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

July 13, 2023

Ms. Lee Ann B. Veal, Director
Radiation Protection Division
Center for Federal Regulation
Environmental Protection Agency
1200 Pennsylvania Ave. N.W.
Washington, DC 20460

Subject: Planned Change Notice for Start of Experimental Activities Associated with Sensor Testing in the Waste Isolation Pilot Plant Northern Underground Experimental Area

References: 1) EPA letter from Frank Marcinowski, Director, EPA, Office of Air and Radiation, to Dr. Ines Triay, Manager, Carlsbad Field Office, dated March 11, 2003

2) Test Plan SDI-TP-003, Revision 0, Zirconia Electrochemical Hydrogen Safety Sensor Testing in WIPP Bedded Rock Salt.

Dear Ms. Veal:

Pursuant to the March 11, 2003 correspondence (reference one [1]) from the U.S. Environmental Protection Agency (EPA) to the U.S. Department of Energy (DOE), Carlsbad Field Office (CBFO), the purpose of this letter is to notify EPA that DOE has approved Test Plan SDI-TP-003 (reference two [2]), which will be a series of tests conducted in the underground N-940 drift of the Salt Disposal Investigations (SDI). These tests are being funded by the Los Alamos National Laboratory (LANL) and are non-Waste Isolation Pilot Plant (WIPP) related. The purpose and scope of this technical work is to test the LANL-developed Zirconia Electrochemical Hydrogen (H_2) Safety Sensor for H_2 leak detection to support laboratory studies on the geologic storage of H_2.

A dilute mixture of H_2 and nitrogen/argon (less than 5.5% H_2) will be used as the tracer ensuring the gas mixture is classified as non-flammable. Any observed H_2 leakage will be used to determine H_2 transport properties in bedded salt.

None of the planned activities will result in modifications or impacts to waste disposal processes or operations, the WIPP repository footprint through new mining, or the WIPP mine ventilation, or introduce hazards/materials not previously evaluated. These activities are not WIPP-related; therefore, they will be conducted outside the WIPP quality assurance (QA) program using LANL and SDI procedures. Detailed work implementation details, task specific hazard analysis, and safety work requirements will be established in WIPP-approved work control documents prior to work release.

If you have any questions, please contact George Basabilvazo at (575) 234-7488.

Sincerely,

MARK BOLLINGER

Digitally signed by MARK BOLLINGER
Date: 2023.07.13 16:57:24 -06'00'

Mark Bollinger
Manager
Carlsbad Field Office

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