



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

February 3, 2022

Sandra L. Ross, Site Manager
Rio Algom Mining, LLC
P.O. Box 218
Grants, NM 87020

SUBJECT: RIO ALGOM – REQUEST FOR ADDITIONAL INFORMATION – TECHNICAL REVIEW OF LICENSE AMENDMENT REQUEST TO MODIFY ENVIRONMENTAL, SAFETY, AND HEALTH PROGRAM REQUIREMENTS UNDER LICENSE NO. SUA-1473.

Dear Sandra Ross:

This letter is in response to your submittal of a License Amendment Request (LAR) dated October 1, 2021 (Agencywide Documents Access and Management System [ADAMS] Accession No. [ML21278A019](#)) to incorporate 1) an updated Radiation Protection and Environmental Monitoring (RPEM) Program Manual and 2) performance-based licensing authorization. Attachment 1 to the LAR is the updated RPEM document dated October 2021 (ADAMS Accession No. [ML21278A020](#)). Attachment 2 to the LAR is a redline strike-out version of the license (ADAMS Accession No. [ML21278A021](#)) with proposed changes to License Conditions (LCs) 10, 11, 14, 16, 17, 19, 25, and 26. The proposed change to LC 10 includes incorporation by reference this updated version of the RPEM.

During its review, the U.S. Nuclear Regulatory Commission (NRC) staff determined that additional information is needed to complete a technical review of the LAR. Three Requests for Additional Information (RAIs) are provided below covering the updated RPEM, the Safety Evaluation Review Process of NUREG-2126, and the changes to LCs. Please either respond to the RAIs or provide a schedule for submitting your responses within 30 days of receipt of this letter. To facilitate a clear understanding of the RAI, please set a meeting with NRC staff to provide Rio Algom further clarification of the RAIs.

RAI 1, RPEM

Please provide justification for the removal or addition of information that is currently in the Rio Algom license. If missing information is in another document, rather than the RPEM, provide the information associated with that document and confirm that either the RPEM will be modified to match the document submitted to support the license change and/or the provided document(s) can be identified on the license as license tiedown(s). Portions of the RPEM provided in the LAR appear to conflict with NRC regulations, guidance, or license requirements in radioactive material License No. SUA-1473, including as follows:

1. Radiation Safety Officer (RSO) qualifications as written in the RPEM dated October 2021 conflict with LC 11 of SUA-1473. Specifically, LC 11 requires the RSO to meet the qualifications listed in Section 2.4.1 of Regulatory Guide (RG) 8.31. Specifically, under LC 11 (and Section 2.4.1), the RSO is required to have specialized training related to the application and use of health physics equipment, familiarity with the procedures for environmental sampling, monitoring for radioactive materials and calculation methods for personnel exposure and the hazards associated with uranium recovery. None of these requirements are listed in the RSO qualifications in the RPEM dated October 2021. In addition, LC 11 (and Section 2.4.1) requires work experience that includes working knowledge associated with the use of radiation detection and measuring equipment, which is also not listed in the RPEM. If the licensee believes that the RSO should not be held to Section 2.4.1 of RG 8.31 as required by LC 11, provide an appropriate justification for relaxation of this requirement.
2. Clarify the intent of RPEM Tables 1 and 2 and the use of the terms “where required and/or as appropriate” in relation to Table 1 and “specific elements...where appropriate” in Table 2. The language appears to imply that only portions of the regulations listed in Table 1 and the guidance identified in Table 2 were incorporated into the RPEM if the licensee staff felt the regulations or guidance was appropriate for the site. For example, Table 1 identifies Title 10 of the *Code of Federal Regulations* (10 CFR) Part 20 as a regulation, does this mean the licensee will implement Part 20 in its entirety including Appendices (and excluding Subpart E from which the site is specifically exempted) or does that mean portions of Part 20 were not considered appropriate for incorporation into the RPEM?

For any portions of the regulations identified in RPEM Table 1, provide justification for not including the regulatory requirement in the RPEM. For RPEM Table 2, if only specific elements of the guidance documents were used, identify those elements implemented from each guidance document and provide justification for excluding the remaining elements in each guidance document.

3. The RPEM dated October 2021 does not have any information or restrictions associated with the requirement to limit total effective dose equivalent for the public in accordance with the requirements of 10 CFR Part 40 Appendix A Criterion 6(6) or 40 CFR Section 190.10. Rather the RPEM on refers to public dose limits under 10 CFR Section 20.1302. Provide justification for not also addressing public dose in accordance with 10 CFR Part 40 Appendix A and 40 CFR Section 190.10.

RAI 2, Safety and Environmental Review Process (SERP)

Please provide clarifications on the proposed implementation of the SERP as described in Section 2.4 of the RPEM. All clarifications, descriptions, and details provided in response to this RAI should be implemented in the RPEM or LCs, as appropriate. The clarifications listed below should reconcile or justify differences in the proposed language in Section 2.4 of the RPEM against the guidance in NUREG-2126, “Standard Review Plan for Conventional Uranium Mill and Heap Leach Facilities.”

1. Clarify that the SERP review process will also review the license, LCs, license tiedowns (documents specifically referenced in LCs) and NRC regulations will be part of the information considered by the SERP panel as part of the process when evaluating a proposed change to the licensee's program to determine if a license amendment is required. At a minimum, please provide details on how the SERP process will comply with the following NRC regulations: 10 CFR Section 20.2002; Section 20.2007; Section 20.1101; Section 20.2103; Section 20.2201; Section 20.2202; Section 40.32; Section 40.36; Section 40.60; and 10 CFR Part 40 Appendix A, Criterion 6, Criterion 8, and Criterion 8A.
2. Clarify that any sources of information used by the NRC to make a regulatory or license determination, such as a Safety Evaluation Report (SER), Technical Evaluation Report (TER), Environmental Impact Statement, and Environmental Assessments will be considered as part of the SERP evaluation.
3. Clarify how the RPEM is going to be used as one of the primary documents to evaluate program changes against to determine if a license amendment is needed AND that a SERP review can be used to allow changes to the RPEM. NRC staff requests specific information associated with the threshold that would allow the SERP process to be used to make changes to the occupational radiation safety, facility operations or environmental monitoring programs.
4. Describe the controls that will be implemented to ensure that SERP approvals do not: (1) modify a LC; (2) create the possibility for an accident of a different type than previously evaluated in the license application; (3) create the possibility of a malfunction of a system or component with a different result than previously evaluated in the license application or (4) result in the departure from the method of evaluation described in the license application and used to establish a SER, TER or other analysis or evaluation for a license amendment.
5. Provide details on what the minimum "similar knowledge" requirements are for each of the SERP positions when selecting individuals as designees if the site manager, RSO or site principal is not available for the SERP review. Please also provide information on the process to identify and use subject matter experts to supplement the SERP reviews.
6. Provide details on the qualifications, duties, and responsibilities of the site manager versus the site principal. Provided information should include details on SERP role in the SERP review process and well as the responsibilities and authorities held by each of the key positions.
7. Please verify that the Chairperson of the SERP panel will have the authority to make financial decisions for the licensee.
8. Describe how the SERP decisions will be documented.

RAI 3, Changes to LCs

Please reconcile the differences between the current license (#62) and the changes reflected in the proposed license (Attachment 2, Redline markup SUA-1473, October 1, 2021 letter, ADAMS Accession No. [ML21278A021](#)) and the LC matrix (Table 1 of the October 1, 2021 letter, ADAMS Accession No. [ML21278A019](#)), including the following items:

1. The proposed LC 10B is identified as a consolidation of LCs 10, 14, 16 and 17. However, the language in LC 16 associated with the need for a Standard Operating Procedure (SOP) for bioassay analysis was not included in the proposed LC 10B. The RPEM dated October 2021 indicates that the site does not have a bioassay program or an occupational air monitoring program because the internal doses from radionuclides are less than the action levels in Table 3. Provide documentation to support the removal of these two programs used to identify occupational internal dose and the removal of the bioassay SOP language from LC 16.
2. The proposed LC 10A is identified as a consolidation of procedure review requirements from LCs 14, and 16. The proposed language also added the RPEM program manual and SOPs to the annual review by the RSO. The proposed LC also states that the SOPs will be revised as needed but does not include the RPEM manual in this statement. Clarify the process that will be used to modify the RPEM manual if the review by the RSO determines that the RPEM manual does not “ensure that proper and current radiation protection principles are being applied.”
3. For proposed LC 10E, provide clarification for the minimum qualification requirements for the RSO to possess as specified in RG 8.31 Section 2.4.1. A justification for this has been previously requested as part of RAI 1 of this enclosure.
4. The proposed LC 10D is identified as a modification to the license to clarify that indistinguishable from background is an acceptable criterion for release for equipment. License Condition 25 of radioactive materials license No. SUA-1473 is already tied to NRC Policy and Guidance Directive FC 83-23, “Guidelines for the Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use Termination of Byproduct, Source and Special Nuclear Materials Licenses.” Clarify why the proposed language for LC 10D needs to state “surface” terminology as well as the modification to limit the compliance to Enclosure 2 of FC 83-23. It does not appear that these additions are needed based on the release criteria established in the document tied down to the license in LC 25. Specifically, LC 25 is tied to FC 83-23 for release of equipment and packages and Enclosure 2 is specific to surface radioactivity levels. Provide justification for use of indistinguishable from background criteria to the LC.

In accordance with 10 CFR Section 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 <https://www.nrc.gov/reading-rm/adams.html>.

If you have any questions, please contact Mr. Tom Lancaster by email at Thomas.Lancaster@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "Tom Lancaster".

Signed by Lancaster, Thomas
on 02/03/22

Thomas Lancaster, Project Manager
Uranium Recovery and Materials
Decommissioning Branch
Division of Waste, Uranium Recovery
and Decommissioning Programs
Office of Nuclear Materials Safety
and Safeguards

Docket No.: 040-8905
License No.: SUA-1473

Letter to S. Ross, RAML, from T. Lancaster, NRC - Rio Algom - Request for Additional Information -
 Technical Review of License Amendment Request to Modify Environmental, Safety and Health Program
 Requirements Under License No. SUA-1473 DATE February 3, 2022

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