NNSA-2024-000880

Department of Energy
National Nuclear Security Administration
Sandia Field Office
P.O. Box 5400
Albuquerque, NM 87185

FEB 13 2024

ENTERED

FEB 14 2024

Mr. Ricardo Maestas
Acting Chief, Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505

Subject: Submittal of Solid Waste Management Units and Areas of Concern Annual Long-Term Monitoring and Maintenance Report for Calendar Year 2023, Sandia National Laboratories, New Mexico, U.S. Environmental Protection Agency Identification Number NM5890110518

Dear Mr. Maestas:

The U.S. Department of Energy, National Nuclear Security Administration, Sandia Field Office and National Technology & Engineering Solutions of Sandia, LLC submit the Subject report dated March 2024. The Subject document meets the reporting requirements set forth in the Resource Conservation and Recovery Act Facility Operating Permit Attachment M, Section M.4.

If you have any questions, please contact me at (505) 845-6036 or Dr. Adria Bodour of our staff at (505) 845-6930 or adria.bodour@nnsa.doe.gov.

Sincerely,

Daryl J. Hauck, PhD
Manager

cc: See Page 2

FEB 13 2024

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Solid Waste Management Units and Areas of Concern Annual Long-Term Monitoring and Maintenance Report for Calendar Year 2023

Sandia National Laboratories
Albuquerque, New Mexico
EPA ID No. NM5890110518

CERTIFICATION STATEMENT

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

Gregory T Roselle
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This form is derived from AOP F 95-45-3 (6-2017).

SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN ANNUAL LONG-TERM MONITORING AND MAINTENANCE REPORT FOR CALENDAR YEAR 2023

SANDIA NATIONAL LABORATORIES, NEW MEXICO LONG-TERM STEWARDSHIP

March 2024

U.S. Department of Energy
Sandia Field Office

Sandia National Laboratories is a multimission laboratory managed and operated by National Technology & Engineering Solutions of Sandia, LLC, a wholly owned subsidiary of Honeywell International Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.

SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN ANNUAL LONG-TERM MONITORING AND MAINTENANCE REPORT FOR CALENDAR YEAR 2023

MARCH 2024

Facility: Solid Waste Management Units and Areas of Concern

Location: Sandia National Laboratories
Albuquerque, New Mexico

EPA ID No.: NM5890110518

Permit Basis: Resource Conservation and Recovery Act Facility Operating Permit, effective February 26, 2015

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EXECUTIVE SUMMARY

This *Solid Waste Management Units and Areas of Concern Annual Long-Term Monitoring and Maintenance Report for Calendar Year 2023* (Report) describes the measures performed in calendar year (CY) 2023 to protect human health and the environment at 24 of the 25 Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at Sandia National Laboratories, New Mexico (SNL/NM) granted Corrective Action Complete with Controls status. These measures, which include annual site inspections and institutional control (IC) maintenance (including repair and replacement), meet the requirements of the *Resource Conservation and Recovery Act Facility Operating Permit for Sandia National Laboratories, EPA ID No. NM5890110518* (Permit) (NMED, January 2015, as modified), Permit Attachment M, Long-Term Monitoring and Maintenance Plan for Solid Waste Management Units and Areas of Concern Granted Corrective Action Complete with Controls.

This Report does not describe the monitoring, inspection, and maintenance activities performed in CY 2023 to protect human health and the environment at SWMU 76, the Mixed Waste Landfill (MWL), which is subject to the *Long-Term Monitoring and Maintenance Plan for the Mixed Waste Landfill* (SNL/NM, March 2012) and its reporting requirements. MWL monitoring, inspection, and maintenance results can be found in the MWL annual long-term monitoring and maintenance reports submitted to the New Mexico Environment Department by June 30th of each year.

In accordance with Permit Attachment M, annual site inspections of all but 4 of the 24 SWMUs/AOCs were performed in CY 2023. Because of their physical features, SWMUs 96, 98, 187, and 226 are not subject to this requirement. Site conditions observed during these inspections indicated that four faded signs at SWMUs 46, 105, and 190 and faded SWMU numbers on three signs at SWMU 1/3 needed replacement. This maintenance was completed and verified as complete within 180 days. Additionally, a follow-up inspection was performed at SWMU 4 to check the status of the replacement signs posted in CY 2022. This inspection verified that these signs were in place and in good condition. No other maintenance was necessary.

The annual site inspection of SWMU 190 revealed evidence of minor surface water run-on and run-off erosion. Due to the depth of the residual contamination at this SWMU, this erosion is not a concern at this time, however will be monitored for changes.

Information about each of the 24 SWMUs/AOCs was maintained during CY 2023 and reviewed as needed. Additionally, approximately 180 National Environmental Policy Act checklists for future projects and routine maintenance activities were reviewed to ensure that the planned activities at SNL/NM would not compromise the ICs at any of the SWMUs/AOCs, potentially expose humans to constituents of concern, or impact the environment by spreading residual contamination.

Based on the measures performed and the site conditions observed, the ICs for the 24 SWMUs/AOCs continue to protect human health and the environment.

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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
CY	calendar year
DOE	U.S. Department of Energy
IC	institutional control
KAFB	Kirtland Air Force Base
MWL	Mixed Waste Landfill
NMED	New Mexico Environment Department
NNSA	National Nuclear Security Administration
Permit	Resource Conservation and Recovery Act Facility Operating Permit
Report	Solid Waste Management Units and Areas of Concern Long-Term Monitoring and Maintenance Report for Calendar Year 2023
SNL/NM	Sandia National Laboratories, New Mexico
SWMU	Solid Waste Management Unit

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1.0 INTRODUCTION

1.1 Background

Sandia National Laboratories, New Mexico (SNL/NM) is a multimission laboratory managed and operated by National Technology & Engineering Solutions of Sandia, LLC, a wholly owned subsidiary of Honeywell International Inc., under contract with the U.S. Department of Energy (DOE)'s National Nuclear Security Administration (NNSA). Primary SNL/NM operations are located within the fenced boundaries of Kirtland Air Force Base (KAFB), southeast of the City of Albuquerque in Bernalillo County, New Mexico.

SNL/NM has numerous Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs). The New Mexico Environment Department (NMED) regulates these SWMUs/AOCs through the *Resource Conservation and Recovery Act Facility Operating Permit for Sandia National Laboratories, EPA ID No. NM5890110518* (Permit) (NMED, January 2015, as modified). Permit Attachment K, Solid Waste Management Units and Areas of Concern, lists each of these SWMUs/AOCs and its corrective action status. Corrective action has been completed at all but six of these SWMUs/AOCs.

Most of the SWMUs/AOCs for which corrective action has been completed do not require institutional controls (ICs) (i.e., they have been closed to residential screening levels and are Corrective Action Complete without Controls). The 25 SWMUs/AOCs granted Corrective Action Complete with Controls status (Permit Attachment K, Table K-3) have residual contamination above residential screening levels; therefore, they require ICs and measures to protect human health and the environment from the constituents of concern. Permit Attachment M, Long-Term Monitoring and Maintenance Plan for Solid Waste Management Units and Areas of Concern Granted Corrective Action Complete with Controls, specifies these ICs and measures (e.g., annual site inspections and IC maintenance).

1.2 Purpose and Scope

This *Solid Waste Management Units and Areas of Concern Annual Long-Term Monitoring and Maintenance Report for Calendar Year 2023* (Report) describes the measures, including annual site inspections and IC maintenance (which includes repair and replacement), performed in calendar year (CY) 2023 to protect human health and the environment at 24 of the 25 SWMUs/AOCs granted Corrective Action Complete with Controls status; see Table 1-1 and Figure 1-1, respectively, for the SWMU/AOC numbers/names and locations. This Report summarizes the ICs and inspection and maintenance requirements for the SWMUs/AOCs; the inspection results, including the site conditions observed; the status of the CY 2022 maintenance; and all other potentially impactful conditions and events observed.

This Report does not describe the monitoring, inspection, and maintenance activities performed in CY 2023 at SWMU 76, the Mixed Waste Landfill (MWL), which is subject to the *Long-Term Monitoring and Maintenance Plan for the Mixed Waste Landfill* (SNL/NM, March 2012) and its reporting requirements. MWL monitoring, inspection, and maintenance results can be found in the MWL annual long-term monitoring and maintenance reports submitted to the NMED by June 30th of each year.

The measures performed to protect human health and the environment at the 24 SWMUs/AOCs meet the requirements of Permit Attachment M. The SNL/NM Long-Term Stewardship Program manages the 24 SWMUs/AOCs in accordance with Permit Attachment M.

Table 1-1
Solid Waste Management Units and Areas of Concern Granted Corrective Action Complete with Controls Status, Sandia National Laboratories, New Mexico[a]

SWMU/AOC Number	SWMU/AOC Name
1	Radioactive Waste Landfill
2	Classified Waste Landfill (TA-II)
3	Chemical Disposal Pit
4	LWDS Surface Impoundments
45	Liquid Discharge (Behind TA-IV)
46	Old Acid Waste Line Outfall
58FF	Fire Bricks Feature (Coyote Canyon Blast Area)
58B/8Y	Debris Pile and Pit Area (Coyote Canyon Blast Area)
87	Building 9990 Firing Site
91	Lead Firing Site (Thunder Range)
96	Storm System Drain
98	Building 863 (TCA, Photochemical Releases: Silver Catch Boxes)
105	Mercury Spill (Building 6536)
135	Building 906 Drain System
137	Building 6540/6542 Septic System (TA-III)
154	Bldg. 9960 Septic System and Seepage Pits (Coyote Canyon Test Field)
187	Septic Tank Piping for POTW
190	Steam Plant Tank Farm
196	Building 6597 Cistern (TA-V)
226	Old Acid Waste Line
229	Storm Drain System Outfall (for TA-II)
1029	Building 6584 North Septic System (TA-III)
1081	Building 6650 Septic System (TA-III)
1090	Building 6721 Septic System (TA-III)

Notes:
[a]This table does not include SWMU 76, the Mixed Waste Landfill, which is subject to the *Long-Term Monitoring and Maintenance Plan for the Mixed Waste Landfill* (SNL/NM, March 2012) and its reporting requirements.
AOC = Area of Concern
LWDS = Liquid Waste Disposal System
POTW = Publicly Owned Treatment Works
SWMU = Solid Waste Management Unit
TA = Technical Area
TCA = 1,1,1-trichloroethane

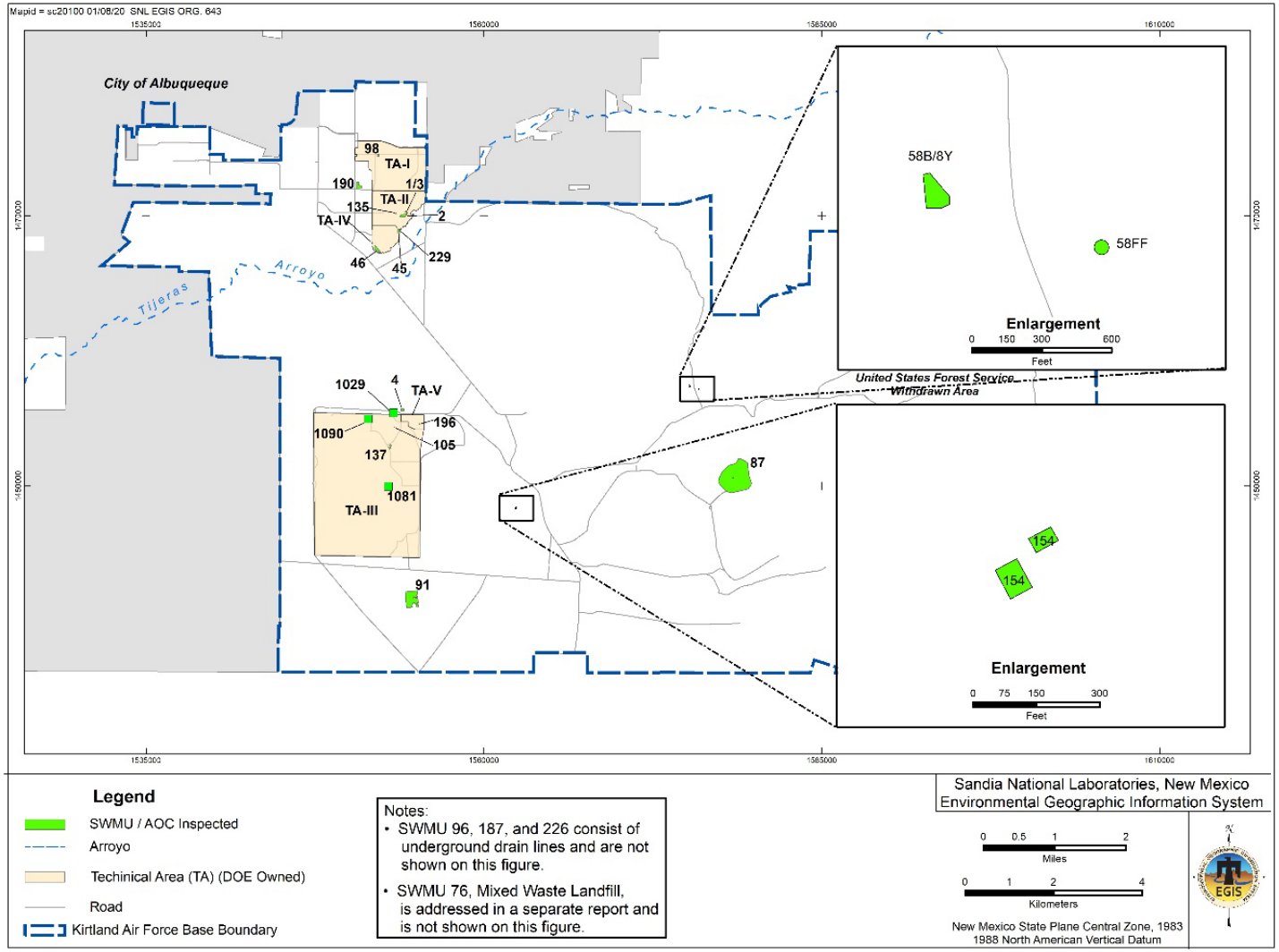

Figure 1-1
Locations of Solid Waste Management Units and Areas of Concern Granted Corrective Action Complete with Controls Status, Sandia National Laboratories, New Mexico

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2.0 INSTITUTIONAL CONTROLS AND INSPECTION AND MAINTENANCE REQUIREMENTS

2.1 Institutional Controls

The ICs for the 24 SWMUs/AOCs flow from Permit Attachment M, Section M.2, Institutional Controls. These ICs consist of administrative and physical controls that are commensurate with the risks the site conditions and constituents of concern present. They are implemented in an integrated and layered approach to enhance their effectiveness and reliability and to provide continued protection should one or more of them become temporarily impaired. Table 2-1 presents the required physical controls and inspection frequency for the 24 SWMUs/AOCs. Sections 2.1.1 and 2.1.2 provide additional information on the administrative and physical controls.

2.1.1 Administrative Controls

The administrative controls for the 24 SWMUs/AOCs include:

- Information management.
- Restrictions on future land use.
- Awareness.

The information maintained about each SWMU/AOC includes:

- Site location and characteristics.
- Site history and corrective action completed.
- Land use permits or agreements with KAFB.
- Documentation of current site conditions, including information from annual site inspections.
- Type of controls.
- Maintenance records.
- Planning information, including restrictions on future site activities.
- Copies of reports submitted to the NMED.

This information is maintained at SNL/NM in various information management systems and repositories to preserve the site records and make current and future generations aware of the site conditions and constituents of concern and the risks they present.

2.1.2 Physical Controls

The physical controls for the 24 SWMUs/AOCs include:

- Industrial land use restrictions.
- Warning and information signs posted at each SWMU/AOC where feasible.
- Fences that restrict access to some or all portions of each SWMU/AOC.
- Physical features such as subsurface location (e.g., sewer lines).

Table 2-1
Physical Controls and Inspection Requirements, Solid Waste Management Units and Areas of Concern, Sandia National Laboratories, New Mexico[a]

SWMU/AOC Number	Signs and Postings	Inspection Frequency	Additional Information
1	4 signs on SWMU perimeter, 1 each in selected corners of the SWMU.	Annual	N/A
2	5 signs on SWMU perimeter, 1 in the approximate middle of each side of the SWMU.	Annual	N/A
3	Included with SWMU 1.	Annual	Located adjacent to SWMU 1[b].
4	4 signs on SWMU perimeter, 1 in the approximate middle of each side of the SWMU.	Annual	N/A
45	5 signs on SWMU perimeter, 1 in approximately each corner of the SWMU outside of the TA-IV fence.	Annual	Western half of the SWMU is located within the TA-IV fenced boundary.
46	4 signs along the TA-IV fence line and 7 signs posted along the south and west perimeter of the SWMU.	Annual	N/A
58FF	2 signs on perimeter.	Annual	Feature within SWMU 58.
58B/8Y	4 signs on perimeter.	Annual	Feature within SWMU 58.
87	4 signs, 1 at the access road and 3 on the perimeter of the SWMU.	Annual	N/A
91	4 signs on SWMU perimeter, 1 in the approximate middle of each side of the SWMU.	Annual	N/A
96	Not feasible.	None	SWMU consists of underground storm drains throughout TA-I. No signs, postings, or inspections are feasible due to SWMU features.
98	Not feasible.	None	SWMU consists of a subsurface area located under a building. No signs, postings, or inspections are feasible due to SWMU features.
105	4 signs on SWMU perimeter, 1 in the approximate middle of each side of the SWMU.	Annual	N/A

See Notes at end of table.

Table 2-1 (concluded)
Physical Controls and Inspection Requirements, Solid Waste Management Units and Areas of Concern, Sandia National Laboratories, New Mexico[a]

SWMU/AOC Number	Signs and Postings	Inspection Frequency	Additional Information
135	1 sign.	Annual	N/A
137	4 signs on SWMU perimeter, 1 each at selected corners of the SWMU.	Annual	N/A
154	4 signs at 2 areas that comprise the SWMU; 2 signs near selected corners of each area.	Annual	N/A
187	Not feasible.	None	SWMU consists of underground sewer lines throughout TA-I. No signs, postings, or inspections are feasible due to SWMU features.
190	4 signs on SWMU perimeter, 1 in the approximate middle of each side of the SWMU.	Annual	N/A
196	1 sign near the northeast corner of the SWMU.	Annual	N/A
226	Not feasible.	None	SWMU consists of underground drain lines throughout TA-I, II, and IV. No signs, postings, or inspections are feasible due to SWMU features.
229	1 sign at the top of the outfall.	Annual	N/A
1029	3 signs on SWMU perimeter.	Annual	N/A
1081	3 signs on SWMU perimeter.	Annual	N/A
1090	1 sign, approximately in the middle of the SWMU.	Annual	N/A

Notes:
[a] This table does not include SWMU 76, the Mixed Waste Landfill, which is subject to the *Long-Term Monitoring and Maintenance Plan for the Mixed Waste Landfill* (SNL/NM, March 2012) and its reporting requirements.
[b] Because of their proximity, SWMUs 1 and 3 are inspected as one site.
AOC = Area of Concern
N/A = not applicable
SWMU = Solid Waste Management Unit
TA = Technical Area

All 24 SWMUs/AOCs are located within the fenced boundaries of KAFB, which is restricted to authorized personnel. Only SWMU 4, Liquid Waste Disposal System Surface Impoundments, is fenced. The warning and information signs coupled with the administrative controls are adequate for implementing the IC restrictions at the remaining SWMUs/AOCs.

2.2 Inspection and Maintenance Requirements

The inspection and maintenance requirements for the 24 SWMUs/AOCs flow from Permit Attachment M, Section M.3, Maintenance of Institutional Controls.

2.2.1 Inspection Requirements

All but 4 of the 24 SWMUs/AOCs require annual site inspections. Because of their physical features, SWMUs 96, 98, 187, and 226 are not subject to this requirement. The purpose of these inspections is to verify that the ICs are in place and functioning as intended, ensure that the IC restrictions are being adhered to, and determine if site conditions are protective of human health and the environment based on visual inspection. The inspection results must be evaluated for necessary maintenance, including repair or replacement of one or more of the physical controls or installation of additional ICs.

2.2.2 Maintenance Requirements

Records and information (i.e., administrative controls) for each of the 24 SWMU/AOCs must be maintained in written or electronic form at SNL/NM. The records must be kept current and updated when new information becomes available or is generated. Plans for future DOE/NNSA and SNL/NM projects at or near any of the SWMUs/AOCs must be evaluated for activities that are not consistent with the industrial land use designation or IC restrictions. Such activities include unauthorized disturbance and relocation of SWMU/AOC soil.

Site and physical control maintenance must be completed within the timeframes Table 2-2 specifies unless delayed by weather or other site-specific conditions. The maintenance must then be verified as complete via a follow-up inspection performed within 180 days. The follow-up inspection may be combined with an annual site inspection if the annual site inspection falls within the 180-day time limit.

Table 2-2
Maintenance Schedule, Solid Waste Management Units and Areas of Concern, Sandia National Laboratories, New Mexico

Maintenance Issue	Response Schedule
Erosion, seepage, or subsidence	Evaluate severity and if necessary develop mitigation plan within 120 days Complete in a timely manner
Newly-occurring or newly-discovered contamination	See Permit Part 8, Corrective Action, Section 8.3.3 Newly Discovered Releases
Signs	Begin to address within 30 days Complete in a timely manner
Activities that are inconsistent with site restrictions	Begin to address within 30 days Complete in a timely manner
Awareness measures to address new residential activities adjacent to SWMU/AOC locations	Develop measures within 30 days Implement measures in a timely manner
Access restrictions to address new residential activities adjacent to SWMU/AOC locations	Develop measures within 60 days Implement measures in a timely manner

Notes:
This table is derived from Permit Attachment M, Table M-2.
AOC = Area of Concern
Permit = Resource Conservation and Recovery Act Facility Operating Permit
SWMU = Solid Waste Management Unit

2.3 Changes to Requirements

There were no changes to Permit Attachment M requirements in CY 2023.

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3.0 MEASURES PERFORMED IN CALENDAR YEAR 2023

3.1 Annual Site Inspections

Annual site inspections of all but 4 of the 24 SWMUs/AOCs were performed in September 2023. Specific activities included:

- Walking each SWMU/AOC and recording observations related to the conditions of the site perimeter and internal site areas. The large SWMUs/AOCs were walked in a grid pattern, where possible, to ensure visual coverage of the site.
- Monitoring and recording the following information:
  - Site condition
  - Evidence of erosion, seepage, or subsidence
  - Evidence of newly occurring or newly visible contamination
  - Sign condition and location
  - Evidence of activities that were not consistent with the IC restrictions
  - Evidence of any residential activities adjacent to the SWMU/AOC that would necessitate additional awareness measures and access restrictions
  - Other conditions or events at the site that could compromise the ICs (see Section 4.0)

Because of their physical features (Table 2-1), SWMUs 96, 98, 187, and 226 are not subject to the annual site inspection requirement and therefore were not inspected.

Table 3-1 presents the inspection results for the inspected SWMUs/AOCs. In summary:

- Four faded signs were noted at SWMUs 46, 105, and 190. Additionally, faded SWMU numbers were noted on three signs at SWMU 1/3.
- Minor surface water run-off erosion in the form of small rills approximately 1 to 3 inches deep was observed downgradient of SWMU 190. The undeveloped lot slopes to the southwest corner where this erosion was observed. Additionally, minor surface water run-on erosion in the form of small rills approximately 1 inch deep was observed, with the facility located upgradient to SWMU 190 the source of the surface water. Because the residual contamination is located in subsurface soil approximately 18 feet below ground surface, minor erosion and surface water run-off from SWMU 190 to downgradient locations are not a concern; however, both the run-on and run-off erosion will be monitored for changes.

The inspection records will be maintained at SNL/NM as Permit Attachment M requires (Section 2.1.1).

Table 3-1
Calendar Year 2023 Inspection Results and Maintenance, Solid Waste Management Units and Areas of Concern, Sandia National Laboratories, New Mexico[a]

SWMU/AOC Number	Date Inspection Completed	Required Maintenance	Date Maintenance Performed	Date Maintenance Completed	Other Conditions and Events
1[b]	9/25/23	Replaced numbers on 3 signs	10/9/23	10/9/23	Construction activity near site
2	9/25/23	None	N/A	N/A	Construction activity near site
3[b]	9/25/23	Replaced numbers on 3 signs	10/9/23	10/9/23	Construction activity near site
4	9/25/23	None	N/A	N/A	None observed
45	9/25/23	None	N/A	N/A	None observed
46	9/25/23	Replaced 2 faded signs	10/9/23	10/9/23	Construction laydown yard near site
58FF	9/26/23	None	N/A	N/A	None observed
58B/8Y	9/26/23	None	N/A	N/A	None observed
87	9/26/23	None	N/A	N/A	None observed
91	9/26/23	None	N/A	N/A	None observed
105	9/25/23	Replaced 1 faded sign	10/9/23	10/9/23	None observed
135	9/25/23	None	N/A	N/A	None observed
137	9/25/23	None	N/A	N/A	None observed
154	9/26/23	None	N/A	N/A	Construction activity near site
190	9/25/23	Replaced 1 faded sign	10/9/23	10/9/23	None observed
196	9/25/23	None	N/A	N/A	None observed
229	9/25/23	None	N/A	N/A	None observed
1029	9/25/23	None	N/A	N/A	None observed
1081	9/25/23	None	N/A	N/A	None observed
1090	9/25/23	None	N/A	N/A	None observed

Notes:
[a] Because of their physical features (Table 2-1), SWMUs 96, 98, 187, and 226 are not subject to the annual site inspection requirement and therefore were not inspected.
[b] As Table 2-1 indicates, SWMUs 1 and 3 are inspected as one site; therefore, the inspection results for both are recorded on the same inspection checklist.
AOC = Area of Concern
N/A = not applicable
SWMU = Solid Waste Management Unit
TBD = to be determined

3.2 Institutional Control Maintenance

3.2.1 Physical Control Maintenance

The four faded signs at SWMUs 46, 105, and 190 and the faded SWMU numbers on the three signs at SWMU 1/3 were replaced on October 9, 2023. Since two individuals were present on October 9, 2023, one acted as a witness to verify that the maintenance activity was completed. This verification was documented on the SNL/NM SWMUs Institutional Control Maintenance Checklist and served as the follow-up inspection (completed within 180 days). No other maintenance was necessary.

3.2.2 Administrative Control Maintenance

Information about each of the 24 SWMUs/AOCs was maintained during CY 2023 and reviewed as needed. Specific activities included:

- Evaluating inspection results for necessary maintenance.
- Reviewing approximately 180 National Environmental Policy Act checklists for future projects and routine maintenance activities to ensure that the planned activities at SNL/NM would not compromise the ICs at any of the SWMUs/AOCs, potentially expose humans to constituents of concern, or impact the environment by spreading residual contamination.
- Notifying project owners of any ICs at or near the planned activities and the actions needed to avoid compromising them.

3.2.3 Status Check of Calendar Year 2022 Maintenance

The four faded signs noted at SWMU 4 during the October 21, 2022 annual site inspection were replaced on January 30, 2023. A follow-up inspection was performed on April 21, 2023 to check the status of the replacement signs. This inspection verified that these signs were in place and in good condition.

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4.0 OTHER CONDITIONS AND EVENTS

Construction activity near SWMUs 1/3, 2, 46, and 154 was observed during the annual site inspections. However, no intrusive activities were occurring within the SWMU boundaries and no activities inconsistent with the industrial land use designation or IC restrictions were observed. No evidence of residential activities adjacent to (i.e., within one-half mile of) any of the inspected SWMUs/AOCs was observed.

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5.0 SUMMARY AND CONCLUSIONS

The measures performed in CY 2023 to protect human health and the environment at the 24 SWMUs/AOCs included annual site inspections and IC maintenance. These measures were performed as this Report describes.

Site conditions observed during the annual site inspections indicated that four faded signs at SWMUs 46, 105, and 190 and faded SWMU numbers on three signs at SWMU 1/3 needed replacement. This maintenance was completed on October 9, 2023 and verified by a witness as complete. This verification was documented on the SNL/NM SWMUs Institutional Control Maintenance Checklist and served as the follow-up inspection (completed within 180 days). No conditions needing maintenance were observed at the other inspected SWMUs/AOCs.

The annual site inspection of SWMU 190 revealed evidence of minor surface water run-on and run-off erosion in the form of small rills. Due to the depth of the residual contamination at this SWMU (approximately 18 feet below ground surface), this erosion is not a concern at this time, however will be monitored for changes.

Information about each of the 24 SWMUs/AOCs was maintained during CY 2023 and reviewed as needed. Additionally, approximately 180 National Environmental Policy Act checklists for future projects and routine maintenance activities were reviewed to ensure that the planned activities at SNL/NM would not compromise the ICs at any of the SWMUs/AOCs, potentially expose humans to constituents of concern, or impact the environment by spreading residual contamination.

Based on the measures performed and the site conditions observed, the ICs for the 24 SWMUs/AOCs continue to protect human health and the environment.

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6.0 REFERENCES

New Mexico Environment Department, Hazardous Waste Bureau. (January 2015, with all approved modifications). *Resource Conservation and Recovery Act Facility Operating Permit for Sandia National Laboratories, EPA ID No. NM5890110518*. https://www.env.nm.gov/hazardous-waste/sandia-national-laboratories/#SNLPermit

Sandia National Laboratories, New Mexico, Environmental Restoration Operations. (March 2012). *Long-Term Monitoring and Maintenance Plan for the Mixed Waste Landfill*. https://www.env.nm.gov/hazardous-waste/snl-mwl-2/#MWLLTMMP