

Attachment 1

Additional Details in Support of EM-LA's Position Regarding Applicability of the Consent Order to NMED and its Bureaus

1. Parties and Signatories to the Consent Order

*The Parties to the Consent Order are DOE and NMED.*¹ A specific NMED bureau is not a party.

Moreover, *the Secretary of the New Mexico Environment Department executed the Consent Order for NMED.*² It was not executed by (or for) a particular bureau within NMED, such as the NMED Hazardous Waste Bureau (HWB). As a result, NMED bureaus are subject to the Consent Order.

2. Jurisdiction and Scope of the Consent Order

Section 1.A of the Consent Order states, in pertinent part, that NMED issued the Consent Order to DOE:

“pursuant to Section 74-4-10 of *New Mexico's Hazardous Waste Act (HWA)*. This Consent Order is also issued under Section 74-9-36(D) of *New Mexico's Solid Waste Act (SWA)* and 20.9.9.14 New Mexico Administrative Code (NMAC), for the limited purpose of addressing the *corrective action activities, including requirements, concerning groundwater contaminants* listed at 20.6.2.3103 NMAC, toxic pollutants listed at 20.6.2.7.T(2) NMAC, and Explosive Compounds as defined herein.”³

Similarly, Section 2.C of the Consent Order describes the scope of the Consent Order—which encompasses corrective actions under the HWA, groundwater corrective action activities, and corrective actions under the SWA:

“Except as provided in Section 7 (Relationship to Permits), the scope of this Consent Order fulfills the requirements for: **(1) corrective actions for releases of hazardous waste or hazardous waste constituents** under Sections 3004(u) and (v) and 3008(h) of RCRA, 42 U.S.C. §§ 6924(u) and (v) and 6928(h), Sections 74-4-4(A)(5)(h) and (i), 74-4-4.2(B), and 74-4-10(E) **of the HWA**, and their implementing regulations at 40 C.F.R. Part 264, subpart F (incorporated by 20.4.1.500 NMAC); **(2) corrective actions for releases of groundwater contaminants** listed at 20.6.2.3103 NMAC, toxic pollutants listed at 20.6.2.7.T(2) NMAC, and **Explosive Compounds as defined herein, pursuant to Section 74-9-36(D) of the SWA**; **(3) groundwater monitoring, groundwater characterization and groundwater corrective action**

¹ Section 1, Consent Order.

² Signature Page, Consent Order.

³ Section 1.A, Consent Order (emphasis added).

activities, including requirements, for regulated units under Subpart F and for miscellaneous units under Subpart X of 40 C.F.R. Part 264 and 20.4.1.500 NMAC (incorporating 40 C.F.R. Part 264); and (4) additional groundwater information required in Part B permit applications under 40 C.F.R. § 270.14(c) and (d)(3) and 40 C.F.R. § 270.23(b) (incorporated by 20.4.1.900 NMAC).”⁴

The quotations from Sections 1.A and 2.C above set forth the basis for NMED issuing the Consent Order, as well as the broad scope of the Consent Order. The quotations also reveal that **multiple NMED bureaus would be involved for NMED to implement the Consent Order**. By way of example, this would include:

- (a) NMED HWB: For corrective actions for releases of hazardous waste or hazardous waste constituents under the HWA;⁵
- (b) NMED Ground Water Quality Bureau (GWQB): For corrective actions for releases of groundwater contaminants;⁶ and
- (c) NMED Resource Recovery Bureau (formerly the Solid Waste Bureau): For corrective actions for Explosive Compounds under the SWA.⁷

3. Description of Hexavalent Chromium Campaign in the Consent Order

The Hexavalent Chromium Campaign is described in Section C.3.2.A of Appendix C of the Consent Order. The description is as follows:

“This Campaign involves a hexavalent chromium groundwater plume. It consists of: (1) **installing and operating wells and associated equipment to provide Interim Measures to prevent migration of the hexavalent chromium plume beyond the Laboratory boundary**; (2) obtaining data necessary to conduct a Corrective Measures Evaluation; (3) completing a Corrective Measures Evaluation Report; (4) following NMED’s issuance of a Statement of Basis and selection of a remedy, preparing, submitting, and receiving NMED approval of a Corrective Measures Implementation Plan; (5) implementing the selected remedy; and (6) preparing, submitting, and receiving NMED approval of a Corrective Measures Implementation Report. (SWMUs/AOCs: 0).”⁸

As the description details, the installation and operation of wells and associated equipment is necessary to provide Interim Measures. Such wells are understood by both EM-LA and NMED to mean monitoring wells, extraction wells, and injection wells.⁹ As such, this Campaign description envisions that **multiple NMED bureaus would be**

⁴ Section 2.C., Consent Order (emphasis added).

⁵ See <https://www.env.nm.gov/hazardous-waste/>.

⁶ See <https://www.env.nm.gov/gwqb/>.

⁷ See <https://www.env.nm.gov/solid-waste/>.

⁸ Section C.3.2.A of Appendix C of the Consent Order (emphasis added).

⁹ See, e.g., <https://www.env.nm.gov/hazardous-waste/chromium-groundwater-contamination/>.

involved for NMED to implement the Hexavalent Chromium Campaign under the Consent Order.

4. Prior Statements By NMED

During the 2016 hearing on Discharge Permit 1835 (DP-1835), Mr. Steve Huddleston, former manager of the Pollution Prevention Section, NMED GWQB, testified about the relationship between DP-1835 and the interim measures for the hexavalent chromium plume.

First, Mr. Huddleston acknowledged that DP-1835 is part of the interim measures for the hexavalent chromium plume:

“Discharge Permit 1835 is intended to be part of an interim measures as being conducted by the laboratory under the oversight of our Hazardous Waste Bureau, the particular discharges related to the pumping and treating of chromium-contaminated groundwater in the regional aquifer **and then reinjection through a series of underground injection control wells.**”¹⁰

Second, Mr. Huddleston testified about hydraulic containment using injection, which is a critical component of the interim measures to prevent migration of the hexavalent chromium plume beyond the Laboratory boundary: “The process itself is intended to **establish a hydraulic containment of the -- of the plume, as described earlier as the capture of the impacted groundwater, treat it and reinject it back into the aquifer.**”¹¹

Third, Mr. Huddleston testified about the fact that the interim measures were proposed in DP-1835. Such a “remediation system” would constitute groundwater corrective action activities under the Consent Order:

“The interim measures that they've proposed in the discharge permit as it was drafted is protective of groundwater. The remediation system that was proposed, the terms that were proposed are -- are very high level of -- of robust -- robustness. It's a very robust system.”¹²

Finally, Mr. Huddleston testified that the interim measures—of which injection is a crucial component and for which DP-1835 is a part—were required under the 2005 Compliance Order on Consent between DOE and NMED, which was superseded by the Consent Order in June 2016.

¹⁰ Transcript of Proceedings in the Matter of the Application of the United States Department of Energy and Los Alamos National Security, LLC for a Ground Water Discharge Permit (DP-1835) for Los Alamos National Laboratory, No. GWB 16-08(P), Page 76.

¹¹ *Id.*

¹² *Id.* at 77.

“The actual discharge or the -- the interim measures, the extraction and treatment, are required under consent order between the Department and the applicant as regulated by the Hazardous Waste Bureau. Discharge permit DP-1835 strictly focuses on the underground injection of that treated aquifer -- or treated water into the groundwater aquifer.”¹³

5. Conclusion

Therefore, it was incorrect for NMED to state in its December 5, 2025 letter, “The Consent Order applies to the HWB’s regulatory oversight regarding the interim measures for containment of the hexavalent chromium plume. The Consent Order does not apply to the directives contained in the November 18, 2025, GWQB letter.”¹⁴

First, the NMED GWQB is a bureau within NMED—it is not an independent agency or department. Second, NMED and DOE are the Parties to the Consent Order—an NMED bureau is not a party to the Consent Order. Third, the Consent Order was signed by the NMED Secretary—not a Bureau Chief, Division Director, or Deputy Cabinet Secretary. Fourth, NMED issued the Consent Order—the Consent Order was not issued by a bureau within NMED. Fifth, the Consent Order scope encompasses groundwater corrective action activities—activities for which the NMED GWQB is responsible. Sixth, prior statements made by NMED during the DP-1835 hearing acknowledge that DP-1835 is part of the interim measures under the Consent Order.

Because the Consent Order applies to disputes with NMED (including its bureaus) that arise within the scope of the Consent Order, such disputes are to be handled pursuant to the terms of the Consent Order.

¹³ *Id.* at 117

¹⁴ NMED Letter of December 5, 2025, Reply to November 21, 2025, Response to November 18, 2025, Ground Water Quality Bureau Withdrawal of the Temporary Authorization for Partial Operation of Discharge Permit 1835, available at: https://ext.em-la.doe.gov/GovFTPFiles/api/GetFiles/GetFile?fileName=EMID-704023_NMED-GWQB_Resp_DP-1835_Temp_Auth_WD_120525.pdf.

Attachment 2

Additional Details in Support of EM-LA's Position Regarding NMED's Direction of November 18, 2025, to Cease All Injection Operations Associated with DP-1835

1. Expert Technical Review Recommendation

In its December 2024 report, the Expert Technical Review Team recognized that the single most important recommendation is to restart the IM. The Expert Technical Review Team was concerned about the rate of chromium plume expansion with the IM turned off.

“The rate of chromium plume expansion with the IM turned off could be on the order of hundreds of feet per year in some places. Therefore, increasing areas and regions of the aquifer appear to be impacted following the cessation of the IM pumping, bringing a sense of urgency to renewing the IM abatement procedures. For this reason, ***the single most important recommendation ... is to restart the IM—using a portion of the original system—***while other studies and field investigations move forward.”¹⁵

EM-LA notes that it raised this issue—and this quote from the Expert Technical Review Team Report—in its letter to NMED dated November 21, 2025, in which EM-LA responded to NMED's direction of November 18, 2025 to cease all injection operations associated with DP-1835.¹⁶

2. Prior Statements By NMED

During the 2016 hearing on DP-1835, Mr. Steve Huddleson, testified about the importance of being able to discharge water for the IM to succeed, the need for the IM to be operating continuously for the IM to be effective, and the fact that the IM (i.e., the remediation system) is one of the most common methods of treating chromium.

First, Mr. Huddleson testified that discharge of the water is necessary to attain hydraulic pressure and for the IM to succeed:

“I believe that the discharge permit as drafted is protective of groundwater. It's appropriate in the nature of the discharge for the applicants to be

¹⁵ Executive Summary, Independent Review of the Chromium Interim Measures Remediation System in Mortandad Canyon Los Alamos, New Mexico, December 2024, available at: https://www.energy.gov/sites/default/files/2024-12/Final%20IRT%20Report_20241217.pdf (emphasis added).

¹⁶ EM-LA Letter of November 21, 2025, U.S. Department of Energy Environmental Management Los Alamos Field Office Response to the New Mexico Environment Department Ground Water Quality Bureau, Notification of Withdrawal of the Temporary Authorization for Partial Operation of Discharge Permit 1835 (Chromium), available at: https://ext.em-la.doe.gov/GovFTPFiles/api/GetFiles/GetFile?fileName=EMID-704003_EMLA-26-BF028-2-1_Resp_DP-1835_Temp_Auth_WD_112125.pdf.

successful in their interim measures. It's necessary for them to be able to continuously pump these wells to attain this hydraulic capture.”¹⁷

Second, Mr. Huddleson testified that when the IM had been operating under another discharge permit for land application, operations were limited to non-freezing weather. Therefore, the IM had to be shut down during the winter months, which resulted in a loss of control over the plume. Mr. Huddleson also recognized the need to operate the IM continuously:

“When they shut it down for the winter months, then groundwater flow goes back to its normal path, and they've lost control over that plume. So it's – this discharge permit, DP-1835, gives them the mechanisms to produce -- to operate the systems continuously and make the interim measures an effective option.”¹⁸

Finally, Mr. Huddleson recognized that the remediation system proposed—including injection—was one of the most common methods for treating chromium

“The remediation system as proposed is -- is a common -- is the -- one of the most common methods of treating chromium in -- in all cases. There's nothing unusual about this from a technical point of view. We drafted the discharge permit to try to address all concerns to be protective of groundwater.”¹⁹

Mr. Huddleson's testimony, which he provided over eight years before the recommendation of the Expert Technical Review Team, emphasizes the importance of continued operation (including injection) of the IM. Nonetheless, NMED has on two separate occasions directed EM-LA to cease injection of the IM: (1) in NMED's letter of December 12, 2022;²⁰ and (2) in NMED's letter of November 18, 2025.

3. SIMR-3 Zonal Sampling Results and Monitoring Data

In its November 18, 2025 letter directing EM-LA to cease all injection operations associated with DP-1835, NMED states that this direction is **“due to recent analytical results showing the sole source regional aquifer beneath the Pueblo de San Ildefonso exhibits hexavalent chromium concentrations exceeding the regulatory**

¹⁷ Transcript of Proceedings in the Matter of the Application of the United States Department of Energy and Los Alamos National Security, LLC for a Ground Water Discharge Permit (DP-1835) for Los Alamos National Laboratory, No. GWB 16-08(P), Page 80.

¹⁸ *Id.* at 81.

¹⁹ *Id.* at 133.

²⁰ NMED Letter of December 12, 2022, Corrective Action Plan Response and Further Action Required, Los Alamos National Laboratory Underground Injection Control Wells, DP-1835, available at: <https://ext.em-la.doe.gov/GovFTPFiles/api/GetFiles/GetFile?fileName=EMID-702464.pdf>.

standards set forth in the New Mexico Administrative Code (NMAC) § 20.6.2.3103.”²¹ The “recent analytical results” that NMED is referring to are zonal sampling results at SIMR-3. These zonal sampling results are to collect screening-level data of discrete zones in the aquifer to inform well design (i.e., screen placement). Such results do not constitute decision-level data. In fact, during a presentation to the Los Alamos County Department of Public Utilities on March 4, 2026, Mr. Michael Peterson, Water Resource Professional, NMED HWB, stated these results were not to be used for regulatory purposes: “We’re not saying this is regulatory” and “At the very end of the final constant rate pumping test, we will collect the initial regulatory samples. So all of the results we’ve discussed before, nothing’s regulatory here. These are just screening levels to help us inform how to build this well.”²²

Yet that is exactly what NMED sought to do in its November 18, 2025, as well as two Administrative Compliance Orders that NMED issued on February 11, 2026.

Also, in its November 18, 2025 letter, NMED stated that “**actual monitoring data has shown the IM is not protective and is not mitigating off-site migration**, as evidenced by data showing horizontal and vertical migration of contamination.”²³ EM-LA disagrees with this assertion. EM-LA also notes that such a statement is at odds with a key finding of the Expert Technical Review:

“It is a consensus finding of the IRT that the IM, at a limited and/or altered capacity, should be restarted as soon as possible. There is clear benefit to the near- and long-term cleanup objectives of containing and recovering chromium located upgradient of the extraction wells **rather than allowing it to continue migrating without intercession.**”²⁴

Moreover, in direct contradiction with the statement in NMED’s November 18, 2025 letter, the Expert Technical Review recognized that operating the IM was necessary to protect human health and the environment and to keep chromium from reaching water supply wells and off-site locations:

“To protect human health and the environment and keep chromium from reaching water supply wells and off-site locations, the IRT believes it is possible to **restart the chromium plume IM (or certain extraction and injection wells)** without needing to close all remaining data gaps. The

²¹ Emphasis added.

²² NMED Presentation to Los Alamos County Department of Public Utilities, March 4, 2026, available at: https://losalamos.granicus.com/player/clip/4645?view_id=2&redirect=true.

²³ Emphasis added.

²⁴ Section 1.2, Independent Review of the Chromium Interim Measures Remediation System in Mortandad Canyon Los Alamos, New Mexico, December 2024, available at: https://www.energy.gov/sites/default/files/2024-12/Final%20IRT%20Report_20241217.pdf (emphasis added).

remaining data gaps can be addressed through adaptive management while IM is taking place.”²⁵

Finally, as EM-LA has shared with NMED on numerous occasions, data after NMED direction to cease injection under the IM in 2023 and again in 2025 show a sharp uptick in chromium concentrations.

4. Conclusion

Therefore, it was incorrect for NMED to direct EM-LA to cease injection operations of the interim measures in NMED’s November 18, 2025 letter. In EM-LA’s response of November 21, 2025, EM-LA stated that given the design of the IM and limitation of alternative discharge options, ceasing injection under the IM necessarily drives cessation of IM operations.

EM-LA shares the concerns espoused by both NMED’s Mr. Huddleson and the Expert Technical Review Team about not having the IM operating. EM-LA agrees with the Expert Technical Review Team’s finding about the importance of operating the IM to protect human health and the environment and to keep chromium from reaching water supply wells and off-site locations. And EM-LA agrees with NMED’s Mr. Peterson’s characterization of the SIMR-3 zonal sampling results as being not regulatory. EM-LA disagrees with NMED’s assertion that “actual monitoring data has shown the IM is not protective and is not mitigating off-site migration.”

²⁵ *Id.* at Section 3.4.2 (emphasis added).