



## MEMORANDUM

Date: January 24, 2024

To: David Ennis, Program Manager, Mining Act Reclamation Program

Through: Anne Maurer, Team Leader, Mining Environmental Compliance Section

From: Amber Rheubottom, Mining Environmental Compliance Section  
Alan Klatt, Surface Water Quality Bureau  
Sufi Mustafa, Air Quality Bureau

Subject: **NMED Comments, Supplemental Characterization Work Plan, Section 27 Mine, United Nuclear Corporation, McKinley County, New Mexico Mining Act Permit No. MK007RE**

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The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on October 31, 2023, requesting NMED to review and provide comments on the above-referenced MMD permitting action. Pursuant to the Mining Act, this is a regular existing mine with Mining Act Permit No. MK007RE. MMD requested comments on the *Supplemental Characterization Work Plan* within 45 days. NMED requested an extension to submit comments by January 26, 2024. NMED has the following comments.

### **Background**

MMD received the *Supplemental Characterization Work Plan* on October 31, 2023, from United Nuclear-General Electric (Permittee). The supplemental characterization is needed to further define the lateral and vertical extents of mining-related soil impacts and the estimated volume of impacted material using the *Joint Guidance for the Cleanup and Reclamation of Existing Uranium Mining Operations in New Mexico* document (*Joint Cleanup Guidance*) (MMD and NMED, 2016).

### **Air Quality Bureau**

The Air Quality Bureau has no comments.

## **Surface Water Quality Bureau**

The Surface Water Quality Bureau comments are attached.

## **Mining Environmental Compliance Section (MECS)**

MECS has the following comments on the Supplemental Characterization Work Plan.

### **General Comments**

1. Section 1.2, Page 2 – UNC states it is not able to determine site background due to impacts from the adjacent Phillips Mill. However, it states it will determine soil cleanup by the Reclamation Action Level, which requires site background being known. Please state specifically what the site soil cleanup level will be in picocuries per gram.
2. Section 2.1, Page 4 – NMED and MMD have previously approved a site background and reference area. Please provide the new evidence that suggests the reference area is not representative of background concentrations.
3. Section 2.3, Page 5 – “The mine Phillips Mill Cleanup Verification Estimated Ra-226 Concentrations in Grid Locations Near Section 27 Site waste material will be characterized for strength and compaction and will be used in the design of the onsite repository to determine the long-term stability as well as developing technical specifications for placement of the material.” – Please clarify this statement. Is this characterization going to be performed on the Phillips Mill or associated mines? Please indicate how this information will inform the work at Section 27.
4. Section 2.3, Page 5 – MECS recommends measuring water holding capacity on any materials proposed to be used as final cover at the site.
5. Section 2.4, Page 6 – NMED requests the gamma scan results be submitted in draft form, once the additional surveys are complete and the proposed number of samples is known, a month prior to the additional field work beginning. Depending on the results, NMED may request additional sampling.
6. Section 2.4, Page 6 – Please address how Stantec intends to incorporate the Th 230/Ra 226 results as part of the site characterization, and ultimately, how this informs clean-up. MECS is aware of current investigations at neighboring sites in the region that were

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not able to conclusively separate mine and mill impacts in soil and groundwater due to the comingling of groundwater that was later applied to the ground surface and other intermingled processes. Regardless of these results, UNC shall address all soil impacts within their current permit boundary and associated with their mining-related impacts.

7. Section 2.5, page 7 – MECS would support adoption of the Tronox Central and West GSA background concentration, with the understanding that the EPA has not finalized or adopted these as the final clean-up or background concentrations. UNC should demonstrate that this proposed value is reasonable by comparing the approved background concentration to the EPA background concentration and why this value is representative for the Section 27 Mine. Furthermore, MECS would support the Section 27 Mine as a site for a regional repository location for all UNC uranium mine waste. NMED requests an update on any discussions with EPA Region 6 regarding UNC uranium mine cleanup in Ambrosia Lake.

### **NMED Summary Comment**

NMED looks forward to seeing continued progress on characterization and clean-up of the Section 27 Mine and all other uranium mines owned by UNC in Ambrosia Lake. Additional information is needed prior to NMED determining that the work as proposed will be protective of human health and the environment.

If you have any questions, please contact Anne Maurer at (505) 660-8878.

cc: David Ennis, Program Manager, EMNRD-MMD  
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