



State of Utah

Department of
Environmental Quality

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Executive Director

DIVISION OF RADIATION
CONTROL
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GARY HERBERT
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March 28, 2007

CERTIFIED MAIL
RETURNED RECEIPT REQUESTED

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

SUBJECT: *Work Plan for Installation of Additional Chloroform Investigation Wells and Well Abandonment and Re-completion (Work Plan) – Conditional Approval;* and Completion Schedule for the Final Contamination Investigation (CI) and the Final Corrective Action Plan (CAP) – **Approval**

Dear Mr. Roberts:

We have reviewed IUC November 29, 2006 letter (IUC November 2006) and *Work Plan* which is in response to the Division of Radiation Control (DRC) letter dated October 25, 2006 **Contamination Investigation (CI) and Corrective Action Plan (CAP) – DRC Findings, Conditional Approval, and Notice of Intent to Schedule Hearing Before the Board** (October 2006). DRC has the following comments:

Work Plan Conditional Approval

We have reviewed the November 2006 Work Plan (Revision 0). We have determined that the Work Plan appears to meet the requirements in the DRC October 2006 letter. DRC approves this Work Plan based on the following conditions:

1. Please develop all new wells and re-completed wells to the 5 NTU turbidity standard found in the USEPA RCRA TEGD Chapter 6.
2. Please include in the report photographs of all core samples from the new wells.
3. To insure that the groundwater in the new wells have as much time as possible to recover from

the air sparging effects due to the air-rotary drilling method, please install the new wells at the beginning of the drilling campaign (April 2007).

4. The new wells will be surveyed by a State of Utah licensed engineer or land surveyor which will include both the elevation of the groundwater measuring point, and ground surface, and horizontal coordinates of the monitoring well.
5. Concerning monitor well TW4-4, in the DRC October 25, 2006 letter DRC mistakenly stated, "*Because chloroform concentrations have been found below the GWQS (70 µg/L) in this well, only groundwater head and water quality monitoring is required. Should concentrations at this well exceed the GWQS in the future, this position will be re-evaluated.*" This is not the case. Chloroform concentrations in TW4-4 have exceeded the GWQS in the last 23 sampling events. Therefore, this well must continue to be sampled on a quarterly basis. In addition, this well is down gradient of pumping well MW-4. With chloroform concentrations in well TW4-6 (down gradient of TW4-4) increasing this may indicate plume not bound to the south. Therefore, DRC has concluded that TW4-4 must become a pumping well to capture elevated chloroform concentrations south of pumping well MW-4. During a phone conversation with you on March 26, 2007, IUC committed to begin pumping TW4-4 by September 11, 2007. The DRC accepts this date.
6. During a phone conversation with you on March 14, 2007, IUC commitment to submit the Well Installation Report and the Hydraulic Testing Report on September 11, 2007. DRC accepts this commitment date.

Unresolved Issue Regarding the Chloroform Groundwater CI

Joint Survey Study - IUC stated that Mr. Stewart Smith would deliver a signed statement, on a well by well basis, to document and verify IUC's claims for the joint survey by December 11, 2006. As of the date of this letter Mr. Smith has not submitted his statement to the DRC. Therefore, IUC claims regarding the joint survey in the IUC November 2006 letter are unsubstantiated. Resolution of the joint survey will now not be considered until after the University of Utah study.

Scheduled Commitment to Complete CI and the CAP

Commitment to Complete CI - DRC accepts the commitment to complete and submit by September 11, 2007 the final CI report that resolves all requirements in UAC R317-6-6.15(D).

Commitment to Complete the CAP - IUC originally committed to submit a preliminary CAP on May 25, 2007. During a phone conversation on March 12, 2007 with you and Mr. Steve Laudau IUC asked for a new commitment date of June 1, 2007. DRC accepts IUC the new commitment date of June 1, 2007 to submit a preliminary CAP report for DRC review and comment. We also recognize your commitment to submit a complete and final CAP report by November 13, 2007 that resolves all requirements in UAC R317-6-6.15(E) for Executive Secretary approval. Shortly thereafter both the CI Report and CAP will be exposed to public review and comment. By way of guidance, the CAP should include, but is not limited to, the following sections:

1. Introduction
2. Objectives
3. Background
4. Characterization of the Study Area: Chloroform plume boundary defined.

5. Corrective Action Concentration Limits
6. Corrective Action
 - Groundwater pumping system: Description of pumping system, operations and maintenance, and demonstrate hydraulic containment of the chloroform plume.
 - Water Quality Monitoring: Monitoring frequencies and monitoring parameters.
 - Hydraulic Containment: If hydraulic containment is lost (a boundary monitor well exceeds $70\mu\text{g/L}$) a protocol that outlines a schedule for regaining hydraulic containment in a timely manner.
 - Reporting: Reporting frequencies and content.
7. Assessment of Corrective Action
 - Groundwater pumping system
 - Water Quality Monitoring
 - Hydraulic Containment
 - Reporting
8. Proposed Future Corrective Action Activities
 - Groundwater pumping system
 - Water Quality Monitoring
 - Natural Attenuation
 - Termination Criteria
 - Reporting

Enclosed in this letter is an electronic copy of the *Site Investigation Summary and Corrective Action Plan The Ensign-Bickford Company Spanish Fork, Utah*. This CAP has been approved by the Utah Water Quality Board and may serve as an example to help IUC prepare the CAP for the chloroform contamination investigation at the White Mesa Mill.

Thank you for your continued cooperation. Please contact Dean Henderson at 801-536-0046 with any questions.

Sincerely,



Dane L. Finefrock, Director
Utah Division of Radiation Control

DLF/DCH:dh

cc: Rob Herbert, DWQ
Bill VonTill, NRC – Washington, D.C.