



State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF RADIATION
CONTROL
Dane L. Finerfrock
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

January 11, 2007

CERTIFIED MAIL
RETURNED RECEIPT REQUESTED

Mr. Steven D. Landau
Manager, Environmental Affairs
International Uranium Corporation (IUC)
Independence Plaza, Suite 950
1050 Seventeenth Street
Denver, CO 80265

SUBJECT: Chloroform Groundwater Contamination Investigation (CI), White Mesa Uranium Mill Near Blanding, Utah, - Request for Modification to the Ground Water Monitoring Quality Assurance Plan (QAP)

Dear Mr. Landau:

The Division of Radiation Control (DRC) has reviewed the December 8, 2006 letter that IUC submitted concerning comments on how the sampling of the chloroform monitoring wells for the CI relates to the QAP for the Groundwater Quality Discharge Permit (Permit). Based on our review and phone conversation with IUC on January 2, 2007, we have considered IUC comments and have the following comments and modifications to the QAP:

1. Item A

IUC Comment – *The chloroform monitoring wells are not locked as indicated in Section 4.1 of the QAP because these wells were installed as temporary investigation wells.*

DRC Response - the Utah Notice of Violation and Groundwater Corrective Action Order, UDEQ Docket No. UGQ-20-01 (Order) issued on August 23, 1999 ordered IUC to conduct a Groundwater Contamination Investigation pursuant to the provisions of UAC R317-6-6.15(D). Pursuant to UAC R317-6-6.15(D)(1)(e) the Executive Secretary in a letter dated October 25, 2006 (**DRC Findings, Conditional Approval, and Notice of Intent to Schedule Hearing Before the Board**) required IUC to re-complete the chloroform monitor wells as permanent monitor well in accordance to USEPA RCRA Technical Enforcement Guidance Document (TEGD) Chapter 3. In a November 29, 2006 IUC

submitted a letter and work plan to re-complete the chloroform monitor wells to the above requirements.

Therefore, Section 4.1 of the QAP applies also to the chloroform monitor wells and all other monitor wells on the site in which groundwater sample are collected as required by the Permit or the Order.

2. Item B

IUC Comment – Equipment rinsate samples are not collected at chloroform monitoring wells as specified in Section 4.3.2 of the QAP.

DRC Response - All sampling equipment that comes into contact with the groundwater must follow requirements as specified in Section 4.3.2 of the QAP (see USEPA RCRA TEGD, Chapter 4, page 119.)

3. Item C

IUC Comment - Field parameters are not measured at chloroform monitoring wells as anticipated by Section 5.2 of the QAP.

DRC Response - Groundwater sampling for the CI is subject to sampling and analysis of field parameters as outlined in USEPA RCRA TEGD Chapter 4, and therefore Section 5.2 of the QAP applies.

In addition, it is IUC burden to use the proper well purging equipment such that procedures for field parameters in Section 6.2.6 and 6.2.7 of the QAP are followed.

4. Item D

IUC Comment – The well location and frequency specified in Section 6.2.1 of the QAP differs for chloroform monitoring.

DRC Response – Please modify Section 6.2.1 of the QAP to define the sampling frequency for the CI monitoring wells.

5. Item E

IUC Comment – Section 6.2.2 and 6.2.3 of the QAP are not relevant to chloroform monitoring, this is due to the fact that monitoring is done quarterly and the analytical regime is unchanging.

DRC Response - Please modify Section 6.2.2(a) [Field parameters] and (b) [Laboratory parameters] of the QAP to apply to the groundwater sampling for the CI.

Section 6.2.3 of the QAP only applies to the monitor wells for the Permit.

6. Item F

ICU Comment – Some of the information in Section 6.2.4 (b), (c), (d), (e), (f) and (m) [Sampling Equipment for Groundwater Compliance Monitoring] is not applicable to chloroform monitoring efforts.

DRC Response - IUC can use a electrical submersible driven pump for well purging and still be in compliance with Section 6.2.4(b),(c), and (m) of the QAP. For Section 6.2.4(d) and (e) see DRC response to Item C above. The required 0.45 micron high capacity disposable inline filters describe in Section 6.2.4(f) is only for parameters that require filtration of the water prior to analysis, and is not required for the VOC parameters (see TEGD Section 4.3.3). Please modify the QAP accordingly.

7. Item G

IUC Comment – *Some of the information in Section 6.2.5 (Decontamination Procedure) of the QAP relating to pumping equipment is not applicable to chloroform investigation sampling due to the fact that the pump utilized for the chloroform monitoring is a dedicated portable submersible pump.*

DRC Response – All sampling equipment that comes into contact with the groundwater must follow requirements as specified in Section 6.2.5 of the QAP (see USEPA RCRA TEGD, Chapter 4, page 107.)

8. Item H

IUC Comments - *Section 6.2.5 (c) and (e) (Decontamination Procedure) of the QAP do not apply to the chloroform monitoring program.*

DRC Response – See DRC comments to Items Item G above.

9. Item I

DRC Comments – *The analytical regimen and sampling order for chloroform differs from that described in Section 6.2.8 of the QAP.*

IUC Response – Please modify Section 6.2.8 of the QAP to define the sampling parameters required for the CI and the sampling order in which they are to be sampled. Please ensure the sampling order follows USEPA RCRA TEGD.

10. Item J

IUC Comment – *Referring to Section 6.2.10 of the QAP, chloroform investigation analyses do not include nutrients, instead, nitrate/nitrite are analyzed.*

DRC Response – Please modify Section 6.2.10 of the QAP to outline VOCs, chloride and nitrate/nitrite sampling procedures for the CI.

11. Item K

IUC Comments – *The sample preparation steps described in Section 6.2.11 of the QAP do not apply to chloroform sampling.*

DRC Response – At this time, heavy metals, non-radiologics and gross alpha are not required sampling parameters for the CI. Therefore, Section 6.2.11 of the QAP, at this time, would only apply to the monitor wells sampled as required in the Permit. Please modify the QAP accordingly.

12. Item L

IUC Comments – *Locking wells in Section 6.2.12 of the QAP does not apply to chloroform monitoring.*

DRC Response – See DRC response to Item A above.

13. Item M

IUC Comment – *The field parameters and filtration references in Section 7.1 of the QAP, Field Data Worksheets, do not apply to chloroform monitoring.*

DRC Response – We agree filtration is not required for the CI sampling, and the field data worksheet can be annotated according (see Item F, above). As for field parameters, they are required (see Item C, above)

14. Item N

IUC Comment – *The parameters listed in Section 8.2 of the QAP do not apply to chloroform monitoring.*

DRC Response – Please modify Section 8.2 of the QAP to outline all the analytical laboratory procedures for both the Permit the CI.

15. Item O

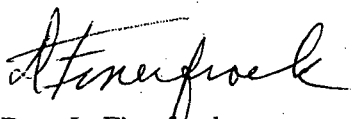
IUC Comment – *In Section 11 of the QAP information specific to the Permit is not applicable to chloroform reporting.*

DRC Response – Please modify Section 11 of the QAP to outline reporting requirements for both the Permit and the CI quarterly groundwater monitoring reports (for CI reporting needs, please refer to DRC letter of March 9, 2005 - **Request for Additional Information**).

In our phone conversation on January 2, 2007, it was agreed that within 14 days of the receipt of this letter IUC would provide for Executive Secretary approval the requested modifications to the QAP as outlined above. Please provide the revised QAP in a redline - strikeout format, a final version, and an electronic copy of the final version of the QAP showing the modifications requested.

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

UTAH RADIATION CONTROL BOARD



Dane L. Finerrock,
Executive Secretary

DLF/DCH

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