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FROM: DUE: 10/20/00

EDO CONTROL: G20000484  
DOC DT: 10/02/00  
FINAL REPLY:

William Paul Goranson  
Rio Algom Mining Corporation

TO:

Chairman Meserve

FOR SIGNATURE OF :

\*\* PRI \*\*

CRC NO: 00-0625

Chairman

DESC:

NRC Decisions on Staff Reports SECY-99-013, 99-011  
and 99-277

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*Date Printed: Oct 10, 2000 16:04*

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**PAPER NUMBER:** LTR-00-0625 **LOGGING DATE:** 10/10/2000  
**ACTION OFFICE:** EDO  
**AUTHOR:** WILLIAM GORANSON  
**AFFILIATION:** OK  
**ADDRESSEE:** RICHARD MESERVE  
**SUBJECT:** NUCLEAR REGULATORY COMMISSION DECISIONS ON STAFF REPORTS SECY 99 - 013, 011, AND 277  
**ACTION:** Signature of Chairman  
**DISTRIBUTION:** RF, SECY TO ACK  
**LETTER DATE:** 10/02/2000  
**ACKNOWLEDGED:** No  
**SPECIAL HANDLING:**  
**NOTES:** COMMISSION REVIEW....#4162  
**FILE LOCATION:** ADAMS  
**DATE DUE:** 10/24/2000 **DATE SIGNED:**

4162

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# Rio Algom

October 2, 2000

CERTIFIED MAIL      Z 579 114 131  
RETURN RECEIPT REQUESTED

The Honorable Richard Meserve  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

**Subject:      Nuclear Regulatory Commission decisions on staff reports  
                 SECY 99-013, 99-011, and 99-277**

Dear Chairman Meserve:

Rio Algom Mining Corp. would like to respond to the Commission's decisions regarding the above referenced staff reports. Rio Algom Mining Corp. (RAMC) is a uranium mining company that operates three uranium recovery facilities. One facility is located in Wyoming is an in-situ leach uranium mine, and RAMC has two conventional mill facilities located in New Mexico, currently on standby, and Utah, undergoing decommissioning. Consequently, the impacts of the Commission decisions have a significant effect on the way RAMC conducts business.

With respect to SECY-99-011, "Draft Rulemaking Plan: Domestic Licensing of Uranium and Thorium Recovery Facilities - Proposed New 10 CFR §41", RAMC participated in the public scoping meetings on the proposed rulemaking. In those meetings, RAMC stated that it was not opposed to the concept of a separate part of the regulations dedicated to uranium recovery. However, information regarding the context of the rules has been lacking and the cost to the industry was not made clear enough to provide full support for the concept. Those same concerns arise upon review of the written commentary for the commission decisions. It is apparent that the individual licensees will be charged for the cost of the rulemaking, and it is unclear as to how these costs will be spread to the licensees. Additionally, the uranium recovery industry has been forced to pay increasingly higher Part 170 and 171 fees while the price of the industries commodity, uranium, continues to have market prices at all time lows. Thus, the economic impact of regulation is becoming increasingly a depressing factor on the financial viability of the operating projects. It is conceivable that the number of licensees will continue to decline due to depressed market conditions that, by the time the new regulations will be promulgated, there may be no operating uranium recovery facilities remaining to regulate.

RAMC has assisted the NRC staff in this rulemaking by providing them technical information and providing tours of its ISL facility in Wyoming. RAMC will continue to provide any assistance it can practically provide to the staff during this process to expedite and maintain as low costs possible. However, there remains a concern that during the rulemaking process, the Part 41 rulemaking will significantly add to the cost

of regulation for each licensee. Without a viable industry, there may very few licensees to benefit from this new regulation.

The Commission decision on SECY-99-013, "Recommendations on Ways to Improve the Efficiency of NRC Regulations at In Situ Leach Uranium Recovery Facilities", provides an entirely different concern for RAMC. That concern is based two issues that were not raised in either the staff report or the Commissioner's commentaries on the decisions. The first issue is the adequacy of State regulation and the effects of that regulation concurrent with NRC regulation. Based on the Commissioners' comments regarding the dual regulation of ISL operations, it appears that the Commission does not fully understand the regulatory structure that regulates the ISL industry, including specifically, wellfield operations. Several Commissioners commented on the relationship between NRC's regulatory program and the underground injection control (UIC) program of "EPA or EPA authorized states." It must be recognized that regulation of ISL wellfields extends far beyond the requirements of the EPA's UIC program as there are separate state regulations specific to ISL mining, control of wellfield operations and groundwater restoration. This apparent lack of understanding may have resulted from the extent and breadth of the state regulatory framework not being fully communicated by NRC Staff in the SECY papers. RAMC assumes that despite this apparent confusion over the regulatory structure, the Commission is interested in reducing the duplicative regulation that currently exists. Dual jurisdiction over wellfields significantly increases the costs for uranium producers and is truly an inefficient use of both licensee and NRC resources. Dual jurisdiction poses similar problems for state agencies responsible for regulating ISL mining. These states consume precious resources working with the licensees and NRC to resolve conflicting license and permit requirements. Given the extremely depressed price of uranium, production is only really taking place due to existing contracts, most of which are due to expire in the near term. Therefore, RAMC is supportive of actions that reduce dual jurisdiction, including MOUs with other agencies, if the MOUs can be negotiated in a quick and cost-efficient manner. RAMC believes that States such as Wyoming and Nebraska have UIC programs that are adequately developed and experienced to regulate ISL wellfields in an effective and efficient manner.

The second issue that concerns RAMC is the Commission's decision to treat all ISL effluents as 11e.(2) byproduct material. RAMC believes that the direction provided to the staff in the ISL decision to regulate all waste streams associated with ISL uranium mining as 11e.(2) byproduct material has other serious, unintended consequences. While it appears from the voting records of the individual Commissioners that they truly believe that this treatment of ISL waste streams will produce more efficient and consistent regulations, unfortunately the opposite is true. In fact, treating all effluents at ISL facilities as 11e.(2) byproduct material generates a whole new set of problems and inconsistencies. For example, the comments by the Commissioners in the voting record describe restoration fluids as 11e.(2) byproduct material, which raises concerns as to the current exclusion in the definition of byproduct material in 10 CFR §40.4 regarding depleted ore bodies. It is difficult to reconcile the Commissioners' decision that restoration fluids produced from restoring depleted ore bodies, which the regulations specifically state do not constitute 11e.(2) byproduct material, are somehow themselves 11e.(2) byproduct material. Presumably, the only basis for such a

conclusion is that some uranium continues to be removed in ion exchange vessels from restoration fluids even though the removal of the uranium is not the "primary" purpose of the groundwater restoration operations.

If the aforementioned rationale is the basis for finding restoration fluids to be 11e.(2) byproduct material, consider the following. Frequently, underground uranium mines have to pump excess mine drainage to de-water the mines so that the miners can function. The ventilation required for the miners to function effectively and safely (e.g., radon removal) brings oxygen into contact with mine water and assists in the dissolution of uranium from the ore body. As a result, excess mine drainage often contains uranium concentrations that exceed discharge requirements under Clean Water Act National Pollutant Discharge Elimination Standards (NPDES) regulations, and additional treatment is required such as an ion exchange (IX) vessel to remove the uranium and a radium/barium settlement pond to remove excess radium. In the case of uranium, the ion exchange resin is stripped to concentrate the uranium for further processing as "refined and processed ore." (See, 57 Fed. Reg. 20532.) In the past, unless the IX vessel was tied into the mill circuit by license amendment, the discharges and sludges (i.e., radium/barium) from this treatment of mine waters have not been regulated by NRC as 11e.(2) byproduct material. This was because the discharges and sludges were not production effluent or sludges from the extraction of source material primarily for its source material content but rather were discharges and sludges from efforts to dewater the mine and to satisfy EPA NPDES release limits. In other words, the removal of source material under such circumstances was considered incidental to the treatment of the mine water for discharge. Indeed, under these circumstances, excess mine drainage that is treated to remove uranium and radium to satisfy NPDES purposes is similar to treating restoration fluids at an ISL facility to remove uranium in an IX vessel and radium in a radium/barium settlement pond to satisfy NPDES limits. In both cases, oxygen (that is not intentionally added to the water as in ISL production operations) in water dissolves uranium that is pumped to the surface, removed in an IX unit and the excess fluids must be disposed of frequently under an NPDES permit. It is inconsistent with NRC practices well prior to 1995 to deem such discharges 11e.(2) byproduct material.

Another example of a problem created by the decision to broaden the types of effluents that are 11e.(2) byproduct material is the potential impact on groundwater corrective action programs. Quivira Mining Co., a wholly owned subsidiary of RAMC, is required by license condition to operate a groundwater corrective action programs that uses treated mine water discharged from the water treatment plant to seep into the alluvium and sweep the tailings seepage into an interceptor trench for collection and disposal in solar evaporation ponds. The minewater used for this action would be treated by ion exchange to remove the uranium to discharge limits under an NPDES permit. Under the most recent Commissioners' decisions, these discharges would be considered production effluents, which cannot be released pursuant to an NPDES permit. And even if releasable, would require increased treatment to meet lower discharge limits (2 mg/L to 0.44 mg/L) thereby significantly increasing the cost of the groundwater corrective action program. In fact, NRC has relatively recently taken the opposite position. In 1998, NRC conducted an inspection of Quivira's facility, and the inspector alleged that the treated minewater discharge was regulated material and the

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discharges were in violation of 10 CFR § Appendix B limits. Quivira challenged this allegation, and NRC agreed that the discharges were not regulated since the source material extraction was incidental to the treatment of the minewater before discharge. Based on the current decisions by the Commissioners, RAMC is concerned that it will be forced into a violation of NPDES regulations and 10 C.F.R. §20, Appendix B limits for activities that in the past were not considered to be NRC regulated activities. Therefore, RAMC is asking the Commission for a further clarification of the decision to classify all discharges associated directly and indirectly with the extraction of source material as 11(e)2 byproduct material.

RAMC agrees with the commissions decision regarding SECY-99-277, "Concurrent Jurisdiction of Non-Radiological Hazards of Uranium Mill Tailings". As stated earlier in this letter, RAMC has facilities in three states, all of which are non-Agreement States. One of those states, Utah, is on the pathway to become an Agreement State for the regulation of uranium recovery facilities, however, the states of New Mexico and Wyoming are not likely to become Agreement States in the near future. In New Mexico, Quivira Mining Co., an RAMC subsidiary, maintains the Ambrosia Lake Mill Facility. As part of the groundwater corrective action program, Quivira holds two groundwater discharge permits with the State of New Mexico to regulate the non-radiological constituents of 11(e)2 byproduct material, (i.e. tailings seepage). The Commission decision on concurrent jurisdiction pre-empts the State jurisdiction, but there is no guidance on what steps are to be taken by the licensee in this change of jurisdiction. As one would expect, jurisdiction is easier to obtain than relinquish, and as a licensee that is potentially caught between two competing levels of government, any help by the NRC in clarifying this decision to the Non-Agreement States would help expedite closure activities and timetables.

RAMC appreciates the efforts by the Commission in attempting to resolve some of the outstanding issues facing both the agency and the industry. If you have any questions, please call me at (405) 858-4807.

Sincerely,



William Paul Goranson, P.E.  
Manager, Radiation Safety, Regulatory  
Compliance and Licensing

CC: The Honorable Greta Dicus  
The Honorable Nils J. Diaz  
The Honorable Edward McGaffigan, Jr.  
The Honorable Jeffrey S. Merrifield  
Dr. Donald A. Cool, NRC  
Mr. Michael F. Weber, NRC  
Mr. Daniel M. Gillen, NRC  
Ms. Katie Sweeney, NMA  
Mr. Marvin Freeman, RAMC