

Rio Algom Mining LLC

September 30, 2020

Mr. Thomas Lancaster
U.S. Nuclear Regulatory Commission
Mailstop T5-A10
Washington DC 20555-0001

Subject: **2020 Surety Update – License Condition #22**
 Rio Algom Mining LLC – Ambrosia Lake Facility
 License No. SUA-1473, Docket No. 40-8905

Dear Mr. Lancaster:

On 23 June 2020, Rio Algom Mining, LLC (RAML) submitted to the Nuclear Regulatory Commission (NRC) its annual financial surety update (ADAMs Accession No. ML20192A224) for the Ambrosia Lake facility, as required by radioactive materials license SUA-1473 condition 22. During a 1 September 2020 clarification call with RAML staff, NRC staff requested backup documentation consistent with NUREG-1620 in support of RAML's June 2020 surety calculation. Because RAML is not required by license to perform its surety calculation in a manner consistent with NUREG-1620, RAML was unable to provide the requested backup documentation.

On 9 September 2020, RAML committed (ML20254A002) to re-submitting its 2020 surety update by 30 September 2020. RAML also committed to including the following in its re-submission:

1. A revised scope of work consistent with the requirements of section (f) of Criterion 9 of Appendix A to 10 CFR Part 40.
2. A cost estimate consistent with the recommendations of NUREG-1620, if possible.

This submittal consists of RAML's revised 2020 annual surety update and backup documentation. The basis of estimate and a summary of costs corresponding to each of the major categories found in NUREG-1620 Appendix C are provided below. Summary tables presenting costs corresponding to the individual line-items requested in NUREG-1620 Appendix C are provided as **Attachment A** to this submittal. Line-item cost estimates, including detailed cost breakdowns, are provided as **Attachment B** to this submittal.

The costing information provided in **Attachment B** was prepared for RAML by its contractors and is confidential financial information related to RAML's contractors' business practices. RAML therefore requests that **Attachment B** to this submittal be

withheld from public disclosure under 10 CFR 2.390(a)(4), which permits the nondisclosure of records that are trade secrets and commercial or financial information that is confidential.

Basis of Estimate

This estimate includes all of the line items recommended in NUREG-1620 Appendix C, if applicable at the Ambrosia Lake facility¹. The major assumptions of the surety estimate are that:

1. License termination and site handover to the appropriate custodial agency occur in 2025.
2. The scope of closure activities at the Ambrosia Lake facility will follow RAML’s approved planning documents, including the *Soil Decommissioning Plan* (ML18166A182) and RAML’s approved the alternate concentration limits (ML060380387).
3. A new hypothetical uranium byproduct material² repository will be licensed and constructed at the site, and that the construction of this new repository will follow the methods approved in RAML’s *Reclamation plan for Disposal of Pond Sediments and Ancillary Materials Tailings Cell 2 Expansion* (ML051290050).
4. Staff performing routine work are located in Albuquerque, New Mexico. Staff performing reclamation work are located in the Eastern United States.

A complete description of assumptions has been provided with the tables and estimates submitted as **Attachments A** and **B** to this letter.

The cost estimates in this submittal were prepared by RAML staff and by contractors familiar with the site and the work that needs to be completed.

Summary of Costs

RAML estimates that the remaining reclamation cost for the Ambrosia Lake facility is **\$13,958,078**. A breakdown of costs by the major categories described in NUREG-1620 Appendix C is provided in **Table 1**. The increase in cost from RAML’s June 2020 surety estimate (\$6,541,725) is primarily a result of newly scoped reclamation costs related to windblown tailings material retrieval and construction of a new byproduct material repository.

Table 1. Summary of remaining reclamation costs.

Cost	NUREG-1620 Section
\$4,103,091	(I) Facility Decommissioning
\$1,223,862	(II) Ground-Water Cleanup & Well Decommissioning
\$1,982,030	(III) Radiological Survey and Monitoring
\$3,788,804	(IV) Project Management Costs & Miscellaneous
\$0	(V) Labor and Equipment Overhead, Contractor Profit
\$1,039,672	(VI) Long-Term Surveillance Fee
\$1,820,619	(VII) Contingency
\$0	(VIII) Annual Adjustments
\$13,958,078	TOTAL

¹ One example of a non-applicable NUREG-1620 line item is funding for ground water treatment, because the Ambrosia Lake facility has approved alternate concentration limits and does not treat groundwater.

² As defined in 10 CFR 40.4

Detailed cost breakdowns for each of the line items in **Table 1**, are provided as **Attachments A** and **B** to this letter.

RAML currently retains a financial surety instrument in the amount of \$16,000,000. RAML requests approval to retain the financial surety instrument that is currently in place.

If you have any questions or require additional information, please contact me at (916) 947-7637 or by email at Sandra.Ross@bhp.com.

Respectfully submitted,
Rio Algom Mining, LLC



Sandra L. Ross, P.G.
Site Manager

Attachment A – Summary tables for line items in NUREG-1620 Appendix C

Attachment B – NUREG-1620 line item cost estimates

cc: NRC Document Control

Attachment A – Summary tables for line items in NUREG-1620 Appendix C

Attachment B – NUREG-1620 line item cost estimates