



DRC-2009-006502

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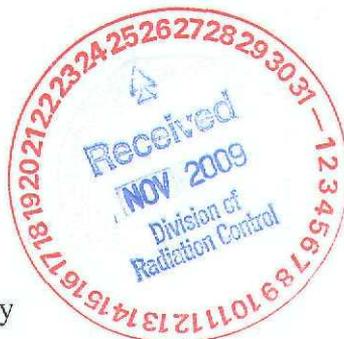
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VIA FEDERAL EXPRESS

November 24, 2009

Mr. Dane Finerfrock, Executive Secretary
Utah Radiation Control Board
Utah Department of Environmental Quality
168 North 1950 West
P.O. Box 144810
Salt Lake City, UT 84114-4810



Dear Mr. Finerfrock:

Re: Renewal Application for Radioactive Materials License (RML) No. UT1900479: Health Physics Interrogatories – Round 2; and Engineering Comment Interrogatories – Round 1

Reference is made to our letter of August 14, 2009 in response to the Executive Secretary's correspondence of July 2, 2009 with attached Health Physics and Engineering Comment Interrogatories.

As contemplated by our response to Engineering Comment Interrogatories – Round 1, Nos. I-A, I-B, I-F, I-G, I-H, I-I, I-J, and I-K enclosed please find two (2) copies of Revision 4.0 of the Mill's Reclamation Plan ("Revision 4.0"). A CD containing the entire document and Appendices in electronic format will be sent under separate cover.

Denison is hereby submitting the enclosed Revision 4.0 as a new Appendix P to the February 28, 2007 renewal application (the "Renewal Application") for the White Mesa Mill's State of Utah Radioactive Materials License No. UT1900479. Enclosed with this letter are clean and marked copies of a revised Part 8 to the Renewal Application that has been amended to reflect the inclusion of Revision 4.0 as an Appendix to the Renewal Application. Please replace the existing Part 8 of the Renewal Application with the enclosed Part 8.

Revision 4.0 represents an update to Revision 3.0 of the Plan to reflect approved changes to the Plan and to update outdated information, since the Plan as a whole was approved by the United States Nuclear Regulatory Commission in 2000. However, while Revision 4.0 incorporates a number of updates to the Plan, the substantive provisions of the Plan have not been changed.

The principal revisions and updates to the Plan that are incorporated into Revision 4.0 include:

- The addition of approved provisions relating to the Cell 1 Tailings Disposal Area;
- The addition of approved provisions relating to Cell 4A as an operating tailings cell, including the updates to the Plan conveyed by Denison letter dated July 25, 2008;

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- updates to plans and figures, as applicable, to reflect current conditions;
- administrative changes to reflect transfer of primary regulatory authority over the Mill site from the NRC to the State of Utah Department of Environmental Quality and the change in the name of Denison from International Uranium (USA) Corporation;
- administrative changes in the nature of "clean-up" for internal consistency of the document;
- updates to various information, including the following:
 - updated climate data;
 - updated archaeological status for the site;
 - updated sections relating to surface water, groundwater, site hydrogeology, seeps and springs etc. to reflect new information about the site since 2000;
 - other various updates to environmental information; and
 - updated disclosure relating to current monitoring programs, particularly describing new groundwater and DMT monitoring requirements at the site since 2000.

As you know, Denison is in the process of completing an infiltration and contaminant transport model of the final tailings cover system to demonstrate the long-term ability of the cover to protect nearby groundwater quality, as required by Part I.H.10 of the Mill's State of Utah Ground Water Discharge Permit No. UGW370004 (the "GWDP"). Upon review of this infiltration modeling, the Executive Secretary will determine if changes to the cover system as set out in Revision 4.0 of the Plan are needed to ensure compliance with the performance criteria contained in Part I.D.8 of the GWDP. The Plan will be amended in the future to incorporate any such changes. However, as the details of any such changes have not been finalized at this time, the approved 2000 cover design and basis continue to be used for this version of the Plan.

Similarly, as discussed with DRC staff, Revision 4.0 does not include provisions relating to proposed Cell 4B. The Plan will be amended in the future to incorporate Cell 4B once the design and construction of Cell 4B have been approved by the Executive Secretary.

If you should have any questions or require additional information, please contact the undersigned.

Yours very truly,

DENISON MINES (USA) CORP.


David C. Frydenlund
Vice President, Regulatory Affairs and Counsel

cc: Ron F. Hochstein
Harold R. Roberts
Steven D. Landau
David E. Turk



8 RECLAMATION PLAN

The Reclamation Plan, Revision 4.0, was transmitted to the Executive Secretary by letter dated November 24, 2009, and is hereby incorporated by reference as Appendix P to this Application. The financial surety, including the amount for the long term care fund, currently required under Mill License condition 9.5 is \$15,807,429. This amount is reviewed annually by Denison and the Executive Secretary, as required by Mill License condition 9.5.

Part I.D.9 of the GWDP provides that, upon commencement of decommissioning, Denison shall reclaim the Mill site and all related facilities, stabilize the tailings cells, and construct a cover system over the tailings cells in compliance with all engineering design and specifications in the Mill's Reclamation Plan.

In that respect, Part I.D.8 of the GWDP provides that before reclamation and closure of any tailings disposal cell, the Mill shall ensure that the final design, construction, and operation of the cover system at each tailings cell will comply with all requirements of the approved Reclamation Plan, and will for a period of not less than 200 years meet the following minimum performance requirements:

- Minimize infiltration of precipitation or other surface water into the tailings, including, but not limited to the radon barrier;
- Prevent the accumulation of leachate head within the tailings waste layer that could rise above or over-top the maximum FML liner elevation internal to any disposal cell, i.e., create a "bathtub" effect; and
- Ensure that groundwater quality at the compliance monitoring wells does not exceed the Groundwater Quality Standards or Groundwater Compliance Limits specified in the GWDP.

Part I.D.9 also provides that the Co-Executive Secretary reserves the right to require modifications to the Reclamation Plan for purposes of compliance with the Utah Groundwater Quality Protection Regulations, including but not limited to containment and control of contaminants, or discharges, or potential discharges to Waters of the State.

In order to ensure that the Reclamation Plan meets the requirements of the Utah Groundwater Quality Protection Regulations, Part I.H.10 of the GWDP requires that Denison submit for Co-Executive Secretary approval an infiltration and contaminant transport modeling report that demonstrates the long-term ability of the tailings cells cover system to adequately contain and control tailings contaminants and protect nearby groundwater quality of the uppermost aquifer. Such Report shall demonstrate how the tailings cell engineering design and specifications will comply with the minimum performance requirements of Part I.D.8 of the GWDP. Denison submitted a work plan for such modeling report for Co-Executive Secretary approval on September 9, 2005, as required, and has submitted preliminary modeling results and calculations for review by the Co-Executive Secretary. Additional testing and modeling is currently being completed in response to comments and suggestions from DRC staff. Results of the additional

modeling will be submitted to the Co-Executive Secretary by March 31, 2010.

This Part 8 was amended and resubmitted to the Executive Secretary on November 24, 2009.

8 RECLAMATION PLAN

The Reclamation Plan, Revision 4.0, was transmitted to the Executive Secretary by letter dated ~~November 24, 2009~~, and is hereby incorporated by reference as Appendix P to this Application. The financial surety, including the amount for the long term care fund, currently required under Mill License condition 9.5 is ~~\$11,893,975-15,807,429~~. This amount is reviewed annually by Denison and the Executive Secretary, as required by Mill License condition 9.5.

Part I.D.~~79~~ of the GWDP provides that, upon commencement of decommissioning, Denison shall reclaim the Mill site and all related facilities, stabilize the tailings cells, and construct a cover system over the tailings cells in compliance with all engineering design and specifications in the Mill's Reclamation Plan.

In that respect, Part I.D.~~68~~ of the GWDP provides that before reclamation and closure of any tailings disposal cell, the Mill shall ensure that the final design, construction, and operation of the cover system at each tailings cell will comply with all requirements of the approved Reclamation Plan, and will for a period of not less than 200 years meet the following minimum performance requirements:

- Minimize infiltration of precipitation or other surface water into the tailings, including, but not limited to the radon barrier;
- Prevent the accumulation of leachate head within the tailings waste layer that could rise above or over-top the maximum FML liner elevation internal to any disposal cell, i.e., create a "bathtub" effect; and
- Ensure that groundwater quality at the compliance monitoring wells does not exceed the Groundwater Quality Standards or Groundwater Compliance Limits specified in the GWDP.

Part I.D.~~79~~ also provides that the Co-Executive Secretary reserves the right to require modifications to the Reclamation Plan for purposes of compliance with the Utah Groundwater Quality Protection Regulations, including but not limited to containment and control of contaminants, or discharges, or potential discharges to Waters of the State.

In order to ensure that the Reclamation Plan meets the requirements of the Utah Groundwater Quality Protection Regulations, Part I.H.~~410~~ of the GWDP requires that Denison submit for Co-Executive Secretary approval an infiltration and contaminant transport modeling report that demonstrates the long-term ability of the tailings cells cover system to adequately contain and control tailings contaminants and protect nearby groundwater quality of the uppermost aquifer. Such Report shall demonstrate how the tailings cell engineering design and specifications will comply with the minimum performance requirements of Part I.D.~~68~~ of the GWDP. Denison submitted a work plan for such modeling report for Co-Executive Secretary approval on September 9, 2005, as required, and is currently in the process of completing such report. has submitted preliminary modeling results and calculations for review by the Co-Executive Secretary. Additional testing and modeling is currently being completed in response to

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