



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 6, 2020

Tashina R. Jasso  
Site Manager  
U. S. Department of Energy  
Office of Legacy Management  
2597 Legacy Way  
Grand Junction, CO 81503

SUBJECT: THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) STAFF'S ASSESSMENT OF THE U.S. DEPARTMENT OF ENERGY'S (DOE'S) RESPONSES TO THE NRC STAFF'S REQUEST FOR ADDITIONAL INFORMATION ON THE DOE'S DRAFT GROUNDWATER COMPLIANCE ACTION PLAN FOR THE NEW RIFLE, COLORADO, PROCESSING SITE

Dear Ms. Jasso:

By letter dated September 26, 2019 (Agencywide Document Access and Management System (ADAMS) Accession No. ML19273A429), the U.S. Department of Energy (DOE) submitted responses to the U.S. Nuclear Regulatory Commission (NRC) staff's Request for Additional Information (RAI) on the Draft Ground Water Compliance Action Plan (GCAP) for the New Rifle, Colorado, Processing Site. NRC's RAI was issued on July 21, 2017 (ADAMS Accession Number ML17159A552). DOE's Draft GCAP was submitted by letter dated January 19, 2017 (ADAMS Accession Number ML17023A222).

The NRC staff has assessed DOE's responses and has determined that 12 of the 15 responses were adequate, with or without comment, and, provided the text in the GCAP is revised accordingly, will be able to concur on the final GCAP when submitted. The remaining three responses were found to be inadequate because that the DOE either did not provide adequate technical justification or committed to providing a technical justification in the GCAP that would likely be inadequate. Specifically, DOE's justifications that groundwater in the western area is (and has been?) representative of naturally occurring background remains open for interpretation and thus does not provide reasonable assurance that the potential for a uranium plume migrating through the western area under an Institutional Control (IC) was sufficiently low. The staff's detailed assessment is enclosed.

In the previous versions of the GCAP, in which the uranium concentrations were expected to decrease to acceptable levels within 100 years, the compliance strategy consisted of (1) monitoring, (2) ICs, and (3) connecting residences to the municipal water supply system. That strategy provided reasonable assurance of being protective of human health and safety and the environment because of the conservative nature of these assumptions. With the current GCAP, DOE is stating that groundwater is discharging to the Colorado River closer to the site than originally thought and will not impact the western area. DOE's conceptual model for a discharge closer to the site would be protective; however, DOE's supporting information has some uncertainties, and, if the conceptual model were incorrect, may result in an approach that is not protective in the future if monitoring of the downgradient wells were to be discontinued or

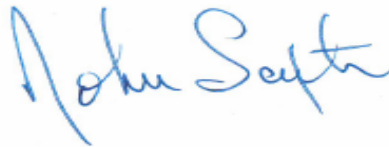
compliance with the IC's is not maintained. Therefore, the staff cannot concur on the GCAP without additional information to provide NRC with the necessary reasonable assurance that the conceptual model is correct. In the enclosed assessment of DOE's responses, staff included several comments/questions that need to be addressed at a minimum for staff to find the GCAP conceptual model acceptable.

In addition to the technical information, NRC will be performing an environmental review for NRC's action of concurring on the GCAP when finalized as required by the National Environmental Policy Act (NEPA). However, DOE has not provided any information germane to an environmental review. Although not required, should DOE have information germane to an environmental review, e.g., land use (in particular, the number and locations of private wells, etc.), please provide it to NRC. This would greatly facilitate the environmental review preparation time and eliminate any duplicative efforts.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of the ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Should you have any questions or comments, please contact me at 301-415-0697 or [john.saxton@nrc.gov](mailto:john.saxton@nrc.gov).

Sincerely,



John L. Saxton, Hydrogeologist  
Uranium Recovery and Materials  
Decommissioning Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: WM-00062

Enclosure: Technical Information Request

SUBJECT: THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) STAFF'S ASSESSMENT OF THE U.S. DEPARTMENT OF ENERGY'S (DOE'S) RESPONSES TO THE NRC STAFF'S REQUEST FOR ADDITIONAL INFORMATION ON THE DOE'S DRAFT GROUNDWATER COMPLIANCE ACTION PLAN FOR THE NEW RIFLE, COLORADO, PROCESSING SITE:  
**DATE: February 6, 2020**

**Distribution:**

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**ADAMS Accession No.:ML20016A409****\*via email**

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