



INTERNATIONAL
URANIUM (USA)
CORPORATION

40-8681

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September 11, 1998

Via Federal Express

Mr. Joseph Holonich
U.S. Nuclear Regulatory Commission
Uranium Recovery Branch
Office of Nuclear Materials Safety & Safeguards
Mail Stop T7J9
Two White Flint North
11545 Rockville Pike
Rockville, MD 20852-2738

Dear Mr. Holonich:

Enclosed are three copies of International Uranium (USA) Corporation's ("IUSA") Rock Sampling and Testing Program. IUSA committed to providing the details of this program, and implementing the program in our response to Question No. 18 of the NRC's July 17, 1998 request for information. A copy of the Program is also being sent to the Center for Nuclear Waste Regulatory Analysis.

We would appreciate receiving any comments you may have on the Program. We will begin gathering samples within the next two weeks in order to meet the schedule committed to in our August 28 transmittal.

Very truly yours,

Harold R. Roberts
Executive Vice President

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HRR/pl
Enclosures

cc: Mr. Patrick MacKin (2 copies)
Center for Nuclear Waste Regulatory Analysis
6220 Culebra Road
San Antonio, TX 78228-0510

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Drawing in Central Files

Rock Sampling and Testing Program – White Mesa Mill

The purpose of this Rock Sampling and Testing Program is to determine whether the sandstone rock stockpiled at the White Mesa Mill has the qualities to be utilized as erosion protection material for the reclamation of the tailings ponds. The testing performed in this program will follow, as much as is practical, the guidelines for rock testing as presented in NUREG/CR 2642, (Long-Term Survivability of Riprap for Armoring Uranium Mill Tailings and Covers: A Literature Review).

Sampling

Sampling will take place on each of three stockpiles of random fill (designated RF-2, RF-3 and RF-6 on Exhibit A) that contain oversize rock which is planned to be used for rock armor on the reclaimed tailings cells. A total of four samples of the oversized material will be taken from each stockpile. Samples will be taken from: 1) material exposed at the base of one of the slopes, 2) material exposed at the top of a slope, 3) material from a backhoe pit excavated into the top of the pile to test unexposed rock and 4) material from a random test pit which will be determined by the engineer at the time of the sampling. Sample locations will be located on a site map and sample descriptions will be recorded and maintained in the facility's records. A total of twelve samples from the three stockpiles will be submitted for durability testing.

Testing

Samples will be packaged and shipped to a certified commercial testing laboratory for durability testing. One representative rock type sample from each stockpile will be submitted for petrographic analysis (ASTM C295-90). Petrographic results will be available three weeks after samples are submitted.

The durability samples will be initially tested to determine the specific gravity and absorption (ASTM C97-97) of the rock. Further testing will take place on the samples that receive a score over 40% of the maximum possible based on the NRC scoring criteria referenced below. If the initial tests show that the sample meets or exceeds the minimum scoring, a sulfate soundness test (ASTM C88-90) and a LA abrasion test (ASTM C535-96e1) will be run. The results of the durability testing will be available two weeks after submittal of the sample.

Based on the results of these tests, scoring will be determined for the rock following the criteria and methods outlined in the NRC Staff Technical Position - Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites (August, 1990). The scoring results will determine whether the rock is durable enough to be used. If the rock is acceptable then the scoring will be used to determine the oversize factor to be applied to the sizing of the Riprap for the erosion protection on the top and slopes of the reclaimed tailings ponds.

