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Via Electronic Mail

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**Re: Response to Letter of October 14, 2022 re:
Section 27 Mine, McKinley County**

Dear Ms. Maurer, Mr. Fox and Mr. Shepherd:

I am writing in response to the letter directed to United Nuclear Corporation (“UNC”) dated October 14, 2022, sent by the New Mexico Environment Department (“NMED”) and Mining and Minerals Division (“MMD”), together (“State Agencies”), seeking to “re-start” the state reclamation of the Section 27 mine in McKinley County. UNC is prepared to initiate the surface work requested by the State Agencies in the October 14 letter and has attached to this letter the requested schedule for that work. The State Agencies requested that UNC communicate in writing its concerns with the State Agencies’ requests in UNC’s response to the October 14 letter prior to convening a meeting to discuss the same. UNC’s primary concern is with respect to the State Agencies’ request for a Stage 2 Abatement Plan schedule. We believe that certain technical and legal complexities associated with addressing groundwater at and around Section 27, which are explained in further detail below, merit further discussion to ensure UNC understands the State Agencies’ expectations in this regard prior to submitting a groundwater proposal. Additional concerns that UNC would like to discuss with the State Agencies are also described below.

As you know, the Section 27 mine is included within the boundaries of the CERCLA San Mateo Creek Basin Legacy Uranium Mines Site (“SMCB”), specifically, in the western portion of the SMCB designated as the Ambrosia Lake Study Area (“ALSA”).

The SMCB CERCLA action is being conducted under the jurisdiction of the United States Environmental Protection Agency (“EPA”). In August 2019, EPA noticed UNC and other potentially responsible parties (“PRPs”) to perform work addressing surface and groundwater impacts in the ALSA. The scope of this work includes a Removal Site Evaluation at the Section 27 mine and adjacent mines in the ALSA, a proposal for which UNC submitted to EPA last year. EPA informed us that it has already reviewed and commented upon UNC’s RSE proposal. Additionally, a groundwater RI/FS in the ALSA was submitted to EPA by other cooperating PRPs last year. It is important that any activities UNC undertakes in the context of reclaiming Section 27 under the state program account for the activities that UNC and other PRPs are undertaking, and will undertake, in the pending CERCLA action at and around Section 27. Coordination amongst the various agencies who have asserted jurisdiction and initiated separate actions concerning Section 27 would likewise ensure that work is performed in the most efficient manner, without duplicating efforts or resources, and that the activities undertaken pursuant to a given state or federal program also satisfy the obligations of all the respective agencies.

UNC’s concerns in this regard are most apparent with respect to groundwater. The impacts to groundwater in the ALSA were caused by the historic discharges of multiple mining and milling operations over many decades. The most intensive of these operations occurred in the context of maintaining uranium supply for the federal government’s war efforts and with the federal government’s direct involvement and facilitation. Previously, NMED has acknowledged the difficulties inherent in addressing groundwater in the ALSA recognizing that “the lack of sufficient pre-mining data, inter-connectiveness of mine workings, numerous mine operators in the area, and the extensive dewatering in the basin makes it difficult to define and attribute contamination to individual mine operations in the Ambrosia lake area.”¹

This is particularly so at the Section 27 mine, where development of an abatement plan will quickly implicate neighboring sites and responsible parties. This includes EPA itself, which holds nearly \$1 billion in trust for the cleanup of the former Tronox mines, several of which are in the immediate vicinity of the Section 27 mine. It also includes the U.S. Department of Energy (“DOE”)², which is the responsible remediating party at the adjacent former Phillips Mill under Title I of the federal Uranium Mill Tailings Radiation Control Act (“UMTRCA”). Notably, DOE previously concluded that the groundwater impacted by the Mill should not be remediated – a decision that was endorsed by the U.S. Nuclear Regulatory Commission in connection with site closure under UMTRCA and with which NMED itself concurred. While UNC is amenable to discussing a reasonable approach to groundwater impacts at Section 27, we respectfully request further clarification from NMED regarding its expectations in this regard prior to formulating a substantive response to the State Agencies’ groundwater request.

From a jurisdictional standpoint, N.M. Admin. Code § 20.6.2.4105(A)(2) suggests that limitations exist regarding preparation of an abatement plan where the area is already under the jurisdiction of EPA pursuant to CERCLA. This jurisdictional limitation appears logical in circumstances like this one, involving groundwater impacts across scores of mine and mill boundaries with multiple responsible private and government parties, because the federal framework contemplates such a scenario, whereas the state program does not.

¹ Letter dated February 5, 2009, from Jerry Schoeppner, Mining Environmental Compliance Section, Groundwater Quality Bureau, to Larry Bush, United Nuclear Corporation.

² DOE is also a PRP in the SMCB CERCLA action based on the Atomic Energy Commission’s historical actions facilitating uranium exploration and development in the SMCB and has been noticed formally as such by EPA in the CERCLA action.

In the meantime, UNC is prepared to move forward with MMD's request to revise its 2011 Supplemental Closeout Plan ("SCP") and to conduct additional on-site reclamation as needed to meet the radiation cleanup criteria set forth in the agencies' Joint Guidance for the Cleanup and Reclamation of Existing Uranium Mining Operations in New Mexico (March 2016) (the so-called "5/15 standard"). UNC's proposed schedule for the preparation of a revised SCP is enclosed.

For the reasons set forth above, while UNC is willing to prepare a revised SCP, it is imperative that a mechanism is established to ensure that the work UNC completes in this regard satisfies the requirements of EPA and moots the need for additional work under CERCLA with respect to the issues addressed. In addition, UNC wishes to discuss several technical issues with the agencies prior to submission of a revised SCP, including the appropriate boundaries for additional reclamation work and the issue of soil-groundwater interaction.

UNC appreciates the agencies' consideration of the issues raised in this letter and respectfully requests an opportunity to discuss these concerns with MMD, NMED and EPA before proceeding further with any additional investigation or reclamation work at the Section 27 mine. UNC has prepared the enclosed schedule for the surface work with the assumption that its concerns regarding the proposed work have been addressed before beginning those activities.

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UNC looks forward to your response to this letter and requests that NMED and MMD provide dates on which it would be available for further discussion. We can then solicit availability from EPA and make the necessary arrangements for an in-person meeting or video-conference, depending on the agencies' preferences. Thank you for your consideration.

Respectfully yours,



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cc: Andrew Knight
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Preliminary Schedule for Updating Supplemental Closure Plan

In a letter dated October 14, 2022, the New Mexico Mining and Minerals Division (MMD) requested that United Nuclear Corporation (UNC) revise the *Supplemental Closeout Plan, Section 27 Mine Site, New Mexico, Permit No. MK005RE (Supplemental Closeout Plan)* dated June 24, 2011. The letter requests that the *Supplemental Closeout Plan* be revised to meet the radiation cleanup criteria in the *Joint Guidance for the Cleanup and Reclamation of Existing Uranium Mining Operations in New Mexico (Joint Cleanup Guidance)* dated March 2016.

The *Supplemental Closeout Plan* was developed utilizing action levels of 150 microRoentgens per hour ($\mu\text{R/hr}$) for locations within the Section 27 permit boundary and 250 $\mu\text{R/hr}$ for areas outside of the permit boundary. In 2010, Phase 1 construction at the site was completed within the mine permit boundary utilizing those action levels and additional construction was planned for Phase 2 in the *Supplemental Closeout Plan*.

To accurately and efficiently update the *Supplemental Closeout Plan* to comply with the radiation cleanup criteria in the Joint Cleanup Guidance (which mirror the United States Environmental Protection Agency (USEPA) Uranium Mill Tailings Radiation Control Act (UMTRCA) "5/15 standard"), additional Supplemental Characterization (including radiological surveys and subsurface soil sampling) will be required at and adjacent to the Section 27 site. Utilizing site-specific correlation of exposure rate data to radium-226 measurements, the action level for the site will decrease approximately five-fold from 150 $\mu\text{R/hr}$ to the "5/15 standard" plus background. Because of this requested change, additional radiological surveys and subsurface confirmation sampling are needed to calculate the earthwork volume to incorporate into the *Supplemental Closeout Plan*. Information and calculations updates based on the earthwork volume in the *Supplemental Closeout Plan* include borrow source estimates, grading plan, diversion channel design, radon modeling, slope stability analysis, and erosional stability analysis. UNC developed a preliminary schedule to address the update to the *Supplemental Closeout Plan* in 2023 as shown in Table 1.

Table 1: Section 27 Preliminary Schedule

Task	Timeline	Notes
MMD and NMED Review of Proposed Schedule	45 Days	Assume start date of 12/19/2022
Submit Supplemental Characterization Workplan for MMD Review	90 Days after agencies' concurrence on path forward	Estimate depends on MMD and NMED response to schedule submittal
Approval of Supplemental Characterization Workplan	60 Days after submittal	Assumes the state will coordinate obtaining EPA's concurrence on the Workplan and the schedule assumes the Workplan will be approved without any changes or resubmittal
Complete Supplemental Characterization	120 Days after approval of Workplan	Includes gamma survey, soil sampling, and laboratory turnaround time
Submit Updated Supplemental Closeout Plan	180 Days after receipt of Supplemental Characterization laboratory data	Assumes the state will coordinate obtaining EPA's concurrence on the Workplan.