URANIUM RESOURCES INC.

MARK S. PELIZZA
Environmental Manager

Return to:
396-55

August 12, 1982

Mr. John J. Linehan, Section
Leader
Operating Facilities Section I
Uranium Recovery Licensing Branch
United States Nuclear Regulatory
Commission
4915 Eastern Avenue
Silver Springs, MD 20910

Dear Mr. Linehan:

The following is URI's response to your letter of July 23, 1982.

Item I: Concern over malfunctioning flow meters.

As documented in the first quarterly report, URI has experienced problems with the flow meters utilized at the project. The problem results from a number of factors. It was initially suspected that calcium buildup was the primary cause of meter failure; however, pursuant to the telephone call on August 6, 1982, from Fred Ross and Kristen Westbrook of your staff, URI felt the problem should be investigated further. Such further investigation disclosed a much more significant cause of meter error: CO_2 gas.

CO_2 is added to the injection stream as a liquid. Because of the drop in pressure, the CO_2 is converted from liquid to gas after entering the injection stream. One pound of CO_2 liquid will expand to 8.43 $ft.^3$, or 63.06 gallons. CO_2 addition, up until April 15, was 450 pounds per week, which would account for 4,200 gallons of gas at atmospheric pressure. The meter problems result from measuring the injection rate after the addition of CO_2 gas and recording the volume of fluid and gas injected as though the volume were fluid alone.

Reflecting on this design, URI acknowledges that metering of injection fluid should have been performed prior to CO_2

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addition. URI will submit a revised Fluid Balance Report in the next quarterly report, corrected for CO_2 gas addition for the period through April 15, 1982. The next quarterly report will also contain corrected figures for April and May bleed rates.

URI is presently in the restoration phase of the project and therefore not adding CO_2 gas. The meters (the same used in production) are now working correctly, accurately measuring bleed. It is URI's conclusion, therefore, that CO_2 was the continuing source of meter error, while calcium carbonate buildup was the cause for occasional meter failure. As the meters are now functioning properly, there is no need for a design alteration; however, URI will monitor the situation closely.

Related to this discussion is NRC's statement, "In order to satisfy License Condition No. 20 and ensure environmentally safe operations, immediate action is needed to implement accurate flow measuring on each injection and production well." URI disagrees with this statement.

Within the original permit application (pages attached), URI proposes four techniques by which to determine the adequacy of the bleed; these are as follows:

(1) Use of in-line totalizers
(2) Continuous water level monitoring
(3) Discontinuous water level monitoring
(4) Water quality sampling and analysis

Even though technique (1) above is not adequate to measure the bleed volume, techniques (3) and (4) certainly have proved effective in preventing excursions. Water level measurements documented a definite sink. Also, water quality measurements documented no migration of lixiviant. In addition to planned monitoring techniques, the 140,000 gallons of overproduction were verified by the volume of fluid in the evaporation ponds.

It is our conclusion that, based upon the multiple safequards implemented at the project, environmentally safe operations have been conducted.

Item II: Radiological Environmental Monitoring

The required information, as requested in Table 5.2.01 of the EIA, is within Attachment I.

Item III: As Built Pond Specifications

As discussed during the July 6, 1982 telephone conversation, between K. Westbrook and myself, the ponds were built according to the design originally submitted; however, to complete our file, "as built plans" are within Attachment II. These plans are, in fact, the same as the original design plan.

If you have further questions pertaining to this response, please contact me.

Sincerely,

URANIUM RESOURCES INC.

Mark S. Pelizza
Environmental Manager

MSP:lac
Enc.

cc: Harry Anthony, URI

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ATTACHMENT II

AS BUILT POND SPECIFICATIONS

DOCUMENT/ PAGE PULLED

ANO. 8210180356

NO. OF PAGES 1

REASON

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