the material.

[2]Refer to Footnote 1.

- Move the drive hammer onto the drive head. In this position, the hammer serves as a handle for the sampler.

- Rotate the sampler at least two revolutions to shear off the sample at the bottom.

- Lower the sampler handle (hammer) until it just clears the two ear-like protrusions on the drive head and rotate about 90 degrees.

- Withdraw the sampler from the material by pulling the handle (hammer) upwards. When the sampler cannot be withdrawn by hand, as in deep soil sampling, use a puller jack and grip.

- Dislodge the hammer from the sampler, turn the sampler tube upside down, tap the head gently against the hammer, and carefully recover the sample from the tube. The sample should slip out easily.

- Store the sample in an appropriate sample container.

- Label the sample, affix the seals, preserve as required (see Table E.10-3), record in the field logbook, complete the sample analysis request sheet and chain-of-custody form, and deliver the samples ~~to CST-9 for radiological screening and~~ to the laboratory for analysis.

E.10.6.2 Liquid Sampling

A ~~coliwasa~~ composite liquid waste sampler (COLIWASA) or similar device will be used to sample unused wash water solutions before decontamination begins in order to determine baseline parameters. It will also be used to sample the wash water used in cleaning structures and equipment. As an alternative to the ~~coliwasa~~COLIWASA, glass tubes may be used to sample liquids. The primary advantage in using a glass tube is that the tube will be disposed of appropriately after each sample is collected, thus eliminating the potential for cross contamination.

E.10.6.2.1 Cleaning of Samplers

The sampler must be clean before use. An unused, disposable sampler may be presumed clean if still in a factory-sealed wrapper. Unsealed samplers will be cleaned prior to use. Samplers will be washed with a detergent and water solution, rinsed several times with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry. A necessary piece of equipment for cleaning the tube of the COLIWASA ~~coliwasa~~ is a bottle brush that fits tightly inside the diameter of the tube. The brush is connected to a rod of sufficient length to reach the entire length of the sampler tube. Improper cleaning of sampling equipment will cause cross contamination of samples. Clean samplers should be stored in clean polyethylene plastic tubes or bags in a clean and protected area.

E.10.6.2.2 Sampling Procedure

Liquid sampling with a COLIWASA ~~coliwasa~~ will be performed as follows:

- Ensure that the COLIWASA ~~coliwasa~~ is clean.
- Assemble the COLIWASA~~coliwasa~~.
- Check that the sampler is functioning properly. Adjust the locking mechanism, if necessary, to make sure the neoprene rubber stopper provides a tight closure.
- Wear necessary protective clothing and gear, and observe required sampling precautions.
- Put the sampler in the open position by placing the stopper-rod handle in the T-position and pushing the rod down until the handle sits against the sampler's locking block.
- Slowly lower the COLIWASA ~~coliwasa~~ into the liquid at a rate that permits the level of the liquid inside and outside the sampler tube to be about the same. If the level of the liquid in the sampler tube is lower than that outside the sampler, the sampling rate is too fast and will result in a nonrepresentative sample.
- When the sampler stopper hits the bottom of the liquid container, push the sampler tube downward against the stopper to close the sampler. Lock the sampler in the closed position by turning the T-handle until it is upright and one end rests tightly on the locking block.
- Slowly withdraw the sampler from the container with one hand, while wiping the sampler tube with a disposable cloth with the other hand.
- Carefully discharge the sample into a sample container by slowly opening the sampler. This is done by slowly pulling the lower end of the T-handle away from the locking block, while the lower end of the sampler is positioned in the sample container.
- Preserve as required (see Table E.10-4), cap the container, attach a label and seal, place immediately in an insulated container with ice (if required), record in the field logbook, and complete the sample analysis request sheet and chain-of-custody form.
- Unscrew the T-handle of the sampler and disengage the locking block. Clean the sampler on site, or store the contaminated parts of the sampler in a plastic storage tube or bag for subsequent cleaning. Store used rags in plastic bags for subsequent disposal.

E.10.6.3 Sample Handling and Documentation

Samples will be analyzed either at LANL or at a commercial laboratory. In either case, each sample will be labeled, sealed, and accompanied by a chain-of-custody and sample analysis request form. The chain-of-custody form is necessary to trace sample possession from the time of collection to the time of analysis and must accompany every sample. The original record accompanies shipment. The copy is retained by LANL. If samples are analyzed at LANL, the original will be maintained by LANL. The request for analysis form has two parts: field and laboratory. The field portion of this form must be completed by the person collecting the sample and must include most of the pertinent information noted in the logbook. The laboratory portion is intended to be completed by the analytical laboratory personnel

TABLE E.10-2
SCHEDULE FOR CLOSURE ACTIVITIES AT TECHNICAL AREA 54, AREA G, CONTAINER STORAGE AREAS TA-54-226, -229, -230, -231, -232, PAD 9, AND PAD 10

Activity	Maximum Time Required[a]
Let contract request for proposals-90 Days	
Notify the New Mexico Environment Department (NMED)	-45 Days
Receive proposals	-30 Days
Select contractor and award contract	-10 Days
Collect background samples	-5 Days
Final receipt of waste	Day 0
Begin closure activities - removal of wastes	Day 10
Washdown of structures	Day 20
Perform initial sampling of the waste management area	Day 25
Analyze samples	Day 55
Perform additional washdown (if necessary)	Day 60
Perform additional sampling (if necessary)	Day 70
Analyze samples (if necessary)	Day 100
Perform pad washdown and sampling	Day 110
Analyze samples	Day 140
Perform final cleanup (e.g., removal of decontaminated equipment and decontamination wastes)	Day 140
Verify decontamination	Day 150
Submit final report to NMED	Day 180

[a] The schedule above indicates calendar days from the beginning by which activities will be completed. Some activities may be conducted simultaneously.

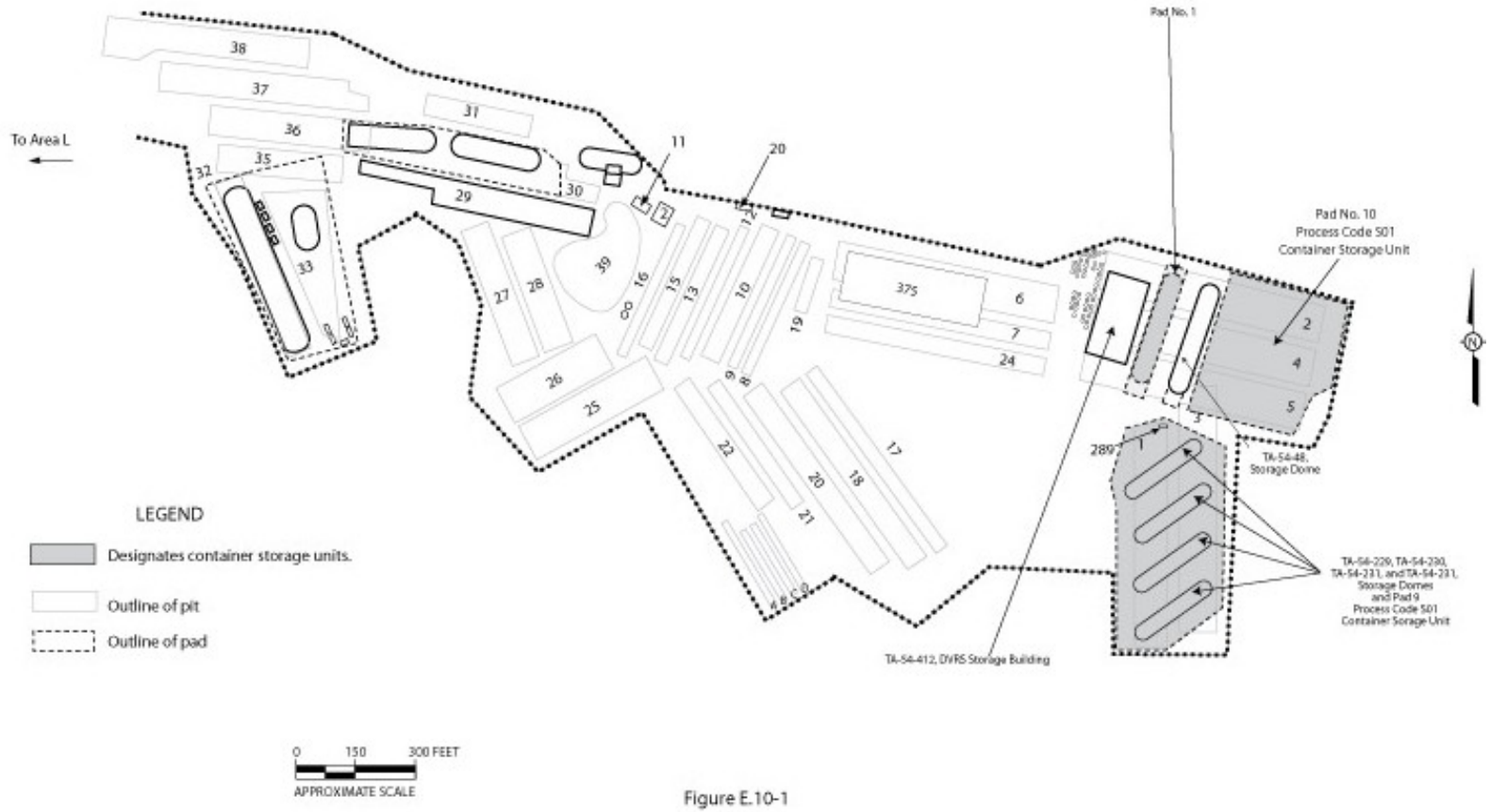

Figure E.10-1

Technical Area (TA) 54, Area G TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Storage Pads 9 & 10

~~FIGURE E.10-1~~

~~TECHNICAL AREA (TA) 54, AREA G, TA-54-226, -239, -230, -231, -232, AND PAD 10~~

CLOSURE PLAN
PERMIT ATTACHMENT E.12
NM0890010515-1

E.12 TECHNICAL AREA 54 WEST, BUILDING 38, RADIOASSAY AND NONDESTRUCTIVE TESTING (RANT) FACILITY CONTAINER STORAGE AREAS

The container storage areas (CSA) addressed in this closure plan include the Low Bay, the High Bay, the Loading Dock, and the Outdoor CSAs at the Technical Area 54 West, Building 38 (TA-54-38), Radioassay and Nondestructive Testing (RANT) Facility (Figure E.12-1). The CSAs are used to store transuranic (TRU) mixed waste and low-level mixed waste.

Waste drums of various sizes are stored in the Low Bay CSA and the Loading Dock CSA. The Low Bay CSA is approximately 11 feet (ft) square, and the low bay floor is 6-inch reinforced concrete slab coated with industrial grade enamel paint. The Loading Dock, located just east of the low bay, is approximately 16 ft wide and 39 ft long. It is constructed of cast-in-place concrete. ~~A truck ramp, which is not part of the Loading Dock CSA, runs perpendicular to the loading dock platform. At the bottom of the truck ramp is a 38-inch-square grate covering a drainage culvert. A slide gate valve is closed to seal the culvert whenever potential liquid-bearing waste containers are loaded or unloaded at the loading dock.~~ A canopy which is not part of or connected to the loading dock runs perpendicular to the loading dock platform. The canopy covers an asphalt area that is currently used primarily for storage of materials and product utilized during waste shipping/storage operations at the TA-54-38, RANT Facility. The Loading Dock CSA is divided into two areas on the platform. One area at the north end of the loading dock is 16 ft by 10 ft. The second area at the south end of the loading dock is 16 ft by 12 ft.

The High Bay CSA stores drums of various sizes, fiberglass-reinforced plywood boxes, standard waste boxes (SWB), and B25 boxes. The High Bay CSA, located along the south side of the center wall, is approximately 11 ft wide and 34 ft long. The high bay floor is 6-inch reinforced concrete slab. It slopes gently toward a central 50-ft trench and a sump. The sump is locked out and a pipe plug has been installed.

Waste containers stored in the Outdoor CSA include drums of various sizes, SWBs, and B25 boxes. The Outdoor CSA, comprised of the storage pad surrounding the north, east, and south sides~~located just north~~ of the RANT Facility, is approximately 7,248~~40 ft square~~square ft. It is constructed of asphaltic concrete, is approximately 4 inches thick, and ~~slopes gently to the northeast~~most of the yard (north and east side) slopes gently to the northeastern corner while the south slopes towards the curbing south of the building toward the curbed edges.

E.12.1 Estimate of Maximum Waste in Storage

The maximum inventory of waste in storage at any time at the TA-54-38 RANT Facility is estimated at 11,660 gallons. A breakdown of the maximum inventories for each of these areas is as follows:

- Low Bay CSA - 880 gallons
- High Bay CSA - 2,200 gallons
- Loading Dock CSA - 660 gallons

- Outdoor CSA - 7,920 gallons

E.12.2 Description of Waste

TRU mixed waste stored in the TA-54-38 RANT Facility CSAs is generated during research activities, processing and recovery operations, and decontamination and decommissioning operations primarily at TA-3, TA-21, TA-50, and TA-55. Low-level mixed waste stored is generated during research activities, processing and recovery operations, decontamination and decommissioning operations, and environmental remediation/restoration activities at various TAs throughout Los Alamos National Laboratory (LANL). These wastes are classified as mixed wastes because Resource Conservation and Recovery Act (RCRA) characteristic and/or listed wastes are or may be present in the waste, along with a radioactive component.

E.12.3 Closure Procedure and Decontamination

E.12.3.1 Partial Closure

Partial closure would consist of closing one or more of the RCRA-regulated waste management units or subunits at the LANL facility, while leaving the other RCRA-regulated waste management units at LANL in service. In the event of a partial closure, the following procedures would apply to the unit(s) being closed.

E.12.3.2 Unit Closure

To the extent possible, all contaminated structures and equipment at the CSAs addressed in this closure plan will be decontaminated. Structures, equipment, and media that cannot be decontaminated will be containerized and managed in compliance with appropriate regulations. All sampling conducted during closure and decontamination will be done in accordance with quality assurance/quality control (QA/QC) procedures (see Section E.12.7).

Before proceeding with any closure activities, the CSAs will be surveyed for radiological contamination. Personal protective equipment (PPE) and monitoring requirements will be determined by LANL's ~~Health Physics Operations (ESH-1) and Industrial Hygiene and Safety (ESH-5) Groups~~health physics and industrial hygiene and safety personnel following a field inspection. Radiation and chemical monitoring will occur throughout closure activities. If any contamination is found, the contaminated materials, equipment, and/or structures will be decontaminated (if possible) or containerized and taken to an approved storage location at LANL appropriate for the waste type.

Personnel involved in closure activities will wear appropriate PPE, specified by health physics and industrial hygiene and safety personnel~~ESH-1 and ESH-5~~, and will follow good hygiene practices to protect employees from exposure to hazardous and/or mixed waste. The level of PPE that will be required will depend upon the levels of radiological and/or chemical contamination that are detected, if any. If health physics and industrial hygiene and safety personnel~~ESH-1 and ESH-5~~ surveys do not indicate detectable contamination levels, minimum PPE requirements will consist of coveralls, steel-toed boots, and safety glasses or face shields. If an overhead danger is present, a hard hat will be worn. All workers involved in closure activities will be required to have training and medical monitoring. Contaminated PPE will either be decontaminated or managed in compliance with appropriate regulations.

Within 60 days after completion of closure activities for each of the CSAs, the U.S. Department of Energy (DOE) will submit to the Secretary of the NMED, via certified mail, a certification that the area has been closed in accordance with the specifications of the closure plan. The certification will be attested to by an independent, registered professional engineer and will be signed by the appropriate DOE and LANL officials, in accordance with 20 NMAC 4.1, Subpart V, 264.115, revised November 1, 1995. Documentation supporting the independent registered engineer's certification will be furnished to the Secretary of the NMED with the original certification. A copy of the certification and supporting documentation shall be maintained by both the DOE/Los Alamos ~~Area~~ Site Office and LANL's ~~Hazardous and Solid Waste Group.~~hazardous waste compliance personnel

E.12.6 Sampling and Analytical Procedures

The following sections describe procedures and methods for sampling, analysis, and documentation applicable to closure activities. While the procedures and methods are specific, other applicable procedures or methods given in SW-846 may be used if conditions or experience show the alternate method to be more appropriate. All sampling and analytical procedures actually used will be annotated in the final closure report. Sampling will be conducted in accordance with procedures given in SW-846 ~~(for hazardous components) and LANL's Inorganic Trace Analysis Group (CST-9) procedures (for radiological analysis)~~Analysis will be conducted by a DOE certified analytical laboratory.

E.12.6.1 Soil and Sediment Sampling

Soil samples will be collected only if evidence is found that hazardous constituents have migrated from the CSAs discussed in this closure plan. The soil samples will only then be collected to determine if contaminants have migrated from the CSAs and, if so, to determine the horizontal and vertical extent of such migration. Sediment samples from the sump associated with the High Bay CSA may also need to be obtained if evidence is found that hazardous constituents have migrated from this CSA.

E.12.6.1.1 Cleaning of Samplers

To prevent cross contamination, it is important to clean the samplers after each sample is collected. An unused, disposable sampler may be presumed clean if still in a factory-sealed wrapper. Unsealed samplers will be cleaned prior to use. The samplers will be washed with a detergent and water solution, rinsed several times with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry.

E.12.6.1.2 Sampling Procedures

The sampling procedures outlined below will be used to obtain samples to determine the amount of RCRA constituents in soil associated with the units undergoing closure. Soil samples will be collected from the 6-inch depth with a trowel or scoop or with a Veihmeyer soil sampler. Sediment samples will be collected with a trowel or scoop. Sampling procedures will be performed as follows:

- Trowel or Scoop
  - Take small, equal portions of sample from the surface or near the surface of the material to be sampled.

- Combine the samples in a container appropriate for the required analysis.

- Cap the container, attach a label and seal, and preserve as required (see Table E.12-3). Record in the field logbook, and complete the sample analysis request sheet and chain-of-custody form. Deliver the samples to ~~CST-9 for radiological screening and to~~ the laboratory for analysis.

• Veihmeyer Sampler
  - Assemble the sampler by screwing in the tip and drive head on the sampling tube.

  - Insert the tapered handle (drive guide) of the drive hammer through the drive head.

  - Place the sampler in a perpendicular position on the soil to be sampled.

  - With the left hand holding the tube, drive the sampler into the soil to the desired sampling depth by pounding the drive head with the drive hammer. Do not drive the tube further than the tip of the hammer's drive guide.

  - Record the length of the tube that penetrated the material.

  - Move the drive hammer onto the drive head. In this position, the hammer serves as a handle for the sampler.

  - Rotate the sampler at least two revolutions to shear off the sample at the bottom.

  - Lower the sampler handle (hammer) until it just clears the two ear-like protrusions on the drive head and rotate about 90 degrees.

  - Withdraw the sampler from the material by pulling the handle (hammer) upwards. When the sampler cannot be withdrawn by hand, as in deep soil sampling, use a puller jack and grip.

  - Dislodge the hammer from the sampler, turn the sampler tube upside down, tap the head gently against the hammer, and carefully recover the sample from the tube. The sample should slip out easily.

  - Store the sample in an appropriate sample container.

  - Label the sample, affix the seals, preserve as required (see Table E.12-3), record in the field logbook, complete the sample analysis request sheet and chain-of-custody form, and deliver the samples to ~~CST-9 for radiological screening and to~~ the laboratory for analysis.

E.12.6.2 Liquid Sampling

A ~~coliwasa~~ composite liquid waste sampler (COLIWASA) or similar device will be used to sample unused wash water solutions before decontamination begins in order to determine baseline parameters. It will also

be used to sample the wash water used in cleaning structures and equipment. As an alternative to the COLIWASA~~coliwasa~~, glass tubes may be used to sample liquids. The primary advantage in using a glass tube is that the tube will be disposed of appropriately after each sample is collected, thus eliminating the potential for cross contamination.

E.12.6.2.1 Cleaning of Samplers

The sampler must be clean before use. An unused, disposable sampler may be presumed clean if still in a factory-sealed wrapper. Unsealed samplers will be cleaned prior to use. Samplers will be washed with a detergent and water solution, rinsed several times with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry. A necessary piece of equipment for cleaning the tube of the COLIWASA ~~coliwasa~~ is a bottle brush that fits tightly inside the diameter of the tube. The brush is connected to a rod of sufficient length to reach the entire length of the sampler tube. Improper cleaning of sampling equipment will cause cross contamination of samples. Clean samplers should be stored in clean polyethylene plastic tubes or bags in a clean and protected area.

E.12.6.2.2 Sampling Procedure

Liquid sampling with a COLIWASA ~~coliwasa~~ will be performed as follows:

- Ensure that the COLIWASA ~~coliwasa~~ is clean.
- Assemble the COLIWASA~~coliwasa~~.
- Check that the sampler is functioning properly. Adjust the locking mechanism, if necessary, to make sure the neoprene rubber stopper provides a tight closure.
- Wear necessary protective clothing and gear, and observe required sampling precautions.
- Put the sampler in the open position by placing the stopper-rod handle in the T-position and pushing the rod down until the handle sits against the sampler's locking block.
- Slowly lower the COLIWASA ~~coliwasa~~ into the liquid at a rate that permits the level of the liquid inside and outside the sampler tube to be about the same. If the level of the liquid in the sampler tube is lower than that outside the sampler, the sampling rate is too fast and will result in a nonrepresentative sample.
- When the sampler stopper hits the bottom of the liquid container, push the sampler tube downward against the stopper to close the sampler. Lock the sampler in the closed position by turning the T-handle until it is upright and one end rests tightly on the locking block.
- Slowly withdraw the sampler from the container with one hand, while wiping the sampler tube with a disposable cloth with the other hand.
- Carefully discharge the sample into a sample container by slowly opening the sampler. This is done by slowly pulling the lower end of the T-handle away from the locking block, while the

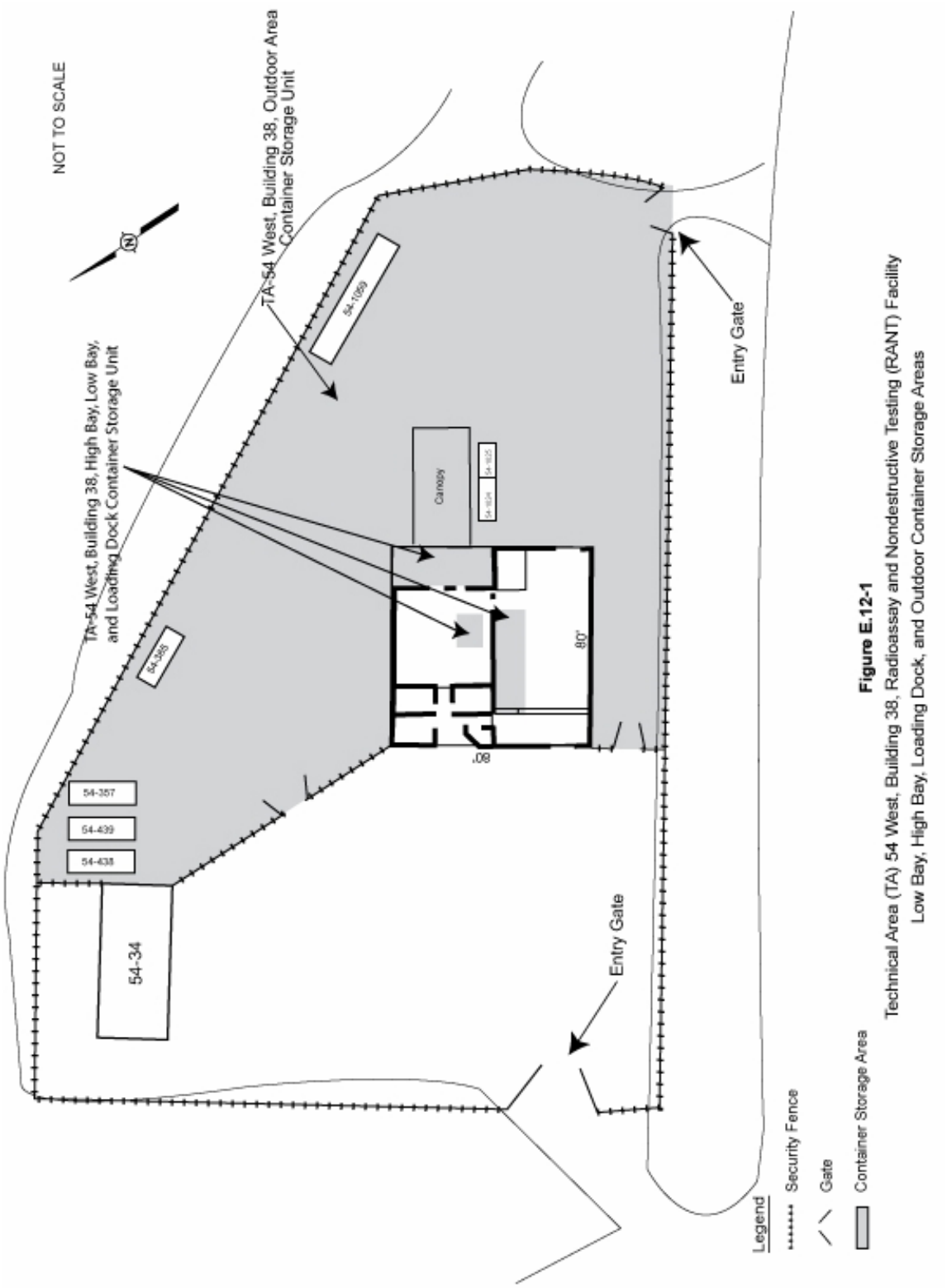

Figure E.12-1
Technical Area (TA) 54 West, Building 38, Radioassay and Nondestructive Testing (RANT) Facility
Low Bay, High Bay, Loading Dock, and Outdoor Container Storage Areas

ATTACHMENT F
CONTAINER MANAGEMENT

F.1 CONTAINER PACKAGING, SAMPLING and LABELING

F.1.1 Container Packaging and Transport

When chemical substances are declared to be in excess, the originating group completes Waste Profile Form (WPF, see Permit Attachments A.2 and A.3) and sends the form to the ~~Solid Waste Operations Group (FWO-SWO)~~waste management services personnel. The WPF provides waste characterization information for subsequent management of material. The WPF is reviewed for adequacy of information and assignation of segregation codes, Department of Transportation (DOT) information, and Environmental Protection Agency (EPA) Hazardous Waste Numbers. When the WPF is approved, the waste generator submits a Chemical Waste Disposal Request (CWDR) to waste management services personnel~~FWO-SWO~~. The CWDR lists the chemical waste the generating group needs to dispose of, the quantity of the wastes, and other pertinent information about the containers.

A uniform waste manifest is prepared for use when the waste is collected, packaged, and transported. All waste materials are packaged and transferred in accordance with DOT regulations and the Laboratory's On-Site Transportation Manual.

Waste management services ~~FWO-SWO~~ personnel review the waste disposal request for adequacy of information and assignation of segregation codes, DOT information, and EPA codes. Waste management services ~~FWO-SWO~~ personnel then use the waste disposal request to complete the shipping papers for waste collection. Also, waste management services personnel ~~FWO-SWO~~ use the waste disposal request to create a second record as part of the Hazardous Waste Database. Waste management services ~~FWO-SWO~~ personnel visit the generating site to package the waste and transport it to TA-54, Area L. All waste is transferred in accordance with DOT regulations and Laboratory procedures.

Containers will be visually inspected for integrity before transport. If the container is unacceptable, it will be repackaged or overpacked prior to transport. The wastes are transported by vehicles ranging from half-ton to trucks to semitrailers with maximum capacities of up to 80,000 pounds.

Upon arrival at a hazardous or mixed waste management unit, the wastes are unloaded from the transport vehicle and placed into appropriate storage areas. Lab pack waste will be temporary placed at the packaging building for labeling or compositing. Drums and Tuff-Tanks will be placed on either the sampling pad or storage pad for sampling and labeling.

F.1.2 Drum Labeling, Recording, and Sampling System

Each unique package of waste is labeled with the following information:

—chemical segregation group number

—unique record number

—date of generation

—either an EPA hazardous waste label or the words "hazardous waste."

—DOT Hazard class and shipping information, as appropriate

— EPA hazardous waste code(s) or the hazardous constituent(s)

This information and the data from the CWDR are entered into a chemical and mixed waste database. All records are then maintained in accordance with the requirements of this permit.

Sampling of the waste is then performed as outlined in Permit Attachment A. The sampling pad at TA-54, Area L, is restricted to one compatibility group of chemicals at a time (e.g., organics). The group allowed at the time will be posted on the pad. This ensures that incompatible chemicals do not react in the containment basin of the pad. Before a new compatibility group of chemicals is placed on the pad, the containment area will be cleaned. For this reason, the main sampling pad will generally be used for organic waste and acid/base waste will be sampled at the appropriate storage cell.

After all packages are labeled and/or sampled, they are moved to one of the Laboratory's storage areas. The permitted areas are defined in Permit Module III.

F.2 STORAGE AREA PRACTICES

F.2.1 Storage Areas at TA-50 and TA-54

The Laboratory has the following storage areas that are the subject of this permit: modular storage units and the main storage pad at TA-54, Area L; the modular storage unit at TA-50, the storage room; the TA-50-69 indoor and outdoor storage units; and the TA-54-38 storage units; and TA-54-226, -229, -230, -231, -232, and Pads 9 & 10 at TA-54, Area G. The usage of each of these units is discussed below.

F.2.1.1 Modular Storage Units, TA-54, Area L (TA-54-68 and -69 and -70)

The primary usage of the modular units will be for the storage of lab pack waste, particularly those in fiberboard containers. After labeling, the lab packs are placed directly in the appropriate storage cell. Each modular unit has two or three cells allowing single chemical family group to be stored in each cell at any one time. However, more than one cell may be used for the same chemical type. Each cell will be labeled as to the chemical family stored there. If at any time the cell designation changes, such as from organic to reactive, the cell will first be cleaned to ensure that no hazardous waste constituent residues remain that would create an incompatibility problem during a spill.

F.2.1.2 Storage Pad at TA-54, Area L (TA-54-32)

Material stored on the storage pad at TA-54, Area L, will generally be placed there after labeling and sampling. This may not be the case for acids and bases where the storage cell is also used as the sampling pad. The pad is divided into six cells allowing the storage of six chemical family groups. However, more than one cell may be used for the same chemical type. All cells will be labeled as to which chemical type is

stored there. If at any time it is necessary to change the designation of a cell, it will first be cleaned to remove any residues that might produce an unfavorable reaction with the new chemical type.

Concrete containment structure TA-54-32 has a temporary modular containment structure constructed over it. This modular structure provides containment and protection for the sampling and repackaging activities. The sides of the modular structure have been equipped with slanted sheets of plywood to direct the snow and rain away from the secondary containment. The modular containment structure is secured to the beams supporting the "pole barn" with guy wires. Whenever this temporary structure is decommissioned, it will be decontaminated according to the procedures of Permit Attachment E.3, E.3.3 and E.3.4: Closure Procedures and Decontamination and Decontamination Verification. The concrete storage pad 54-32 is covered by a steel canopy. The pad exterior has a 6-8-inch concrete curb to prevent run-on and is divided into six containment cells by concrete partitions which extend down to the sump. Grating is placed approximately 12 inches above the sump of the cells and prevents waste containers from coming into contact with accumulated liquids. Each cell has an independent sump that slopes toward a small secondary sump located on the east side of each containment cell. The small secondary sump facilitates removal of accumulated liquids, which are predominantly precipitation.

F.2.1.3 Modular Storage Unit at TA-50 (TA-50-114)

The modular storage units at TA-50 will be used primarily to store acid and base wastes. Each cell will be labeled acid or base to indicate the type of waste stored there. If at any time the designation of a cell needs to be changed, the cell will first be cleaned to ensure that incompatible residues have been removed.

F.2.1.5 Storage Room at TA-50-37, Room 117

The storage room at TA-50-37 is divided into two areas, one for solids and one for liquids. The liquid side is further divided into two cells. Therefore, up to three chemical types may be stored at any one time. Cells will be labeled as to the chemical type stored there. If at any time the cell designation needs to be changed, the cell will be cleaned to remove any incompatible residues.

F.2.1.6 Storage Pads at TA-54, Area L (TA-54-36 and –58)

The primary activities at TA-54-36 and TA-54-58 will fall into two categories. The first is sorting, surveying, and decontaminating certain waste currently in storage and labeled "suspect mixed waste." All of the waste found to contain no radioactive component will be repackaged, shipped off-site, and disposed of at a permitted Hazardous Waste Treatment, Storage and Disposal Facility.

The second is typically associated with hazardous and mixed waste streams for which commercial treatment and/or disposal is currently available. These waste streams will be staged, inspected, sampled, and analyzed to provide complete hazardous waste and radiological characterization. When these steps are completed, the waste streams will be profiled into the commercial facilities and shipped for ultimate treatment and/or disposal.

The activities at pads #58 and #36 consist of opening the drums, surveying the contents for radiological content, decontaminating the material as warranted, repackaging the material for either return to storage, shipment off-site for disposal, or disposal as low level waste at TA-54, Area G.

Pads #58 and #36 are concrete containment structures that consist of two cement pads that are sloped toward a dry containment sump at the centerline of the rear wall to facilitate pumping of any captured liquids. The walls encircling the pads vary from approximately 4 inches in height at the drive over entrance to the pad to approximately eleven and one-half inches in height at the edge of the dry sump. The "dry sump" in each pad is to provide secondary containment only, has no discharge and must be pumped in the event any liquid is captured. The pads are coated with an impermeable epoxy coating and are covered by a single, metal "pole barn."

~~Pad #36 has a temporary modular containment structure constructed over it. This structure provides containment and protection for the sampling and repackaging activities. The sides of the structure have been equipped with slanted sheets of plywood to direct the snow and rain away from the secondary containment. The modular containment structure is secured to the beams supporting the "pole barn" wit guy wires. Whenever this temporary structure is removed from Pad #36, it will be decontaminated according to the procedures of Permit Attachment E.3, E.3.3 and E.3.4: Closure Procedures and Decontamination and Decontamination Verification.~~

F.2.1.6 TA-54, Area G, Container Storage Areas (TA-54-226, -229, -230, -231, -232, and Pads 9 & 10)

The container storage areas (CSAs) at TA-54, Area G (TA-54-226, -229, -230, -231, and -232) will be used for the storage of waste containers, including drums and fiberglass-reinforced plywood (FRP) boxes, will be segregated by LANL waste code prior to being placed in a storage dome. If any of the retrieved containers require overpacking or repackaging, the overpack or repackaging container will be labeled with barcodes that identify the original waste container. In the transportainers or modular units at Storage Pads 9 & 10, waste containers will be stored along the length of the walls of the storage units allowing a center aisle for inspection and passage of emergency equipment. Drums will not be stacked within the modular units. None of the wastes to be placed in the storage domes will be incompatible wastes and no wastes will be placed in containers that previously held incompatible wastes. TA-54-230, TA-54-231, and Storage Pads 9 & 10 will be used to store drums and FRP crates that potentially contain liquids. The remaining CSAs will store only solid waste.

F.2.1.7 TA-50-69 Indoor and Outdoor Container Storage Areas

The indoor and outdoor storage areas associated with TA-50-69 are used for storage of TRU mixed waste, low-level mixed waste, and hazardous waste. Potentially incompatible wastes will be segregated on self-containment pallets at both the indoor and outdoor storage areas. Potential liquid-bearing waste containers will be stored on self-containment pallets at both the indoor and outdoor storage areas.

F.2.1.8 TA-54-38 Container Storage Areas

The four container storage areas at TA-54-38 are used for storage of TRU mixed waste and low-level mixed waste. Potentially incompatible wastes will be segregated on self-containment pallets at each storage area. Potential liquid-bearing waste containers will be stored on self-containment pallets at each storage area.

F.2.2 General Container Management Practices

All hazardous recyclable materials are stored as hazardous waste until such time as they are recycled. They are placed in the same segregated storage areas as the other waste.

EPA I.D. Number (enter from Page 1): NM0890010515

Secondary ID Number (enter from Page 1): ☐☐☐☐☐☐☐☐☐☐

XIV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
Technical Area (TA) 54-226, -229, -230, -231, ~~and~~ -232, and Storage Pad 9							
1	F001	1,301	P	S01			
2	F002						
3	THIS LINE INTENTIONALLY LEFT BLANK						
4	D007	406,940	P	S01			
5	D008						
6	THIS LINE INTENTIONALLY LEFT BLANK						
7	D006	311,765	P	S01			
8	D007						
9	D008						
10	THIS LINE INTENTIONALLY LEFT BLANK						
11	D001	101,995	P	S01			
12	THIS LINE INTENTIONALLY LEFT BLANK						
13	D003	71,062	P	S01			
14	THIS LINE INTENTIONALLY LEFT BLANK						
15	D008	96,700	P	S01			
16	THIS LINE INTENTIONALLY LEFT BLANK						
17	D008	190,691	P	S01			
18	THIS LINE INTENTIONALLY LEFT BLANK						
19	D008	434,743	P	S01			
20	THIS LINE INTENTIONALLY LEFT BLANK						
21	D004	2,413,802	P	S01			
22	D007						
23	D008						
24	D011						
25	F001						
26	F002						
27	F003						