



WM-61

Department of Energy  
Office of Legacy Management

DEC 13 2006

Mr. Paul Michalak  
Project Manager  
U. S. Nuclear Regulatory Commission  
Two White Flint North  
11545 Rockville Pike T8-F42  
Rockville, MD 20852-2738

Subject: Request for Additional Information on the *Final Ground Water Compliance Action Plan for the Gunnison, Colorado, Processing Site*

Dear Mr. Michalak:

Enclosed are responses to your request for additional information specified in your letter dated June 22, 2006. Several comments related to the long-term monitoring network have already been addressed, as the Department of Energy expanded the monitoring network in 2005, per a request by the Nuclear Regulatory Commission.

Please contact me at (970) 248-6073 if you have any questions.

Sincerely,

Richard P. Bush  
Site Manager

Enclosure

cc w/enclosure:

W. Naugle, Colorado Department of Public Health and Environment  
Project File RVT 410.02 (D. Roberts)

cc w/o enclosure:

S. Campbell, Stoller  
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Bush/Gunnison/NRCP. Michalak.doc

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REPLY TO: Grand Junction Office

## **Response to NRC Comments on the Gunnison GCAP**

### **Comment 1.**

Paragraph 3. Shallow wells in the monitoring program downgradient of the millsite include 0125, 0135, 0181, and 0468. Several of these wells were added back into the monitoring program in 2005. All these wells had uranium concentrations below the standard in 2006.

Paragraph 4. Results for model layers 1 through 7 are available for downloading at <https://eft.lm.doe.gov> under the Gunnison folder. DOE agrees that uranium concentrations indicate the plume moves downward near the source area and moves laterally at depth. Additional wells in the middle and deep zones were installed in 2004 to monitor these zones.

Paragraph 5. In the fall of 2004, DOE installed wells and added selected existing wells back into the monitoring program, as requested by NRC and CDPHE (NRC 2004).

Paragraph 5. The National Primary Drinking Water MCL of 0.030 mg/L does not apply to UMTRA sites at this time.

### **Comment 2.**

At the time the GCAP was issued, analysis of samples collected from new wells and existing wells added into the monitoring program had not been completed; therefore, data was not available to include in the GCAP. Data is now available from these wells on the web at <http://gems.gjo.doe.gov/index.cfm>.

### **Comment 3.**

Monitor well development was completed prior to sampling this year. Monitor well development is in the budget baseline as a recurring annual task. Well maintenance and replacement will be conducted on an as-needed basis.

### **Comment 4.**

DOE believes a monitoring location on the South Fork of the Gunnison River will not provide useful information because ground water discharge to the river will not be detected because of dilution effects. Shallow wells adjacent to the river will provide a better indication of plume movement.

### **Comment 5.**

Because of the extensive aquifer, some locations would be expected to increase temporarily or remain static as plume movement occurs vertically and horizontally; therefore, statistical tests may indicate portions of the aquifer are flushing, while others are not. Mann-Kendall tests for trend are planned for all wells in the aquifer. Shallow wells on the millsite (e.g. 0006) may continue to show high uranium concentrations because they are completed in areas of residual soil contamination; however, a continuous recharge concentration of uranium was included in the ground water model and flushing was still predicted to occur within 100 years.

**Comment 6.**

The *Baseline Risk Assessment of Groundwater Contamination at the Uranium Mill Tailings Site Near Gunnison, Colorado* (BRLA) (June 1996) looked at a variety of tailings related contaminants in the environment and evaluated the risk posed from these contaminants to human health and the environment. The BLRA was then updated in Section 6 of the *Final Site Observational Work Plan for the Gunnison, Colorado, UMTRA Project Site* (March 2001). A copy of the BLRA is enclosed for your use.

**References**

U. S. Nuclear Regulatory Commission, 2004. Letter to Tracy Plessinger, dated July 9, 2004. Subject: U. S. Department of Energy Request to Decommission Monitor Wells at the Gunnison, Colorado, Uranium Mill Tailings Remedial Action Project Site, Docket No.: WM-61.