



DEPARTMENT OF ENERGY
Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

EMLA-23-BF133-2-1

February 21, 2023

Mr. Rick Shean
Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313



Subject: Transmittal of the Fiscal Year 2023 Appendix B, Revision 1, to the 2016 Compliance Order on Consent

Dear Mr. Shean:

Pursuant to Section VIII.C (Annual Planning Process) of the 2016 Compliance Order on Consent (Consent Order), the U.S. Department of Energy (DOE) and the New Mexico Environment Department (NMED) have agreed to the fiscal year (FY) 2023 Appendix B. Please note that Appendix B Milestones for FY 2023 and Targets for FY 2024 and FY 2025 are subject to DOE receiving appropriate funding. The enclosed Appendix B is a revision to DOE's formal transmittal of the FY 2023 updates to Appendix B, which DOE sent to NMED on December 29, 2022.

Thank you for your cooperation during this process. We look forward to continuing to successfully execute our Consent Order deliverables. If you have questions, please contact Arturo Duran at (575) 373 5966 (arturo.duran@em.doe.gov).

Sincerely,

Digitally signed by BRIAN
HARCEK
Date: 2023.02.17
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For

Arturo Q. Duran
Compliance and Permitting Manager
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Enclosure(s):

1. Two hard copies with electronic files (including a redline strikeout version) – Appendix B Milestones and Targets, Revision 1 (EM2023-0122)

cc (letter and enclosure[s] emailed):

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APPENDIX B MILESTONES AND TARGETS, REVISION 1

APPENDIX B MILESTONES AND TARGETS, REVISION 1											
			FY 2023 MILESTONES			FY 2024 TARGETS			FY 2025 TARGETS		
	Campaign	Milestone # FY 2023	Milestone	Milestone Description	Milestone Date	Target	Target Description	Target Date	Target	Target Description	Target Date
	Chromium IM & Characterization RDX Characterization MDAs-A & -T Remedy MDA-C Remedy MDA-H Remedy MDAs-G & -L Remedies	1	Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for MY 2024 (October 2023-September 2024)	Annual update to the groundwater monitoring program baseline document with adjustments to sampling, monitoring groups, analytes, and frequencies based on previous results.	6/30/2023	Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for MY 2025 (October 2024-September 2025)	Annual update to the groundwater monitoring program baseline document with adjustments to sampling, monitoring groups, analytes, and frequencies based on previous results.	6/30/2024	Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for MY 2026 (October 2025-September 2026)	Annual update to the groundwater monitoring program baseline document with adjustments to sampling, monitoring groups, analytes, and frequencies based on previous results.	6/30/2025
Chromium IM & Characterization - in progress	Chromium IM & Characterization	2	Annual Progress Report on Chromium Plume Control Interim Measure Performance	This progress report summarizes the data collected from performance monitoring wells, operational activities, and analysis of performance of the IM with respect to the plume control objective. This report will cover the period April 1, 2022 to March 31, 2023.	6/30/2023	Annual Progress Report on Chromium Plume Control Interim Measure Performance	This progress report summarizes the data collected from performance monitoring wells, operational activities, and analysis of performance of the IM with respect to the plume control objective. This report will cover the period April 1, 2023 to March 31, 2024.	6/30/2024	Annual Progress Report on Chromium Plume Control Interim Measure Performance	This progress report summarizes the data collected from performance monitoring wells, operational activities, and analysis of performance of the IM with respect to the plume control objective. This report will cover the period April 1, 2024, to March 31, 2025.	6/30/2025
	Chromium IM & Characterization								Corrective Measures Evaluation ("CME") Report for the Chromium Final Remedy Campaign	The CME will identify, develop, and evaluate potential corrective measures alternatives for removal, containment, and/or treatment of the chromium plume and will include a preferred remedy.	6/30/2025
	Chromium IM & Characterization	3	Letter Report Documenting Start of the Drilling of Regional Aquifer Monitoring Well R-76	Well R-76 will replace Well R-28 for chromium plume characterization and monitoring. Well R-76 will be located approximately 150-ft northwest of R-28. The deliverable is a letter to NMED documenting the start of drilling Well R-76.	9/21/2023 ^a	Letter Report Documenting Completion of Regional Aquifer Monitoring Well R-76 and Collection of First Samples	Well R-76 will replace Well R-28 for chromium plume characterization and monitoring. Well R-76 will be located approximately 150-ft northwest of R-28. The deliverable is a letter to NMED documenting completion of the well and collection of first samples.	4/30/2024 ^a			
	Chromium IM & Characterization					Letter Report Documenting Start of the Drilling of Regional Aquifer Monitoring Well R-77	Well R-77 is a characterization and monitoring well for deep contamination in the chromium plume center. R-77 will be located approximately 75-ft southeast of CrEX-4. The deliverable is a letter to NMED documenting the start of drilling Well R-77.	12/15/2023 ^a			
	Chromium IM & Characterization					Letter Report Documenting Completion of Regional Aquifer Monitoring Well R-77 and Collection of First Samples	Well R-77 is a characterization and monitoring well for deep contamination in the chromium plume center. R-77 will be located approximately 75-ft southeast of CrEX-4. The deliverable is a letter to NMED documenting completion of the well and collection of first samples.	9/30/2024 ^a			

^a Date is based on the New Mexico Office of the State Engineer (OSE) issuing the drilling permit within 60 calendar days after DOE submits drilling permit application.

Note: Milestone Dates and Target Dates in this Appendix B are contingent on:

- (1) New Mexico Environment Department completing its review pursuant to Section XXIII.D and Appendix D of the 2016 Compliance Order on Consent; and
- (2) DOE's ability to obtain on a timely basis, necessary authorizations, approvals, permits, or licenses of any governmental agency or authority.

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	Campaign	Milestone # FY 2023	Milestone	Milestone Description	Milestone Date	Target	Target Description	Target 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 ^a			
	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 ^a			
	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 ^a			
Historical Properties Completion - in progress	Historical Properties Completion										

^a Date is based on the New Mexico Office of the State Engineer (OSE) issuing the drilling permit within 60 calendar days after DOE submits drilling permit application.

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	Campaign	Milestone # FY 2023	Milestone	Milestone Description	Milestone Date	Target	Target Description	Target Date	Target	Target Description	Target Date
RDX Characterization - in progress	RDX Characterization								Letter Report Documenting Completion of Regional Aquifer Monitoring Well R-74 and Collection of First Samples	Well R-74 is a characterization and monitoring well for vertical extent of RDX contamination downgradient of the TA-16 260 outfall, between wells R-69 and R-18. The deliverable is a letter to NMED documenting completion of the well and collection of first samples.	3/31/2025 ^a
	RDX Characterization					Drilling Work Plan for Regional Aquifer Monitoring Well R-75	Drilling Work Plan for monitoring well R-75. Well R-75 is a characterization and monitoring well for lateral extent of RDX contamination in the region to the northeast of the TA-16 260 outfall.	9/30/2024	Letter Report Documenting Completion of Regional Aquifer Monitoring Well R-75 and Collection of First Samples	Well R-75 is a characterization and monitoring well for lateral extent of RDX contamination in the region to the northeast of the TA-16 260 outfall. The deliverable is a letter to NMED documenting completion of the well and collection of first samples.	9/30/2025 ^a
RDX Remedy - not started	RDX Remedy										
Supplemental Investigation Reports - in progress	Supplemental Investigation Reports		Campaign will be complete after NMED issues Certificates of Completion for the 146 SWMUs/AOCs that DOE has requested.								
TA-21 D&D and Cleanup - in progress	TA-21 D&D and Cleanup - DP Site Aggregate Area										
Known Cleanup Sites (Above SSLs) - completed	Known Cleanup Sites (Above SSLs)		Campaign Completed								

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	Campaign	Milestone # FY 2023	Milestone	Milestone Description	Milestone Date	Target	Target Description	Target Date	Target	Target Description	Target Date
MDAs-A & -T Remedy - in progress	MDAs-A & -T Remedy					MDA T Moisture Monitoring Instrumentation Installation Characterization Sampling Completion and Field Summary Report	Summary report describing the installation and instrumentation of the vadose moisture monitoring system and completion of moisture monitoring characterization sampling at MDA T.	5/31/2024	Annual Report for Material Disposal Area T Moisture Monitoring Data Collection	Annual report summarizing the moisture monitoring data collection for Material Disposal Area T.	8/30/2025
	MDAs-A & -T Remedy	6	Final Investigation Work Plan for Material Disposal Area A, at Technical Area 21	Investigation work plan will identify and describe the activities to fulfill identified data gaps necessary to complete the investigation of MDA A within and outside the cover footprint.	6/15/2023	Progress Report for Material Disposal Area A, at Technical Area 21	Progress report summarizing the implementation and status of site investigations at Material Disposal Area A.	9/30/2024	Investigation Report for Material Disposal Area A, at Technical Area 21	Investigation report and the requisite risk assessment of the fieldwork completed for Material Disposal Area A.	9/30/2025
	MDAs-A & -T Remedy	7	Final Investigation Work Plan for Material Disposal Area T, at Technical Area 21	Investigation work plan will identify and describe the activities to fulfill identified data gaps necessary to complete the investigation of MDA T within and outside the cover footprint.	6/15/2023	Progress Report for Material Disposal Area T, at Technical Area 21	Progress report summarizing the implementation and status of site investigations at Material Disposal Area T.	9/30/2024	Investigation Report for Material Disposal Area T, at Technical Area 21	Investigation report and the requisite risk assessment of the fieldwork completed for Material Disposal Area T.	9/30/2025
Southern External Boundary - in progress	Southern External Boundary - North Ancho Canyon Aggregate Area	8	Phase II Investigation Report for North Ancho Canyon Aggregate Area	Phase II investigation report and requisite risk assessment of the field work completed for the North Ancho Canyon Aggregate Area.	8/30/2023 ^a						
	Southern External Boundary - Potrillo and Fence Canyons Aggregate Area	9	Progress Report for Phase II Investigation Report for Potrillo and Fence Canyons Aggregate Area	Progress report summarizing the Phase II fieldwork implementation and status of site investigations in Potrillo and Fence Canyons Aggregate Area.	9/29/2023	Phase II Investigation Report for Potrillo and Fence Canyons Aggregate Area	Phase II investigation report and requisite risk assessment of the field work completed for the Potrillo and Fence Canyons Aggregate Area.	9/30/2024			
MDA-C Remedy - in progress	MDA-C Remedy					Corrective Measures Implementation Plan for Material Disposal Area C, Solid Waste Management Unit 50-009, at Technical Area 50	The implementation plan provides final remedy design for field implementation at Material Disposal Area C.	9/30/2024 (assumes completion of Statement of Basis by 9/30/2023)			
Sandia Canyon Watershed - not started	Sandia Canyon Watershed										

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Pajarito Watershed - in progress	Pajarito Watershed - Twomile Canyon Aggregate Area	10	Twomile Canyon Aggregate Area Progress Report	Progress report summarizing the fieldwork implementation and status of site investigations in Twomile Canyon Aggregate Area.	9/29/2023	Investigation Report for Twomile Canyon Aggregate Area	Investigation report and requisite risk assessment of the field work completed for the Twomile Canyon Aggregate Area.	6/28/2024			
	Pajarito Watershed - Threemile Canyon Aggregate Area	11	Phase II Investigation Report for Threemile Canyon Aggregate Area	Phase II investigation report and requisite risk assessment of the field work completed for the Threemile Canyon Aggregate Area.	8/30/2023						
	Pajarito Watershed - Starmer/Upper Pajarito Canyon Aggregate Area	12	Starmer/Upper Pajarito Canyon Aggregate Area Progress Report	Progress report summarizing the fieldwork implementation and status of site investigations in Starmer\Upper Pajarito Canyon Aggregate Area.	9/29/2023	Investigation Report for Starmer/Upper Pajarito Canyon Aggregate Area	Investigation Report for this aggregate area and the requisite risk assessment.	9/30/2024			
	Pajarito Watershed - Lower Pajarito Canyon Aggregate Area					Lower Pajarito Canyon Aggregate Area Progress Report	Progress report summarizing the fieldwork implementation and status of site investigations in Lower Pajarito Canyon Aggregate Area.	9/30/2024	Investigation Report for Lower Pajarito Canyon Aggregate Area	Investigation report and requisite risk assessment of the fieldwork completed for Lower Pajarito Canyon Aggregate Area.	6/30/2025
Upper Water Watershed - not started	Upper Water Watershed - Canon de Valle TA-15								Cañon de Valle TA-15 Aggregate Area Progress Report	Progress report summarizing the fieldwork implementation and status of site investigations in Cañon de Valle TA-15 Aggregate Area.	9/30/2025
	Upper Water Watershed - S-Site					Phase II Investigation Work Plan for S-Site Aggregate Area, Revision 1	The investigation work plan will identify and describe the activities needed to complete the investigation of S-Site Aggregate Area.	6/30/2024	Phase II Investigation Report for S-Site Aggregate Area	Phase II investigation report and requisite risk assessment of the fieldwork completed for S-Site Aggregate Area.	9/30/2025
MDA-AB Remedy - not started	MDA-AB Remedy								Corrective Measures Evaluation ("CME") Report for Material Disposal Area AB, at Technical Area 49	This CME report presents the remedial alternatives analysis for MDA AB.	3/31/2025
MDA-H Remedy - not started	MDA-H Remedy	13	Corrective Measures Evaluation ("CME") Report for Material Disposal Area H, Solid Waste Management Unit 54-004, at Technical Area 54, Revision 1	This CME report presents the remedial alternatives analysis for MDA H.	9/30/2023						

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MDAs-G & -L Remedies - in progress	MDAs-G & -L Remedies					Corrective Measures Evaluation ("CME") Report for Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54, Revision 2	This CME report presents the remedial alternatives analysis for MDA L.	3/31/2024				
	MDAs-G & -L Remedies					Corrective Measures Evaluation ("CME") Report for Material Disposal Area G, at Technical Area 54, Revision 3	This CME report presents the remedial alternatives analysis for MDA G.	3/31/2024				
	MDAs-G & -L Remedies	14	Periodic Monitoring Report for 2022 Vapor-Sampling and Soil-Vapor Extraction (SVE) at Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54	The report summarizes vapor-phase volatile organic compound ("VOC") sampling data from the previous year's semiannual sampling conducted at MDA L, including a summary of SVE system activities.	5/30/2023	Periodic Monitoring Report for 2023 Vapor-Sampling and Soil-Vapor Extraction (SVE) at Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54	The report summarizes vapor-phase volatile organic compound ("VOC") sampling data from the previous year's semiannual sampling conducted at MDA L, including a summary of SVE system operations.	5/30/2024	Periodic Monitoring Report for 2024 Vapor-Sampling and Soil-Vapor Extraction (SVE) at Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54	The report summarizes vapor-phase volatile organic compound (VOC) sampling data from the previous year's semiannual sampling conducted at MDA L, including a summary of SVE system operations.	5/30/2025	
					14				22			13

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