Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

May 27, 2021

Ms. Lee Ann B. Veal, Director
Radiation Protection Division
Office of Radiation and Indoor Air
William Jefferson Clinton Building, West
1301 Constitution Ave NW, Mail Code 6608T
Washington, D.C. 20004

Subject: Response 12 to U.S. Environmental Protection Agency's 2019 Compliance Recertification Application Completeness Comments Letter dated September 11, 2020 from Tom Peake to Mike Brown

Dear Ms. Veal:

This letter provides the U.S. Department of Energy's (DOE) enhanced responses to the U.S. Environmental Protection Agency's (EPA) completeness comments CC5-GEOCHEM-24, 25 and 26 received September 11, 2020. The responses reflect the content agreed upon with the EPA as confirmed in Tom Peake's email to Mike Brown dated February 18, 2021. The DOE has addressed these comments according to the DOE position, data collected during the Compliance Recertification Application (CRA)-2019 data collection period January 2013 - December 2017, and previous agreements with the EPA. This submission concludes DOE responses to the EPA's CRA-2019 completeness comments received to date.

The DOE continues to work on the GEOCHEM-1 supplement as agreed during the DOE/EPA meeting on June 6, 2020. Although it was agreed that this supplement will not be considered for determining completion of the CRA-2019, the DOE recognizes the importance of the supplement to the EPA and to the project.

This submittal includes four enclosures:

- Enclosure 1 is a hardcopy of the EPA's comments with the DOE responses.
- Enclosure 2 is a hardcopy of the "CRA-2019 Errata Tracking." The table is a cumulative list of errata identified and corrected.
- Enclosure 3 is a hardcopy of the "Status Report of DOE Responses to EPA Completeness Questions." The report is a table showing the status of all EPA comments received to date.
- Enclosure 4 (eDocs *EPA Document Transfer* workspace) provides the electronic version of the references noted in each response and not previously provided to EPA. Also included are electronic versions of Enclosures 1, 2 and 3.

Below are the three supplemental responses provided in Enclosure 1.

EPA Letter Date	EPA Comment Number	EPA Comment Description
September 11, 2020	CC5-GEOCHEM-24	Inclusion of Calcite Precipitation in EQ3/6 Calculations
September 11, 2020	CC5-GEOCHEM-25	Effects of Polyhalite on Modeled Brine Chemistry
September 11, 2020	CC5-GEOCHEM-26	Effects of Cements on Brine Chemistry

If you have any questions, please contact Dr. Anderson L. Ward at (575) 706-5291.

Sincerely,

Reinhard M. Knerr

Digitally signed by Reinhard M. Knerr
Date: 2021.05.27 08:43:22 -06'00'

Reinhard Knerr
Manager
Carlsbad Field Office

Enclosures (4)

cc: w/enclosures
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T. Peake, EPA ED
R. Lee, EPA ED
R. Hernandez, RES ED
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M. Brown, CBFO *ED
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