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

December 1, 2020

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 7 to U.S. Environmental Protection Agency's 2019 Compliance Recertification Application Completeness Comments Letters dated May 6, 2020, June 12, 2020, July 17, 2020 and September 11, 2020 from Tom Peake to Mike Brown

Dear Ms. Veal:

In response to the U.S. Environmental Protection Agency's (EPA) 2019 Compliance Recertification Application (CRA) completeness comments and questions in the letters dated May 6, 2020, June 12, 2020, July 17, 2020, and September 11, 2020, the U.S. Department of Energy (DOE) is providing responses to 16 (including sub comments) of the EPA's completeness questions. The DOE has addressed each comment according to the DOE position, data collected during the CRA 2019 data collection period Jan. 2013-Dec. 2017, and previous agreements with the EPA. The DOE will continue to submit phased responses to the EPA to ensure questions are answered in a timely manner. Comments requiring clarification or more extensive analysis will be submitted at a later date.

This submittal includes four enclosures:

- Enclosure 1 is a hardcopy of 16 of the EPA's comments with DOE's responses.
- Enclosure 2 is a hardcopy of the "CRA-2019 Errata Tracking." The table is a cumulative list of errata that have been 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 (USB drive) provides the electronic version of the references as noted in each response. Also included are electronic versions of Enclosures 1, 2 and 3. (Note: References not provided previously will be uploaded to e-Docs and made available to EPA as well.)

Below are the 16 responses provided in Enclosure 1.

EPA Letter Date	EPA Comment Number	EPA Comment Description
May 6, 2020	CC2-GEOCHEM-15	Effects of Selected G Value for H2(g) Production by Brine Radiolysis
May 6, 2020	CC2-GEOCHEM-16	Omission of RH Waste Gamma Irradiation from Radiolysis Evaluation
June 12, 2020	CC3-GEOCHEM-17	Plutonium Particle Sizes Used in Radiolytic Gas Generation Calculations
June 12, 2020	CC3-GEOCHEM-19	Evaluation of Matrix Depletion and Radiolytic Gas Generation for Cellulosic, Plastic, and Rubber Radiolysis
June 12, 2020	CC3-GEOCHEM-20	Gas Generation in Unsaturated Repository
June 12, 2020	CC3-GEOCHEM-21	Gas Generation by Radiolysis of Non-CPR Waste Materials

EPA Letter Date	EPA Comment Number	EPA Comment Description
June 12, 2020	CC3-Hydro-4	Inventory of Pumping Wells Potentially Impacting Water Levels in the Culebra
June 12, 2020	CC3-Hydro-7	Additional Understanding of Water-Level changes in the Bell Canyon
July 17, 2020	CC4-GEOCHEM-22	Appendix GEOCHEM Colloid Parameter Table
July 17, 2020	CC4-SCR-6	N FEPs updates
July 17, 2020	CC4-SOTERM-6	Comparison of PROPMIC Values to Literature Values
July 17, 2020	CC4-SOTERM-8	Pu (III) Intrinsic Colloid Concentrations
July 17, 2020	CC4-SOTERM-9	Th(IV) Intrinsic Colloid Concentrations Error
July 17, 2020	CC4-SOTERM-10	Th(IV) Concentration Data Revisions
July 17, 2020	CC4-SOTERM-11	Th(IV) Mineral Fragment Colloid Parameter
September 11, 2020	CC-5 GEOCHEM-23	HUMIC Colloid PHREEQC Input, Output, and Database Files

If you have any questions, please contact Russ Patterson at (575) 706-0027.

Sincerely,

Reinhard M. Knerr

Digitally signed by Reinhard M. Knerr
Date: 2020.12.01 07:24:13 -07'00'

Reinhard Knerr
Manager
Carlsbad Field Office

Enclosures (4)

cc: w/enclosures
I. Rosencrantz, EPA * ED
T. Peake, EPA ED
R. Lee, EPA ED
R. Hernandez, RES ED
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