September 15, 2000

Mr. William P. Goranson, Manager
Radiation Safety, Licensing & Regulatory Affairs
Rio Algom Mining Corp.
6305 Waterford Blvd. Suite 325
Oklahoma City, Oklahoma 73118

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING AMENDED NOVEMBER 15, 1999, PERFORMANCE BASED LICENSE APPLICATION

Dear Mr. Goranson:

The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its detailed technical review of Rio Algom Mining Corp.'s (RAMC's) performance based license application dated November 15, 1999.

Based on this ongoing review, the NRC staff has identified some additional deficiencies or omissions. The staff requests that RAMC provide the information requested in the enclosure to address these deficiencies or omissions. To support a timely review schedule, please provide the information within 30 days from the date of this letter. In accordance with 10 CFR 2.108(a), failure to respond to this request for additional information may be grounds for denial of the application.

While awaiting RAMC's response, the NRC staff will continue with its detailed technical review of RAMC's application. Please note that the staff's review may identify a need for still additional information or analyses to complete the requested licensing action. If a need for further information is identified, the NRC staff will notify RAMC in writing.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

If you have any questions on this matter, please contact John H. Lusher of my staff at 301-415-7694 or e-mail to jhl@nrc.gov. Thank you for your assistance.

Sincerely,
/RA/

Philip Ting, Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards

Docket No. 40-8964
License No. SUA-1548

cc: B. Ferdinand, RAMC
J. Wagner, WDEQ

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REQUEST FOR ADDITIONAL INFORMATION

CHAPTER 1. 0, PROPOSED ACTIVITIES

The licensee needs to further review its application to ensure that:

1. Information is in the current tense and not the past tense or place.

2. The requested production performance numbers of 3.5 million pounds of uranium oxide and 12,000 gallons per minute are stated in the application.

3. Random characters are removed.

4. Removal of restored area is contingent upon approval of the NRC and WDEQ.

CHAPTER 2.0, SITE CHARACTERISTICS

2.2 Use of Adjacent Lands and Waters

The licensee needs to review this area of the application and provide the probable ground water recharge rate.

2.3 Population Distribution

The licensee needs to update its population distribution information to at least the 1990 census data.

2.4 Regional Historic, Archaeological, Architectural, Scenic, Cultural and Natural Landmarks

The licensee needs to protect any archaeological resource information as required under 43 CFR §7.18 “Confidentiality of archaeological resource information,” the licensee should indicate which information /record is exempt from public disclosure under 10 CFR §9.17(a)(3).

2.5 Meteorology

The licensee needs to indicate the age of all of the meteorological data and bring it up to the most current date if possible.

2.6 Geology and Seismology

The licensee needs to verify the date range of the earthquake data.

2.7 Hydrology

None

Enclosure

2.8 Ecology

The licensee needs to indicate date(s) when the last wildlife survey(s) were completed, since they should have been performed within the last 5 years.

CHAPTER 3, DESCRIPTION OF FACILITY

3.1 Proposed Facility

The licensee needs to make corrections in this chapter to bring it to the present tense. This is a renewal application and the facility is no longer proposed, it is operational.

The licensee needs to correct the conflicting statement on page 3-5 - "one overlying and one underlying monitor well" vs "one for each four acres of wellfield area. Delete reference to only one overlying/underlying well.

The licensee needs to ensure on page 3-10, that there are cement returns for all wells. Topping off from the surface creates bridging and leaves voids in the annular space.

3.2 Recovery Plant Equipment

The licensee needs to further clarify on page 3-20, how yellowcake and chemicals will be stored.

3.3 Instrumentation

The licensee needs to further describe the plant operations, how the plant is controlled, what the alarming conditions might be, and how they will be corrected, e.g., through alarm response procedures which are included in the standard operating procedures (SOPs).

CHAPTER 4.0 EFFLUENT CONTROL SYSTEMS

4.1 Gaseous and airborne particulates

The licensee needs to refer to its commercial operational experience in this chapter.

The licensee needs to further explain the dryer system controls, and what actions are to be taken on high temperature and low vacuum alarms to prevent the release of uranium product to the environment.

4.2 Liquids and Solids

The licensee needs to correct the plant, satellite IX, and waste stream flow rates to correspond to the requested new maximum flow rate of 12,000 gallons per minute.

4.5 Solar Evaporation Ponds

The licensee needs to describe the current evaporation ponds that are in use and clearly indicate that the other larger evaporation ponds are proposed and will be built as needed. As stated in the application, one would think that there are several large evaporation ponds at the site. Additionally, the licensee needs to describe its deep disposal well system.

On page 4-10, the licensee needs to ensure that the correct figure is referenced.

Tables in chapter 4, need to be brought up to date to include current commercial operational data.

CHAPTER 5. OPERATIONAL/ENVIRONMENTAL MONITORING

The licensee needs to bring the tables in Chapter 5, up to date with the current operational data. Table 5-2 data ends at the second quarter of 1987.

CHAPTER 6. RECLAMATION PLAN

6.1 Plans and Schedules for Groundwater Quality Restoration

None

6.2 Plans and Schedules for Reclaiming Disturbed Lands

None

6.3 Procedures for Removing and Disposing of Structures and Equipment

None

6.4 Procedures for Conducting Postreclamation and Decommissioning Surveys

None

6.5 Financial Assessment for Groundwater Restoration, Decommissioning, Reclamation, Waste Disposal, and Monitoring

None

CHAPTER 7. ENVIRONMENTAL EFFECTS

7.1 Site Preparation and Construction

None

7.2 Effects of Operation

None

7.3 Radiological Effects

None

7.4 Non-radiological Effects

None

7.6 Economic and Social Effects of Construction and Operation

None

CHAPTER 8. ALTERNATIVES TO THE PROPOSED ACTION

None

CHAPTER 9 MANAGEMENT ORGANIZATION AND ADMINISTRATIVE PROCEDURES

9.1 Management Organization

None

9.2 Management Qualifications

None

9.4 Management Control Program

The licensee needs to explain the current methods of management control including the SERP function.

9.5 Employee Training

None

9.8 Bioassay Program

None

9.9 Exposure Calculations

None

9.11 Facility Radiation Surveys

None

9.12 Management Audit and Inspection Program

The licensee needs to ensure that the management audit, inspection and spill notification programs meet the following criteria:

(1) The proposed frequencies, types, and scopes of reviews and inspections; action levels; spill notification procedures; and corrective action measures are determined to be acceptable to implement the proposed controls.

Acceptable programs for quarterly inspection of embankment systems are described in Regulatory Guide 3.11, Section 4 (U.S. Nuclear Regulatory Commission, 1977).

Acceptable programs for annual ALARA audits are described in Regulatory Guide 8.31, Sections 1.2 and 2.3 (U.S. Nuclear Regulatory Commission, 1983).

(2) For spill reporting, the requirements of 10 CFR Part 20, Subpart M and 10 CFR 40.60 are met.

(3) A detailed review of record keeping and retention procedures is conducted using Section 5.3.2 of the SRP.

The licensee needs to describe and ensure that the QA program meets the following criteria:

(1) The QA plan has been established and applied to all radiological, effluent, and environmental programs. The proposed QA plan should be consistent with guidance provided in Regulatory Guide 4.14, Section 6 (U.S. Nuclear Regulatory Commission, 1980) and Regulatory Guide 4.15 (U.S. Nuclear Regulatory Commission, 1979).

(2) All reporting and record keeping will be done in conformance with the criteria presented in Section 5.3.2 of this SRP.

Note that under the existing 10 CFR Part 20 requirements, a licensee must retain survey and calibration records for 3 years instead of the 2 years mentioned in Regulatory Guide 4.15 (U.S. Nuclear Regulatory Commission, 1979). Furthermore, existing 10 CFR Part 20 requirements have been updated to include a requirement that all licensees maintain records used to demonstrate compliance and evaluate dose, intake, and releases to the environment until NRC terminates the license.

(3) For license renewal applications, the historical QA program results are included through the most recent reporting period preceding the submittal of the

application. The effectiveness of the historical program is discussed with regard to all applicable 10 CFR Part 20 regulatory requirements. Long-term trends are discussed, and any short-term deviations from the long-term trend are explained.

The licensee needs to address the record keeping requirements of 10 CFR part 20, Subpart L, 10 CFR 40.61(d) and (e), which also defines the requirements for 10 CFR 40.36(f).

The licensee needs to addressed the 10 CFR part 20, Subpart I, security of material requirements.

The licensee needs to provide, the historical record of site operations, which provides valuable information for evaluating the licensing actions. Following are specific areas where a compliance history or record of site operations and changes should be provided for review:

- Amendments and changes to operating practices or procedures;
- License violations identified during U.S. Nuclear Regulatory Commission or Agreement State site inspections;
- Excursions and resultant cleanup histories or status;
- Exceedences of any radiation exposure, contamination, or release limits;
- Exceedences of any nonradiation contaminant exposure or release limits;
- Changes to any site characterization information important to the evaluation of exposure pathways and doses; including site location and layout; uses of adjacent lands and waters; population distributions; meteorology; the geologic or hydrologic setting; ecology; background radiological or nonradiological characteristics; and other environmental features;
- Effects of site operations including data on radiological and nonradiological effects, accidents, and the economic and social effects of operations;
- Changes to factors that may cause reconsideration of alternatives to the proposed action; and
- Changes to the economic costs and benefits for the facility since the last application.