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**MAY 14 2020**

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Johnathon Huff  
Acting Director,  
Environment, Safety, and Health  
Sandia National Laboratories  
P.O. Box 5800, MS 0725  
Albuquerque, NM 87185

**RE: APPROVAL  
CLOSURE PLAN, BUILDING 6580, ROOM 112  
SANDIA NATIONAL LABORATORIES/NEW MEXICO  
EPA ID# NM5890110518  
HWB-SNL-17-014**

Dear Mr. Harrell and Mr. Huff:

Enclosed is the final Closure Plan for Building 6580, Room 112 located in Technical Area (TA)-V at Sandia National Laboratories, New Mexico (SNL/NM). The Closure Plan for an Interim Status Hazardous Waste Management Unit designated as Room 112 located in the Basement of Building 6580 was submitted by the Department of Energy, National Nuclear Security Administration (DOE/NNSA, Owner) on behalf of itself and the National Technology and Engineering Solutions of Sandia, LLC (NTESS, Operator) (collectively, the Permittees). The New Mexico Environment Department received the Closure Plan on November 1, 2017.

Building 6580, Room 112 is being closed pursuant to the New Mexico Hazardous Waste Act, NMSA 1978 §§74-4-1 through 74-4-14 and the New Mexico Hazardous Waste Management Regulations 20.4.1.600 NMAC, incorporating CFR 265 Subpart G.

A draft Closure Plan was issued for public comment by the New Mexico Environment Department (NMED) on January 25, 2019 in accordance with 20.4.1.600 NMAC, incorporating 40 CFR §265.112(d)(4). The 30-day comment period ended on February 24, 2019.

The only comments NMED received were those submitted by the Permittees, who had also requested a hearing on the draft Closure Plan. Following discussions between the Permittees and NMED, the Permittees agreed that the revised Closure Plan, which is attached to this letter, had resolved the issues raised in their comments and withdrew their request for a public hearing on April 23, 2020. NMED's response to the Permittees comments also is attached to this letter.

NMED hereby issues the revised Closure Plan for Technical Area V, Building 6580 Room 112, Sandia National Laboratories. The Permittees shall implement the closure activities as described in the attached Closure Plan.

Upon completion of closure activities, the Permittees shall, within 60 calendar days of final closure, submit to NMED a Closure Report summarizing the results of the closure activities and a Certification of closure activities signed by an independent professional engineer registered in the State of New Mexico, as required by the New Mexico Hazardous Waste Management Regulations 20.4.1.600 NMAC, incorporating 40 CFR §265.115, and as described in Section 3.5 of the attached Closure Plan.

Following verification of the certified closure activities and a site visit by NMED personnel, the NMED will make a final determination on the implemented Closure.

Please call Dave Cobrain at (505) 476-6055 if you have questions regarding this matter.

Sincerely,



Kevin Pierard  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
C. Amindyas, NMED HWB  
A. Reiser, SNL  
L. King, EPA, Region 6 (6LCRRC)

File: SNL 2020 and Reading

Closure Plan  
Technical Area V  
Building 6580 Room 112

United States Department of Energy  
Sandia National Laboratories, New Mexico  
EPA ID #NM 5890110518

New Mexico Environment Department – Hazardous Waste Bureau

May 4, 2020



## 1.0 INTRODUCTION

Sandia National Laboratories is owned by the U.S. Department of Energy/National Nuclear Security Administration (DOE/NNSA) and managed and operated by National Technology & Engineering Solutions of Sandia, LLC, (NTESS), a wholly-owned subsidiary of Honeywell International Inc (the Permittees). This Closure Plan includes the activities necessary to complete closure of areas formerly used for management of hazardous and mixed wastes in Building 6580, Room 112 located in Technical Area (TA)-V at Sandia National Laboratories, New Mexico (SNL/NM).

This Closure Plan addresses the requirements in Title 20, Chapter 4, Part 1 of the New Mexico Administrative Code (NMAC) incorporating Title 40 of the Code of Federal Regulations (CFR) §§ 265.110 through 265.116, and § 265.178. Room 112 in Building 6580 was included in hazardous waste permit applications (SNL/NM 1990, 1992, 1993) and was used for storage of small amounts of mixed waste at various times between 1991 and 1994. The area will be clean closed in accordance with this plan.

## 2.0 LOCATION AND SITE DESCRIPTION

### 2.1 Location and Site Conditions

TA-V is located at the northeast corner of TA-III in the west central portion of Kirtland Air Force Base and occupies approximately 35 acres (Figure 1). The majority of the fenced area of TA-V is paved. There is no significant vegetation within the fenced area and no wetlands are present. Currently, the land use at TA-V is industrial, with potential future construction and demolition activities. The reasonable foreseeable land use in TA-V is industrial.

Building 6580 at SNL/NM is located in the north-central part of TA-V (Figure 2). The area surrounding Building 6580 is generally paved and slopes gently to the west. The active channel for Tijeras Arroyo is located approximately two miles north-northeast of Building 6580. Precipitation in the region, averages approximately 8 inches per year.

Building 6580 is located within the boundaries of the TA-V Groundwater Investigation, an Area of Concern that is currently under investigation for detections of trichloroethene and nitrate in groundwater. The groundwater monitoring network consists of 18 monitoring wells. Groundwater flow beneath TA-V is generally to the west, with localized flow to the south and southwest.

### 2.2 Site Description

Room 112 is located in the basement of Building 6580, adjacent to a hot cell (Figure 3). Room 112 formerly contained the Glove Box Laboratory that was used to prepare un-irradiated metallographic samples, and for post-irradiation examination of these materials. Several glove boxes and one fume hood were located in the room; these items were not permanent fixtures. The walls and ceiling are painted concrete. The floor is concrete, topped with a layer of grout that is painted. It is a rectangular room approximately 20 by 40 feet in size without direct access to the exterior of the building. There are personnel doors in two of the walls that lead to a

stairwell and other rooms in the basement of Building 6580. A 15-foot wide opening in one wall allows movement of large equipment from an adjacent room. A recessed double door at the other end of the same wall provides access to other areas of the building basement.

There are two floor drains located in Room 112. One drain accepts condensate from equipment in Building 6580, and the other is not used. Both drain to the sanitary sewer system and the Albuquerque Bernalillo County Water Utility Authority's Southside Wastewater Reclamation Plant.

Electrical panels, lights, electrical conduit, and process piping are present in numerous locations on the walls and ceiling of the room. The piping includes water lines, a fire suppression system, and ventilation for the adjacent hot cell. An overhead bridge crane and runway rails are hung from the ceiling.

General room air is filtered and removed through an exhaust duct in one wall. The filters are located at the opening of the duct, approximately two feet above the floor. The walls and floor are in good condition. Photographs of Room 112 are provided in Attachment A.

### **2.3 Hazardous and Mixed Waste Management Activities**

Mixed hazardous and radioactive waste was stored in Room 112 between 1991 and 1994. Hazardous and mixed waste loading and unloading activities took place within the room, but there was not a designated area for such activities.

The only mixed or hazardous waste stored in Room 112 during that time was a double-encapsulated experimental package containing a sodium metal in a thorium crucible with the assigned Hazardous Waste Code of D003. The volume was approximately 1.5 cubic feet. The experimental package did not contain liquids. In 1994, the waste was moved to another interim status storage area at SNL. Other mixed wastes were generated during ongoing operations in Room 112, but were not stored in the room. The glove boxes were decommissioned in 1996. The total volume of hazardous and mixed wastes generated and/or managed in Room 112 over its operating life is estimated to be less than 6.5 cubic meters or 31 55-gallon drum equivalents.

### **2.4 Current Activities**

Equipment and materials have been stored in Room 112 since 1994. Most of the equipment and materials have been removed in anticipation of future building demolition. All remaining equipment and materials will be removed before closure activities begin.

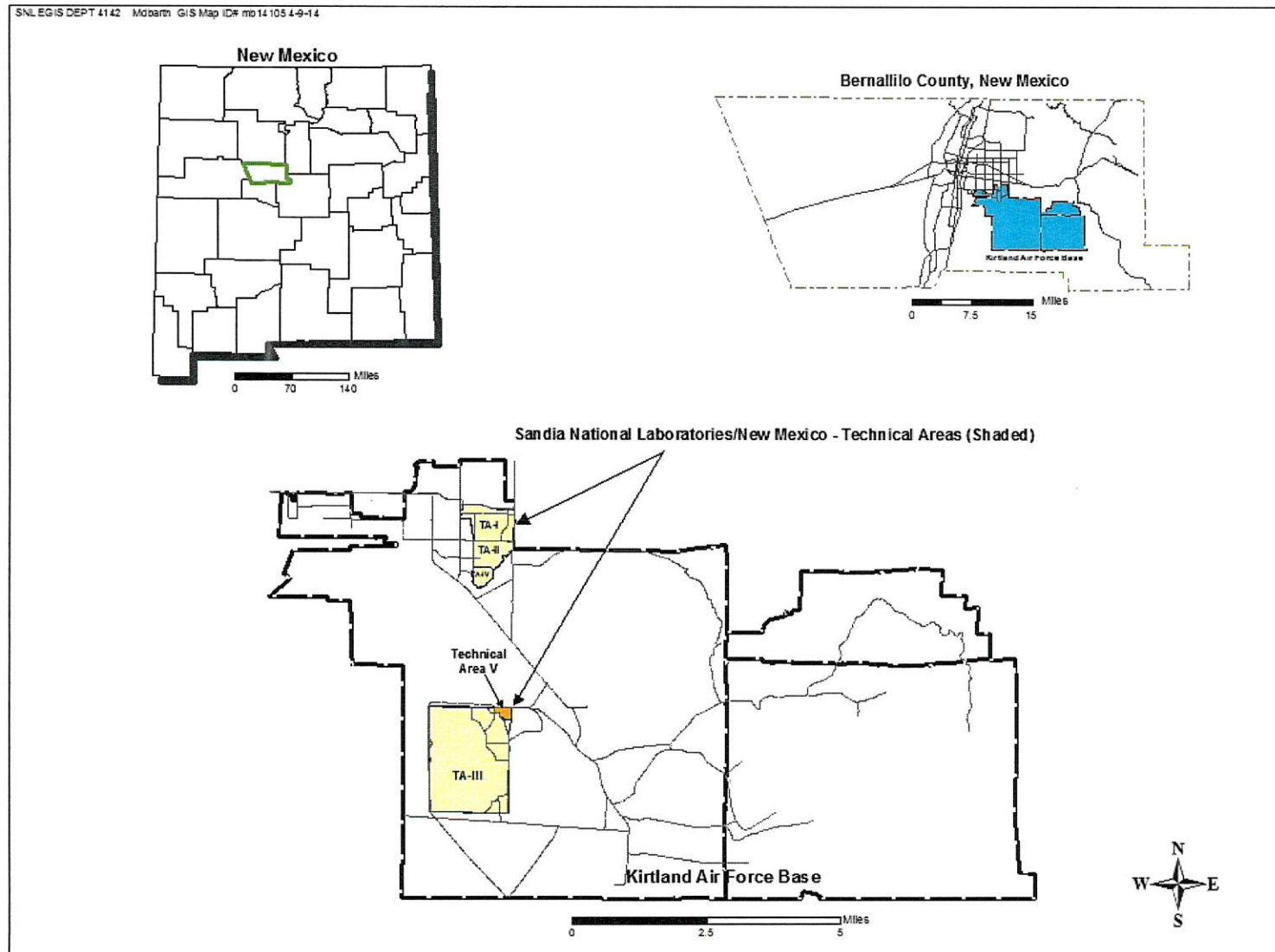


Figure 1  
Location of Technical Area-V, Sandia National Laboratories, New Mexico

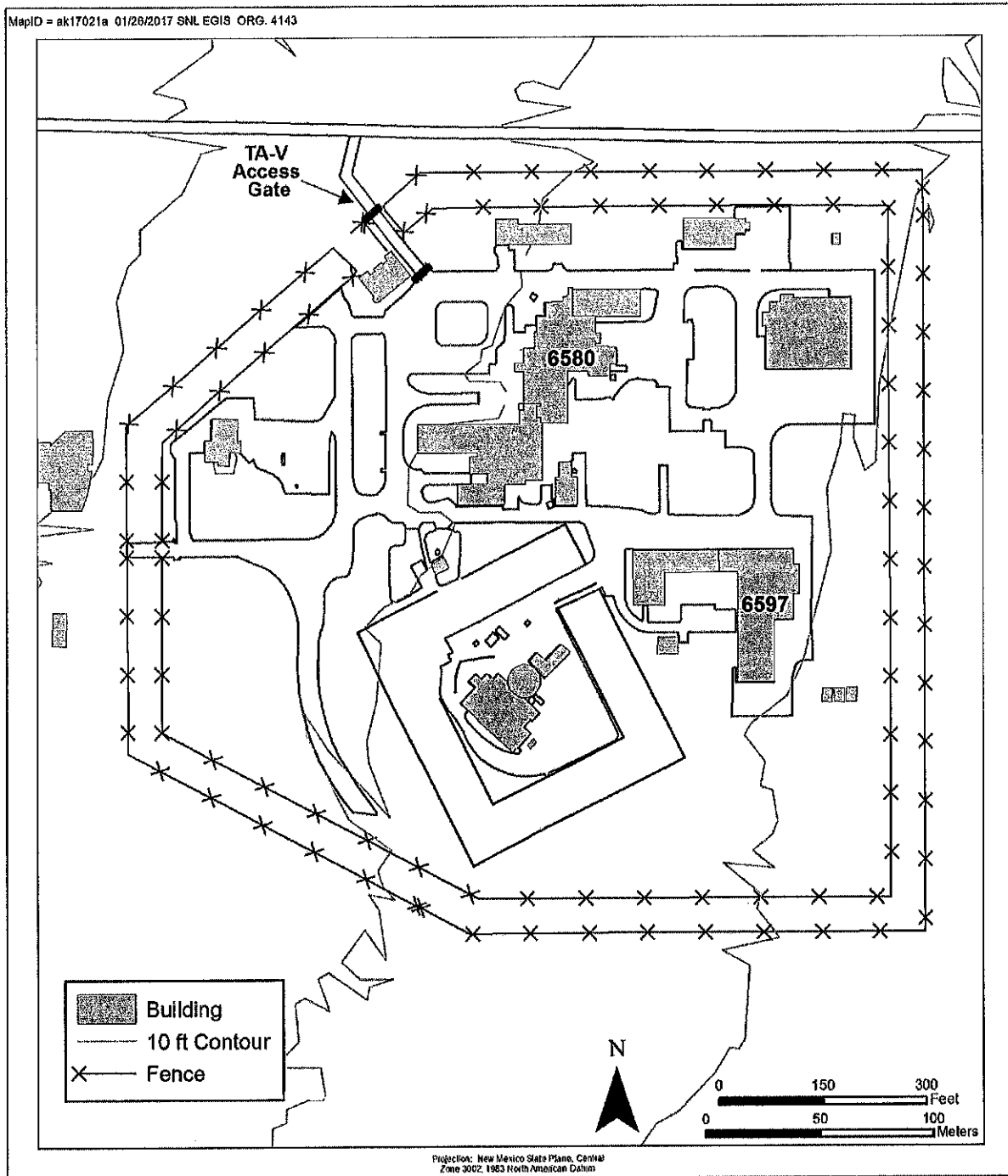


Figure 2  
Location of Building 6580 and Room 112 in Technical Area-V,  
Sandia National Laboratories, New Mexico



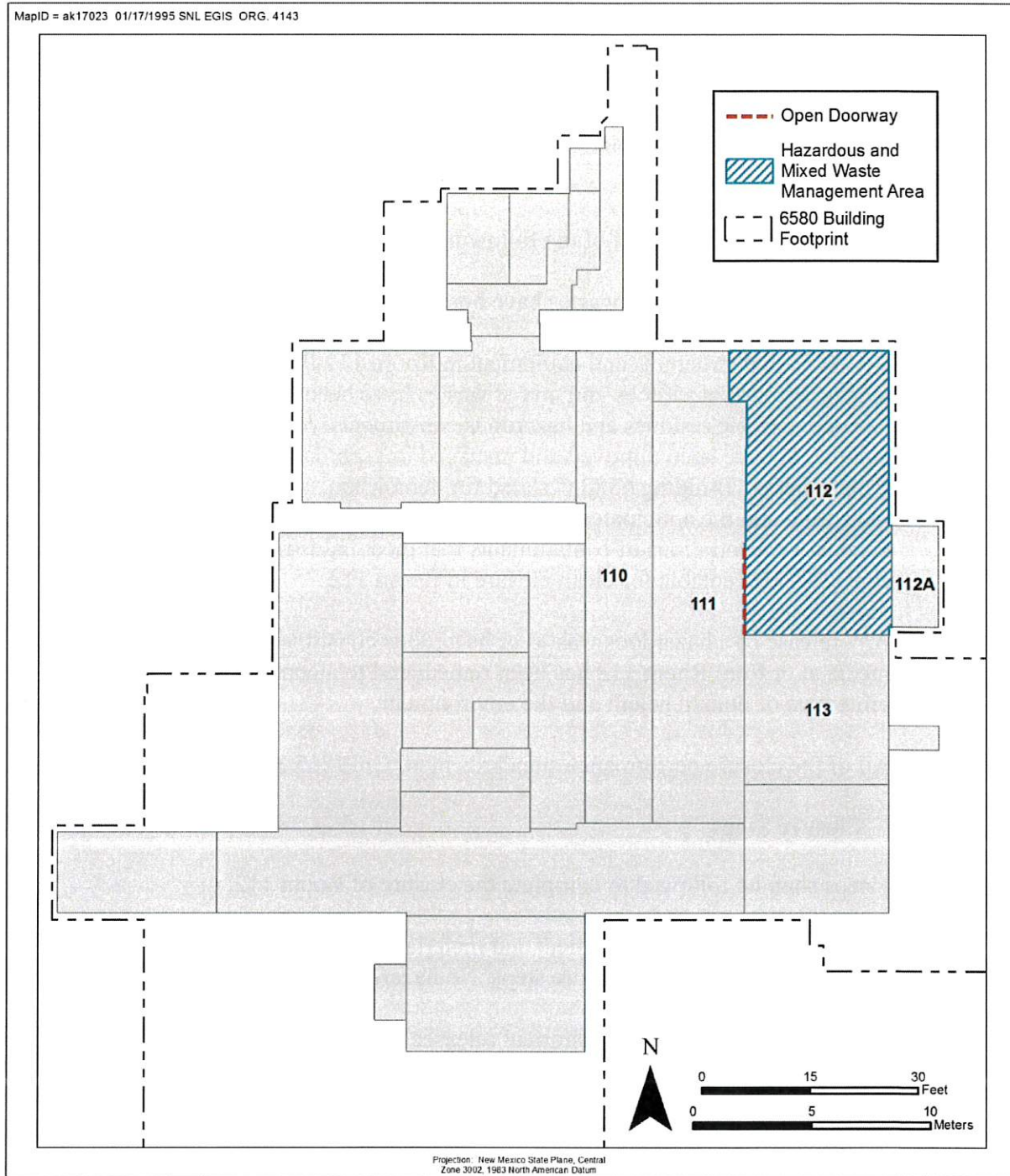


Figure 3  
Building 6580 Basement Layout  
Sandia National Laboratories, New Mexico

### **3.0 CLOSURE PROCESS**

#### **3.1 Closure Performance Standard**

In accordance with 40 CFR § 265.111, Room 112 will be closed in a manner that meets the NMED requirements for clean closure and does not present an unacceptable risk to human health or the environment.

Clean closure will be achieved when all of the following are complete:

1. All hazardous and mixed wastes have been removed.
2. Contaminated structures and equipment in Room 112 that were associated with management of hazardous and mixed wastes have been decontaminated to remove hazardous waste residues and hazardous constituents, or such structures and equipment have been removed and managed in accordance with all applicable requirements. Building 6580 is slated for demolition. The use of the building is industrial, and the anticipated use will not change prior to demolition; therefore, residual concentrations of contaminants that meet industrial exposure levels will be considered acceptable for clean closure in Room 112.
3. Any release of a hazardous wastes or hazardous constituents to environmental media at or from Room 112 has been remediated to a concentration level that is protective of human health and the environment.
4. All of the closure performance standards in 40 CFR 265 Subpart G have been met.

#### **3.2 Closure Steps**

The following steps shall be followed to complete the closure of Room 112:

1. Remove all remaining equipment and materials stored in the room that would interfere with any of the closure steps. No hazardous or mixed wastes are present in the room.
2. Review records to identify historical releases of contaminants and identify all wastes stored in the room including whether any additional hazardous or mixed wastes were stored in Room 112.
3. Perform a structural assessment of Room 112 to identify areas of contamination or potential areas of contamination, including stains or damage to flooring or floor drains.
4. Remove the air filters from the room exhaust system.
5. Decontaminate the floor and the walls of Room 112 up to a height of 11 feet by pressure-washing or steam-cleaning. Surfaces of fixtures, piping, conduits, ductwork, electrical panels, and the overhead bridge crane up to a height of 11 feet shall be decontaminated in the same manner.
6. Collect wipe samples from the decontaminated floor, walls, and surfaces in Room 112.

7. Compare the analytical results of the wipe samples to a Building 6580 background sample collected from an area that was not used for management of hazardous or mixed wastes and to the NMED 2018 Swipe Sample Surface Screening Levels.
8. Perform further decontamination and sampling, if needed, to demonstrate that residual concentrations are less than the Swipe Sample Surface Screening Levels.

Each of these steps is discussed in detail in Sections 5 and 6 below.

As an alternative to any of Steps 4–7, the Permittees may remove contaminated building materials and manage the waste in accordance with all applicable regulations.

### 3.3 Closure Schedule

The regulatory requirements for closure include compliance with a closure schedule, which is discussed in this section. The Permittees shall complete all closure activities required by this Closure Plan no later than 360 days after initiating closure. This time period is more than the 180-day time frame specified in 40 CFR 265.113(b). The additional time is necessary due to the complexity of the electrical systems in the room, which will have to be de-energized during decontamination activities. De-energizing the electrical systems in Room 112 will be scheduled to avoid interference with other activities in Building 6580 and adjacent buildings. Any shutdown of the heating, ventilation, and air conditioning (HVAC) system serving Room 112 will likewise be scheduled to avoid interference with other activities in Building 6580 and adjacent buildings. Table 1 summarizes the remaining requirements.

DOE/NNSA and NTESS shall notify the NMED in writing 45 days prior to the date when closure is expected to begin at Building 6580, Room 112 in accordance with 40 CFR § 265.112(d).

No wastes are currently stored in Room 112. However, if any waste is found in the room, the Permittees shall remove all solid, hazardous and mixed waste from Building 6580, Room 112 no later than 90 days after discovery.

Table 1  
 Closure Schedule

Activity	Schedule
Notify the NMED in writing of the date closure is expected to begin.	45 days before Day 0.
Begin closure activities.	Day 0.
Remove all solid, hazardous and mixed wastes.	No later than Day 90 after discovery.
Conduct records review.	After initiating closure, before or concurrent with the structural assessment.
Conduct structural assessment.	After removal of all wastes and before decontamination.

Activity	Schedule
Submit the records review and structural assessment report to the NMED.  If necessary, as a result of the records review and structural assessment, submit a request to amend the Closure Plan.	With the Closure Report, unless the Closure Plan needs is amended as a result of the records review or structural assessment.
Complete all closure activities.	No later than Day 360 after closure is initiated or no later than specified in the NMED-approved Closure Plan (including any NMED-approved amendments), whichever is later.
Submit final Closure Report and Certification to the NMED.	No later than 60 days after completing closure activities.

The Permittees shall conduct a records review and structural assessment of Building 6580, Room 112 and submit the review and assessment in the form of a written report to the NMED in conjunction with the final Closure Report or with an amended Closure Plan in the event that the Closure Plan is amended.

After completing closure of Building 6580, Room 112, the Permittees shall submit a Closure Report and a certification of closure to the NMED for review and approval. The signed certification must comply with the requirements of 40 DFR 265.115 and attest that Room 112 has been closed in accordance with the approved Closure Plan. The certification must be submitted no later than 60 days after completing closure of Building 6580, Room 112.

### 3.4 Closure Plan Amendment

DOE/NNSA and NTESS will amend the Closure Plan if any of the following occur during closure:

1. New environmental media sampling locations are determined or if one or more constituents of concern (COCs) are added or eliminated from the Sampling and Analysis Plan (SAP) as a result of the Records Review and Structural Assessment;
2. Conditions in 40 CFR § 265.112(c)(2) exist; or
3. The Permittees are unable to achieve clean closure by decontamination.

Amendment of a Closure Plan will be performed in accordance with 40 CFR § 265.112(c).

### 3.5 Closure Report and Certification

Upon completion of closure activities, the Permittees shall submit a Final Closure Report to the NMED. The report shall contain the following information:

- Certification of closure signed by DOE/NNSA and NTESS as the owner and operator, respectively.

- Location and custodian of all closure documentation.
- Discussion of all closure activities, including the records review, structural assessment, descriptions of all decontamination and sampling activities, analytical results, a comparison to applicable screening levels, and a discussion of the management of wastes generated during closure.
- Analytical laboratory data package(s).
- Quality assurance (QA)/QC documentation for laboratory analyses.

Upon completion of closure activities, the Permittees shall submit a certification of closure signed by an independent registered professional engineer in accordance with 40 CFR § 265.115.

#### **4.0 RECORDS REVIEW AND STRUCTURAL ASSESSMENT**

##### **4.1 Records Review**

DOE/NNSA and NTESS personnel will review available records for Building 6580, Room 112 to identify the following:

- All hazardous and mixed wastes and hazardous waste constituents managed in the room; and
- Potential releases of hazardous or mixed wastes or hazardous constituents to the environment from Room 112.

The records review shall be completed before or concurrently with the structural assessment.

The records review will also evaluate the documents (e.g., inspection logs) and records associated with implementation of the contingency plan, if it was implemented. These records, together with the visual assessment described in the following section, will be used to determine whether any spills, releases, defects, deterioration, or damage (e.g., deteriorated paint, grout, or cracks in the flooring) have occurred during the time waste was managed in Room 112 that may have resulted in contamination of structures, equipment, or the environment, if the records identified during the records review indicate any such incident(s). The Permittees shall include, in the written Closure Report, a description of the location, dates, the nature of any releases to the environment identified through the records review, and the types and volumes of waste or materials involved in the incident(s). The results of the records review also shall be documented in the Closure Report.

The Permittees shall revise the SAP to include the location(s) of incident(s) and release(s) to the environment, if any are identified during the records review, and to accurately and completely reflect COCs managed at Building 6580, Room 112. Collection of wipe samples and soil samples are addressed in the SAP, together with a list of COCs and proposed analytical testing methods. The Closure Plan shall be amended if the number of samples or the list of COCs is modified. The current potential COCs include volatile organic compounds (VOCs), semi-volatile organic

compounds, metals and polychlorinated biphenyls, as discussed in Section 6.1 and listed in Table 2.

#### **4.2 Structural Assessment**

The structural assessment will be conducted after all materials and equipment have been removed from Room 112. The structural assessment will not begin until after material and equipment removal is complete to allow a clear view of structural surfaces. The structural assessment shall be completed before beginning any closure decontamination procedures. The Permittees shall notify the NMED at least 30 days prior to conducting the assessment.

The structural assessment will include a visual inspection of Room 112, including within the floor drains for evidence of releases (e.g., stains) or damage (e.g., deterioration of building materials, damaged paint or grout, cracks, gaps) to the flooring, and walls up to a height of 11 feet for the purpose of identifying areas of contamination or potential contamination.

The results of the assessment shall be documented in the Closure Report. If the structural assessment reveals any evidence of a release or damage, the such locations shall be incorporated into the SAP as discussed in Section 6. The Closure Plan SAP shall be amended as described in Section 3.4 to incorporate the additional locations and sampling procedures.

### **5.0 DECONTAMINATION**

During closure of Room 112, contaminated structures and equipment will be removed or decontaminated in accordance with 40 CFR § 265.114.

#### **5.1 Preparation**

Prior to decontamination, all floor drains will be plugged. Absorbent socks/booms will be deployed to contain the wash water within the room. A pump will be used to transfer the wash water from the floor to a container, such as a tote or drum.

The doors to adjacent rooms will be closed, and a temporary partition will be constructed between Room 112 and Room 111.

The HVAC air filters will be removed and the duct in the wall shall be plugged prior to decontamination. Electrical power will be turned off and the electrical panels will be locked out and tagged out for safety.

#### **5.2 Personal Protective Equipment**

Prior to decontamination, personal protective equipment (PPE) will be selected. Selection will be based on various factors, such as the following:

- Chemical and radiological hazards
- Inhalation hazards
- Splash potential

- Slip/trip/fall hazard
- Electrical hazard
- Overhead hazards
- Potential elevated work areas (e.g., ladders)
- Heat stress

### **5.3 Structures: Floor, Windows, Doors, Ceiling**

Pressure-washing or steam-cleaning will be used to decontaminate the exposed interior surfaces of structures, including but not limited to floors, walls up to a height of 11 feet from the floor, and doors. At this time, no releases are known to have affected ceilings or walls higher than 11 feet from the floor. If such release(s) are identified during the records review, the affected areas of walls or ceilings will also be decontaminated. Any additional decontamination and subsequent sampling to verify decontamination shall be documented in the Closure Report.

If damaged areas of the floor (e.g., cracks or damaged paint or grout) are identified during the structural assessment, such areas will be addressed during decontamination. The paint and underlying area of damaged grout will be removed and the underlying concrete floor will be examined. If the underlying floor is in good condition, it will be decontaminated in the same manner as the other surfaces. If the underlying floor is not in good condition, swipe or chip samples will be collected directly from the degraded areas for laboratory analysis.

### **5.4 Electrical Panels, Conduit, Ductwork, Piping, and Fixtures**

The exposed outer surfaces of electrical panels and fixtures on the walls will also be decontaminated via pressure-washing or steam-cleaning. Decontamination and verification sampling will not be performed for the internal components or non-exposed surfaces of the fixtures or panels unless there is evidence (from the records review or structural assessment) that a contaminant release has affected such surfaces or internal components.

In a similar manner, exposed external surfaces of ductwork, conduit, and piping will also be decontaminated via pressure-washing or steam-cleaning. Decontamination and verification sampling will not be performed for internal and non-exposed surfaces unless there is evidence that a contaminant release in Room 112 has affected such surfaces.

### **5.5 Further Decontamination**

Following decontamination, the DOE/NNSA and NTESS will collect verification samples as discussed in Section 6. Additional decontamination may be needed in areas where the analytical results indicate COCs are present at concentrations exceeding the industrial exposure levels.

If after two attempts to decontaminate a portion of the room, piping, conduit, ductwork, or panels, verification analysis still fails to meet the criteria for one or more COCs, DOE/NNSA and NTESS may choose to remove any of the contaminated materials (including building materials) from Room 112 and manage the waste in accordance with all applicable regulations.

## **5.6 Hand Tools**

Small hand tools may be managed as waste following decontamination activities. Small hand tools to be retained will be decontaminated using the following decontamination procedures:

1. Brush tool with a wire or other suitable brush, if necessary or practicable, to remove large particulate matter;
2. Rinse with potable tap water;
3. Wash with non-phosphate detergent or other detergent approved by the NMED (e.g., Fantastik™, Liqui-Nox®) followed by a tap water rinse;
4. Double rinse with deionized water.

All decontamination solutions will be collected and stored temporarily, pending analytical results for waste disposal. Decontamination procedures and the cleaning agents used will be documented in the Closure Report.

## **6.0 SAMPLING AND ANALYSIS PLAN**

Room 112 is completely enclosed in Building 6580. Hazardous and mixed waste loading and unloading activities took place within the room. The walls and floor are in good condition.

This SAP identifies:

- COCs at Building 6580, Room 112,
- Anticipated locations where sampling will occur,
- Sampling methods and procedures,
- Laboratory analytical methods that will be employed to quantify analyte concentration in samples, and
- Quality assurance procedures that will be utilized during sample collection and analysis.

## **6.1 Constituents of Concern**

Table 2 lists the COCs at Building 6580, Room 112. In general, mixed wastes were generated and accumulated during ongoing operations in Room 112, but were not stored in the room. The only hazardous or mixed waste known to have been stored in Room 112 was a double-encapsulated experimental package containing a sodium metal in a thorium crucible. The other mixed wastes that were generated in Room 112 include spent solvents and wastes containing VOCs, semi-volatile organic compounds, and metals. Polychlorinated biphenyl compounds may also be present if electrical fixtures failed.



## 6.2 Criteria for Successful Decontamination

Wet-wipe sampling will be used to verify decontamination of surfaces as described in this section. For all COCs, clean closure will be considered successful when wet-wipe sample analyses demonstrate constituent concentrations on the decontaminated surfaces:

- Do not exceed background levels, or
- Are protective of human health and the environment, as shown through comparison to the NMED Swipe Sample Surface Screening Levels.
- For VOCs only, clean closure will be considered successful if the surfaces have been decontaminated twice.

No contaminated soil or base materials underlying the floor are anticipated at Room 112. However, sampling of environmental media may be necessary if the records review, structural assessment, or decontamination activities indicate COCs may have been released to the environment. Therefore, soil sampling is included in this Closure Plan.

**Table 2**  
**Sampling and Analytical Method Summary**  
**Wipe Samples and Soil Samples**

Parameter	Laboratory Method <sup>b</sup>	Required Solvent for Wet Wipe Sample <sup>c</sup>	Preservation for Wipe and Soil Samples	Holding Time
Metals <sup>a</sup> (except mercury)	6010/6020	De-ionized water	Cool to 4°C	6 months
Mercury	7470/7471	De-ionized water	Cool to 4°C	6 months
VOCs	8260/8261	Acetone/Hexane	Cool to 4°C	14 days
SVOCs	8270	Acetone/hexane	Cool to 4°C	14 days
PCBs	808/8082	Isooctane	Cool to 4°C	14 days

<sup>a</sup>Metals are: antimony, arsenic, barium, beryllium, cadmium, chromium, nickel, lead, selenium, silver, and thallium.

<sup>b</sup>Methods are from EPA, 1986 (and updates), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed., U.S. Environmental Protection Agency, Washington, D.C. The most current method may have a different number.

<sup>c</sup>Required solvent will be determined at the time of closure according to the current analytical method from EPA SW-846.

°C = degrees Celsius.

EPA = U.S. Environmental Protection Agency.

PCB = polychlorinated biphenyl.

SVOC = semi-volatile organic compounds.

VOCs = volatile organic compounds.

Proposed sample locations and analyses are described in this section. Actual sampling locations may vary from those shown in the figure due to conditions encountered during closure. DOE/NNSA and NTESS will document actual sample locations and analytical results in the Closure Report.

## 6.3 Wipe Sampling

Wipe sampling will be used to verify surface decontamination of structures and equipment. Method detection limits will be the lowest practicable levels that can be achieved by the analytical laboratory conducting analysis using the methods listed in Table 2.

Wet-wipe sampling will be accomplished using a glass-fiber cloth saturated with an appropriate solvent rubbed with consistent pressure over a consistent surface area. The appropriate solvent is constituent-specific as specified in Table 2. The appropriate amount of solvent will be provided by the analytical laboratory and will conform to ASTM Standard E1792. Each wipe sample will be collected from an area of 100 square centimeters that has not previously been used for the collection of a wipe sample.

To ensure a consistent sampling surface area, DOE/NNSA and NTESS personnel will utilize a template or chalk that will not contaminate the sample. The wet-wipe sample will be collected within the entire sample area by rubbing that area first in one direction using firm equal pressure. One side of the full wipe will be used for the first pass. A second pass perpendicular to the first will be made over the sample area using the wipe cloth folded in half with the side of the cloth used for the first pass inside the fold. A third pass will be made following the procedures for the first two passes. The wipe will then be sealed in an appropriate container.

Figure 4 shows the proposed wipe sample locations. These locations may be adjusted to accommodate actual conditions at closure. DOE/NNSA and NTESS will document the actual sample locations and analytical results in the Closure Report.

## **6.4 Wipe Sample Locations**

### **6.4.1 Background Samples**

Background levels for the COCs in Room 112 will be established through collection of discrete wet-wipe samples from an area in the basement of Building 6580 near Room 112 that was not used for management of hazardous or mixed wastes, such as the adjacent stairwell (Room 112A).

### **6.4.2 Verification Samples**

Decontamination verification samples will be collected and analyzed for all of the COCs listed in Table 2. Figure 4 shows the proposed locations; actual sample locations will be determined during closure activities and will be documented in the Closure Report. Wipe samples will be collected as follows:

- At least one sample every 900 square feet from the walls, with at least one sample from each wall.
- One sample from all the exposed and decontaminated ductwork, piping, or conduit on each wall where such items are present at a height below 11 feet. The sample may be collected from a single location, or a composite sample may be collected from up to five locations on the piping, conduit, and ductwork on the wall. If a composite sample fails to meet the clean closure criteria for one or more COCs, all items in the batch represented by the composite sample will be sampled individually to identify areas where additional decontamination is needed. Single-location samples will be collected after additional decontamination to verify decontamination success.

- One composite sample from the decontaminated exterior surfaces of up to 10 electrical panels in Room 112. Individual samples will be collected and analyzed if the results of the composite sample indicate that additional decontamination is needed. Single-location samples will be collected after additional decontamination to verify decontamination success.
- At least three samples will be collected on the floor; one near each drain and one near the door to Room 110A.
- At least one sample from each wall, floor, or ceiling area affected by a release identified during the records review.
- At least one sample from each area of the floor where the underlying concrete was exposed and found to be in good condition.
- Additional samples will be collected at any contaminated or potentially contaminated locations identified during the structural assessment.

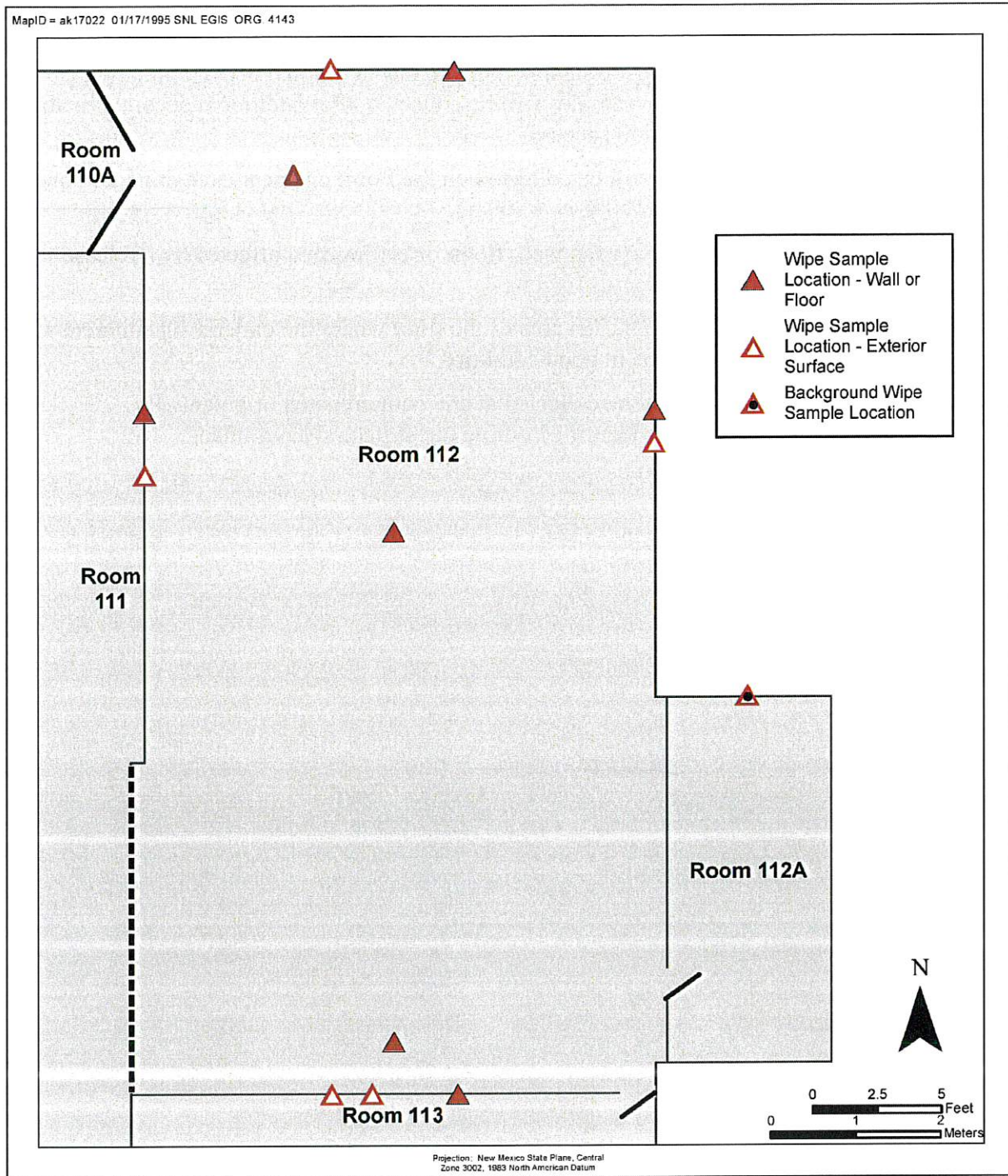


Figure 4  
Building 6580, Room 112 Sampling Locations, Sandia National Laboratories/New Mexico

If after two attempts to decontaminate a portion of the room, piping, conduit, ductwork, or panels, verification analysis still fails to meet the criteria for one or more COCs, DOE/NNSA and NTESS may petition the NMED for a variance to clean closure criteria. The variance would be a written request to the NMED for a determination that the attainment of the requirement is impracticable because of the inherent properties of the materials undergoing wipe sampling.

## **6.5 Soil Sampling**

At each selected location (i.e., each location where COCs may have been released to the environment), one or more samples of soil or base materials will be collected from under the concrete. The selected area of damaged concrete floor will be broken up with a drill, jackhammer, or other suitable tool. After the rubble is removed, the DOE/NNSA and NTESS will collect one or more samples of the undisturbed discrete base material and/or underlying soil. The exact depth of each sample will be determined based on the condition of the concrete and evidence of a release of hazardous waste or hazardous substances to the environment.

Hand auger or direct push technology methods are the preferred methods for collecting soil samples. Trenching is also an appropriate sampling method. Non-disposable sampling equipment will be decontaminated using the procedure specified for hand tools in Section 5.6 before collecting each sample.

Soil samples will be visually screened in the field for physical evidence of potential contamination. Observations will be recorded in logs of sampling activities.

All samples will be transferred into clean sample containers supplied by the project analytical laboratory. Sample container volumes and preservation methods will be in accordance with EPA SW-846 and established industry practices for use by accredited analytical laboratories.

## **6.6 Soil Sample Locations**

Locations where the concrete floor has been cracked or damaged, potentially allowing hazardous wastes or hazardous constituents to be released to the environment, will be identified during the structural assessment, if such locations are present in Room 112. At least one sample of base materials or soil will be collected from each such location. Base materials under hairline cracks in the concrete will not be sampled unless evidence of release is observed (e.g., damaged paint, stains). Base materials will not be sampled under areas where the paint and grout are damaged but the underlying concrete floor is in good condition unless there is evidence of release.

Based on previous inspections, the walls and floor are in good condition; therefore, no samples of soils and base materials are anticipated. If damage is observed that requires collection of samples from beneath the floor, the locations will be shown on a scaled figure in the Closure Report.

## **6.7 Analytical Methods**

DOE/NNSA and NTESS will utilize the laboratory analytical methods, the sample preservation criteria, and the sample holding times as specified in Table 2. The analytical method detection

limits for background and verification samples will be consistent with the analytical methods and will be lower than the corresponding closure cleanup levels.

## **6.8 Quality Assurance and Quality Control**

Field duplicates will be collected at a rate of 10 percent of the number of environmental samples. The DOE/NNSA and NTESS anticipate using disposable sampling equipment (e.g., individual wipes); equipment blanks will be collected and analyzed from all sampling apparatus at a frequency of 10 percent of the number of environmental samples, if disposable sampling equipment is not used. DOE/NNSA and NTESS will collect field blanks at a frequency of one per day. Reagent blanks will be used if analytical procedures requiring reagents are employed in the field as part of the investigation or monitoring program. Sufficient sample volume will be obtained for the laboratory to complete the method-specific quality control analyses on a laboratory-batch basis. Trip blanks will accompany samples transported to the laboratory for VOC analysis.

## **6.9 Sample Handling**

At a minimum, the following procedures will be used at all times when collecting samples during closure activities:

1. Neoprene, nitrile, or other protective gloves will be worn when collecting samples. New disposable gloves will be used to collect each sample;
2. All samples collected of each medium for chemical analysis will be transferred into clean sample containers supplied by the project analytical laboratory. Sufficient sample volume will be obtained for the laboratory to complete the method-specific quality control analyses on a laboratory-batch basis; and
3. Sample labels and documentation will be completed for each sample. The information will include the sample number, collection date, and requested analyses.

Chain-of-custody will be followed for all samples collected. All samples will be submitted to the analytical laboratory in a timely manner to allow the laboratory to conduct the analyses within the method holding times.

Shipment procedures will include the following:

1. Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice or other suitable coolant or other EPA or industry-wide accepted method. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage.
2. Each cooler or other container will be delivered to the analytical laboratory after the samples have been screened for radiological contamination; thus maintaining sample integrity without deviating from the chain-of-custody procedures;

3. Glass bottles will be separated in the shipping container by cushioning material to prevent breakage;
4. Plastic containers will be protected from possible puncture during shipping using cushioning material;
5. The chain-of-custody form and sample request form will be shipped inside the sealed storage container to be delivered to the laboratory;
6. Chain-of-custody seals will be used to seal the sample-shipping container in conformance with EPA protocol; and
7. Signed and dated chain-of-custody seals will be applied to each cooler prior to transport of samples from the site.

#### **6.10 Data Validation**

All data will be reviewed and qualified in accordance with SNL/NM Administrative Operating Procedure (AOP) 00-03, "Data Validation Procedure for Chemical and Radiochemical Data" (SNL/NM June 2017, as revised and updated).

### **7.0 MANAGEMENT OF WASTES GENERATED DURING CLOSURE**

General refuse, PPE, air filters, rubble, excess sample material, water from decontamination, hand tools, and disposable sampling equipment may be generated during the course of closure activities. These and any other wastes generated during closure of Room 112 will be properly characterized in accordance with 40 CFR Part 261 and will be managed in accordance with applicable requirements for storage, labeling, handling, transport, and disposal of waste (40 CFR 265.114).

The DOE/NNSA and NTESS note that spent solvents were generated during ongoing activities in Room 112; however, the records do not indicate that such solvents were released into the room. Therefore, the wastes generated during closure activities will be evaluated to determine whether they are characteristic hazardous or mixed wastes. If they are hazardous or mixed wastes, they will be managed in the same manner as other hazardous and mixed wastes generated during ongoing operations at SNL/NM. The wastes from closure activities will be characterized and managed in accordance with the Resource Conservation and Recovery Act Facility Operating Permit (Permit) issued by the NMED (NMED, 2105 and updates). Wastes will be managed at one of the SNL/NM waste management units subject to the Permit (e.g., the Radioactive and Mixed Waste Management Unit [RMWMU]) before shipment to one or more permitted off-site treatment, storage and disposal facilities (TSDFs). If necessary, the wastes may be treated at SNL/NM in accordance with the Permit (e.g., contaminated rubble may undergo macroencapsulation at the RMWMU) before shipment to the TSDF(s).

The DOE/NNSA and NTESS anticipate that wastes which are not hazardous or mixed wastes will be managed through the following methods:

- Decontamination wastewater will be discharged to the sanitary sewer if it meets the discharge limits. If it does not, the wastewater will be managed as solid waste or low-level radioactive waste using existing waste management processes at SNL/NM, depending on the presence of radionuclides.
- Air filters, rubble, PPE, excess sample material, hand tools, and disposable sampling equipment will be managed as solid waste or low-level radioactive waste using existing waste management processes at SNL/NM, depending on the presence of radionuclides.

The management of all wastes generated during closure activities will be described in the closure report. The description will include any on-site management and planned treatment of hazardous or mixed wastes, together with the names of off-site TSDFs expected to receive such wastes.

## 8.0 REFERENCES

AQS, Inc, April 2018, "2018 Updates to the Revised Screening Levels for Comparison of Surface Contamination Evaluated Using Swipe Samples, April 2018, Tables".

New Mexico Environment Department (NMED), January 2015 (as updated). Resource Conservation and Recovery Act Facility Operating Permit, EPA ID No. NM5890110518, to the U.S. Department of Energy/Sandia Corporation, for the Sandia National Laboratories Hazardous and Mixed Waste Treatment and Storage Units and Post-Closure Care of the Corrective Action Management Unit," New Mexico Environment Department Hazardous Waste Bureau, Santa Fe, New Mexico.

Sandia National Laboratories, New Mexico (SNL/NM), 1990, 1992, 1993 Resource Conservation and Recovery Act (RCRA) General Part A Permit Application, Sandia National Laboratories, Albuquerque, NM. 1990, 1992, and 1993

SNL/NM, June 2017. "Data Validation Procedure for Chemical and Radiochemical Data," AOP 00-03, Revision 5, Sample Management Office, Sandia National Laboratories, Albuquerque, New Mexico, June 19, 2017

U.S. Environmental Protection Agency (EPA), 1986 (and updates). "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed., U.S. Environmental Protection Agency, Washington, D.C.



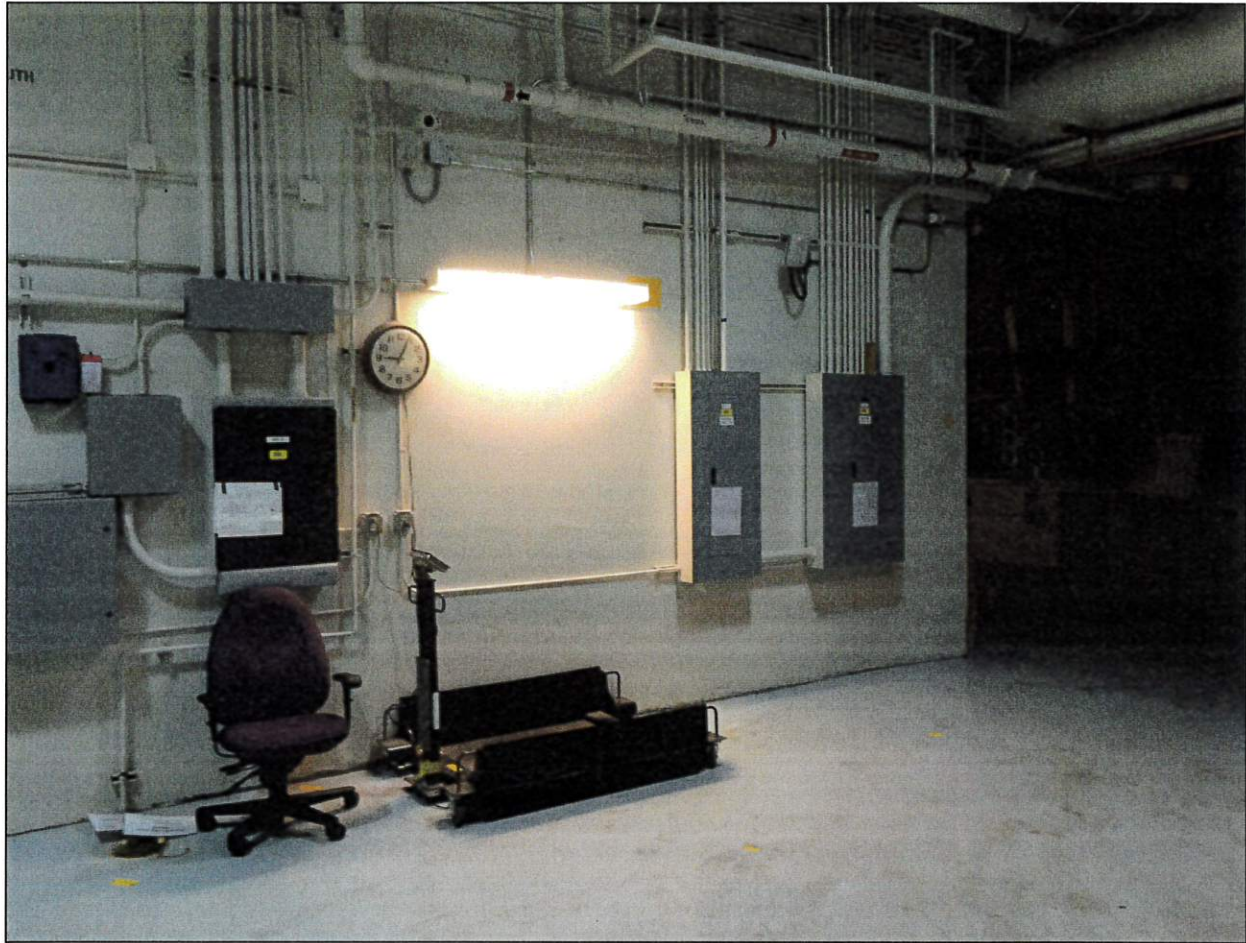
**APPENDIX A**  
**Photographs**



Photograph 1  
Northeast Corner, Building 6580, Room 112  
Sandia National Laboratories/New Mexico

NOTES:

- The air filters will be replaced as part of closure. The opening will be covered during pressure washing or steam cleaning.
- The blue equipment dolly in the foreground is not part of the permanent structures in the room and will be removed before closure.
- The exterior surfaces of piping, ductwork, and conduit lower than 11 feet high will be included in decontamination.



Photograph 2  
South Wall, Building 6580, Room 112  
Sandia National Laboratories/New Mexico

NOTES:

- The condensate floor drain is located to the left of the chair.
- The chair and black equipment dolly in the foreground are not part of the permanent structures in the room and will be removed before closure.
- The electrical panels, conduit, and piping on the wall are part of the permanent structure and the outside surfaces lower than 11 feet high will be decontaminated.
- Room 111 (outside the scope of the closure activities described in this plan) is visible at the right edge of the photo. A temporary partition will be constructed before decontamination.





Photograph 3  
East Wall, Building 6580, Room 112  
Sandia National Laboratories/New Mexico

NOTES:

- The light blue door to the stairwell in Room 112A is visible on the far wall. The lockers to the right of the door are not part of the permanent structure and will be removed before closure activities begin.
- The condensate floor drain shown in Figure 2 is visible at the right edge of the photo.
- A yellow track for the overhead bridge crane is visible at the upper left corner of the photo.
- The red, blue, and yellow tape on the floor is not part of the permanent structure and will be removed before closure activities begin.
- The exterior surfaces of piping and conduit lower than 11 feet high will be included in decontamination.

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<b>Item No.</b>	<b>Location</b>	<b>Existing Text</b>	<b>Requested Revision &amp; Comment</b>	<b>NMED Response</b>
1	Section 3.1 <i>Closure Performance Standard</i>	2. Contaminated structures and equipment in Room 112 that were associated with management of hazardous and mixed wastes have been decontaminated to remove hazardous waste residues and hazardous constituents, or such structures and equipment have been removed and managed in accordance with all applicable requirements.	<p>2. Contaminated structures and equipment in Room 112 that were associated with management of hazardous and mixed wastes have been decontaminated to remove hazardous waste residues and hazardous constituents, or such structures and equipment have been removed and managed in accordance with all applicable requirements. Building 6580 is slated for demolition. The use of the building is industrial, and the anticipated use will not change prior to demolition; therefore, residual concentrations of contaminants that meet industrial exposure levels will be considered acceptable for clean closure in Room 112.</p> <p><b><u>Comment:</u></b></p> <p>Please move the discussion regarding current and anticipated future industrial use of Building 6580 to Item 2. It is most appropriate in Item 2 as it pertains to contaminated structures and equipment.</p>	<p><b><u>NMED Response:</u></b> NMED has moved the discussion regarding current and anticipated future industrial use of Building 6580 prior to demolition from Item 3 to Item 2.</p>

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Item No.	Location	Existing Text	Requested Revision & Comment	NMED Response
2	Section 3.1 <i>Closure Performance Standard</i>	<p>3. Any release of a hazardous wastes or hazardous constituents to environmental media at or from Room 112 has been remediated to a concentration level that is protective of human health and the environment. Building 6580 is slated for demolition. The use of the building is industrial, and the anticipated use will not change prior to demolition; therefore, residual concentrations of contaminants that meet industrial exposure levels will be considered acceptable for clean closure in Room 112. Environmental media affected by a release of contaminants from Room 112 must meet the corresponding cleanup levels for residential land use to qualify for a clean closure determination, should evidence of a release from Room 112 beneath or outside of the building be discovered during closure activities.</p>	<p>3. Any release of a hazardous wastes or hazardous constituents to environmental media at or from Room 112 has been remediated to a concentration level that is protective of human health and the environment. Environmental media affected by a release of contaminants from Room 112 must meet the corresponding cleanup levels for industrial land use to qualify for a clean closure determination, should evidence of a release from Room 112 beneath or outside of the building be discovered during closure activities. The concentration levels for environmental media are based on industrial activities in the area for the foreseeable future.</p> <p><b><u>Discussion:</u></b></p> <p>The current and foreseeable future land use in TA-V is industrial, as stated in Section 2.1 of the plan. Therefore, industrial cleanup levels would be applicable to environmental media addressed during the closure activities.</p> <p>Please revise Item 3 to reflect application of industrial cleanup levels to environmental media affected by a release from Room 112.</p>	<p><b><u>NMED Response:</u></b></p> <p>Based on the inspection records for room 112 conducted by the Permittees, evidence of a release outside of room 112 has not been observed. Room 112 is located within building 6580 and there is no direct entry or egress to the outside of the building from room 112; therefore environmental media has not been affected.. Section 3.1 Item 3 <u>has been modified to delete all text with the exception of the first sentence</u></p>

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Item No.	Location	Existing Text	Requested Revision & Comment	NMED Response
3	Section 3.2 <i>Closure Steps</i>	2. Review records to identify historical releases of contaminants and identify all wastes stored in the room including whether any additional hazardous or mixed wastes were stored in Room 112.	2. Review records to identify historical releases of contaminants and any additional hazardous or mixed wastes stored in Room 112.  <b><u>Discussion:</u></b>  Please delete the overbroad language of identifying <u>all</u> wastes stored in Room 112. Identification of all hazardous and mixed wastes in the room is consistent with the requirements of closure plans for Permitted Units in the SNL RCRA Facility Operating Permit. Furthermore, the presence of contaminants (regardless of source) is adequately addressed through identification of historical releases during the records review.	<b><u>NMED Response:</u></b> Part of the purpose for the records review is to identify all hazardous waste and hazardous constituents that were managed in the unit for the purpose of ensuring that the analytical testing suite is adequate to demonstrate that residual contamination is not present at unacceptable levels. This could include other types of wastes stored in the room that contained hazardous constituents; therefore, NMED declines to remove the language requiring identification of all wastes stored in Room 112.  <b><u>Closure Plan Modification:</u></b> No.

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<b>Item No.</b>	<b>Location</b>	<b>Existing Text</b>	<b>Requested Revision &amp; Comment</b>	<b>NMED Response</b>
4	Section 3.2 <i>Closure Steps</i>	As an alternative to any of Steps 4-7, the Permittees may remove contaminated building materials for disposal at an appropriate permitted disposal facility.	<p>As an alternative to any of Steps 4-7, the Permittees may remove contaminated building materials and manage the waste in accordance with all applicable regulations.</p> <p><b><u>Discussion:</u></b></p> <p>Please revise the requirement to dispose of contaminated building materials at an appropriate permitted disposal facility. All wastes from closure activities will be managed in accordance with applicable requirements, as stated in Section 3.1 Item 2, Section 5.5, and Section 7.0.</p> <p>The most appropriate management method for contaminated building materials would be determined after the waste materials are characterized. Management of wastes generated during closure activities will be described in the closure report as specified in Section 3.5 of the closure plan.</p>	<p><b><u>NMED Response:</u></b> NMED agrees that some building materials may be recycled rather than disposed. The Closure Plan will be modified as proposed to state that the waste will be managed in accordance with all applicable regulations.</p> <p><b><u>Closure Plan Modification:</u></b> Yes.</p>



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Item No.	Location	Existing Text	Requested Revision & Comment	NMED Response
5	Section 4.1 <i>Records Review</i>	<p>The Permittees shall revise the SAP to include the location(s) of incident(s) and release(s) to the environment, if any are identified during the records review, and to accurately and completely reflect COCs managed at Building 6580, Room 112. Collection of wipe samples and soil samples are addressed in the SAP, together with a list of COCs and proposed analytical testing methods. The Closure Plan shall be amended if the number of samples or the list of COCs is modified. The current potential COCs include volatile organic compounds (VOCs), semi-volatile organic compounds, RCRA metals and polychlorinated biphenyls.</p>	<p>The Permittees shall revise the SAP to include the location(s) of incident(s) and release(s) to the environment, if any are identified during the records review, and to accurately and completely reflect COCs managed at Building 6580, Room 112. Collection of wipe samples and soil samples are addressed in the SAP, together with a list of COCs and proposed analytical testing methods. The Closure Plan shall be amended if the number of samples or the list of COCs is modified. The current potential COCs include volatile organic compounds (VOCs), semi-volatile organic compounds, metals and polychlorinated biphenyls, as discussed in Section 6.1 and listed in Table 2.</p> <p><b><u>Discussion:</u></b></p> <p>Please revise the list of potential COCs to be consistent with Table 2. The metals listed in Table 2 include more than the eight metals (often referred to as "RCRA metals") that are the basis for hazardous waste codes D004 through D011.</p>	<p><b><u>NMED Response:</u></b> NMED agrees to delete the acronym "RCRA" from the last sentence of Section 4.1 of the Closure Plan because Table 2 in Section 6.1 of the Closure Plan lists 11 metals, including metals (i.e., Antimony, Nickel, and Thallium), which are not RCRA metals.</p> <p><b><u>Closure Plan Modification:</u></b> Yes</p>

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Item No.	Location	Existing Text	Requested Revision & Comment	NMED Response
6	Section 6.1 <i>Constituents of Concern</i>	<p>Table 2 lists the COCs at Building 6580, Room 112. In general, mixed wastes were generated and accumulated during ongoing operations in Room 112 but were not stored in the room. The only hazardous or mixed waste known to have been stored in Room 112 was a double- encapsulated experimental package containing a sodium metal in a thorium crucible. The other mixed wastes that were generated in Room 112 include spent solvents and wastes containing VOCs, semi-volatile organic compounds, and metals. Polychlorinated biphenyl compounds may also be present if electrical fixtures failed.</p>	<p>Table 2 lists the COCs at Building 6580, Room 112. In general, mixed wastes were generated and accumulated during ongoing operations in Room 112 but were not stored in the room. The only hazardous or mixed waste known to have been stored in Room 112 was a double- encapsulated experimental package containing a sodium metal in a thorium crucible. The other mixed wastes that were generated in Room 112 include spent solvents and wastes containing VOCs, semi-volatile organic compounds, and metals. Polychlorinated biphenyl compounds may also be present if electrical fixtures failed. A preliminary review of records does not indicate that solvents were released into the room; therefore, VOCs will not be included as COCs unless there are records or evidence of a release.</p> <p><b><u>Discussion:</u></b></p> <p>Please revise the discussion of potential COCs to clarify that VOCs are constituents of the spent solvents generated during activities in Room 112, but VOCs are not expected to be present as contaminants unless solvents were released into the room. This clarification also makes the consideration of VOCs consistent throughout the closure plan, particularly in Sections 4.1 and 7.0, and Table 2 in Section 6.2.</p>	<p><b><u>NMED Response:</u></b> A preliminary review is not part of the Closure Plan and therefore cannot be relied upon to eliminate COCs. The records review (Section 4.1) will identify the COCs to be included in the analytical suite. Therefore, references to a preliminary review will not be included in the Closure Plan.</p> <p><b><u>Closure Plan Modification:</u></b> No</p>

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7	Section 6.2 <i>Criteria for Successful Decontamination</i>	<p>Wet-wipe sampling will be used to verify decontamination of surfaces as described in this section. For all COCs, clean closure will be considered successful when wet-wipe sample analyses demonstrate constituent concentrations on the decontaminated surfaces:</p> <ul style="list-style-type: none"> <li>• Do not exceed background levels, or</li> <li>• Are protective of human health and the environment, as shown through a risk assessment.</li> </ul>	<p>Wet-wipe sampling will be used to verify decontamination of surfaces as described in this section. For all COCs, clean closure will be considered successful when wet-wipe sample analyses demonstrate constituent concentrations on the decontaminated surfaces:</p> <ul style="list-style-type: none"> <li>• Do not exceed background levels, or</li> <li>• Are protective of human health and the environment, as shown through comparison to the NMED 2018 Swipe Sample Surface Screening Levels.</li> </ul> <p><b><u>Discussion:</u></b></p> <p>Please revise the criteria for successful decontamination to be consistent with the closure steps in Section 3.2.</p>	<p><b><u>NMED Response:</u></b> NMED agrees to make the recommended change in Section 6.2, to make it consistent with closure Step 7 in Section 3.2.</p> <p><b><u>Closure Plan Modification:</u></b> NMED has modified the first paragraph of Section 6.2 on page 13 to read, "Wet-wipe sampling will be used to verify decontamination of surfaces as described in this section. For all COCs, clean closure will be considered successful when wet-wipe sample analyses demonstrate constituent concentrations on the decontaminated surfaces:</p> <ul style="list-style-type: none"> <li>• Do not exceed background levels, or</li> <li>• Are protective of human health and the environment, as shown through comparison to the NMED Swipe Sample Surface Screening Levels." </li></ul>

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Item No.	Location	Existing Text	Requested Revision & Comment	NMED Response											
8	Section 6.2 <i>Table 2 Sampling and Analytical Method Summary Wipe Samples and Soil Samples</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Parameter</th> </tr> </thead> <tbody> <tr> <td>Metals<sup>a</sup> (except mercury)</td> </tr> <tr> <td>Mercury</td> </tr> <tr> <td>SVOCs</td> </tr> <tr> <td>PCBs</td> </tr> </tbody> </table>	Parameter	Metals <sup>a</sup> (except mercury)	Mercury	SVOCs	PCBs	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Parameter</th> </tr> </thead> <tbody> <tr> <td>Metals<sup>a</sup> (except mercury)</td> </tr> <tr> <td>Mercury</td> </tr> <tr> <td>VOCs</td> </tr> <tr> <td>SVOCs</td> </tr> <tr> <td>PCBs</td> </tr> </tbody> </table> <p>Parameter: VOCs Laboratory Method: 8260/8261 Solvent: Acetone/hexane Preservation: Cool to 4°C Holding Time: 14 days</p> <p><b><u>Discussion:</u></b></p> <p>Add VOCs to Table 2 for consistency with discussions in the text of Sections 4.1, 6.1, 6.2, and 6.9. Please include information shown for all columns in Table 2.</p>	Parameter	Metals <sup>a</sup> (except mercury)	Mercury	VOCs	SVOCs	PCBs	<p><b><u>NMED Response:</u></b> NMED concurs with the recommended changes to Table 2.</p> <p>The following proposed information on VOCs has been added to Table 2, third row from the top of the Table, for consistency with discussions in the text of Sections 4.1, 6.1, 6.2, and 6.9:</p> <p><b>Parameter:</b> VOCs <b>Laboratory Method:</b> 8260/8261 <b>Solvent for Wet Wipe Sample:</b> Acetone/hexane <b>Preservation for Wipe and Soil Samples:</b> Cool to 4°C <b>Holding Time:</b> 14 days.</p> <p><b><u>Closure Plan Modification:</u></b> Yes</p>
Parameter															
Metals <sup>a</sup> (except mercury)															
Mercury															
SVOCs															
PCBs															
Parameter															
Metals <sup>a</sup> (except mercury)															
Mercury															
VOCs															
SVOCs															
PCBs															
9	Section 6.2 <i>Table 2 (footnotes)</i>	<p>SVOC = semi-volatile organic compound. VOC = volatile organic compound.</p>	<p>SVOC = semi- volatile organic compound. VOC =volatile organic compound.</p> <p><b><u>Discussion:</u></b></p> <p>Add VOCs to Table 2 footnotes for consistency with Sections 4.1, 6.1, 6.2, and 6.9.</p>	<p><b><u>NMED Response:</u></b> NMED has added the following information on VOCs and SVOCs to Table 2 footnotes for consistency with Sections 4.1, 6.1, 6.2, and 6.9:</p> <p>SVOC = semi-volatile organic compounds. VOC = volatile organic compound.</p> <p><b><u>Closure Plan Modification:</u></b> Yes.</p>											

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Item No.	Location	Existing Text	Requested Revision & Comment	NMED Response
10	Section 6.9 <i>Sample Handling</i>	2. Each cooler or other container will be delivered directly from the field to the analytical laboratory;	<p>2. Each cooler or other container will be delivered to the analytical laboratory;</p> <p><b><u>Discussion:</u></b></p> <p>Samples collected from areas at SNL where radioactive materials were handled are checked and screened for radiological contamination before final packaging for shipment to an analytical laboratory. Sample containers remain closed during the screening. Chain of custody is maintained for each sample during the screening and packaging activities.</p> <p>Please delete the requirement to deliver samples directly from the field to the analytical laboratory, as it could result in additional risks to human health and the environment through shipment of the samples.</p>	<p><b><u>NMED Response:</u></b> NMED agrees to remove the phrase, "directly from the field" to the analytical laboratory," as requested by the Permittees. However, NMED has added language to clarify Item 2.</p> <p>NMED has revised Section 6.9, Item 2, third paragraph to read, "2. Each cooler or other container will be delivered to the analytical laboratory after the samples have been screened for radiological contamination; thus, maintaining sample integrity without deviating from the chain-of-custody procedures."</p> <p><b><u>Closure Plan Modification:</u></b> Yes</p>

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Item No.	Location	Existing Text	Requested Revision & Comment	NMED Response
11	<i>References</i>	New Mexico Environment Department (NMED), January 2017(as updated). Resource Conservation and Recovery Act Facility Operating Permit, EPA ID No. NM5890110518, to the U.S. Department of Energy/Sandia Corporation, for the Sandia National Laboratories Hazardous and Mixed Waste Treatment and Storage Units and Post-Closure Care of the Corrective Action Management Unit," New Mexico Environment Department Hazardous Waste Bureau, Santa Fe, New Mexico.	New Mexico Environment Department (NMED), January 2015 (as updated). Resource Conservation and Recovery Act Facility Operating Permit, EPA ID No. NM5890110518, to the U.S. Department of Energy/Sandia Corporation, for the Sandia National Laboratories Hazardous and Mixed Waste Treatment and Storage Units and Post-Closure Care of the Corrective Action Management Unit," New Mexico Environment Department Hazardous Waste Bureau, Santa Fe, New Mexico.  <u>Discussion:</u>  Please revise to the 2015 date for clarity, as it is the date the Permit was originally issued.	<u>NMED Response:</u> NMED has corrected the first sentence of the second reference in Section 8.0 to read, "New Mexico Environment Department (NMED), January 2015 (as updated).  <u>Closure Plan Modification:</u> Yes