

May 2, 2016

Mr. Lawrence J. Corte  
President and General Manager  
Western Nuclear Incorporated  
2801 Youngfield Street, Suite 340  
Golden, CO 80401

SUBJECT: WESTERN NUCLEAR INCORPORATED'S REQUEST FOR EVALUATION OF  
THE ESTABLISHMENT OF AN ALTERNATE CONCENTRATION LIMIT FOR  
NITRATE AT THE SPLIT ROCK SITE (DOCKET NUMBER: 040-01162)

Dear Mr. Corte:

I am writing in response to your letter, dated November 5, 2015, requesting that the U.S. Nuclear Regulatory Commission (NRC) staff evaluate Western Nuclear Incorporated's (WNI's) position that the NRC was required to make a formal determination that nitrate was a hazardous constituent prior to amending WNI's radioactive materials license to establish an Alternate Concentration Limit (ACL) for nitrate (Agencywide Documents Access and Management System (ADAMS) Accession Number ML15324A213).

In your letter, you state that the NRC staff did not make a "formal determination" that nitrate was a hazardous constituent, citing language in the NRC staff's Environmental Assessment (EA) that refers to the establishment of ACLs for both hazardous and non-hazardous constituents:

The proposed action is the establishment of ACLs for the following hazardous and nonhazardous constituents at the site: uranium, radium-226 and -228, manganese, molybdenum, ammonia, and nitrate (ML062130387).

While you are correct that the EA uses the term "hazardous and nonhazardous constituents" when referring to constituents in the ACL application, including nitrate, and that some of the constituents in the ACL application are not specifically listed as hazardous under 10 CFR Part 40, Appendix A, Criterion 13, the NRC staff was not required by 10 CFR 40 Appendix A to make a "formal determination" that nitrate was hazardous. Rather, 10 CFR 40, Appendix A, Criterion 5B(1) states that the Commission shall "identify" hazardous constituents and establish appropriate concentration limits for these hazardous constituents.

In Section 2.1.2 of WNI's ACL Application, WNI outlined its 7-step process for establishing hazardous constituents of potential concern and stated:

The identification of the constituents for which license conditions must be established is a step-wise process that identifies the constituents that are potentially hazardous to human and ecological health related to former mill site activities and that exist at concentrations above naturally existing (i.e., background) concentrations (ML003672396).

Using this process, WNI clearly identified nitrate as a hazardous constituent for which an ACL was required, specifically citing the provision in 10 CFR Part 40, Appendix A, Criterion 13 that provides that the list of hazardous constituents in that section is not exhaustive, and that the NRC may, on a case-by-case basis, identify other hazardous constituents as the basis for an ACL. WNI's hazard analysis in the ACL application and the NRC staff's acceptance of that analysis satisfies Criterion 13, and the applicable provisions of Criterion 5. Thus, while WNI argues that the NRC staff did not perform the necessary analysis under Criterion 5B(2) and 5B(3) to "formally determine" that nitrate was a hazardous constituent, none was needed beyond WNI's own analysis and the NRC staff's acceptance of that analysis, as incorporated into the nitrate ACL in WNI's radioactive materials license.

In addition, Criterion 5B(2) points to the listing in Criterion 13 (and the potential to add additional hazardous constituents, as appropriate on a case-by-case basis), and Criterion 5B(3) provides that the constituent may be excluded even if Criterion 5B(2) is satisfied if that constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In its hazard analysis WNI demonstrated that nitrate was a hazardous constituent. Therefore, while discretionary, an analysis to determine that nitrate was not hazardous was not necessary, given that the NRC staff accepted WNI's analysis that nitrate was a hazardous constituent.

Therefore, the NRC staff has concluded that the ACL for nitrate was established in accordance with Criterion 5 and Criterion 13 in that the NRC staff evaluated WNI's own analysis of the potential hazard from nitrate, documented the staff's review in the EA and TER, and incorporated the ACL for nitrate into WNI's radioactive materials license through a license amendment in 2006.

As discussed in our letter to you dated September 24, 2015, (ML15190A195), NRC will monitor WNI's efforts to address the non-compliance with ACLs at the Split Rock site in our consideration of any future enforcement actions. We look forward to working with WNI to address the ACL issue, including potentially revising the ACLs through a license amendment based on a technically defensible approach. We would be able to meet with you to discuss resolution of this issue at a mutually agreeable date and time. Note that meetings between the NRC and licensees 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. Please contact me at your convenience to 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>.

L. Corte

- 3 -

If you have any questions please contact me at (301) 415-6749 or by email at [Dominick.Orlando@nrc.gov](mailto: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

L. Corte

- 3 -

If you have any questions please contact me at (301) 415-6749 or by email at [Dominick.Orlando@nrc.gov](mailto: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

**DISTRIBUTION:**      R. Evans, R-I              J. Whitten, R-IV

**ADAMS Accession No.:                      ML16088A356**

<b>OFFICE</b>	NMSS:PM	NMSS:LA	NMSS:TA(A)	NMSS:BC
<b>NAME</b>	D. Orlando	C. Holston	M. Meyer	M. Norato
<b>DATE</b>	3/29/16	3/29/16	3/29/16	3/30/16
<b>OFFICE</b>	OGC	NMSS:DD	NMSS:DIR	NMSS:PM
<b>NAME</b>	A. Gendelman	A. Kock	J. Tappert	D. Orlando
<b>DATE</b>	4/5/16	4/20/16	4/27/16	5/2/16

**OFFICIAL RECORD COPY**