



# New Mexico Environment Department

## Los Alamos National Laboratory Compliance Order on Consent Public Information Meeting – FY2023 Milestones (Appendix B)

*Rick Shean, Resource Protection Division Director  
March 29, 2023*



# AGENDA

- **NMED:**
  - Corrective Action Overview
  - Annual Planning Process
  - Appendix B Status & Updates
- **DOE:**
  - Milestones Achieved and Work Completed in FY 2022
- Public Comment Period



# Corrective Action Overview

# History and Relation to the Hazardous Waste Permit

- The Compliance Order on Consent (Consent Order) was signed by the New Mexico Environment Department (NMED) and the U.S. Department of Energy (DOE) in June 2016.
- Most corrective action for releases of hazardous waste or hazardous constituents at Los Alamos National Laboratory (LANL) are conducted under the Consent Order, not under the facility's Hazardous Waste Permit.
- Compliance with the terms of the Consent Order constitutes compliance with the requirements for corrective action under the Federal Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act (HWA).
- The Consent Order is an “enforceable document” pursuant to 40 C.F.R. § 64. 101 and is the sole mechanism for enforcing corrective action activities at LANL, with the exception of specific conditions which are addressed under the Permit.

# Campaign Approach

- Corrective action activities at LANL are organized by campaign using a risk-based approach.
- There are 17 identified campaigns (e.g., Chromium Interim Measures and Characterization, RDX Characterization Campaign and Remedy Campaign, Technical Area (TA)-21 Demolition & Decommissioning (D&D) and Cleanup Campaign, Material Disposal Area (MDA) C Remedy Campaign, etc.).
- So far, one campaign, Known Cleanup Sites, has been completed.
- Campaigns are provided in Appendix C and are updated as needed.

# Milestones and Targets

- Appendix B of the Consent Order.
- Current FY milestones are generally based on previous year's targets.
- Each year DOE identifies 10-20 milestones for the upcoming FY and 10-20 targets for the 2 subsequent FYs.
  - **Milestones** for upcoming FY are subject to stipulated penalties.
  - **Targets** for subsequent 2 FYs are not subject to stipulated penalties.

# FY 2023 Appendix B Example

## APPENDIX B MILESTONES AND TARGETS, REVISION 1

APPENDIX B MILESTONES AND TARGETS, REVISION 1								
			FY 2023 MILESTONES			FY 2024 TARGETS		
	Campaign	Milestone # FY 2023	Milestone	Milestone Description	Milestone Date	Target	Target Description	Target Date
Chromium IM & Characterization - in progress (cont.)	Chromium IM & Characterization	4	Drilling Work Plan for Regional Aquifer Monitoring Well R-80	Drilling work plan for monitoring well R-80. Well R-80 is a characterization and monitoring well for vertical and lateral extent of the chromium plume along the eastern plume edge, halfway between wells R-70 and R-13 (east/southeast of R-45).	12/1/2022			
	Chromium IM & Characterization					Letter Report Documenting Completion of Regional Aquifer Monitoring Well R-80 and Collection of First Samples	Well R-80 is a characterization and monitoring well for vertical and lateral extent of the chromium plume along the eastern plume edge, halfway between wells R-70 and R-13 (east/southeast of R-45). The deliverable is a letter to NMED documenting completion of the well and collection of first samples.	1/31/2024 <sup>a</sup>
	Chromium IM & Characterization					Drilling Work Plan for Regional Aquifer Monitoring Well	This well is a characterization and monitoring well for deep contamination in the chromium plume in an undetermined location. The deliverable will be a Drilling Work Plan for the Regional Aquifer Monitoring Well.	12/1/2023
	Chromium IM & Characterization					Letter Report Documenting Completion of Regional Aquifer Monitoring Well and Collection of First Samples	The well is a characterization and monitoring well for deep contamination in the chromium plume located in the southern region of the plume in an undetermined location. The deliverable is a letter to NMED documenting completion of the well and collection of first samples.	9/30/2024 <sup>a</sup>
	Chromium IM & Characterization	5	Drilling Work Plan for Regional Aquifer Monitoring Well R-79	Drilling work plan for monitoring well R-79. Well R-79 is a characterization and monitoring well for vertical and lateral extent of the chromium plume in the northeastern part of the plume, between Wells R-11 and R-35a/b (east of R-11).	6/30/2023	Letter Report Documenting Completion of Regional Aquifer Monitoring Well R-79 and Collection of First Samples	Well R-79 is a characterization and monitoring well for vertical and lateral extent of the chromium plume in the northeastern part of the plume, between wells R-11 and R-35a/b (east of R-11). The deliverable is a letter to NMED documenting completion of the well and collection of first samples.	9/30/2024 <sup>a</sup>



# Annual Planning Process





# Annual Planning Process

- The annual planning process (Section VIII.C) allows for revisions to **milestones, targets, and cleanup campaigns** due to factors such as actual work progress, changed conditions, risk, and funding.
- FY milestones and targets are finalized after DOE receives its FY appropriation. Upon finalization, an updated Appendix B is posted on NMED's Hazardous Waste Bureau's website and a public informational meeting is held to discuss work progress and funding levels.
- During each annual planning process, DOE is required to provide NMED with an estimated date as to when all work under the Consent Order will be completed.

# FY 2023 Planning

- DOE submitted updated proposed Appendix B on **July 28, 2022**.
- NMED met with DOE several times between September 2022 and January 2023 to discuss DOE's proposed Appendix B.
- Proposed Appendix B was updated after discussions with NMED.
- DOE submitted final FY2023 Appendix B on **February 21, 2023**.
- DOE Estimated completion date remains at **2036**
- FY2023 Appendix B is available on the NMED website:  
*<https://www.env.nm.gov/hazardous-waste/lanl>*



# Status & Updates



# FY 2022 Appendix B Milestone Status

- **19 Milestones in FY2022**

- Multi Campaigns – 1 milestone
- Chromium IM & Characterization Campaign- 8 milestones
- RDX Characterization Campaign – 2 milestones
- Supplemental Investigation Reports – 2 milestones
- Southern External Boundary Campaign – 1 milestone
- Pajarito Watershed Campaign – 3 milestones
- MDAs G & L Remedies Campaign – 2 milestones

- **18 of 19 Milestones were achieved**

- **An extension request was submitted for Milestone #7**

- Letter Report Documenting Completion of R-73 and Collection of First Samples

# FY 2022 Appendix B Milestone Deviation

- **On August 24, 2022 NMED approved an extension request for Milestone #7 in the Chromium IM & Characterization campaign**
  - An unsuccessful bentonite seal in the annulus between the 8-inch well casing and the 14-inch drive casing caused communication between the two screened intervals
  - The communication caused a potential pathway for contaminant migration from the upper screen, a known contamination zone, into the lower screen, with unknown chromium concentrations
  - DOE is in the process of Plugging and Abandonment of R-73
  - NMED is requiring a replacement well for R-73

# FY 2023 Appendix B

- **14** milestones selected for FY2023
- **22** targets selected for FY2024
- **13** targets selected for FY2025

## **FY2023 Milestones**

- **Multi campaigns- 1 milestone**
  - Interim Facility-Wide Groundwater Monitoring Plan
- **Chromium IM & Characterization Campaign- 4 milestones**
  - 1 annual progress report for Chromium IM
  - 2 drilling work plans for regional wells to define N&E of chromium plume
    - R-79, in the eastern region
    - R-80, in the south eastern region
  - 1 letter report documenting start of the drilling of R-76 to define N&E in center of chromium plume

## **FY2023 Milestones (cont.)**

- **RDX Characterization Campaign- 0 milestones**
  - No milestones for this campaign in FY 2023
- **MDA A and T Remedy-2 milestones**
  - Final Investigation Work Plan for MDA A at TA-21
  - Final Investigation Work Plan for MDA T at TA-21
- **Southern External Boundaries Campaign- 2 milestones**
  - North Ancho Canyon Aggregate Area Phase II Investigation Report
  - Potrillo and Fence Canyon Aggregate Area Phase II Investigations Progress Report



## **FY2023 Milestones (cont.)**

- **Pajarito Watershed Campaign-3 milestones**
  - Twomile Canyon Aggregate Area Progress Report
  - Threemile Canyon Aggregate Area Phase II Investigation Report
  - Starmer/Upper Pajarito Canyon Aggregate Area Progress Report
- **MDA H Remedy-1 milestone**
  - CME Report for MDA H, SWMU 54-004 at TA-54
- **MDAs G & L Remedies Campaign-1 milestone**
  - Periodic Monitoring Report for 2022 vapor sampling and soil vapor extraction activities at MDA L at TA-54

# THANK YOU!

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