



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

April 22, 2020

Paul Kerl, Supervisor
Environment Team 1
U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION STAFF REVIEW OF THE U.S. DEPARTMENT OF ENERGY'S 2019 ANNUAL SITE INSPECTION AND MONITORING REPORT FOR URANIUM MILL TAILINGS RADIATION CONTROL ACT TITLE I SITES

Dear Mr. Kerl:

I am writing in response to the U.S. Department of Energy's (DOE) report entitled "2019 Annual Site Inspection and Monitoring Report for Uranium Mill Tailings Radiation Control Act Title I Sites" dated March 2020 (Agencywide Documents Access and Management System {ADAMS} Accession Package Number ML20071G474). The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the report and has the following comments and suggestions:

1. For the Burrell site, on page 2-10, the report discusses the results of the 2018 groundwater monitoring at the site and states that for three of the analytes the increases are insignificant because the concentrations of contaminants will not exceed the Maximum Contaminant Levels in the near future and DOE has time to investigate the cause and determine if the increases are a result of cell performance. However, for molybdenum the increase is more significant in well 424 and DOE will sample the well in 2020, rather than the scheduled sampling in 2023. The NRC staff notes that that selenium and uranium values are also increasing in well 424 and selenium is increasing in the deeper sampling well 524. It is not clear from the report if DOE intends to sample all of the wells at the site in 2020, or just the well with increasing molybdenum, i.e., 424. It would be helpful if DOE would clarify the extent of the intended 2020 groundwater sampling
2. For the Canonsburg site, DOE has not been able to locate boundary markers BM-1 or BM-2 for several years. It is unclear if DOE has an approach to locate these markers during the next inspection and it would be helpful if DOE would discuss the approach.
3. For the Mexican Hat site, the NRC staff has no comments on the inspection report. However, NRC staff has commented on the DOE's radiological air monitoring summary reports for the fourth quarter 2018, first quarter 2019 and second quarter 2019 in the past (ADAMS Accession Numbers ML19198A139 and ML19336A053) but, to date, DOE has not provided responses to our comments. In that the NRC staff believes that the air sampling results and conclusions in the DOE's radiological air monitoring summary may

not be indicative of the actual air quality at the site we request that DOE provide responses to our comments or provide a date by which DOE will submit the responses. If DOE will provide a date for submitting the responses, please provide this within 30 days of the date of this letter.

4. For the Rifle CO site, the report states on page 14-6 that "less than 0.01% of the surface rocks" exhibit fracturing. This is an extremely low percentage (i.e., 1 rock out of 10,000 rocks) and DOE should confirm that this number is correct as it appears that the reported accuracy is more than that which could be determined by the assumed measurement (i.e., visual examination). In addition, Section 14.8 discusses pore water levels and indicates that DOE will investigate a recent increasing trend in pore water levels and develop appropriate mitigation measures. It is not clear if DOE has an anticipated schedule for the investigation. Finally, it would be helpful if DOE stated whether the volume of water pumped from the standpipes is measured and, if so, provided the volume of water pumped from the standpipes.

In accordance with 10 *Code of Federal Regulation* 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 NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions concerning the NRC comments please feel free to contact me at 301-415-6749 or at Dominick.Orlando@nrc.gov.

Sincerely,

Dominick Orlando, Senior Project Manager
Uranium Recovery and Materials
Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket Nos.: WM-00067, WM-00042, WM-00048, WM-00065,
WM-00054, WM-00068, WM-00061, WM-00064
WM-00043, WM-00069, WM-00063, WM-00066
WM-00062, WM-00041, WM-00058, WM-00086
WM-00072, WM-00073

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