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MAY 27 2022

GROUND WATER
QUALITY BUREAU

N3B-Los Alamos
1200 Trinity Drive, Suite 150
Los Alamos, New Mexico 87544
(505) 257-7690



Environmental Management
Los Alamos Field Office
1200 Trinity Drive, Suite 400
Los Alamos, New Mexico 87544
(240) 562-1122

Date: May 27, 2022
Refer To: N3B-2022-0211

Justin Ball, Chief
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
1190 S. St. Francis Drive
Santa Fe, NM 87502-5469

Subject: Response to New Mexico Environment Department Ground Water Quality Bureau Notice of Noncompliance, Los Alamos National Laboratory Underground Injection Control Wells, Discharge Permit 1835

Dear Mr. Ball:

The U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office and Newport News Nuclear BWXT-Los Alamos, LLC (collectively, the Permittees) are in receipt of the notice of noncompliance for Discharge Permit 1835 (DP-1835), dated April 28, 2022. The noncompliance letter states that the Permittees are not in compliance with Condition 19 of DP-1835 because “the Permittees have not submitted a corrective action plan to NMED for approval” for conditions observed at monitoring well R-45, screen interval 2. The letter requires that a corrective action plan (CAP) be submitted to the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) by May 30, 2022, and that the plan “include a description of the proposed actions to control the source of the total dissolved chromium, mitigate the exceedance in R-45 screen interval 2, and the associated completion schedule for the Permittee to complete the proposed corrective actions.”

The Permittees disagree with NMED’s assertion that the Permittees are not in compliance with Condition 19 of DP-1835. First, there has been no demonstration that there has been a “significant increase in concentration” of an analyte or toxic pollutant present in a groundwater sample. In fact, DP-1835 does not specify what constitutes a “significant increase in concentration” of an analyte or toxic pollutant present in a groundwater sample. Rather, in the letter, NMED uses the groundwater standard of 0.05 mg/L specified in Section 20.6.2.3013 of the New Mexico Administrative Code (NMAC) for total dissolved chromium to claim there has been a “significant increase.” This comparison with the groundwater standard does not suffice. Second, even with the assumption that an increase constitutes a “significant increase,” there has been no demonstration that such an increase is “attributable to a discharge conducted under” DP-1835. As stated in Section I of DP-1835, the purpose of the permit is to “control the *discharge of water contaminants from the*

injection of treated groundwater (effluent) into the regional aquifer beneath Los Alamos National Laboratory (LANL), so as to protect and preserve ground and surface waters for present and future uses and to protect human health” (emphasis added). NMED makes no assertion that the actual **discharge** from any of the Class V injection wells for which DP-1835 was issued exceeds the pertinent standards. There is no exceedance in the discharged water, which is the purpose of DP-1835—to ensure the groundwater **discharged** from these injection wells is treated to “achieve standards less than (<) 90% of the numeric standards of 20.6.2.3103 NMAC and <90% of the numeric standards established for tap water in Table A-1 for constituents not listed in 20.6.2.3103 NMAC.”

The Permittees note that NMED and the Permittees have had numerous discussions about the chromium exceedance at well R-45, screen interval 2 since the fourth quarterly monitoring report for calendar year 2020. The Permittees also note the 2016 testimony of Mr. Patrick Longmire (who is currently with NMED-GWQB), as part of the public hearing for the issuance of DP-1835, in which Mr. Longmire stated that the discharge is not expected to adversely impact ground water.¹

As there has been no violation of Condition 19 of DP-1835, the Permittees do not agree with NMED that a CAP is warranted. However, the Permittees are amenable to submitting an action plan (AP) to advance collaborative efforts and further optimize the Chromium Interim Measure (IM) Campaign under the 2016 Compliance Order on Consent (Consent Order). Before submitting this AP, the Permittees will engage with NMED at senior management and technical staff levels to ensure the AP satisfies the objectives of both the Permittees and NMED for holistically addressing chromium contamination in the aquifer and facilitating completion of the fiscal year 2022 Consent Order milestone to develop a Chromium Interim Measures and Characterization Work Plan. Key objectives for these proposed discussions are to ensure actions taken are protective of the aquifer and maintain plume control. DOE will also be consulting with the Pueblo de San Ildefonso and conferring with Los Alamos County regarding the AP. Based on these activities, the Permittees intend to submit this AP to NMED by September 30, 2022. However, additional time may be warranted to ensure completion of these activities.

Finally, the Permittees believe that this effort is incumbent on both NMED and DOE—consistent with Sections II.B and D of the Consent Order—to (1) minimize the duplication of investigative and analytical work and documentation to ensure the quality of data management, (2) establish an action-oriented approach to achieve mutually agreed-upon results that makes optimum use of available resources, (3) cooperatively engage in effective planning of activities, and (4) provide flexibility to conduct voluntary corrective actions. This includes the need to minimize duplication of efforts, or conflict between efforts, between DOE, NMED-GWQB, and NMED’s Hazardous Waste Bureau.

¹ Patrick Longmire’s testimony reads as follows:

“...the report that I reviewed was the evaluation of taking the treated water and ... evaluating what chemical reactions would occur as that treated water is reinjected into an injection well. And from my conclusions of that, I agreed with ... their approach, and I would have modeled it the same way, and I agree with the findings ... that those waters are so similar, the only difference is that the injection water doesn't have chromium in it.”

If you have questions, please contact Christian Maupin at (505) 695-4281 (christian.maupin@em-la.doe.gov) or Cheryl Rodriguez at (505) 414-0450 (cheryl.rodriguez@em.doe.gov).

Sincerely,



Troy D. Thomson
Program Manager
Environmental Remediation
N3B-Los Alamos

Sincerely,

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DURAN

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ARTURO DURAN
Date: 2022.05.26
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Arturo Duran
Office of Quality and Regulatory Compliance
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

cc (letter emailed):

Laurie King, EPA Region 6, Dallas, TX
Raymond Martinez, San Ildefonso Pueblo, NM
Dino Chavarria, Santa Clara Pueblo, NM
Steve Yanicak, NMED-DOE-OB
Jason Herman, NMED-GWQB
Patrick Longmire, NMED-GWQB
Andrew Romero, NMED-GWQB
Melanie Sandoval, NMED-GWQB
Neelam Dhawan, NMED-HWB
Christopher Krambis, NMED-HWB
Rick Shean, NMED-HWB
Chris Catechis, NMED-RPD
Stephen Hoffman, NA-LA
Jennifer Payne, LANL
M. Lee Bishop, EM-LA
John Evans, EM-LA
Thomas McCrory, EM-LA
Kenneth Ocker, EM-LA
Cheryl Rodriguez, EM-LA
Hai Shen, EM-LA
William Alexander, N3B
Emily Day, N3B
Debby Holgerson, N3B
Danny Katzman, N3B
Pamela Maestas, N3B
Christian Maupin, N3B
Kim Lebak, N3B
Joseph Legare, N3B
Dana Lindsay, N3B
Joseph Murdock, N3B
Joseph Sena, N3B

emla.docs@em.doe.gov
n3brecords@em-la.doe.gov
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