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L. C. Rouse, Chief, Fuel Fabrication ^{4^m}
and Reprocessing Branch, L

ACID LEACH CIRCUIT, ATLAS MINERALS, INC., MOAB, UTAH - DOCKET NO. 40-3453

The Atlas Minerals, Inc. has informed us of their intention to replace the acid leach circuit which was destroyed by fire in 1968. Their preliminary plans were discussed with them in a meeting on June 27, 1973. Atlas was represented by R. F. Hollis, W. T. Badger, Kent Olson, and Gordon Swanby (Stearns-Roger Co.). Fuels and Materials staff members present were R. B. Chitwood, F. Swanberg, Jr., G. Kligfield, J. F. Kendig, J. E. Rothfleisch, and W. Burkhardt. A subsequent visit to the plant site on July 24, 1973 was made by Fuels and Materials staff members, H. Lowenberg and W. Burkhardt.

Atlas has been operating the Moab mill facility for about 17 years. Until late in 1968, they had two parallel uranium leaching circuits, one alkaline and one acid. At that time, the acid leach system was destroyed by fire, but Atlas had sufficient stocks of suitable ore to allow them to continue operating until now with only the alkaline leach circuit. The Atlas supplies of ore of that kind have now been essentially depleted and the company wants to resume processing ore which will require the use of an acid circuit. The products of their acid leach milling operation will be uranium oxide and vanadium oxide. This will require construction of an acid leach circuit to replace the one lost in the fire. The replacement facility will employ the same unit operations as originally licensed with some modifications in technology to improve yields and reduce wastes. The description of the proposed acid leach process flowsheet, modifications and equipment is incorporated in the Atlas application for renewal of their license and thus amends the description of the previous process. The result will be a modern facility with less potential for adverse environmental impact than that of either the previous systems, pre-1968, or the present 17 year-old system.

A preliminary review has been made on the Environmental Report prepared and submitted by Atlas. Although some additional details may be required for a complete review, an assessment of the existing information

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provides reasonable assurance that there will not be a significant adverse environmental impact through addition of the proposed acid leach circuit at the Atlas Mill. A detailed review will be prepared prior to operation of the proposed system.

The request by Atlas for specific exemption from the requirements of 10 CFR 40.31(f) and 40.32(e) has been reviewed considering the following factors:

1. Whether commencement of construction will give rise to a significant adverse impact on the environment and the nature and extent of such impact, if any.

Existing plant facilities are already dedicated and authorized for processing large quantities of uranium ore. The previous location of the acid leach circuit with the exception of some piping, pumps and tankage only slightly damaged in the fire has been cleared and is available for reconstruction. The remaining damaged components will be removed to accommodate the new equipment. The proposed construction involves no new commitment of land not previously dedicated to processing of uranium ores. The techniques of construction will be essentially no different from those previously used. The flowsheet selected for use will have an effluent of 100 gpm which will be disposed of by evaporation. This compares with a 1200 gpm effluent to the Colorado River with the previous operation. It is unlikely that the proposed construction would result in any significant adverse environmental effect.

2. Whether redress of any adverse environmental impact from construction can reasonably be effected should redress be necessary.

As indicated above, the type of construction requested does not involve any further clearing of land, any appreciable excavation, or other activities which would lead to a significant environmental impact during the construction phase.

The proposed construction represents only a small fraction of the entire milling complex and, as such, its incremental addition would impose no added burden to mitigating any adverse environmental impact should correction be required.

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3. Whether commencement of construction would foreclose subsequent adoption of alternatives.

The proposed design of the acid leach circuit is sufficiently flexible so that reasonable changes can be made should such changes be necessary. Any likely changes would be in the nature of add-on equipment so that conduct of the requested activities would not make adoption of any such alternatives more expensive as it is highly unlikely that abandonment of the site would be called for.

Atlas has stated that should their present design not attain the objective of no direct discharge of liquid and solid effluents to the Colorado River they will provide the necessary additional equipment to assure the proposed effluent control.

The detailed environmental review will include evaluation of the potential effects of any seepage from the tailings pond and the licensee's monitoring program. The licensee has stated that if seepage from the pond is determined to be unacceptable, a new pond with a sealed base could be constructed.

4. The effect of delay in the commencement of construction on the public interest.

Ore reserves that can be processed in existing equipment will be depleted in mid-October 1973. Delay in construction of the acid system will require the licensee to reduce his work force of 72 to 22 until construction can commence. Atlas Minerals employs 20% of the people directly employed in the mining industry in Grand County. The community of Moab now has a declining civilian work force resulting from lack of business; the unemployment level is approximately 10%. Delay would result in an economic hardship for the local community and the Atlas Mineral Company. The company estimates it will cost \$48,000 per month to maintain the mill in standby. An exemption as requested will allow the licensee to utilize their current work force for the proposed construction. The conclusion then is that there is a notable potential for an adverse effect from delaying construction of the addition.

In summary, it appears that:

1. The proposed acid leach circuit would be constructed on the Moab, Utah site which is already committed as a uranium mill facility. The proposed addition is a replacement of that destroyed by fire in 1968. Technological improvements will be incorporated to reduce the effluent by a factor of more than ten; in fact, no effluent will be sent to the Colorado River, a significant environmental improvement;

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2. Redress of any adverse environmental impact from the construction could be effected if necessary;
3. Commencement of construction would not foreclose subsequent adoption of alternatives to the selected acid leach circuit design such as provisions for liquid-solid separation and retention of liquids and solids.
4. Delay in construction would have an adverse economic impact on the local community and Atlas Minerals Corp.

Balancing these factors, it is concluded that an exemption from the Paragraphs 40.31(f) and 40.32(e) should be granted permitting Atlas to proceed with construction of the proposed acid leach facility.

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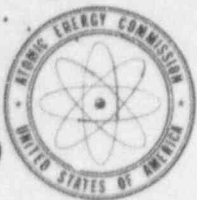
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UNITED STATES
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

To: L. C. Rouse

From: J. Burkhardt

Note to File

Thru: L. C. Rouse

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equipment. it is highly unlikely that a pond of this size would be called for.

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