



Bonnie

**NEW MEXICO
ENVIRONMENT DEPARTMENT**



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BUTCH TONGATE
Cabinet Secretary
J.C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 27, 2017

Doug Hintze, Manager
U.S. Department of Energy
EM-Los Alamos Field Office, DOE
3747 West Jemez Rd, MS A316
Los Alamos, NM 87545

**RE: MODIFICATION OF THE 2016 CONSENT ORDER
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
HWB-LANL-MISC**

Dear Mr. Hintze:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) Concurrence/Agreement with proposed modification of the June 2016 Compliance Order on Consent (Consent Order), dated January 31, 2017. The modification was requested by DOE and Los Alamos National Security, L.L.C. (LANS) to resolve a discrepancy found in the groundwater data review process contained in Section XXVI (Quality Assurance/Data Management/Data Review) of the Consent (Consent Order).

To resolve the discrepancy, NMED sent modified Section XXVI.D of the Consent Order to DOE on January 18, 2017. In addition, NMED sent revised Appendix B (Milestones and Targets) of the Consent Order because of a typographical error on page 2 that needed correction. DOE returned the signed signature page indicating DOE's concurrence/agreement with proposed modifications on January 31, 2017.

Pursuant to Section XXXIII of the Consent Order, the modifications became effective February 21, 2017, the date upon which modifications were signed by DOE and NMED. Enclosed please find the signature page, a clean copy of the revised Section XXVI.D, and a clean copy of the revised Appendix B for your records. A copy of the revised Consent Order will be posted on

37930

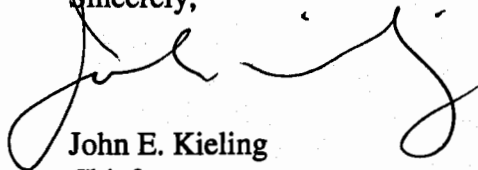


Mr. Hintze
February 27, 2017
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NMED website.

Please contact Neelam Dhawan of my staff at 505-476-6042 should you have any questions.

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

- Enc:
1. Signature Page
 2. Clean copy of revision to Section XXVLD of the Consent Order
 3. Clean copy of revision to Appendix B of the Consent Order
 4. Revised Consent Order

cc:

N. Dhawan, NMED HWB
L. King, EPA 6PD-N
H. Burgess, Los Alamos County
J. Mountain, San Ildefonso Pueblo
R. Martinez, San Ildefonso Pueblo
M. Chavarria, Santa Clara Pueblo
E. Herrera, Cochiti Pueblo
J. Toya, Jemez Pueblo
D. Rhodes, EM-LA, MS A316
K. Armijo, NA-LA, MS-A316
B. Robinson, ADEM, MS-M992
S. Martinez, ADEM-MA M992

File: 2017 Reading, Modification of 2016 Consent Order

Pursuant to Section XXXIII of the 2016 Compliance Order on Consent, this Modification is hereby
AGREED and CONSENTED TO by the Parties:

Butch Tongate 2/21/17

Butch Tongate Date

Cabinet Secretary-Designate

New Mexico Environment Department

FOR: Stephen A. Hintze 1/31/17

Douglas Hintze Date

Manager, Environmental Management Los Alamos Field Office

U.S. Department of Energy

Revised Section XXVI.D of LANL 2016 Consent Order

D. DOE shall notify NMED in writing within fifteen days after review of the analytical data if the data show any of the following:

- 1) Detection of a Contaminant that is an organic compound in a spring or screened interval of a well if that Contaminant has not previously been detected in the spring or screened interval.
- 2) Detection of a Contaminant that is a metal or other inorganic compound at a concentration above the background level in a spring or screened interval of a well if that Contaminant has not previously exceeded the background level in the spring or screened interval.
- 3) Detection of a Contaminant in a spring or screened interval of a well at a concentration that exceeds the lower of either one-half the New Mexico water quality standard or one-half the federal maximum contaminant level, or if there is no such standard for the Contaminant, one-half the Tap Water Screening Levels in Table A-1 of NMED's *Risk Assessment Guidance for Site Investigations and Remediation* (2015 or updates, as appropriate), or if there is no NMED Tap Water Screening Level available for a Contaminant, use one-half the EPA Regional Human Health Medium-Specific Screening Level for tap water, if that Contaminant has not previously exceeded one-half such standard or screening level in the spring or screened interval.
- 4) Detection of a Contaminant that is a metal or other inorganic compound in a spring or screened interval of a well at a concentration that exceeds two times the background level for the third consecutive sampling of the spring or screened interval.
- 5) Detection of a Contaminant in a spring or screened interval of a well at a concentration that exceeds either one-half the New Mexico water quality standard or one-half the federal maximum contaminant level, and that has increased for the third consecutive sampling of that spring or screened interval.

Appendix B MILESTONES AND TARGETS

		FY 2017 MILESTONES			FY 2018 TARGETS			FY 2019 TARGETS		
Campaign	Milestone # FY2017	Milestone	Milestone Description	Milestone Date	Target	Target Description	Target Date	Target	Target Description	Target Date
	11	Annual Update to the Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for MY2018 (October 2017-September 2018)	Annual update to the groundwater monitoring program baseline document with adjustments to sampling, monitoring groups, analysts, and frequencies based on previous results.	5/30/2017	Annual Update to the Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for MY2019 (October 2018-September 2019)	Annual update to the groundwater monitoring program baseline document with adjustments to sampling, monitoring groups, analysts, and frequencies based on previous results.	6/30/2018	Annual Update to the Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for MY2020 (October 2019-September 2020)	Annual update to the groundwater monitoring program baseline document with adjustments to sampling, monitoring groups, analysts, and frequencies based on previous results.	6/30/2019
	7	Annual Monitoring REPORT for the Completed FY and PLAN for the upcoming FY for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project	Annual report of last year's results and update to plan for the upcoming year based on last year's observations. Both the annual report and the plan address the performance of stormwater controls installed in the LA/Pueblo watershed. Includes LIDAR survey data.	4/30/2017	Annual Monitoring REPORT for the Completed FY and PLAN for the upcoming FY for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project	Annual report of last year's results and update to plan for the upcoming year based on last year's observations. Both the annual report and the plan address the performance of stormwater controls installed in the LA/Pueblo watershed. Includes LIDAR survey data.	6/30/2018	Annual Monitoring REPORT for the Completed FY and PLAN for the upcoming FY for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project	Annual report of last year's results and update to plan for the upcoming year based on last year's observations. Both the annual report and the plan address the performance of stormwater controls installed in the LA/Pueblo watershed. Includes LIDAR survey data.	6/30/2019
Chromium IM & Characterization	5	Chromium INJECTION WELL (4) completion reports for FY2016	Campaign level milestone for submittal of all four (4) Well Completion Reports for injection wells installed in FY2016 that are required for Chromium IM	3/31/2017	Chromium Corrective Measures Evaluation (CME) Report completed and submitted to NMED-HWB	The CME will be the culmination of the chromium investigatory activities and will include a recommendation of a remedy.	9/30/2018	Chromium Source Control Corrective Measures Implementation (CMI) Plan completed and submitted to NMED-HWB	This milestone is a detailed implementation plan for executing the chromium remedy selected by NMED. (Date is dependent on the NMED development of a statement of basis).	6/30/2019
	10	Chromium EXTRACTION WELL evaluation report and Recommendation on CrEX-2	Campaign level milestone for submittal of the well evaluation report based on CrEX-1 and CrEX-3 data that is required for Chromium Characterization Work Plan specification for CrEX-2 for additional boundary withdrawal.	5/1/2017						
	13	Initial Operation of Chromium Interim Measures for Plume Control	Field completion milestone reflecting the initiation of pumping from CrEX-1, treatment of withdrawn water, and re-injection of treated water. This milestone shall be reported after 24-hours of operation of the connected equipment without failure and collection of the first sampling event.	9/30/2017						
Historical Properties Completion	12	Status Report for the Cleanup of Townsite SWMUs and AOCs (Historical Activities)	This milestone is a field completion status report of corrective action complete at the following townsite SWMUs and AOCs: <ul style="list-style-type: none"> • 01-001(g), • 01-003(b), (assoc LAInn) • 01-006(b), (assoc LAInn) • 01-007(a), (assoc LAInn) • 01-007(b), (assoc LAInn) 	6/30/2017	Upper Los Alamos Canyon Aggregate Area (Including Former TA-32) Phase II Cleanup Complete and Investigation Report Submitted to NMED	Campaign level milestone for completion of all SWMUs/AOCs in Upper LA CAA and development and submittal of the Investigation Report. This report would include those DOE SWMUs on the back-side of private property (including SWMUs cleanup in Former TA-32 and separately reported). Results currently planned to be	9/30/2018			
	14	Middle Los Alamos Canyon Aggregate Area Cleanups Field Completion	Field cleanup progress milestone SWMUs and AOCs that were identified in the Phase I and II investigations and requires remediation to less than SSLs which includes a PCB cleanup at AOC 02-011(a).	9/30/2017	Middle Los Alamos Canyon Phase III investigation Report submitted to NMED	This milestone is the interim milestones for this aggregate area and will document the completion activities for all cleanups, ECORisk studies, a risk assessment for all sites within the aggregate area, and the recommendation for whether controls are required with a potential certificate of completion.	9/30/2018			

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RDX Characterization	RDX Characterization	4	RDX Tracer Deployment Test Complete	Although the tracer test shall be physically completed, this milestone includes a summary report of the test and submittal of the relevant test data. This report will not include analysis of the data which will be included in the CME.	2/14/2017						
	RDX Characterization	6	CdV-9-10) Aquifer Test Complete and Report Submitted to NMED-HWB	Although the aquifer test shall be physically completed, this milestone includes a summary report of the test and submittal of the relevant data. This report will not include analysis of the data which will be included in the CME.	4/7/2017						
	RDX Characterization	15	Final Corrective Measures Evaluation (CME) Report for RDX TA-16 Submitted to NMED-HWB	The CME shall conduct the evaluation of the remaining corrective actions from the surface CMI and conduct the evaluation of information gathered for the subsurface. This CME shall also include a recommendation for an RDX remedy covering both surface and subsurface.	9/30/2017	RDX Surface Cleanup Work Plan Completed and Submitted to NMED-HWB	Surface Cleanup WP for any necessary immediate actions addressing either surface or subsurface water measures necessary before the CME can be completed and a remedy is selected by NMED.	9/30/2018			
Supplemental Investigation Reports (SIR)	SIR - TA-49 Inside	1	Supplemental Investigation Report TA-49 Aggregate Area - Inside NES	Supplemental Investigation Report prepared to pair risk assessment with previous investigation results.	10/31/2016						
	SIR - CdV TA-14	3	Supplemental Investigation Report Canon de Valle Aggregate Area - TA-14	Supplemental Investigation Report prepared to pair risk assessment with previous investigation results.	12/31/2016						
	SIR - TA-49 Outside	2	Supplemental Investigation Report TA-49 Aggregate Area - Outside NES	Supplemental Investigation Report prepared to pair risk assessment with previous investigation results.	10/31/2016						
	SIR - N.Ancho	8	Supplemental Investigation Report North Ancho Aggregate Area	Supplemental Investigation Report prepared to pair risk assessment with previous investigation results.	4/30/2017						
	SIR - L. Sandia	16	Supplemental Investigation Report Lower Sandia Canyon Aggregate Area	Supplemental Investigation Report prepared to pair risk assessment with previous investigation results.	9/30/2017						
D&D and Cleanup	TA-21 D&D and Cleanup					TA-21 Corrective Actions Field Complete for Consolidated Unit 21-004(B)-99.	Field completion of corrective actions for Consolidated Unit 21-004(B)-99.	3/31/2018	Following demolition of TA-21 Building 21-257 (not under Consent Order), initiate the Investigation Work Plan for Building 21-257 Footprint Investigation (tied to removal of DP West Industrial Waste Lines).	Completion of Contractor Readiness Review.	6/30/2019
	TA-21 D&D and Cleanup					TA-21 WESTBAY Wells Evaluation Reconfiguration Activities Completed for (R-5, R-7, R-8, R-9) and Report Submitted to NMED-HWB.	Reconfiguration completion report.	3/31/2018			

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TA 21 D	TA-21 D&D and Cleanup					TA-21 Delta Prime (DP) West Building Footprint Investigations Complete and IR Submitted to NMED-HWB.	One of the few remaining IRs for TA-21.	9/30/2018			
	TA-21 D&D and Cleanup					TA-21 DP East Nature and Extent Investigation Report Completed and Submitted to NMED-HWB.	IR is one of last major investigation reports for TA-21.	9/30/2018			
RDX Remedy	RDX Remedy								RDX Remediation Corrective Measures Implementation (CMI) Plan Completed and Submitted to NMED-HWB.	CMIP for combining surface and subsurface remedies.	9/30/2019
Known Cleanup Sites (Above SSLs)	Known Cleanup Sites (Above SSLs)								Complete Aggregate Area Known Cleanups Campaign .	Field completion of cleanups of 20 sites in nine technical areas (from the middle ten aggregate areas investigations) currently known to exceed soil screening levels. These sites include: 03-049(a), 03-049(b), 03-049(e), 14-006, 14-009, 15-007(c&d), 15-008(b), 15-010(b), 16-026(b), 36-001, 36-008, C-36-008, 39-001(a&b), 39-002(a), 39-007(a), 46-004(c), 50-006(a), 53-001(a).	9/30/2019
MDAs-A & -T Remedy	MDAs-A & -T Remedy					Supplement Investigation Work Plan for the Pits and Trenches at MDA-A Submitted to NMED-HWB	This supplemental Investigation Work Plan will provide for the collection of information necessary to complete the characterization for nature and extent of contamination at MDA-A and to develop a future corrective measures evaluation in order to recommend an appropriate remedy. A Documented Safety Analysis MAY be required and if so, may extend date significantly.	9/30/2018	MDA-T Moisture Monitoring Completion and Report Submittal to NMED-HWB	Installation of instrumentation of boreholes, application of water to bermed area, monitoring of moisture at boreholes, and development of completion report for activity.	9/30/2019
Chromium Final Remedy	Chromium Final Remedy								Chromium Source Control Corrective Measures Implementation (CMI) Plan completed and submitted to NMED-HWB	This implementation plan addresses the implementation of the chromium remedy selected by NMED. (Date is dependent on the NMED development of a statement of basis.)	6/30/2019
Southern External Boundary	Southern External Boundary								Chaquehul Canyon Aggregate Area Investigation Report Completed and Submitted to NMED-HWB	Initial investigation and development of IR for one of the southern canyons. This is a low priority campaign but should be paired with South Ancho as geographical proximity warrants pairing.	3/31/2019

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Southern Ext								Initial Investigation Report for this aggregate area and the requisite risk assessment. This would include cleanups for media above SSLs.	12/31/2019
MDA-C Remedy									
Sandia Canyon Watershed	9	Sandia Canyon Wetland Performance Report for Period April 2016 - December 2016 [2017]	Annual inspection report describing activities performed in canyon to stabilize headcutting in the wetland that is keeping trivalent chromium entrained.	4/30/2017	Sandia Canyon Wetland Performance Report for Period April 2017 - December 2017 [2018]	Annual inspection report describing activities performed in canyon to stabilize headcutting in the wetland that is keeping trivalent chromium entrained.	6/30/2018	Sandia Canyon Wetland Performance Report for Period April 2018 - December 2018 [2019]	Annual inspection report describing activities performed in canyon to stabilize headcutting in the wetland that is keeping trivalent chromium entrained.
Pajarito Watershed									
Upper Watershed									
MDA-AB Remedy									
MDA-H Remedy									
MDA-G & -L Remedies									
				15			13		11