

June 29, 2009

Mr. Joe Desormeau
U.S. Department of Energy
Office of Legacy Management
2597 B ¾ Road
Grand Junction, CO 81503

SUBJECT: MAY 14, 2009 CONFERENCE CALL - GROUNDWATER COMPLIANCE
ACTION PLAN FOR THE GUNNISON, COLORADO UMTRA PROJECT SITE

Dear Mr. Desormeau:

By letter dated May 17, 2005 the U.S. Department of Energy (DOE) submitted a revised Ground Water Compliance Action Plan (GCAP) for the Uranium Mill Tailings Remedial Action (UMTRA) Project Gunnison, Colorado processing site. The GCAP was revised to address the U.S. Nuclear Regulatory Commission (NRC) comments transmitted to DOE on January 29, 2002. The NRC staff reviewed the revised GCAP using the "Standard Review Plan for the Review of DOE plans for achieving regulatory compliance at sites with contaminated ground water under Title I of the Uranium Mill Tailings Radiation Control Act" (NUREG-1724, draft). In its review of the revised GCAP, NRC staff identified several issues that must be resolved prior to NRC concurrence. A conference call was held on May 14, 2009, to discuss those issues. The enclosed summary of the conference call documents those issues, other topics discussed, and DOE future actions.

If you have any questions regarding this letter, please contact me at (301) 415-6629, or by e-mail, at Myron.Fliegel@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Myron Fliegel, Senior Project Manager
Uranium Recovery Licensing Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: WM-61

Enclosure: Conference call summary

June 29, 2009

Mr. Joe Desormeau
U.S. Department of Energy
Office of Legacy Management
2597 B ¾ Road
Grand Junction, CO 81503

SUBJECT: MAY 14, 2009 CONFERENCE CALL - GROUNDWATER COMPLIANCE
ACTION PLAN FOR THE GUNNISON, COLORADO UMTRA PROJECT SITE

Dear Mr. Desormeau:

By letter dated May 17, 2005 the U.S. Department of Energy (DOE) submitted a revised Ground Water Compliance Action Plan (GCAP) for the Uranium Mill Tailings Remedial Action (UMTRA) Project Gunnison, Colorado processing site. The GCAP was revised to address the U.S. Nuclear Regulatory Commission (NRC) comments transmitted to DOE on January 29, 2002. The NRC staff reviewed the revised GCAP using the "Standard Review Plan for the Review of DOE plans for achieving regulatory compliance at sites with contaminated ground water under Title I of the Uranium Mill Tailings Radiation Control Act" (NUREG-1724, draft). In its review of the revised GCAP, NRC staff identified several issues that must be resolved prior to NRC concurrence. A conference call was held on May 14, 2009, to discuss those issues. The enclosed summary of the conference call documents those issues, other topics discussed, and DOE future actions.

If you have any questions regarding this letter, please contact me at (301) 415-6629, or by e-mail, at Myron.Fliegel@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Myron Fliegel, Senior Project Manager
Uranium Recovery Licensing Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: WM-61

Enclosure: Conference call summary

Distribution: JWhitten, RIV JSaxton DGillen

ML091700509

OFC	DWMEP	DWMEP	DWMEP	DWMEP
NAME	MFliegel	BGarrett	BVonTill	MFliegel
DATE	06/19/09	06/23/09	06/25/09	06/29/09

OFFICIAL RECORD COPY

**MEETING SUMMARY
NRC / DOE PHONE CONFERENCE
GUNNISON, COLORADO, UMTRA TITLE I GROUND-WATER PROJECT SITE**

DATE: May 14, 2009

TIME: 1:00 p.m. - 3:00 p.m. (EDT)

PURPOSE: To discuss NRC issues regarding concurrence with the GCAP

ATTENDEES: U.S. NRC:
Myron (Mike) Fliegel
Dan Gillen
John Saxton
U.S. DOE:
Joe Desormeau
Rich Bush
Sam Campbell

INTRODUCTION:

The teleconference was held to discuss NRC's review of the 2005 Groundwater Compliance Action Plan (GCAP) for the Gunnison, Colorado, Title I Processing Site. Issues discussed included items listed on the attached meeting agenda. The meeting discussion and action items are summarized below.

NRC Issue 1 - Institutional Control (IC)

NRC staff expressed satisfaction (pending OGC review) with the Institutional Control (IC) included in the 2005 GCAP to prohibit future wells. NRC staff requested that a database be compiled of currently existing wells. Based on the available documents, the number of wells that currently exist after the water supply system had been installed is in question. DOE representatives indicated that a database had been compiled and is in the record. DOE agreed to forward a database of existing wells to NRC.

A discussion ensued regarding an action level for uranium of 0.03 mg/L at the point of exposure wells. NRC staff recognized that the groundwater cleanup standard for uranium at Title I sites, which appears in 40 CFR 192, is 0.044 mg/L but noted that EPA's drinking water standard for uranium is 0.03 mg/L. Concern was expressed as to whether or not the 0.044 mg/L level was adequate for future protection at the existing private water supply wells, although none are currently used for potable water supplies, and whether the frequency of monitoring should decrease. DOE representatives discussed the cleanup criteria at the point of exposure and point of compliance and thought that the uranium cleanup criterion at either point is 0.044 mg/L. DOE asked NRC whether or not the concerns were limited to wells outside of the IC. NRC staff indicated that those wells were the primary concern but did not know if any wells existed in the monitoring program. DOE agreed to review the current monitoring program and determine

Enclosure

whether or not an action level other than 0.044 mg/L is appropriate for sites under the DOE monitoring program and wells outside of the IC.

NRC staff's final item on the IC was the risk associated with ingesting groundwater-irrigated garden produce. NRC discussions with the Colorado Department of Health personnel indicated that this was the primary issue raised by members of the public. NRC staff reviewed the 1996 DOE baseline risk assessment for this site. DOE had evaluated the risk of ingestion of groundwater-irrigated garden produce as insignificant relative to the risk of drinking the water. NRC staff requested that the risk associated with the ingestion of the produce be evaluated on its own merits. DOE agreed to review the risk assessment in the baseline risk assessment report.

DOE Action Items

- (1) Provide NRC with the database of currently existing wells in the IC area;
- (2) Review the appropriateness of an action level of 0.03 mg/L for the wells monitored outside of the IC; and
- (3) Review the risk assessment performed on the ingestion of groundwater-irrigated garden produce.

NRC Issue 2 – Addressing Prior Comments/Completeness

NRC staff indicated that the open comments on the 2005 GCAP consist of two additional sampling locations, and standard operating procedures (SOPs) for the sampling and for QA/QC. The two sampling locations included one well and a surface water sampling location. DOE indicated that two new wells (62, 63) were installed with the concurrence of NRC (letter dated July 9, 2004). [After the call, NRC reviewed this information and DOE is accurate. However, the well to which NRC staff referred during the conference call was to be located in the heart of the future plume migration. NRC's concern is that the current the monitoring well network may not be adequate for continued trend analysis.] NRC staff stated that it agrees with DOE's assessment in its February 6, 2008 e-mail that a well can be better located in the future; however, NRC will require additional language to be included in the GCAP as stated in the e-mail "perhaps we should include a note about a future well placement in the GCAP along with statements ... about a 5-year review or some such re-evaluation schedule."

As far as the surface water sampling location, DOE reiterated its opinion that the dilution effects may mask any useful information at the proposed location in the Gunnison River. DOE also offered that a surface water sampling location may be a good choice now with the recent elimination of one private well (468) from the program due to the homeowner's construction of a deck over the well. A location was discussed along the South Fork of the Gunnison River. DOE is investigating logistical issues for such a sampling location and will report back to NRC.

DOE currently has SOPs available on-line for the sampling of groundwater and QA/QC. DOE will include references to those SOPs in the GCAP.

DOE Action Items

- (1) Include references in the GCAP for the sampling and QA/QC SOPS;
- (2) Include language in the GCAP that a well will be installed in the future should the existing monitoring well network be inadequate as the plume migrates; and
- (3) Determine the feasibility of a new surface water sampling location in the Gunnison River.

NRC Issue 3 – Compliance Strategy

The NRC issue is a concurrence with the compliance strategy that is based in part on model predicted output. NRC staff agreed with the compliance strategy; however, NRC staff suggested that GCAP include language that the compliance strategy will be reviewed on a specific frequency and that the strategy will be critically reviewed given the uncertainties in the model. DOE staff indicated that they have had some internal discussions with regard to evaluating the effectiveness of the monitoring programs with the compliance strategy at this and other sites. The NRC staff suggested that the GCAP clearly state that the compliance strategy will be reviewed on a specific frequency. DOE stated that such language is found in the CGAP; however, the current language states that the evaluation is “to determine if a change in the frequency of monitoring is warranted.” NRC staff indicated that more specific language is needed.

NRC staff pointed out that exceedences continue in an area where the model predicts the levels to be below the cleanup criteria. DOE indicated that EPA guidance discourages single well comparison to model output. Both DOE and NRC agreed that recalibration of the model on a 5-year frequency is not cost effective. However, for NRC concurrence with the GCAP, there must be an evaluation of whether or not the compliance strategy is sound.

There were some discussions on the designated start of the 100-year cleanup timeframe. DOE’s opinion was that the timeframe starts with NRC concurrence of the GCAP. NRC did not object to this opinion.

DOE Action Items

- (1) Revise the GCAP to include more information on the review of data at 5- or 10-year intervals to ensure adherence to the compliance strategy of natural flushing within 100 years;

ATTACHMENT: Meeting Agenda

Agenda
May 14, 2009 Tele-Conference with DOE
Gunnison Processing Title I Site

- Three Issues for NRC Concurrence with the 2005 GCAP
 - Institutional Control
 - Addressing Prior Comments/Completeness
 - Compliance Strategy (Confidence in Numeric Modeling)

- Institutional Control
 - Good for prohibiting future wells
 - Database of currently existing wells
 - Action Levels (? 0.03 mg/l)
 - Risk Assessment for only Groundwater-Irrigated Garden Produce

- Addressing Prior Comments/Completeness
 - All prior comments addressed except
 - Commitments in the February 6, 2008 Correspondence:
 - New Surface Water Sampling Location
 - New Well in Heart of Model-Predicted Plume
 - SOP Reference for Sampling Procedures
 - SOP Reference for QA/QC Procedures

- Compliance Strategy
 - By concurrence does NRC agree with the modeling results and the procedures to determine if the natural flushing strategy is not working