

# STATE OF NEVADA

Department of Conservation & Natural Resources

Jim Gibbons, Governor Allen Biaggi, Director

## DIVISION OF ENVIRONMENTAL PROTECTION

Leo M. Drozdoff, P.E., Administrator

## **December 7, 2007**

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# Re. BMI Plant Sites and Common Areas Projects, Henderson, Nevada

Advisement Regarding Radionuclide Analyses for Uranium

## Dear Sirs and Madam:

As noted to the Companies via e-mail, it has been discovered that there are differences in the preparatory (prep) methods used for isotopic uranium analyses. Specifically, the use of hydrofluoric acid (HF) versus not using HF. This difference has significant impacts on the data and represents a comparability problem.

### What has been discovered is as follows:

- 1. The BRC/TIMET background data set was analyzed by STL-Saint Louis (STL-SL) for isotopic uranium. STL-SL uses HF.
- 2. The TRX upgradient data set was analyzed by GEL for isotopic uranium. GEL uses HF.
- 3. The TRX Phase A data and several other BRC data sets were completed by STL-Richland. STL-Richland does not use HF. This results in significant low bias relative to the background data set for isotopic uranium.

All QAPPs shall be edited to specifically identify the prep method that uses HF for isotopic uranium analysis. Please address this issue **by January 11, 2008**.

### There are several other issues as follows:

- 1. The Companies need to identify all data sets that are not comparable and report this to the NDEP. This will also be requested in the letter. Please address this issue **by January 11, 2008**.
- 2. All parties need to work to identify what other radionuclide data may be compromised. Each company should respond to this issue in the January 11, 2008 Deliverable. If additional radionuclide data is compromised additional changes to QAPPs will be required.

- 3. All parties need to contemplate how we might salvage the data from STL-Richland for isotopic uranium analysis for use in future background comparisons. Some ideas that have been mentioned thus far are as follows:
  - a. Complete a side by side study of the two methods and develop a correction factor that could be applied to data from STL-Richland. It should be noted that enough uranium (metal) data may exist to develop this correction factor currently. This is important if any of the data will be used for risk assessments. This item can be addressed by the NDEP for the Companies or the Companies can complete this exercise.
  - b. Discard the existing data that is affected by this difference and utilize the total uranium data for background comparisons. It is likely that this is a defensible procedure for addressing background comparisons.
  - c. Utilize gamma spectroscopy for future analyses of isotropic uranium (NDEP does not support this).
  - d. These ideas need to be contemplated for what will be defensible. NDEP is open to additional suggestions.
  - e. Each Company should respond to this issue in the January 11, 2008 Deliverable.

Please contact me with any questions (tel: 702-486-2850 x247; e-mail: brakvica@ndep.nv.gov).

Sincerely,

Brian A Rakvica, P.E. Supervisor, Special Projects Branch Bureau of Corrective Actions

BAR:s

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