

# ROCKY FLATS SITE

## REGULATORY CONTACT RECORD 2016-01

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**Purpose:** Reportable condition for evaluation purposes for uranium at Walnut Creek Point of Compliance (WALPOC).

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**Contact Record Approval Date:** March 25, 2016

**Site Contact(s)/Affiliation(s):** Scott Surovchak, U.S. Department of Energy (DOE); George Squibb, Linda Kaiser, David Ward, Navarro Research and Engineering, Inc. (Navarro)

**Regulatory Contact(s)/Affiliation(s):** Carl Spreng, Colorado Department of Public Health and Environment (CDPHE); Vera Moritz, U.S. Environmental Protection Agency (EPA)

**Date of Consultation Meeting:** March 1, 2016

**Consultation Meeting Participants:** Carl Spreng, CDPHE; Scott Surovchak, DOE

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**Discussion:** A reportable condition occurred at surface water Point of Compliance (POC) WALPOC (sampling location identification) at the Rocky Flats Site based on an evaluation of validated analytical results for uranium from the composite sample collected during the period of 12:08 p.m. on January 4, 2016, to 1:30 p.m. on January 28, 2016.

The evaluation was performed in accordance with *Rocky Flats Legacy Management Agreement* (RFLMA) Attachment 2, Figure 5, “Points of Compliance,” and resulted in a calculated 30-day average concentration for uranium of 16.9 micrograms per liter ( $\mu\text{g}/\text{L}$ ) on January 27, 2016. This concentration exceeds the RFLMA-applicable Table 1 standard of 16.8  $\mu\text{g}/\text{L}$ . Validated results were received on February 24, 2016, and notification to the regulatory agencies and the public—in accordance with RFLMA Attachment 2, Figure 5—was made by email on March 2, 2016. A representative of CDPHE and DOE discussed this result on March 1, 2016, and developed a path forward.

Pursuant to RFLMA Attachment 2, Section 6.0, “Action Determinations,” a reportable condition necessitates the following actions:

- DOE must submit a plan and schedule for an evaluation to address the condition within 30 days of receiving the validated data for the reportable condition.
- DOE will consult with CDPHE and EPA to determine if mitigating actions are necessary.
- The objective of the consultation will be to determine a course of action (if necessary) to address the reportable condition and to ensure that the remedy remains protective.
- The results of the consultation will be documented in contact records, written correspondence, or both.

This contact record documents DOE’s consultation with CDPHE on March 1, 2016.

The RFLMA Parties agreed on the evaluation steps described below and that no mitigating actions are necessary at this time, for the following reasons:

- The remedy remains protective. The remedy standard for total uranium at the WALPOC sampling location is the calculated 12-month rolling average. Using the most recent validated data, the calculated 12-month rolling average at WALPOC for total uranium on January 31, 2016, is 8.0 µg/L and remains well below the 16.8 µg/L remedy performance standard.
- WALPOC has been a RFLMA monitoring location for roughly 4.5 years. During that period, the Site experienced one of its driest years (2012), its wettest month (September 2013), and one of its wettest springs (2015), according to precipitation data collected since 1990. Because uranium concentrations are influenced by changing environmental conditions, varying uranium concentrations at WALPOC are anticipated. While significant uranium concentration variability can be seen in both individual sample results and in the 30-day averages, the observed variability is not outside of anticipated ranges and remains well below 30 µg/L drinking water standard (i.e., the maximum contaminant level [MCL]).
- Measured concentrations of total uranium at WALPOC include both naturally occurring and anthropogenic uranium. Previous high-resolution isotopic uranium analyses for WALPOC show signatures that are between 68–82 percent naturally occurring uranium. The variable concentrations discussed above and these signatures do not suggest the existence of a new source.
- The variability of the uranium concentration influenced by environmental conditions was detailed in a study conducted by a qualified geochemistry subcontractor, the results of which were published in the *Evaluation of Water Quality Variability for Uranium and Other Selected Parameters in Walnut Creek at the Rocky Flats Site* (September 2015) report that can be found at [http://www.lm.doe.gov/Rocky\\_Flats/Documents.aspx](http://www.lm.doe.gov/Rocky_Flats/Documents.aspx).
- Although the recent result was above the 16.8 µg/L Site standard, it remains well below the 30 µg/L drinking water standard. While the MCL is not applied at the Site, the fact that the uranium concentration triggering this reportable condition was well below that level indicates that the remedy remains protective of human health and the environment.

**Plan and Schedule to Address the Reportable Condition:** The RFLMA Parties agreed that steps described in this Contact Record shall serve as the plan and schedule for the evaluation.

The following steps have been or are being taken and will be utilized during the evaluation.

- Flow-paced composite samples routinely being collected at WALPOC will continue to be analyzed on a 2-week turnaround.
- On March 7, 2016, DOE provided CDPHE with a split sample from the WALPOC composite sample collected during the period of February 16, 2016, to March 3, 2016, which was the first sample collected after the March 1, 2016, consultation. This split sample will be analyzed for uranium at the State's Radiochemistry Laboratory.

DOE will report the results of this monitoring and of the subsequent evaluation in RFLMA quarterly and annual reports of surveillance and monitoring activities. This plan and schedule may be modified based on the outcome of RFLMA Party consultation related to the evaluation.

To keep the public informed, the outcome of continuing RFLMA Party consultation regarding the evaluation will be reported in RFLMA quarterly and annual reports of surveillance and monitoring activities or in subsequent contact records.

**Resolution:** CDPHE, after consultation with EPA, will approve, approve with modification, or disapprove this contact record.

**Closeout of Contact Record:** This contact record will be closed when the results from the evaluation have been transmitted to CDPHE or as the RFLMA Party consultation related to this evaluation directs.

**Contact Record Prepared by:** George Squibb and David Ward, Navarro

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**Distribution:**

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