



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

September 6, 2022

William J. Frazier, Site Manager
U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

SUBJECT: UNITED STATES NUCLEAR REGULATORY COMMISSION STAFF
COMMENTS ON UNITED STATES DEPARTMENT OF ENERGY OFFICE OF
LEGACY MANAGEMENT DISPOSAL CELL COVER SAMPLING FIELD WORK
PLAN L-BAR NEW MEXICO DISPOSAL SITE (DOCKET NO. 04008904)

Dear William Frazier:

By letter dated August 3, 2022, the U.S. Department of Energy (DOE), Office of Legacy Management (LM) provided the Disposal Cell Cover Sampling Field Work Plan for the L-Bar, New Mexico disposal site. The submittal is available in the U.S. Nuclear Regulatory Commission's (NRC's) Agencywide Documents Access and Management System (ADAMS) Accession Number ML22216A135. DOE provided the document work plan to facilitate the NRC staff's understanding of DOE's planned activities at L-Bar during the fall of calendar year 2022.

The NRC staff appreciates DOE's coordination on this issue and has completed its review of the work plan. The staff offers the following comments for DOE's consideration:

- In the table in Section 1.5, the risk factor "Is ephemeral ponding or prolonged saturation of cover materials occurring on the cover or drainage apron?", scored a 4 of 4. The NRC staff was not aware that ponding or prolonged saturation was occurring on the cover or drainage apron.
- There is no mention of radiological equipment in Section 3.1. The NRC staff notes that Section 4.5 does discuss radiological monitoring and controls, but the entire Safety and Health section lacks details. For example, there is no mention of specific equipment to be used. The NRC staff notes the equipment may be outlined in the Legacy Management Support (LMS) Radiological Control Manual. Under the Integrated Safety Management System referenced in Section 4.0 of this plan, since it is specific to the sampling job and the hazards at the site, the NRC staff would have expected to see a preliminary job hazards assessment with a discussion of the actions that will be taken to minimize or prevent each hazard identified. The NRC staff suggests DOE provide information in the plan on: 1) the hazards identified for the planned work and the control measures 2), surveys to be conducted and 3) the equipment that will be used for each type of survey. Since this is a plan specific to the L-Bar site, it would seem appropriate to indicate what site-specific controls, processes and procedures will be used onsite for this sampling plan rather than referring to generic documents that were not provided for review.

- The plan discusses removal and replacement of riprap as part of the sampling discussed in Sections 3.2.3.1 and 3.2.3.2, but does not discuss verification that the repair/replacement of the riprap at the sampling locations did not increase the radiation levels. The NRC staff suggests that DOE consider doing a radiation survey of the sampling location prior to removal of the riprap to establish a baseline and after replacement of the riprap to verify radiation levels did not change. The plan should also address what actions will be taken to return the radiation levels to the baseline level if the sampling resulted in an increase in the radiation levels.
- The NRC staff suggests DOE clarify the total number of sampling locations. Section 3.2.2 of the work plan identifies 25 test pits, while Section 3.2.3.1 identifies 20 locations, each covering an 8 ft by 8 ft area on the side slopes with up to two samples per each location. Twelve of those 20 locations will also have block sampling of the radon barrier or cover collected. Section 3.2.3.2 does not define the number of locations that will be hand augered to determine the depth of the cover and the radon barrier. However, the plan indicates that for the hand auger areas, samples will be collected at least five of those locations.
- The NRC staff understands that the sampling is intended to occur in the radon barrier and above the radon barrier, not in the tailings, as stated in Section 3.3.1.5. The plan does not discuss contingencies for decontamination if the tailings are entered by mistake/accident. Additionally, it is not clear how DOE plans to control the depth of sampling to help avoid penetrating into the tailings.
- Table 4 in Section 3.4.2 provides the seed mix for areas that have been disturbed by the project. What is the basis for this seed mix selection? Is the objective to replicate the existing vegetation?
- Section 4.5 states, "During LM mill tailing disposal cell cover investigations at the L-Bar site, uranium mill tailings material might be encountered by LMS workers. However, this is unlikely." Section 4.5.1 states, "When excavations on the cell cover are performed and are likely to uncover or expose uranium mill tailings material, radiological monitoring shall be implemented in accordance with the project-specific RWP [Radiological Work Permit] or as directed or performed by the RCT [radiological control technician] covering the work." These statements appear to be contradictory.

The NRC staff is available to clarify its comments, if necessary, and would like a copy of the final work plan for our files. The NRC staff looks forward to working with DOE and better understanding the soil conditions present at L-Bar. Please keep us informed of the results of the study.

A copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System component of the NRC's ADAMS. ADAMS is accessible from the NRC website at <https://www.nrc.gov/reading-rm/adams.html>.

W. Frazier

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If you have any questions regarding this letter, please contact me at (301) 415-7777, or by email at Ron.Linton@nrc.gov.

Sincerely,



Signed by Linton, Ron
on 09/06/22

Ron C. Linton, Project Manager
Uranium Recovery and Materials
Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No. 04008904

cc: L-Bar ListServ

Letter to W. Frazier regarding L-Bar Disposal Site - U.S. Nuclear Regulatory Commission's Staff
 Comments on U.S. Department of Energy-Office of Legacy Management L-Bar Disposal Cell Cover
 Sampling Field Work Plan DATE September 6, 2022

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