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State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF RADIATION
CONTROL
Dane L. Finerfrock
Director

June 13, 2005

CERTIFIED MAIL
RETURNED RECEIPT REQUESTED

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

SUBJECT: April 7, 2005 IUC Tetrahydorfuran (THF) Demonstration Study Work Plan White Mesa Mill Discharge Permit No. UGW370004 (Permit) – **Request for Modifications to Work Plan**

Dear Mr. Roberts:

The Division of Radiation Control (DRC) has reviewed the April 6, 2005 Work Plan for the THF Demonstration Study Mill Near Blanding, Utah (Work Plan). We have determined that the following modifications need to be made to the Work Plan:

1. Please give an explanation and justification for: 1) the 4 month waiting period after the most resent sampling event. Please explain how this 4 month waiting period will allow IUC to comply with the compliance schedule already mandated by Part I.H.19 of the Permit; 2) casing volume removal and sampling schedule (why not less casing volumes); 3) how will 4 water samples collected from each well have enough statistical power to be representative of actual field conditions.

2. Please adjust the casing volume removal schedule to collect water samples on constant intervals (example: 0, 2, 4, 6, 8, 10....etc.).

3. The Work Plan has the initial water sample collected before purging water from the well and later an additional series of samples collected from each well according to a set casing volume removal schedule. Therefore, before the initial sample, calculate and report the initial casing volume in gallons. All subsequent samples in the series must be collected in accordance with this predetermined, well specific, casing volume.

4. The THF has a specific gravity of 0.89 g/cm^3 (H_2O = 1 g/cm^3) and will tend to migrate towards the water surface. Therefore, the most representative initial water sample should be collected in the upper half of the water column in the well.

5. In order to avoid cross-contamination, all equipment used for purging and sampling activities must be cleaned between each well purging and sampling activities in compliance with the EPA RCRA Technical Enforcement Guidance Document (TEGD), Chapter 7.3.4. Please revise the Work Plan to include these details.

6. Please report detailed purging and sampling activities. Purging and sampling activities must include but are not limited to:

   a) Measure the water level in the well prior to each well purging and sampling event.
   b) Dates and times of purging events.
   c) Volume of water purged for each purging event.
   d) Purge rates.
   e) Please provide a description and justification of the purging equipment to be used. Purging must be accomplished using a pumping system that does not allow air in the discharge line or injects air into the water column in the well during both purging and sampling, so as avoid volatilization of THF and sample bias.
   f) To minimize THF volatilization pump flow rates also need to be held constant and continues during purging process. Please describe what pumping equipment will be used for this and justify how it meets these performance objectives.

   In the event that IUC can not meet these performance objectives during the purging and sampling process at any well in question, IUC must then: 1) Install an new point-of-compliance well up-gradient in the immediate vicinity of the problem well, 2) Install and complete the new well in accordance with all EPA TEGD requirements, including inert and THF-free components/materials, 3) Conduct appropriate groundwater quality sampling and analysis of each new well to confirm the presence or absence of THF in the local upper most aquifer.

7. In the final report, please provide field records for purging and sampling events, sample preservation, laboratory reports, and chain of custody forms. Please also provide time series concentration graphs for each well and an interpretation/description of said results.

8. The laboratory minimum detection limit for THF must be less than its respective Groundwater Compliance Limit concentration defined in Table 2 of the Permit.

9. Please use a State of Utah approved laboratory for analysis as required in Part I.E.4(c) of the Permit.

10. Please notify the Executive Secretary before initial sampling begins to allow the Executive Secretary opportunity to perform slit sampling.

11. We note that the 90-day deadline required by Part I.H.19 has already expired. Please provide a new deadline for completion of the field and laboratory activities and submittal of a final report.

Please submit a new Work Plan and ensure the Executive Secretary approval before THF Demonstration Study begins.

Please provide the Executive Secretary with a two week notice to allow observations of all field activities. Thank you for your cooperation in this matter. Please contact Dean Henderson at 801-536-0046 with any questions.

Dane L. Finerfrock, Director
Utah Division of Radiation Control

DLF/DCH:dh

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

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File: International Uranium Corporation – THF Demonstration Study Work Plan