



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

August 17, 2020

Ashley Forbes, Director  
Radioactive Materials Division  
Texas CEQ  
P.O. Box 13087  
Austin, TX 78711-3087

Dear Ms. Forbes:

I am following up to the June 30, 2020, telephone discussion between the U.S. Nuclear Regulatory Commission (NRC) staff and you and your staff pertaining to the August 23, 2019, request for NRC's review and comment on the draft Completion Review Report (CRR) for the full license termination of the Rio Grande Resources Corporation, Panna Maria Uranium Facility site (Texas Radioactive Material License No. R02402) located in Hobson, Texas. The June 30 telephone discussion also included further discussions from the NRC staff visit to your offices on March 4, 2020.

During the March 4 visit, the NRC staff provided its initial view of the groundwater protection limits for the Panna Maria site. During the June 30 telephone discussions, the NRC staff reiterated its concerns with the rationale and legality for removal of the secondary groundwater protection standard for molybdenum and nickel, and the method for establishing background levels for uranium.

The CRR needs to more accurately describe the technical rationale for removing the secondary groundwater protection standard for nickel and molybdenum. Texas Administrative Code (TAC) Section §336.1129(j)(1) states that "[h]azardous constituent, as defined in TAC Section §336.1105(16) of this title (relating to Definitions), entering the groundwater ... must not exceed the specified concentration limits". TAC Section §336.1105(19)1 defines a hazardous constituent as "a constituent that ... is reasonably expected to be in or derived from the byproduct material ... has been detected in groundwater ... and ... is listed in [10 CFR] Part 40, Appendix A, Criterion 13." Nickel and molybdenum are listed in Criterion 13. As a result, nickel and molybdenum can be expected to be derived from the byproduct material and detected in groundwater. Removing these constituents from the secondary groundwater protection standards from the site solely because the Environmental Protection Agency removed the Maximum Concentration Limit from the secondary drinking water standards does not support a technical rationale for removing them from the groundwater sampling program for license termination.

The NRC finds "the comprehensive approach" method used to establish the uranium background levels is novel. The novelty of this approach is that, in lieu of the existing historical measurements of background concentration levels of uranium at the site, the revised uranium background level approved by the Texas Commission on Environmental Quality (TCEQ) in Amendment 9 is based on the theoretical background derived from two laboratory leaching tests of cores from upgradient ore bodies, the model predicted migration of uranium through the site

---

1 Section §336.1129(j)(1) appears to incorrectly refer to definition (16) instead of (19) for Hazardous constituents.

and widespread variability in uranium levels over the southwestern uranium region of Texas which covers thousands of square miles.

The NRC staff concluded that the approach used to establish background levels did not constitute an alternative standard and would not require approval from the Commission. However, the NRC staff agreed that the CRR is technically deficient and considerably more information is needed to support the current background level approach. To resolve this issue, either significantly more monitoring well information would be needed to support the uranium background levels, or TCEQ would need to establish an Alternate Concentration Limit for uranium. The CRR must demonstrate compliance with the background water quality monitoring requirement to establish groundwater protection standards.

We look forward to continuing working with the Texas Agreement Program to address these issues. If you have any questions or comments, please contact Lizette Roldan-Otero, Ph.D., at 817-200-1596 or [Lizette.Roldan-Otero@nrc.gov](mailto:Lizette.Roldan-Otero@nrc.gov).

Sincerely,

Michael C. Layton, Director  
Division of Materials Safety, Security, State  
and Tribal Programs  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: LETTER TO TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
COMPLETION REVIEW REPORT FOR THE FULL LICENSE TERMINATION  
OF THE RIO GRANDE RESOURCES CORPORATION, PANNA MARIA  
URANIUM FACILITY SITE

DATED: August 17, 2020

DISTRIBUTION:

RErickson, RIV  
JCooke, RIV  
EStriz, NMSS  
JSaxton, NMSS  
DOrlando, NMSS  
Bill Von Till, NMSS

**ADAMS Accession No.: ML20225A026**

**\*via email**

OFFICE	MSST	MSST	MSST
NAME	SPoy	LRoldan-Otero	MCLayton
DATE	08/12/2020	08/13/2020	08/17/2020

**OFFICIAL RECORD COPY**