



Permit

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



MAY 31 2007



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

Subject: Comments to "2007 Request for Four Class 2 Permit Modifications to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit," EPA ID # NM890010515-1

Dear Mr. Kieling,

The purpose of this letter is to provide the National Nuclear Security Administration (NNSA) and the Los Alamos National Security, LLC (LANS) response to comments on the above referenced document resulting from informal discussions with your staff on May 9, 2007. The document requests four Class 2 permit modifications to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit, EPA ID # NM890010515-1 and was submitted to the Hazardous Waste Bureau of the New Mexico Environment Department (NMED) on March 30, 2007.

The enclosed document (Attachment A) contains NNSA/LANS responses to NMED concerns on the permit modification request package regarding issues that were identified during the public comment period. The general comments at the beginning of Attachment A are not directly related to the permit modification request currently undergoing public comment. Recommended changes within Attachment A have been discussed with the NMED and are included to provide clarification/correction to the original submittal.

If you should have any questions or concerns regarding this submittal, please feel free to contact me at (505) 667-5794 or Jack Ellvinger, LANS, at (505) 667-0633.

Sincerely,

Gene Turner
Environmental Permitting Manager

EO: 2GT-034

cc: See Page 2



16371

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Attachment A

Comments “Request for Class 2 Permit Modifications to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit No. NM890010515-1” dated March 29, 2007

LA-UR-07-3552

LA-UR-07-3552

Approved for public release;
distribution is unlimited.

<i>Title:</i>	Comments on "Request for Class 2 Permit Modifications to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit Number NM890010515-1" dated March 29, 2007
<i>Author(s):</i>	Water Quality and RCRA Group Los Alamos National Laboratory
	May 2007
<i>Intended for:</i>	New Mexico Environment Department- Hazardous Waste Bureau



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Comment Number	Section of Permit	Comment	Recommended Change
1	General Comment	The concrete containment structures at Technical Area (TA) 54, Area L, 54-36 and 54-58 are included in Module III and Attachment F of the permit, but are not addressed in a closure plan.	Add descriptions of the units to Attachment E.7 of the permit.
2	General Comment	The concrete containment structures at TA-54, Area L 54-36 and 54-58 do not have a quantity listed in Section Module III, Section III.C.3.	Add the following quantities within Module III, Section III.C.3: <ul style="list-style-type: none"> • TA-54-36 secondary containment capacity 4,595 gallons • TA-54-36 total storage capacity 13,200 gallons • TA-54-58 secondary containment capacity 2,852 gallons • TA-54-58 total storage capacity 15,840 gallons
3	Module III.A.3.c	Clarify at the end of the section that waste on Pad 9 will only be stored in transportainers or modular buildings.	Change the second to the last sentence of the section to read, "Waste stored on Pad 9 will only be stored in transportainers or modular buildings."
4	Module III.C.3.g	No estimate of the quantity of liquid waste has been given for TA-54, Area G, Dome 231, which has no sump or other engineered secondary containment. The full storage capacity of the dome (790,000 gallons) can be used to store liquid waste. It is unlikely that the full capacity will be reached because not all containers in the dome will contain liquids. Each container that contains or may contain any liquids will be stored on secondary containment that meets the requirements of New Mexico Administrative Code, Title 20, Chapter 4, Part 1, Subpart V (20.4.1.500 NMAC) (incorporating Code of Federal Regulations [CFR], Title 40 § 264.175(b)(3)), revised October 1, 2003.	No suggested changes to the proposed permit modification language.

Comment Number	Section of Permit	Comment	Recommended Change
5	Figure 6	Figure 6 contains an error in the labeling for the proposed modular structure to be relocated from TA-54-36 to TA-54-32.	Replace Figure 6 with revised provided with this document as Appendix A.
6	Figure 11	Upon approval of the Class 2 permit modification allowing the placement of modular buildings or transportainers on Pad 9, LANL will submit a Class 1 Permit Modification that depicts the location of the storage on the pad.	No suggested change to the proposed permit modification.
7	Figure 13	On this figure non-Resource Conservation and Recovery Act (RCRA) structures have not been excluded from the proposed container storage area.	Replace Figure 13 in permit modification with the revised included with this document as Appendix B. The revised figure non-RCRA structures are excluded from the proposed container storage area.
8	Attachment B, Section B.6	Aisle space on Pad 9 has not been addressed in the permit modification.	Suggest revising sentence in Section B.6, Paragraph 2 as follows: "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 <u>9 & 10</u> ."
9	Attachment B, Section B.7	Include "Pad 9," in the title of this section as part of the unit at TA-54, Area G.	Revise title as follows: "TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, AND PADS <u>9 & 10</u> STORAGE AREAS."
10	Attachment B, Section B.7.1	Include "Pad 9," in the description of the units at TA-54, Area G.	Revise the first sentence of the section to read, "The container storage areas (CSA) located at TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, and Pads <u>9 and 10</u> 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."
11	Attachment B, Table B-1	Include Pad 9 within the Inspection Schedule table located in the Inspection Plan	Revise the final listing in the table to read, "TA-54-226, TA-54-229, TA-54-230, TA-54-231, TA-54-232, AND PADS <u>9 & 10</u> STORAGE AREAS"

Comment Number	Section of Permit	Comment	Recommended Change
12	Attachment D, Appendix D-1	Clarify that the emergency equipment of TA-54, Area G applies to Pad 9.	Substitute revised Appendix D-1 that has been included with this document as Appendix I, for the Appendix D-1 revised during a Class 1 permit modification submitted December 6, 2006.
13	Attachment E.3, Section E.3	Attachment covers a description for certain types of modular storage buildings but does not give a description of transportainers. Other types of modular buildings are currently used at Pad 10 and interim status storage units at LANL and may be used at Pad 9 in the future. Descriptions for these types of modular structures should also be described.	Revise the section to describe all of the mobile storage structures that may be used at the LANL container storage units. Add the words “and Transportainers,” to the title of Section E.3. Replace the last sentence in the section with the following: “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 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.”

Comment Number	Section of Permit	Comment	Recommended Change
14	Attachment E.3, Section E.3.2	Include waste stream descriptions for mixed transuranic waste for each mixed waste storage unit covered by the closure plan.	Add the mixed transuranic waste descriptions currently located in the LANL General Part B (LANL, 2003). These descriptions have been provided with this document as Appendix C.
15	Attachment E.3, Figure E.3.2	The Figure E.3.2 transmitted with the permit modification request has an unnecessary designation for the modular building that is requested to be moved from TA-54-36 to TA-54-32.	Replace Figure E.3.2 of the permit modification with the figure that has been included with this document as Appendix D.
16	Attachment E.6, Figure E.6.1	Make Figure E.6.1 consistent with other figures depicting TA-54, Area L.	Replace Figure E.6.1 within the permit with the figure included with this document as Appendix E.
17	Attachment E.7, Figure E.7.2	Make Figure E.7.2 consistent with other figures depicting TA-54, Area L.	Replace Figure E.7.2 within the permit with the figure included with this document as Appendix F.
18	Attachment E.9, Figure E.9.1	Make Figure E.9.1 consistent with other figures depicting TA-54, Area L.	Replace Figure E.9.1 within the permit with the figure included with this document as Appendix G.
19	Attachment E.10, Section E.10.1	Clarify that 5,530,045 gallons at the beginning of the section does not add up to the listed capacities for the unit below. The 5,530,045 gallon capacity was included with the original permit modification and includes 430,045 gallons of capacity for Pad 2 that was not subsequently utilized for the consolidation of Pads 2 and 4 capacities into Pad 10.	Replace the total figure 5,530,045 gallons with 5,100,000 gallons derived from adding the listed unit capacities.
20	Attachment E.10, Figure E.10-1	Upon approval of the Class 2 permit modification allowing the placement of modular buildings or transportainers on Pad 9, LANL will submit a Class 1 Permit Modification that depicts the location of the storage on the pad.	No suggested change to the proposed permit modification.

Comment Number	Section of Permit	Comment	Recommended Change
21	Attachment E.12	Change discussion of the structure running perpendicular to the loading dock to more accurately describe the structure.	Replace sentence in Section E.12, paragraph 2 that currently reads, "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." with, "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."
22	Attachment E.12	Correct typographical error in the last paragraph of the introduction.	Change "ft square" to "square ft" in the second to the last sentence of the section.
23	Attachment E.12, Figure E.12-1	Non-RCRA structures have not been excluded from the proposed container storage area.	Replace Figure E.12-1 with the revised Figure E.12-1 included with this document as Appendix H. The revised figure excludes non-RCRA structures from the proposed container storage area.
24	Attachment F, Section F.2.1.2	Provide additional description of the concrete containment structure at TA-54-32.	Add the following text to the second paragraph of the section: "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."

Appendix A

Revised Figure 6

LA-UR-07-3552

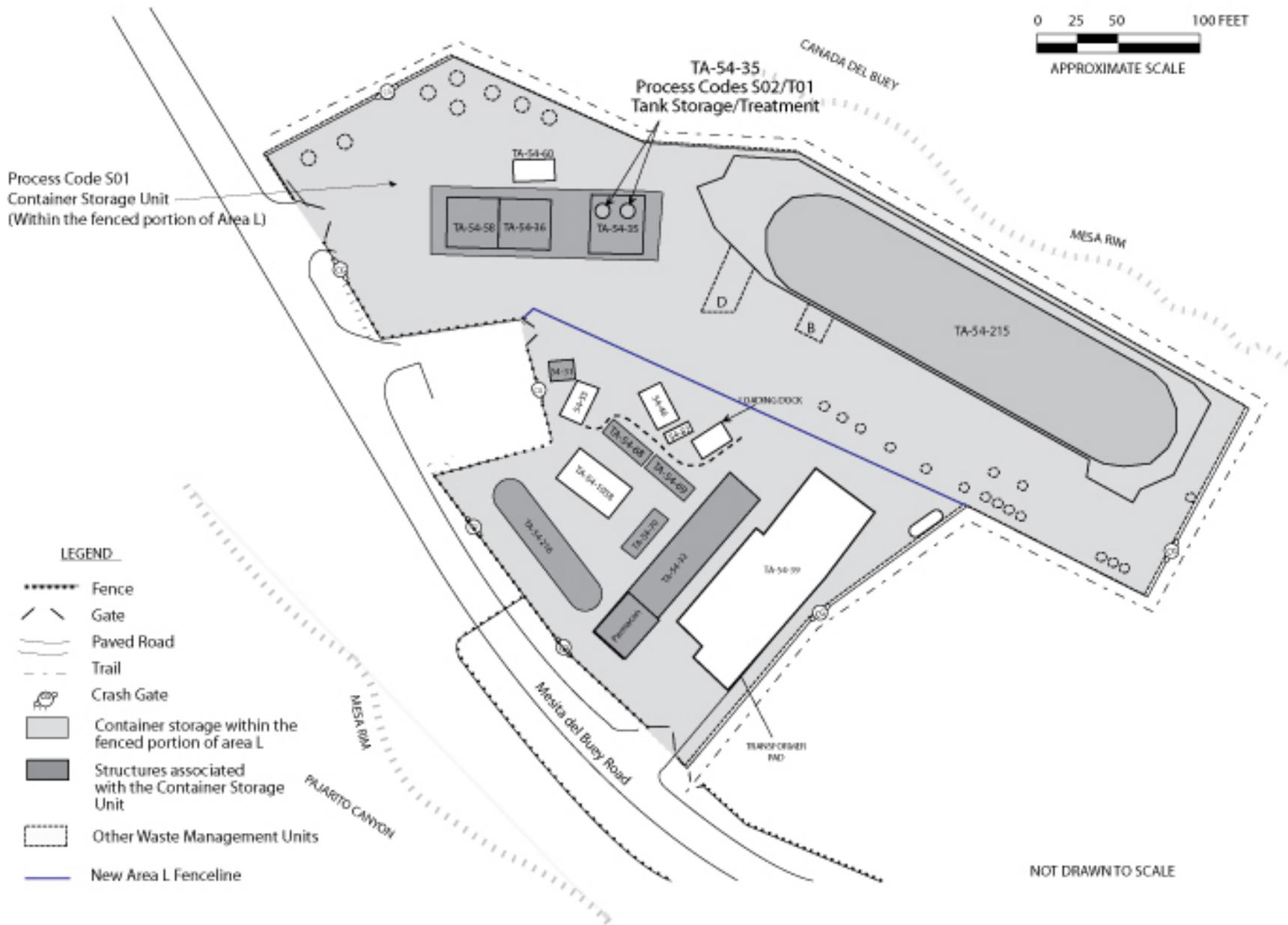


Figure 6
 Technical Area (TA) 54, Area L, Container Storage Area and Storage/Treatment Tanks

Appendix B

Revised Figure 13

LA-UR-07-3552

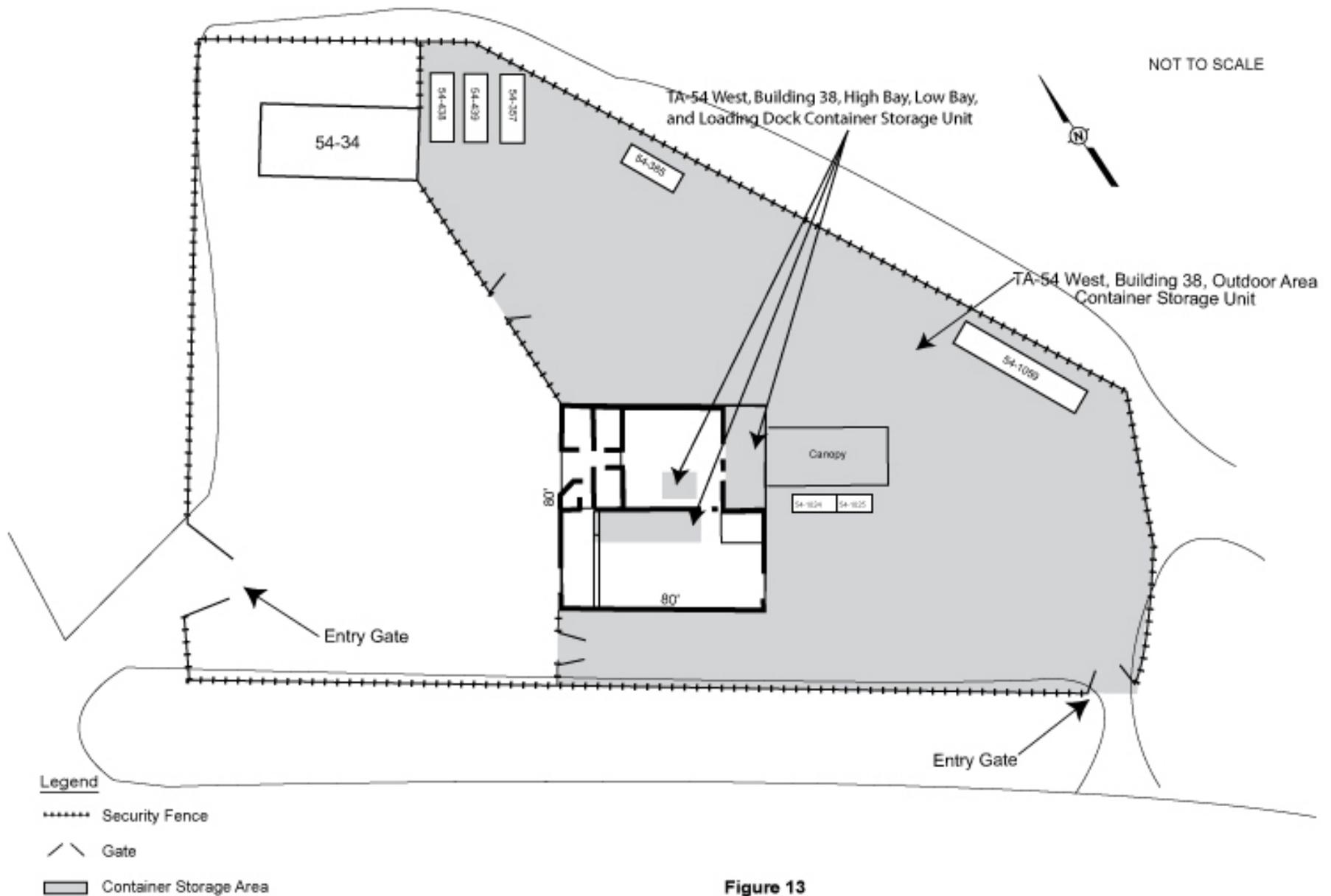


Figure 13
 Container Storage Units at Technical Area (TA) 54 West, Building 38

Appendix C

Mixed Transuranic Waste Descriptions

Excerpt from

“Los Alamos National Laboratory General Part B Permit Renewal Application, Revision 2.0,”

August 2003, LA-UR-03-5923

Section B.1.2.3.

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.

Appendix D

Revised Figure E.3.2

LA-UR-07-3552

Appendix E

Revised Figure E.6.1

LA-UR-07-3552

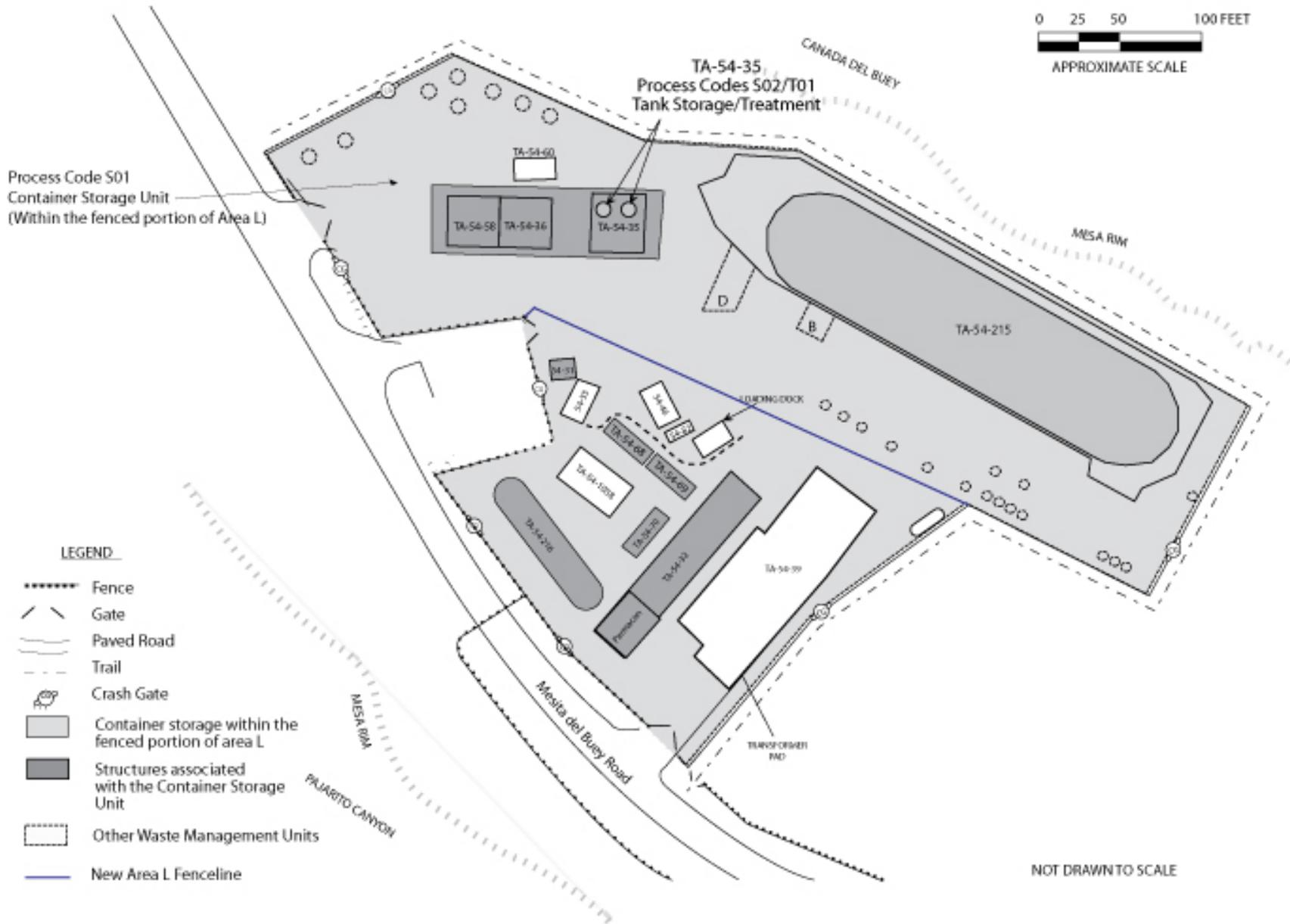


FIGURE E.6.1
TA-54 AREA L
WASTE MANAGEMENT UNITS

Appendix F

Revised Figure E.7.2

LA-UR-07-3552

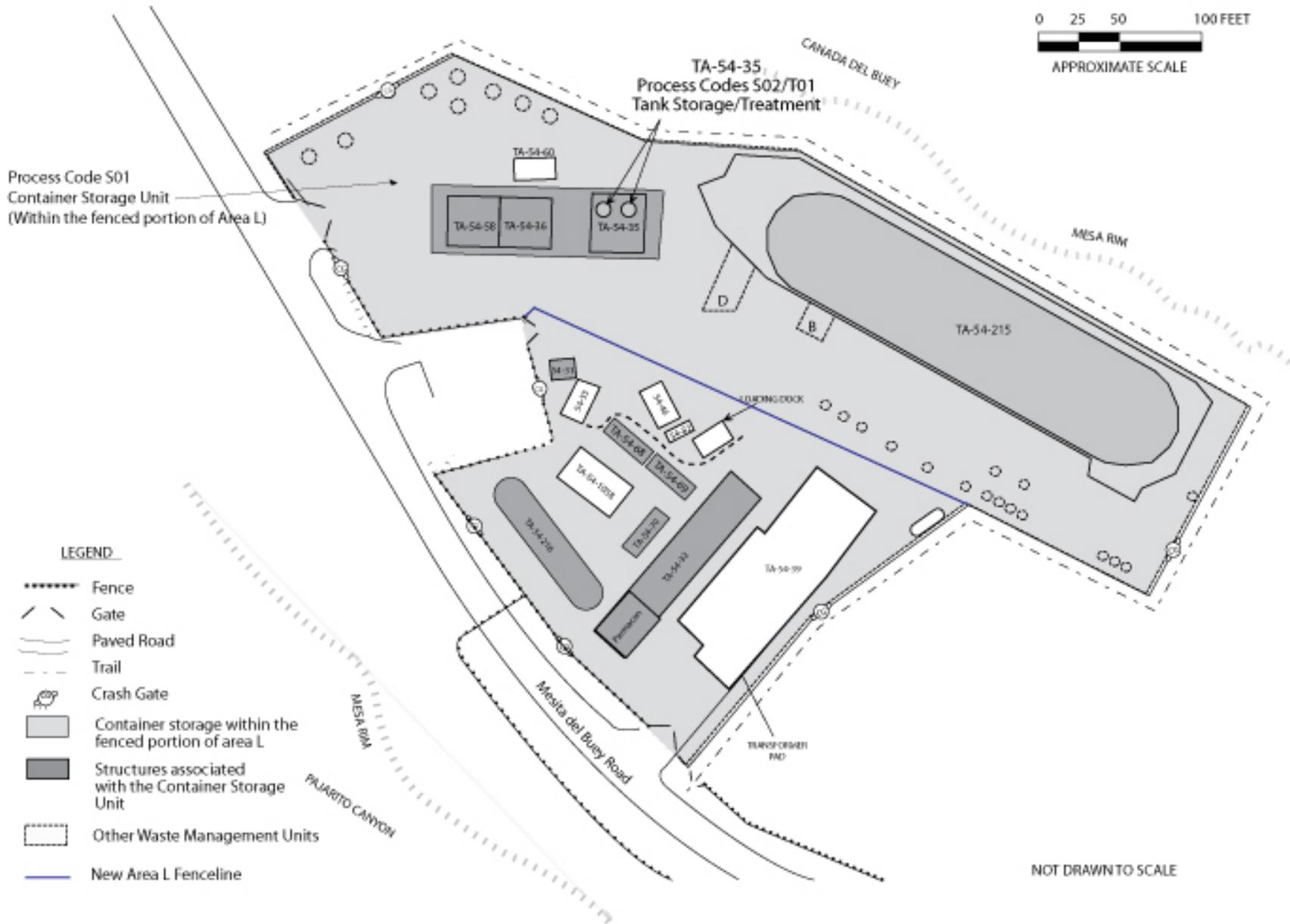


FIGURE E.7.2
TA-54 AREA L
WASTE MANAGEMENT UNITS

Appendix G

Revised Figure E.9.1

LA-UR-07-3552

Appendix H

Revised Figure E.12-1

LA-UR-07-3552

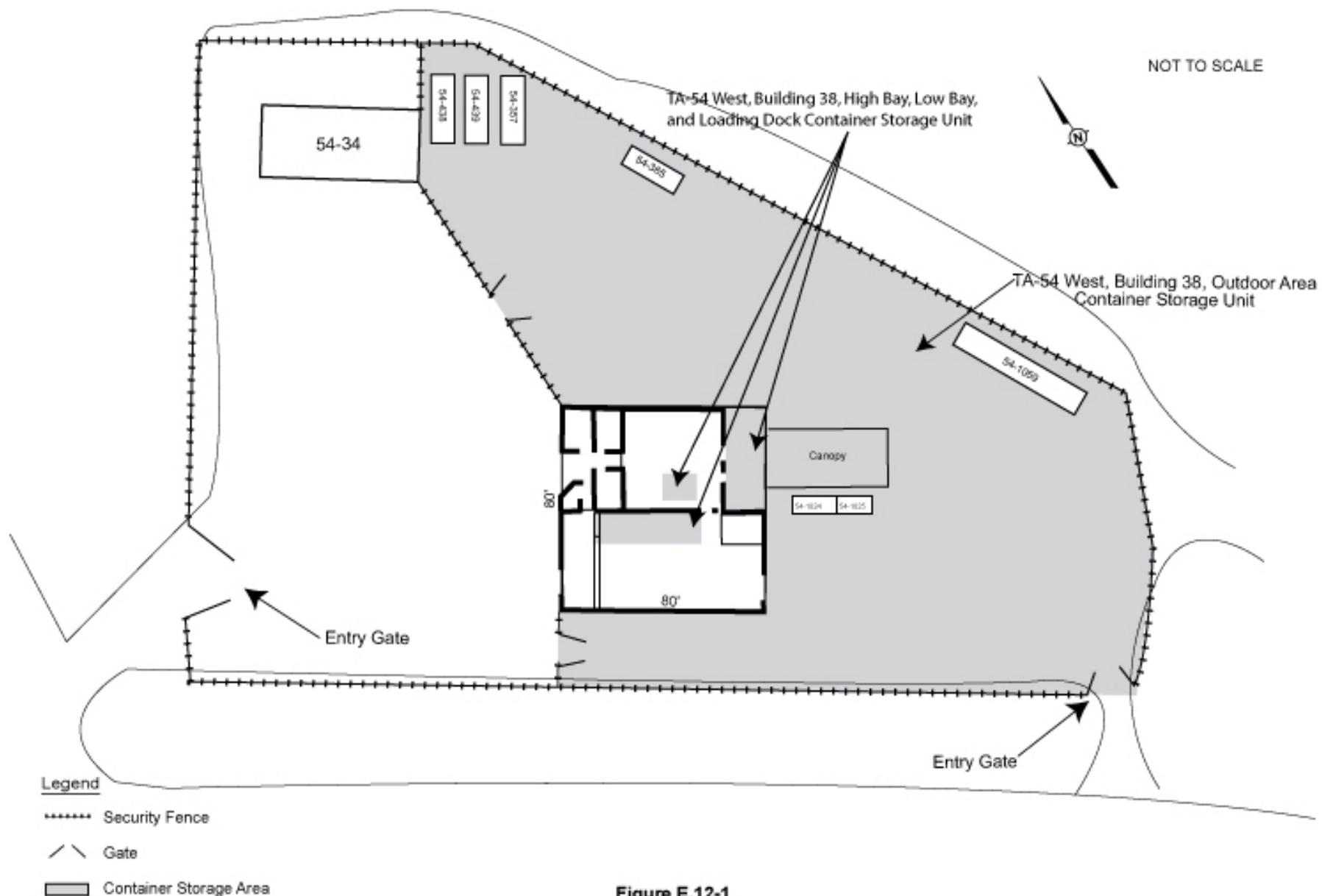


Figure E.12-1
 Technical Area (TA) 54 West, Building 38, Radioassay and Nondestructive Testing (RANT) Facility
 Low Bay, High Bay, Loading Dock, and Outdoor Container Storage Areas

Appendix I

Revised Appendix D-1

LA-UR-07-3552

APPENDIX D-1
Emergency Equipment

APPENDIX D-1 EMERGENCY EQUIPMENT ^a

Hazardous Materials (HAZMAT) Vehicles and Associated Emergency Equipment:

HAZMAT vehicles and trailers are located at Technical Area (TA) 64, Building 39 (TA-64-39). They are available to the Hazardous Materials Response Group for emergency response to all of the TAs at Los Alamos National Laboratory (LANL). HAZMAT is responsible for maintaining the supplies of appropriate emergency equipment in each vehicle and trailer.

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

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

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

**Hazardous Materials (HAZMAT) Vehicles and Associated Emergency Equipment
(continued):**

Biological detection equipment

Chemical vacuums

Sandia foam

Plugging and diking equipment

Sample van equipped with a glovebox and analysis equipment

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

EMERGENCY EQUIPMENT AT TA-54, AREA L

Fire Control Equipment

- 2 fire hydrants located near the main site entrance to Area L and at the southeast corner of TA-54-62 inside Area L
- 6 Class ABC and BC rated fire extinguishers are located at Area L
Class D rated fire extinguishers are available at Area L if combustible metals are being managed
- 2 freeze-proof faucets are located east of TA-54-31
- 1 dry-pipe sprinkler system is located at TA-54-215
- 3 Dry chemical fire-suppression systems are located in storage sheds TA-54-68, TA-54-69, and TA-54-70

Description of General Capabilities:

The fire hydrants supply water at an adequate volume and pressure to satisfy the requirements of the New Mexico Administrative Code, Title 20, Chapter 4, Part 1 Subpart V, 264.32, revised October 1, 2003.

The fire extinguishers may be used by any qualified employee in the event of a small fire.

The automatic dry-pipe sprinkler system is heat activated. Security personnel and Los Alamos County Fire Department (LACFD) are alerted when this system has been activated.

Spill Control Equipment

- Shovels
- Oversized drums
- Absorbent (various locations at Area L)
- Heavy equipment from Area G available for any emergencies at Area L
- Bermed storage area
- Spill kits are located throughout Area L

Description of General Capabilities:

Pieces of heavy equipment from Area G may be used in the event of large spills.

Spill kits may include items such as: bags of absorbent, absorbent pads or socks, caustic neutralizer, acid neutralizer, and an inventory of tools and supplies for clean up of small spills.

**APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)**

EMERGENCY EQUIPMENT AT TA-54, AREA L (continued)

Communications Equipment

Alpha numeric emergency pagers are given to employees working in the area
Telephones located inside TA-54-32, TA-54-55, TA-54-62, and TA-54-1058

Fire alarm pull boxes are located at TA-54-215

Emergency paging system-loud speakers located throughout the site

Evacuation alarms are located adjacent to the fence line crash gates at Area L, at the northeast end of TA-54-32, the exterior west end of TA-54-215, and at TA-54-62

Additional equipment includes two-way radios and cellular phones

Description of General Capabilities

External and internal Laboratory communications which may be used in emergency situations are listed.

Fire alarm may be activated by any employee in the event of a fire to notify the LACFD and security personnel.

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 evacuation alarm is a pulsating sound that can be heard throughout Area L.

The emergency paging system can be utilized to alert workers of an emergency situation as well as appropriate response actions.

Decontamination Equipment

Emergency shower and eye wash stations are located immediately east of TA-54-31, in TA-54-215, next to TA-54-35, west of TA-54-216, and inside TA-54-39

Material Safety Data Sheets (MSDS) are available hard copy or via online database at the facility

Description of General Capabilities:

Safety showers and eye washes are used by personnel who receive a chemical splash to skin or eyes.

Specific MSDS for the chemical should be obtained prior to working with the chemical to determine if the application of water is indicated for decontamination.

Personal Protective Equipment

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

Spill kits throughout Area L may contain PPE items such as: gloves, goggles, safety glasses, coveralls, and face shields.

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

TA-50

Emergency equipment at TA-50-69, the Waste Characterization, Reduction, and Repackaging Facility (WCRRF):

FIRE CONTROL EQUIPMENT:

Two fire extinguishers are located in TA-50-69
A fire extinguisher is located at the TA-50-69 Outdoor Container Storage Unit (CSU)

Description of General Capabilities:

Fire extinguishers may be used by any qualified employee in the event of a small fire. They are ABC or BC rated units.

Three fire alarm pull stations are located in TA-50-69
A wet-pipe sprinkler system is located in TA-50-69
A fire hydrant is located west of TA-50-69 inside the fenced yard

Description of General Capabilities:

Personnel working at the TA-50-69 Outdoor CSU may use the pull stations at TA-50-69 in the event of a fire.

Fire alarms may be activated by any employee in the event of a fire to notify the LACFD and security personnel. Upon activation, fire alarm horns and strobes provide audible and visual signals for personnel notification.

The sprinkler system is heat activated at 100°C (212°F).

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

SPILL CONTROL EQUIPMENT:

Spill control kits are located in TA-50-69 and at the TA-50-69 Outdoor CSU.

Description of General Capabilities:

The spill kits may contain items such as absorbents (e.g. pillows, pads, and pigs) or weighted tarps that can be used in the event of a small spill.

COMMUNICATION EQUIPMENT:

Telephones with public address (PA) capabilities for internal and external communication are available for use by any employee. The PA system can be heard at the TA-50-69 Outdoor CSU. Personnel working at TA-50-69 will have immediate access to emergency communication equipment either directly or through visual or voice contact with another employee.

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

Emergency equipment at TA-50-69, the Waste Characterization, Reduction, and Repackaging Facility (WCRRF), (continued):

COMMUNICATION EQUIPMENT (continued):

Additional communication equipment may include cellular phones

Description of General Capabilities:

Telephones with PA capabilities for internal and external communication are available for use by any employee. Fire alarms are activated in the event of a fire.

DECONTAMINATION EQUIPMENT:

A safety shower is located in the main room of TA-50-69 and a personnel shower is located adjacent to the change room in TA-50-69

An eyewash station is located in the main room of TA-50-69

A portable eyewash station will be available during active waste management operations at the Outdoor CSU if waste with free liquids is being managed

MSDS are available hard copy or via online database

Description of General Capabilities:

Safety showers and eyewashes are used by personnel who receive a chemical splash to the skin or to the eyes. Specific MSDS for the chemical(s) being managed should be obtained prior to working with hazardous or mixed waste to determine if the application of water is indicated for decontamination.

PERSONAL PROTECTIVE EQUIPMENT:

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.

OTHER:

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

**APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)**

TA-54 West

Emergency equipment at TA-54-38, the Radioassay and Nondestructive Testing (RANT) Facility:

FIRE CONTROL EQUIPMENT:

ABC rated fire extinguishers are available at TA-54-38 in the high bay, the low bay and at the loading dock, adjacent to the Outdoor CSU.

Description of General Capabilities:

Fire extinguishers may be used by any qualified employee in the event of a small fire.

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

A dry-pipe sprinkler system is located throughout TA-54-38, including the loading dock area.

Description of General Capabilities:

Fire alarms may be activated by any employee in the event of a fire to notify the LACFD and security personnel. Security personnel and LACFD are alerted when the automatic dry-pipe sprinkler system has been activated.

The dry pipe sprinkler system is heat activated in the high bay and at the loading dock. It is smoke activated in the low bay.

One fire hydrant is located west of TA-54-38 near the entrance to TA-54 West.

Freeze-proof faucets are located on the west, south, and east sides of TA-54-38. A wall hydrant is located on the west side of the building.

SPILL CONTROL EQUIPMENT:

A mobile response kit is located at TA-54-38. The kit includes items such as: absorbent socks, pillows, and sheets; and plastic bags.

**APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)**

Emergency equipment at TA-54-38, the Radioassay and Nondestructive Testing (RANT) Facility, (continued):

COMMUNICATION EQUIPMENT:

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

Telephones are located in TA-54-38 in the high bay, in the low bay, and outside the main entrance. An emergency paging telephone is also located outside the main entrance.

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

Additional equipment includes cellular phones.

Description of General Capabilities:

The evacuation alarm provides an audible alarm that can be heard throughout TA-54-38 and TA-54-34.

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 phone can be utilized to alert workers of an emergency situation as well as appropriate response actions.

Telephones in the high bay and low bay have public address (PA) capabilities for internal and external communication and are available for use by any employee.

Fire and evacuation alarms may be activated in the event of a fire or in case an evacuation is required.

DECONTAMINATION EQUIPMENT:

Safety showers and portable eyewash stations are available at TA-54-38 in the high bay and near the loading dock. The portable eyewash stations will be present during active waste management operations involving free liquids at these locations.

Material Safety Data Sheets (MSDS) are available hard copy or via online database.

Description of General Capabilities:

Safety showers and eyewashes are used by personnel who receive a chemical splash to the skin or to the eyes. Specific MSDS for the chemical(s) being managed should be obtained prior to working with hazardous or mixed waste to determine if the application of water is indicated for decontamination.

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

Emergency equipment at TA-54-38, the Radioassay and Nondestructive Testing (RANT) Facility, (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 or at adjacent TA-54 facilities. Gloves and goggles are available in the spill kit located at TA-54-38. All workers located within the operating limits of a crane (fixed or mobile) wear hard hats.

**APPENDIX D-1
EMERGENCY EQUIPMENT^a
(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 such as: bags of absorbent, absorbent pads or socks, and an inventory of tools and supplies.

**APPENDIX D-1
EMERGENCY EQUIPMENT^a
(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^a
(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).

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

**Supplemental emergency equipment and personnel available from the
Los Alamos County Fire Department (LACFD):**

Supplemental emergency equipment available from the LACFD may include, but is not limited to, some or all of the following:

Fire engines
Mini-tankers with compressed air foam capability
Modular ambulances
Rescue vehicles
Crash-Fire-Rescue (CFR) units
Water tankers with compressed air foam capability
SCBA units
SCBA air tanks
Remote air system for confined space rescue
Ladder truck with pump
Personnel with Hazardous Material First Response Operational Level Training
Personnel with Basic Emergency Medical Technician training
Personnel with Advanced Life Support training

**APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)**

**Supplementary emergency equipment and personnel available from
KBR-Shaw-LATA (KSL):**

Supplemental emergency equipment available from KSL may include, but is not limited to, some or all of the following:

TRANSPORTATION EQUIPMENT:

Pickups, 1/2 through 3/4 ton
Trucks, 1 through 3 ton
Vans, panels, and carryalls
Buses

SPECIAL EQUIPMENT:

Graders
Loaders
Snowplows and snow blowers
Bulldozers
Scrapers
Semi trailers
Chain saws
Street flushers
Mobile transceivers
Generators
Handsets (2-way)
Pageboys (1-way)
Welders
Mobile site logistics support equipment/associated heavy equipment
Fully equipped spill response unit
Utilities equipment and emergency utility support
Fuel trucks
Light banks
Dumps trucks
Backhoes
Potable water trucks
Cranes
Forklifts

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

**Supplementary emergency equipment and personnel available from
KBR-Shaw-LATA (KSL) (continued):**

TRAINED PERSONNEL:

Heavy equipment operators
Dispatchers
Mechanics
Power saw operators
Radio and telephone operators
Truck drivers
Rodent/Pest Control personnel
HAZMAT response/cleanup personnel
Welders
Electricians

APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)

Emergency equipment and personnel at the Occupational Medicine Clinic (667-7251):

At TA-3 (SM-1411) Central Clinic:

Emergency equipment and supplies available from the clinic may include, but are not limited to, some or all of the following:

PERSONNEL:

Physicians
Physician's Assistants
Nurses
X-ray Technician
Clinical Laboratory Technicians
Clinical Testing Technicians
Clinical Psychologist
Counselors

SPECIAL EQUIPMENT-PORTABLE:

Multi-channel emergency receiver-base station
Two-way radio on the State Med Net, The LANL Emergency Management channel and the LANL Health-Safety Net
Cardiac monitors and defibrillators
Crash cart emergency equipment with E-tank oxygen (O₂)
Portable physicians' bag with medications
Portable suction unit
Portable stretchers (ambulance, gurney, folding)
Wheelchairs
O₂ tanks
Manual resuscitators
Intravenous (IV) stands
IV solutions
Otosopes/ophthalmoscopes
Portable sphygmomanometers
Stethoscopes
Anticontamination apparel
Eye irrigation solution
First-aid kits
Extrication and cervical collars, crutches, canes
Suture sets
Protective apparel
Morgan lens irrigation sets
Decontamination equipment (portable)

**APPENDIX D-1
EMERGENCY EQUIPMENT^a
(continued)**

**Emergency equipment and personnel at the Occupational Medicine Clinic (667-7251)
(continued):**

At TA-3 (SM-1411) Central Clinic (continued):

SUPPLIES-GENERAL:

Bedding/pillows
Rescue blankets
Burn blankets
Thermal/icing pouches
Multi-trauma dressings, surgical and first aid supplies
Disposable ice bags

SPECIAL FACILITIES - NONPORTABLE:

Fully equipped decontamination room at the Occupational Medicine Clinic
Completely equipped emergency room with ambulance entrance
Emergency lighting system
Complete X-ray suite
Protective clothing and wound counters
12-lead electrocardiograph
Fully equipped crash cart with Life Pak, defibrillator/external pacer intubation equipment,
emergency medications.
Fully equipped decontamination room at Los Alamos Medical Center (LAMC) adjacent to the
LAMC emergency room

TRANSPORTATION:

Full ambulance service is available within minutes to the central facility.

COMMUNICATION:

Base station on State Medical Net and LACFD trunked radio system.

^a Equipment types and locations are subject to change.