

State of Utah

Department of Environmental Quality

Dianne R. Nielson, Ph.D. Executive Director

DIVISION OF RADIATION CONTROL Dane L. Finerfrock Director

October 6, 2006

Mr. Harold Roberts Vice President – Corporate Development International Uranium (USA) Corporation 1050 Seventeenth Street, Suite 950 Denver, CO 80265

Re: August 25, 2006 IUC Submittals Regarding July 20, 2006 DRC Round 4 Interrogatory for the Cell 4A Lining System Design Report: DRC Review Findings and Request for Information - Round 5 Interrogatory.

Dear Mr. Roberts,

We have reviewed the subject submittal. We also acknowledge a telephone discussion held with you, Greg Corcoran, Britt Quinby, Dave Rupp and myself on August 2, 2006 on the issues. Separately, an email to you from John Hultquist of DRC was sent September 15, 2006, which continues the review on the cleanup of contaminated sub-grade soils beneath the former Cell 4A embankment.

The purpose of this Round 5 Interrogatory is to identify those issues and concerns related to cell design and re-lining that continue to be unresolved. Similar to previous work, URS staff performed this review and prepared the Interrogatory, which is attached for your consideration and resolution.

Three major issues continue unresolved, including:

- 1. Resolution of the cleanup issues to demonstrate that the existing subgrade for Cell 4A has radiation and contamination levels that are acceptable. This is currently being addressed under a separate cover.
- 2. An up to date seismic hazardous analysis that includes recent data and evaluation methods.
- 3. An evaluation that demonstrates that the amount of area covered by the slimes drain is sufficient to remove the tailings solution in an efficient and timely manner. Also, that it is not beneficial to carry the slime drainpipes and/or sand layer into the remaining portion of the cell bottom.

JON M. HUNTSMAN, JR. Governor

> GARY HERBERT Lieutenant Governor

The following are items where responses were provided by IUC that addressed the concern, but questions and clarifications remain. Complete responses to these items also need to be provided by IUC prior to issuance of the construction permit:

- 4. The CQA Plan needs to be clear that modifications or changes to the agency reviewed design and installation requirements reflected in the respective documents must be provided to the agency for review prior to implementation.
- 5. Include the 3000 psi requirement in item 2.01A.1 of Section 03400 of the technical specifications (for the 28-day compressive strength testing) in Section 13.2.5 of the CQA Plan (or at a minimum, a reference to this requirement in the technical specifications in 13.2.5 of the CQA Plan).
- 6. Item 2.04 of Section 02220 of the technical specifications addresses the compaction of the anchor trench. It states that the backfill will be placed in lifts that result in a compacted thickness of no greater than 6-inches. Also include that the soil removed from the anchor trench will be placed back into the trench. This must be included in the specifications prepared for construction.
- Backfill compaction requirements need to be included in either the CQAP, Technical Specifications, or on the Project Drawings regarding soil needed to make the proposed grade for the cell bottom (subgrade). This backfill shall be placed in 6-inch lose lifts and compacted to 95% of maximum dry density per ASTM 698 and within 0 to +3% of optimum moisture content.
- 8. Included must be means and methods used (prior to operation of Cell 4A) that determine if the hydration of the GCL is adequate. The level of GCL hydration must be comparable to the level used in the referenced acid resistance testing. Details of proposed GCL hydration procedure, field testing, and the respective level of hydration need to be provided to the DRC prior to the start of construction.
- 9. The requirement that construction loads on the completed liner shall be limited to foot traffic and low pressure ATV type vehicles that produce contact pressures at or lower than that exhibited by foot traffic need be added to the technical specifications.
- 10. IUC proposes that a cyclone be used to process the tailings slurry. Please note that the details of the tailings processing must be included in the cell operations procedures to be provided by IUC as part of Phase 2. These procedures need to include methods for placement of the tailings as part of the slimes drain layer so that the amount of the coarser sand in maximized, uniform, and the amount of fines minimized. In addition, it should be noted that if tailings are to be placed in the southeast corner, an HDPE splashguard is needed in that area.
- 11. There is a discrepancy in the gallon/day/acre ALR values obtained that needs to be clarified. One source (tables provided in 8/28/06 IUC response) has 604.01 gallons/acre/day at 37-feet of head, and another (calculations page 4 of 6) has 587 gallons/acre/day at 37-feet of head.
- 12. Please note that since the evaluation of the flow in the geonet assumes no adverse impact from uncertainties due to installation, quality control and assurance during installation must be thoroughly implemented and documented in the CQA Report for the liner system.

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Due to the delays encountered in the execution of our recent Memorandum of Agreement, and our consultant being unable to complete review work without the executed agreement, the projected review schedule in the agreement is now unfeasible. Consequently, we suggest that a new schedule be negotiated.

Please feel free to contact us if you have any questions

Sincerely,

Loren B. Morton

LBM:dr

cc: Britt Quinby, URS Dave Frydenlund, IUC

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