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

June 6, 2016

Dr. April Gil, Environmental Team Lead
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 DRAFT "LONG-TERM SURVEILLANCE PLAN FOR THE BEAR CREEK, WYOMING, (UMTRCA TITLE II) DISPOSAL SITE CONVERSE COUNTY WYOMING" DATED MARCH 2016 (DOCKET NUMBER: 040-8452)

Dear Dr. Gil:

I am writing in response to the U.S. Department of Energy's (DOE's) draft "Long-Term Surveillance Plan for the Bear Creek, Wyoming, (UMTRCA Title II) Disposal Site Converse County, Wyoming" dated March 2016 (Agencywide Document Access and Management System (ADAMS) Accession Number ML16097A617). The U.S. Nuclear Regulatory Commission (NRC) staff has completed its preliminary review of the draft Long-term Surveillance Plan (LTSP) and has the following comments. These comments will need to be addressed before the NRC staff can complete its review of the LTSP.

1. Section 3.7.1 discusses potential ground water monitoring at the site by the DOE. The DOE states that ground water monitoring, and other activities, while not required by the NRC, will be conducted at the DOE's discretion to have a higher confidence in the modeling projections for the site.

While the NRC staff acknowledges that it has concluded that ground water monitoring is not necessary at the site, if the DOE performs groundwater monitoring at the site, the DOE should inform the NRC of the wells that are being monitored and the results of the monitoring. This information could be included in the annual Title II inspection report. In any case, if, based on the results of the ground water monitoring, the DOE determines that ground water conditions are changing such that health and safety could be impacted, the DOE should inform the NRC as soon as the condition is recognized. In addition, if the DOE undertakes "other activities" at the site not discussed in the LTSP, the DOE must inform the NRC of these activities pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 40.28(c)(3), and, depending on the scope of the activity, it may be appropriate to revise the LTSP. Therefore, please revise the draft LTSP to include a commitment to inform the NRC if the DOE undertakes ground water monitoring at the site and to inform the NRC of the results of any ground water monitoring that the DOE performs at the site.

2. The LTSP includes DOE's estimate of the long-term care costs for the site. The DOE's estimate is $20,000 per year for all proposed site maintenance activities, plus $26,000, which is 1/26th of the NRC annual fee for all DOE activities associated with the Uranium Mill Tailings Radiation Control Act sites, for a total annual resource expenditure estimate of $46,000. Assuming a 1 percent return on investment, this results in a Long-Term Surveillance Charge (LTSC) of approximately $4,600,000. This amount is significantly in excess of the baseline cost discussed in 10 CFR 40 Appendix A, Criterion 10 ($250,000 in 1978 dollars).

On September 29, 2011, the NRC issued Regulatory Issue Summary (RIS) 2011-11 to clarify those activities that the NRC would consider appropriate for increasing the LTSC above the baseline amount (ML111290381). The RIS also summarized the information that should be included in any request to increase the LTSC above the baseline amount, and states:

> If site surveillance or control requirements are expected to be greater than those specified in Criterion 12 to Appendix A of 10 CFR Part 40 and provided that there is a nexus to radiological health and safety, the NRC may consider increasing the LTSC above the minimum amount, adjusted to current year dollars. The increase in the LTSC would cover those additional expected long-term surveillance and control activities relied on for the performance of the tailings impoundment. The NRC may consider increasing the LTSC for long-term maintenance and control activities undertaken to ensure maintenance of radiological health and safety such as, but not limited to: (1) groundwater monitoring; (2), rip-rap, erosion or other cover repair; (3) fencing; and (4) vegetation control.
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> The custodial agency or the applicant/licensee may propose to increase the LTSC above the minimum amount to cover those additional expected long-term surveillance and control activities, including groundwater monitoring, that the custodial agency or the applicant/licensee deems necessary for the performance of the tailings impoundment. Along with an overall bottom-line amount corresponding to the proposed LTSC, the following, at a minimum, should be provided as a basis for increasing the LTSC above the minimum: (1) the scope of each additional long-term surveillance and control activity, together with a justification for its inclusion, and an explanation of its connection to radiological health and safety; (2) specifically with respect to groundwater monitoring, the frequency and duration of monitoring, number of wells monitored, and constituents analyzed; and (3) a site specific cost estimate with a basis (e.g., unit costs, and source of costs).

However, the DOE estimate does not provide the minimum information discussed in the RIS. Please provide a description of the site-specific activities the DOE wishes to perform at the site in sufficient detail as discussed above, to allow the NRC staff to evaluate the proposed LTSC increases and their nexus to radiological health and safety.

3. Finally, the RIS recommends that the licensee, the custodial agency, in this case the DOE, and the NRC staff meet prior to the submittal of the LTSP to discuss the scope of the LTSP and the LTSC. We suggest that, after the DOE staff has reviewed this letter, the NRC, DOE, and licensee staffs meet to discuss the LTSP and the LTSC. Note that meetings between the NRC and licensees (here, Anadarko) are typically open to observation by interested individuals and information about the meeting is posted at least 10 days prior to the meeting on the NRC's public website. If you are agreeable, the NRC staff will arrange this meeting.

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 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 this letter, please contact me at: 301-415-6749 or via email at: Dominick.Orlando@nrc.gov.

Sincerely,

/RA/

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

Docket Number: 040-8452

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