

Public Participation Summary

**License Renewal for
Rio Algom Mining, LLC
Former Lisbon Valley Mill
San Juan County, Utah**

Radioactive Material License No. UT1900481

February 8, 2017

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Public Comments

Sarah Fields, Program Director, Uranium Watch

ATTACHMENTS

Attachment 1 Public Comments for the Rio Algom License Renewal

ACRONYMS AND ABBREVIATIONS

AEA	Atomic Energy Act
ALARA	As Low As Reasonably Achievable
BAT	Best Available Technology
CFR	Code of Federal Regulations
cm	Centimeter
Director	Director of the Utah Division of Waste Management and Radiation Control
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DWMRC	Utah Division of Waste Management and Radiation Control
EPA	U.S. Environmental Protection Agency
km	Kilometer
LRA	License Renewal Application
LTI	Lower Tailings Impoundment
MDA	Minimum Detectable Activity
millirem	One Thousandth of One Roentgen Equivalent Man
NRC	U.S. Nuclear Regulatory Commission
OSL	Optically Stimulated Luminescence
pCi	Picocurie; 10^{-12} curie
Permit	Ground Water Quality Discharge Permit No. UGW370004
rem	Roentgen Equivalent Man
Rio Algom	Rio Algom Mining, LLC
RML	Radioactive Materials License
RPP	Respiratory Protection Program
RSO	Radiation Safety Officer
RST	Radiation Safety Technician
RWP	Radiation Work Permit
SOP	Standard Operating Procedure
s	Second
TEDE	Total Effective Dose Equivalent
UAC	Utah Administrative Code
UTI	Upper Tailings Impoundment
U ₃ O ₈	Uranium Oxide
yd	Yard

Introduction

The purpose of this document is to summarize public comments received by the Utah Division of Waste Management and Radiation Control regarding the License Renewal for the Rio Algom Mining, LLC (Rio Algom) Uranium Mill facility in the Lisbon Valley, San Juan County, Utah. The public comment period started on November 28, 2016 and ended January 12, 2017. One set of written comments was received from the public during the comment period (see Attachment 1). A set of supplemental comments from the same individual was received on January 23, 2017, which was after the January 12, 2017 deadline. Therefore, the supplemental comments will not be accepted as part of the record and will not be responded to in this document.

The November 28, 2016 Public Notice provided an opportunity for the public to request a public hearing on December 8, 2016 for questions and answers relating to the renewal of the RML for the Licensee's Lisbon Valley Uranium Mill site. No request was made by the public for the public hearing. However, the Division did hold a public meeting in Moab, Utah to receive oral comments on January 5, 2017. However, no comments were received at that meeting. Each of the written comments received (with the exemption noted above) is listed below in italics, followed by the Division's response. The Division's responses have been numbered for reference purposes.

Comments from Ms. Sarah Fields submitted by email on January 12, 2017.

Below please find Uranium Watch's comments on the Renewal of the Radioactive Materials License UT1900481 for the Rio Algom Mining LLC's Lisbon Valley Uranium Mill, Lisbon Valley Road, San Juan County, Utah.

GENERAL COMMENTS

1. One of the issues with respect the Rio Algom Mill's License Renewal and associated issues is the length of time it takes to complete the License Renewal process. In this case, the License expired in January 2013. It has taken four years to get to the point of public comment on the Renewal. It is apparent that more funding for Division of Waste Management and Radiation Control (DWMRC, or Division) is needed to carry out its regulatory responsibilities in a timely manner.

2. Uranium Watch acknowledges and appreciates the many hours and detailed reviews by the DWMRC (and former Division of Radiation Control) staff of the License Renewal Application, Construction Completion Report, Groundwater Discharge Permit Application, Work Plans, responses to requests for additional information and other relevant documents, data, and information.

Division Response #1:

The Division agrees that it took a long time to renew this RML. However, there are many factors that can contribute to the length of time it takes to review a renewal application. Some of the factors, but not all, associated with this specific renewal are:

- Rio Algom missed the original deadline of December 31, 2012 to submit a renewal application. Rio Algom was cited in a February 8, 2013 Notice of Violation for this failure. Since there is radioactive material onsite in the form of mill tailings the RML could not be terminated. Therefore, the Division had to give Rio Algom the opportunity to put an license renewal application together;
- Rio Algom's original renewal application was incomplete. In a letter dated June 17, 2013, the Division allowed Rio Algom more time to redo the application and resubmit;
- Rio Algom changed its intention regarding the Lisbon Valley Mill site. Over a two to three year period, Rio Algom attempted to find a buyer for the property but failed to do so. It then decided to complete the reclamation work so the RML can be terminated and the site can be turned over to the DOE for long-term surveillance.

PROPOSED RENEWED LICENSE

3. The Proposed Renewed License, at License Condition 23, states:

23. The Licensee shall complete site reclamation in accordance with a reclamation plan reviewed and approved by the Director. The groundwater compliance monitoring plan shall be conducted as authorized by License Condition No. 30 in accordance with the following schedule.

A. To ensure timely compliance with target completion dates established in the Memorandum of Understanding with the Environmental Protection Agency (56 FR 55432, October 25, 1991), the Licensee shall verify that the placement of final radon barrier was designed and constructed to limit radon emissions to an average flux of no more than 20 pCi/m² sec above background prior to final closure of the mill site.

[Applicable UDRC Amendment: 1]

[Applicable to UDWMRC Amendment 6]

B. Reclamation, to ensure required longevity of the covered tailings and ground-water protection, shall be completed as expeditiously as is reasonably achievable, in accordance with the following target dates for completion:

(1) Placement of erosion protection as part of reclamation to comply with UAC R313-24 (10 CFR Part 40 Criterion 6 of Appendix A, incorporated by reference). (Currently under review by DWMRC.

(2) The Licensee has submitted and the Director has approved a hydrogeological work plan to develop ground-water corrective actions to meet

performance objectives. The Stipulation and Consent Agreement (May 9, 2016) and any subsequent agreements establish the target dates related to ground-water corrective actions.

3.1. The discussion at License Condition (LC) 23.A regarding timely compliance with the “target” completion dates should reflect the target dates established in the 1991 MOU (which the State of Utah was not a party to) and the amended dates approved by the Nuclear Regulatory Commission (NRC) and the Division. That reclamation milestone history should remain in the License.

Division Response #2:

The work associated with the target dates that were established by the NRC in the 1991 MOU and amended dates has been completed. Therefore, they are no longer applicable. Keeping them in the RML is not necessary. No changes to the RML will be made.

3.2. At LC 23, states that the “Licensee shall complete site reclamation in accordance with a reclamation plan reviewed and approved by the Director” and that the “Licensee shall verify that the placement of final radon barrier was designed and constructed to limit radon emissions to an average flux of no more than 20 pCi/m² sec above background prior to final closure of the mill site.”

The August 10, 2016, Division sent a letter to Rio Algom Mining LLC (RAML) regarding the Work Plan for the Lisbon Facility Cover Evaluation, addressing five unresolved conditions within the License. At Comments and Questions, License Condition 52(b) (page 2), the letter states: “The licensee shall submit for Executive Secretary review and approval data the affirm that the average depth of the stabilization layer below the evaporation ponds is equal to or greater than the average stabilization depth used in the modeling before constructing the remaining barrier.”

In that discussion, the Division staff indicates that there was evidence that the average thickness of one of the stabilization layers was less than the design thickness. The Division requested that the RAMC reevaluate the as-built condition of the radon barrier within the Upper Evaporation Cells/Upper Tailings Impoundment (UEC/ UTI). At License Condition 52(D) (page 3) and License Condition 52(F).10 (page 3-5), and License Condition 52(F).12 (page 5), the Division request additional information to verify the design conditions with respect to radon attenuation and erosion protection for long-term stabilization. The Division anticipates the need for another verification that the radon emissions meet the 20 pCi/m²-sec standard.

Therefore, it does not appear that the Licensee has met the requirements in LC 23 and 23.A. If that is the case, then new milestones for meeting the reclamation standards and requirements must be established and complied with.

The applicable reclamation milestones should not have been removed from the license unless the Division made a formal determination that the final barrier was complete and constructed in accordance with the approved Reclamation Plan.

Division Response #3

Rio Algom performed radon flux measurements after the radon barrier was completed on the UTI in July 1991 and the LTI in October 1992 and submitted the results to the NRC. The milestone associated with that action was completed. Rio Algom is required by License Condition 23A to do an additional radon flux measurements in the UTI and LTI prior to beginning the transfer of the site to the DOE to demonstrate continued compliance with the 20pCi/m²-sec limit found in 10CFR40 Appendix A, Criterion 6. The reclamation milestones that are required have been completed and additional milestones are not needed. The next steps for the Lisbon Valley mill site are to reestablish the ACLs and begin the transfer of the site to the DOE. No changes to the RML will be made.

3.3. *LC 23.B(1) states with respect the establishment of additional reclamation milestones: “Placement of erosion protection as part of reclamation to comply with UAC R313-24 (10 CFR Part 40 Criterion 6 of Appendix A, incorporated by reference)” is currently under review by DWMRC. If this milestone is currently under review by the Division, the Division must identify the license amendment application that was submitted by RAML requesting the establishment of such milestone. (Note that the establishment of the milestones must be responsive to a license amendment request; the Division is not authorized to establish a milestone on its own without the licensee’s amendment request.) Further, the Environmental Protection Agency (EPA) requires that the NRC or NRC Agreement State notice the receipt of such an application for public comment, in addition to noticing the Division’s intent to amend the license to incorporate a new reclamation milestone into the license.¹*

Therefore, if RAML has submitted a request to amend their License to incorporate a new schedule for the completion of the placement of erosion protection, the Division must provide for public notice and comment when the schedule is proposed as a license amendment and when the Division proposes to amend the License to incorporate the new schedule.

¹ *“EPA expects the NRC and Agreement states to act consistently with their commitment in the MOU and provide for public notice and comment on proposals or requests to (1) incorporate radon tailings closure plans or other schedules for effecting emplacement of a permanent radon barrier into licenses and (2) amend the radon tailings closure schedules as necessary or appropriate for reasons of technological feasibility (including factors beyond the control of the licensees). Under the terms of the MOU, NRC should do so with notice timely published in the Federal Register. . . . EPA also expects the Agreement States to provide comparable opportunities for public participation pursuant to their existing authorities and procedures.”*

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59 Fed. Reg. 36280, 36285, col. 3; July 15, 1994.

<https://www.epa.gov/sites/production/files/2015-09/documents/subpartrecission.pdf>

Division Response #4:

The erosion protection layer was completed in November of 2009. Therefore, the milestone associated with this activity has been completed and new milestones are no longer needed. No changes to the RML will be made. See pictures of the completed erosion barrier on the UTI and LTI below:



Photograph #1: The front of the Lower Tailing Impoundment. Showing the completed erosion barrier.



Photograph #2: The top of the Lower Tailing Impoundment. Showing the completed erosion barrier.



Photograph #3: The front and top of the Upper Tailing Impoundment. Showing the completed erosion barrier.

3.4. *LC 23.B(2) states with respect additional target dates (that is, enforceable reclamation milestones): “The Stipulation and Consent Agreement (May 9, 2016) and any Division of subsequent agreements establish the target dates related to ground-water corrective actions.” The April 26, 2016, Signed Stipulation and Consent Agreement, regarding the December 3, 2015, Work Plan, states that RAML shall complete studies and activities according to the schedules in the Work Plan and addenda of December 3, 2015, January 12, 2016 and March 4, 2016.*

The Division must determine which target dates should be specifically incorporated into the license as reclamation milestones and provide notice and comment. Other specific Work Plan target dates should be part of other License Conditions. Target dates that are hidden away in other documents need to be brought forward into the License where they are readily available to the public and the Division staff.

Division Response #5:

The milestones associated with the groundwater investigation are documented in the Stipulated Consent Agreements that were signed by the Division and Rio Algom with the effective date of May 9, 2016. These agreements are referenced in the RML which makes them part of the RML. Therefore, the milestones are not required to be in the RML because they are incorporated by reference. No changes to the RML will be made.

3.5. At some time in the future the Licensee and the Division must establish milestones for the reclamation of the disturbed lands are associated with the ongoing groundwater investigation and any other future land disturbing activities at the Mill site.

Division Response #6:

The milestones associated with the groundwater investigation including reclamation of disturbed lands are documented in the Stipulated Consent Agreements that were signed by the Division and Rio Algom with the effective date of May 9, 2016. These agreements are referenced in the RML which makes them part of the RML. Therefore, the milestones are not required to be in the RML because they are incorporated by reference. No changes to the RML will be made.

TECHNICAL REVIEW AND ENVIRONMENTAL ASSESSMENT REPORT

4. The Technical Review and Environmental Assessment Report, at Section 2.12-Consolidation of Waste Facilities (page23), states:

The Uranium mill at this facility has been dismantled and placed into the tailings impoundments. The Lisbon Construction Completion Report describes how the facility was dismantled, cleaned up and consolidated into the tailings impoundments. DWMRC staff concluded that the information provided met all of the regulatory requirements for this review.

This section implies that the DWMRC has completed its review of the Construction Completion Report. This does not appear to be the case. As discussed above at 3.2, the Division does not appear to be satisfied that the Licensee has met all the regulatory requirements associated with the long-term disposal and care of the 11e.(2) byproduct material. This section should be amended to reflect the need for additional information and possibly a new determination regarding the radon emissions from the reclaimed tailings impoundments.

Division Response #7:

Section 2.12 of the Technical Review and Environmental Assessment Report states that the consolidation of waste facilities at the Lisbon Valley Mill site has been completed and no further action is required. No changes to the RML will be made.

5. *The Division has developed the Rio Algom Mining LLC, Lisbon Valley, Utah, 11e.(2) Radioactive Materials License UT1900481 Renewal Application, Technical Review and Environmental Assessment Report (TREA), November 2016, and made it part of the License Renewal package. The TREA is, apparently, an attempt by the Division to fulfill certain statutory and regulatory requirements associated with licenses for 11e.(2) byproduct material impoundments and operations that fall under Title II of the Uranium Mill Tailings Radiation Control Act, an amendment to the Atomic Energy Act of 1954 (AEA). The relevant section in Title II that applies to NRC Agreement States, as codified in statute at 42. U.S.C. Section 2021(o), states:*

(o) State compliance requirements: compliance with section 2113(b) of this title and health and environmental protection standards; procedures for licenses, rulemaking, and license impact analysis; amendment of agreements for transfer of State collected funds; proceedings duplication restriction; alternative requirements

(3) procedures which—

(A) in the case of licenses, provide procedures under State law which include—

(i) an opportunity, after public notice, for written comments and a public hearing, with a transcript,

(ii) an opportunity for cross examination, and

(iii) a written determination which is based upon findings included in such determination and upon the evidence presented during the public comment period and which is subject to judicial review;

(C) require for each license which has a significant impact on the human environment a written analysis (which shall be available to the public before the commencement of any such proceedings) of the impact of such license, including any activities conducted pursuant thereto, on the environment, which analysis shall include—

(i) an assessment of the radiological and nonradiological impacts to the public health of the activities to be conducted pursuant to such license;

(ii) an assessment of any impact on any waterway and groundwater resulting from such activities;

(iii) consideration of alternatives, including alternative sites and engineering methods, to the activities to be conducted pursuant to such license; and

(iv) consideration of the long-term impacts, including decommissioning, decontamination, and reclamation impacts, associated with activities to be

conducted pursuant to such license, including the management of any byproduct material, as defined by section 2014 (e)(2) of this title; and (D) prohibit any major construction activity with respect to such material prior to complying with the provisions of subparagraph (C). [Emphasis added.]

Throughout the TREA the Division refers to Applicable Utah and federal Rule(s) or Regulations, and makes determinations of whether or not the Licensee's submittals conform to the requirements in Utah Administrative Code R313-24-3(1)(a) regarding an Environmental Analysis. However, the DWMRC fails to conduct its own analysis of the environmental impacts, it just affirms analyses conducted by the Licensee. This is not a fulfillment of the requirements in the AEA.

Unfortunately, the cited Utah Administrative Rule does not make clear that a written environmental analysis is supposed to be developed by the Division, not just the licensee. The Division may rely on relevant data and information supplied by the licensee, but the Division must conduct its own analysis of the environmental impacts associated with the proposed licensing action. Section 2021(o)(3)(C)(i)-(iv) require that the analysis include, but not be limited to, specific assessments and considerations associated with environmental impacts.

The DWMRC has failed to fulfill the requirements of the AEA, 42 U.S.C. Section 2021(o)(3)(C)(i)-(iv), because the Division did not develop and make available for public comment an environmental analysis of the Lisbon Valley Uranium Mill License Renewal. Uranium Watch is very surprised and concerned by this development. The Division's interpretation of the AEA requirement for an environmental analysis is not acceptable.

Thank you for providing this opportunity to comment.

Sincerely,

*Sarah Fields
Program Director
sarah@uraniumwatch.org*

Division Response #8:

The Division disagrees with the commenter. The Technical Review and Environmental Assessment (TREA) Report that the Division wrote complies with the requirements in the Atomic Energy Act (42 U.S.C. Section 2021(o)(3)(C)) and UAC R313-24-3 that the commenter referenced above.

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- The Assessment of radiological and nonradiological that is required in (C)(i) is found in Sections 2.13; 2.14; 5.0 including subsection; and 7.0 including subsections of the TREA;
- The Assessment of impacts to water ways and groundwater that is required in (C)(ii) is found in Sections 2.8; 3.1.1; 3.1.2; 3.1.3; 5.7.13; 6.1 and 7.3.1;
- The Assessment of alternatives that is required in (C)(iii) is found in Section 9.0; and
- The consideration of long-term impacts that is required in (C)(iv) is found in Section 7.6.3.

It is true for technical and environmental assessments that the Division does rely on information provided by licensees. This is done because the licensees have the data and information that is needed to do the assessments. Neither the AEA nor R313-24-3 requires the Division to collect independent data or information. No changes to the RML will be made. See attached legal evaluation and analysis by the Utah Attorney General's Office regarding compatibility with the AEA.

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