

ROCKY FLATS SITE

REGULATORY CONTACT RECORD 2017-02

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

Contact Record Approval Date: March 6, 2017

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: January 31 and February 28, 2017

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

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 9:29 a.m. on June 16, 2016, to 11:40 a.m. on January 3, 2017.

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 (µg/L) on December 8, 2016. This concentration exceeds the RFLMA-applicable Table 1 standard of 16.8 µg/L for uranium. Validated results were received on January 30, 2017.

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.

Representatives of CDPHE and DOE discussed this result on January 31, 2017, and February 28, 2017, and developed a path forward. Formal notification to the regulatory agencies and the public—in accordance with RFLMA Attachment 2, Figure 5—was made by email on February 3, 2017. This contact record documents DOE’s consultation with CDPHE on January 31, 2017, and February 28, 2017.

The RFLMA Parties agreed on the evaluation steps described below and agreed 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 December 31, 2016, is 11.5 µg/L and remains well below the 16.8 µg/L remedy performance standard.
- WALPOC has been a RFLMA monitoring location for roughly 5.5 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).
- 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 68–87 percent naturally occurring uranium.
- 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). This report can be found at https://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 for uranium. The 16.8 µg/L standard is a level at which there are no known or anticipated adverse effects on the health of a person, and is based on an adult weighing 70 kilograms consuming 2 liters of water per day for a lifetime. Because WALPOC has an intermittent flow of water and Walnut Creek is not a source of drinking water, there remains an adequate margin of safety. Therefore, 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.
- High-resolution isotopic uranium analysis will be conducted on the most recent WALPOC samples to determine the percentages of natural and anthropogenic uranium for comparison to the historical data.
- DOE will provide CDPHE with a split sample from the next composite sample collected at WALPOC. That composite sample was started on January 30, 2017. This split sample will be analyzed for uranium by the State of Colorado.

DOE will report the results of continued monitoring, isotopic analysis, 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, approves 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

Distribution:

Carl Spreng, CDPHE
Vera Moritz, EPA
Scott Surovchak, DOE
Linda Kaiser, Navarro
Documentation Determination
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