P.O. Box 1088 Gallup, New Mexico 87305-1088 Telephone: (505) 905-6651 Fax: (505) 905-6654

## UNITED NUCLEAR CORPORATION

April 1, 2025

## VIA EMAIL: James.Smith@nrc.gov

ATTN: Document Control Desk Mr. James Smith Senior Project Manager Office of Nuclear Materials Safety and Safeguards Division of Decommissioning, Uranium Recovery and Waste Programs Uranium Recovery Licensing and Material Decommissioning Branch U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

## Re: Source Material License SUA-1475: Clarification for License Amendment Request, dated May 14, 2024.

Dear Mr. Smith:

United Nuclear Corporation (UNC) writes to clarify its license amendment request (LAR), dated May 14, 2024, with respect to Source Material License SUA-1475 (License) pertaining to the Northeast Churchrock mill located in Gallup, NM ("UNC Mill").<sup>1</sup> Specifically, the May 14, 2024, LAR requested the following change: "Page 6, Paragraph 30 Part B: change the lead standard from 0.7 to 0.07[.]"<sup>2</sup>

As described more fully below, the current 0.7 mg/L groundwater protection standard (GWPS) for lead in the Southwest Alluvium reflected in the License was mistakenly imported into the License due to a typographical error in UNC's April 17, 2012, LAR for amendment number 52. The correct GWPS for lead that should be in the License is 0.07 mg/L, an order of magnitude less than the current 0.7 mg/L standard reflected in License Condition 30.B. Accordingly, UNC respectfully renews its request that the United States Nuclear Regulatory Commission (NRC) amend License Condition 30.B to incorporate the more restrictive 0.07 mg/L lead GWPS for the Southwest Alluvium. Notwithstanding the License's reference to 0.7 mg/L, and regardless of the NRC's decision with respect to amending License Condition 30.B, UNC intends to use the more restrictive GWPS of 0.07 mg/L for lead in the Southwest Alluvium.

<sup>&</sup>lt;sup>1</sup> UNC Request for License Amendment to Amendment No. 59, Source Material License No. SUA-1475., available at https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML24135A218

<sup>&</sup>lt;sup>2</sup> Id.

The relevant facts pertaining to this issue are as follows. The corrective action plan (CAP) associated with the UNC Mill originally established the lead GWPS for the alluvium in Zone 1 and Zone 3 at 0.05 mg/L.<sup>3</sup> The original GWPS was based on NRC-approved, background concentrations derived from the lower limit of detection or a value determined by graphical trend analysis.<sup>4</sup> The 0.05 mg/L GWPS for lead remained until UNC's 2012 LAR for amendment number 52.<sup>5</sup> In its April 2012 LAR, UNC proposed adjusting the GWPS to the background threshold values (BTVs) for each constituent based on statistically calculated 95th Percentile Upper Prediction Limits (UPL95s) and submitted a Technical Analysis Report (TAR) prepared by Chester Engineers to support the calculated BTVs and proposed GWPS.<sup>6</sup> The TAR, Table 4, presented the BTV for lead in the Southwest Alluvium as 0.07 mg/L and proposed 0.07 mg/L as the potential NRC GWPS.<sup>7</sup> However, the LAR accompanying the TAR contained a typographical error and mistakenly proposed that the GWPS for lead for the Southwest Alluvium should be 0.7 mg/L.<sup>8</sup>

Another technical review should not be required to change the Southwest Alluvium GWPS for lead from the incorrect 0.7 mg/L standard to the correct 0.07 mg/L standard based on the UPL95 because the prior technical reviews focused on the methods for establishing the UPL95s rather than the respective value for each constituent. The United States Environmental Protection Agency (USEPA) reviewed the TAR and concluded that the UPL95s "are reasonable and should be adopted[.]"<sup>9</sup> The NRC issued a Technical Evaluation Report related to its review of UNC's April 2012 LAR, and associated TAR, to amend the GWPS in License Condition 30.B.<sup>10</sup> The NRC concluded that the UPL95s provided a reliable upper limit of background groundwater and that the proposed concentrations were "reasonably expected to represent background conditions, which satisfies Criterion 5B(5)(a) [of Title 10 of the Code of Federal Regulations (CFR) Part 40, Appendix A]."<sup>11</sup> However, the TER incorporated the erroneous lead standard of 0.7 mg/L from UNC's April 2012 LAR into Table 4.1 reflecting the proposed GWPS.<sup>12</sup> Although the revised GWPS was intended to be the UPL95 for lead of 0.07 mg/L, the incorrect 0.7 mg/L value that was stated in UNC's April 2012 LAR was incorporated into License Condition 30.B in License Amendment 52 (and subsequent amendments).<sup>13</sup>

<sup>&</sup>lt;sup>3</sup> See, NRC Letter to UNC, Enclosing License Amendment for UNC-Church Rock to Establish Groundwater Protection Standards at the Points of Compliance, Jan. 3, 1989 (ML060260396), available at,

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML060260396

<sup>&</sup>lt;sup>4</sup> See, UNC Letter to NRC, LAR for Revised Groundwater Protection Standards Based on Updated Background Concentrations, April 17, 2012 (ML123150A146), *available at*,

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML12150A146

<sup>&</sup>lt;sup>5</sup> Id.

<sup>&</sup>lt;sup>6</sup> Id.

<sup>&</sup>lt;sup>7</sup> Id. at 20.

<sup>&</sup>lt;sup>8</sup> Id. at 3.

<sup>&</sup>lt;sup>9</sup> EPA Letter to NRC regarding EPA Review of UNC Response to NRC June 4, 2013, Request for Additional Information, April 14, 2014 (ML14118A361), *available at*, https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML14118A361 <sup>10</sup> NRC, Technical Evaluate Report, Review of the Application to Amend License Condition 30.B of Source Material License SUA-1475, Final Report, April 2015 (ML14339A840), *available at*,

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML14339A840

<sup>&</sup>lt;sup>11</sup> *Id*. at 4.

<sup>&</sup>lt;sup>12</sup> *Id*. at 12.

<sup>&</sup>lt;sup>13</sup> See NRC License Number SUA-1475, Amendment No., 52 (ML14339A837), available at,

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML14339A837

In addition to accurately reflecting the calculated 95UPL background concentration, the 0.07 mg/L standard is lower and more protective of human health and the environment than the 0.7 mg/L standard. Accordingly, amending the License to incorporate the lower lead GWPS of 0.07 mg/L in the Southwest Alluvium would not involve a "significant hazards consideration" and is presumably suitable for modification to correct the typographical error without further technical review, hearing, or public notice in the Federal Register.<sup>14</sup>

Regardless of whether NRC decides to rectify the error in the License, UNC will use the more stringent lead GWPS of 0.07 mg/L in the Southwest Alluvium. UNC appreciates the NRC's consideration of this clarification of its May 14, 2024, LAR. Should you have any questions or wish to discuss this further, please contact me at your convenience.

Respectfully,

Brian P. McCarthy, P.G. United Nuclear Corporation

34474188\_v1

<sup>&</sup>lt;sup>14</sup> See 10 CFR 2.105(a)(3).