

# ROCKY FLATS SITE

## REGULATORY CONTACT RECORD 2015-05

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**Purpose:** Reportable condition for plutonium 12-month rolling average at Point of Evaluation (POE) SW027

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**Contact Record Approval Date:** July 8, 2015

**Site Contact(s)/Affiliation(s):** Scott Surovchak, U.S. Department of Energy (DOE); George Squibb, Kurt Franzen, Linda Kaiser, David Ward, Stoller Newport News Nuclear, Inc. (SN3), a wholly owned subsidiary of Huntington Ingalls Industries, Inc.

**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:** June 23, 2015

**Consultation Meeting Participants:** Carl Spreng, CDHPE; Vera Moritz, EPA; Scott Surovchak, DOE; Kurt Franzen, David Ward, John Boylan, Linda Kaiser, George Squibb, SN3; Michelle Hanson, Jody Nelson, J.G. Management Systems, Inc.

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**Discussion:** This Contact Record documents DOE's consultation with CDPHE and EPA on June 23, 2015, regarding the evaluation of elevated concentrations of plutonium at POE SW027, which resulted in a reportable condition under RFLMA Attachment 2, "Legacy Management Requirements," Section 6.0, "Action Determinations."

A reportable condition was determined on June 11, 2015, based on evaluation of recently available validated analytical results for plutonium (Pu-239,240) from the composite samples collected during the period May 7, 2014–May 8, 2015. Americium (Am-241) is not reportable at this time. Following is a synopsis of the data:

No samples collected 5/7/14–3/8/15 due to lack of flow

Composite 3/9/15–3/11/15; Pu = 0.116 pCi/L, Am = 0.030 pCi/L

Composite 3/11/15–4/17/15; Pu = 0.139 pCi/L, Am = 0.030 pCi/L

Composite 4/17/15–5/6/15; Pu = 0.251 pCi/L, Am = 0.040 pCi/L

Composite 5/6/15–5/9/15; Pu = 1.02 (duplicate = 0.754) pCi/L, Am = 0.18 (duplicate = 0.157) pCi/L

The evaluation was performed in accordance with RFLMA Attachment 2, Figure 6, Points of Evaluation, which resulted in 12-month rolling average values of 0.037 pCi/L Am and 0.22 pCi/L Pu on April 30, 2015. The applicable RFLMA Table 1 standard for Am and Pu is 0.15 pCi/L.

Flow-through operations at Pond C-2 were initiated on November 7, 2011. The recent Pu and Am results from downstream location GS31 (Pond C-2 outlet) are higher than normal. Results from the downstream Point of Compliance WOMPOC (Woman Creek at COU boundary) have been received through May 17, 2015; all results were below the RFLMA Table 1 standard of 0.15 pCi/L and in fact below 0.09 pCi/L.

While the 12-month rolling average for Am is not reportable, the evaluation of the reportable Pu values will include consideration of the Am results.

Pursuant to RFLMA Attachment 2, Section 6.0, for a reportable condition:

- DOE must inform the RFLMA regulators and stakeholders identified in RFLMA Attachment 2, Figure 6 within 15 days of receipt of validated data for the reportable condition.
- 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 consultation will be to determine a course of action (if determined necessary) to address the reportable condition and to ensure that the remedy remains protective.
- Results of consultation will be documented in Contact Records, written correspondence, or both.

The RFLMA parties have been kept informed of the elevated levels since the initial results were received, and a public-information e-mail was sent to the stakeholders on June 18, 2015.

This Contact Record describes the plan and schedule to address the reportable condition. The plan and schedule for evaluation and the status of actions related to the plan are described below:

- Evaluation of the steps taken in 2010 when it was anticipated the 12-month rolling average for plutonium would exceed the standard at SW027 as reported in CR 2010-06. This includes a review of "Report of Steps Taken Regarding Monitoring Results at Surface Water Point of Evaluation (POE) SW027," August 31, 2010, and "Calendar Year (CY) 2011 Status Report of Actions Taken in Point of Evaluation SW027 Drainage," January 2012.
- On June 17, 2015, Rocky Flats personnel walked the SID drainage area and identified opportunities to enhance the revegetation and erosion controls previously implemented in 2010 and 2011 (Figure 1). Also during the June 17 inspection, limited areas in the SID showed evidence of local erosion and/or sediment deposition. Based on these general observations, a geotechnical engineer was scheduled to inspect the areas and provide recommendations.
- During the June 17 inspection, locations were identified for immediate installation of new wattles (Figure 2); installation was completed on June 22, 2015.

- Additional erosion control methods will be installed in the SW027 drainage, predominantly on the hillside above GS51. These measures will include matting, wattles, GeoRidge berms, and organic mulch. Several areas in the SID will also receive erosion matting; other longer-term actions for the SID are dependent on recommendations from the geotechnical engineer. Figure 3 shows the planned locations for these measures; final locations will be documented after installation. This work is scheduled to be completed by August 2015.
- On June 29, 2015, geotechnical engineers, CDPHE, and Rocky Flats personnel walked down the SID to evaluate potential use of water and sediment management devices or structures. The geotechnical engineers will provide recommendations for water and sediment management in the SID. These recommendations will be implemented in the longer term as appropriate.
- Sampling will continue as currently scheduled when surface water runoff is available.
- Status of the above items will be reported in quarterly and annual reports or both, depending when the activities occur.

**Resolution:** Carl Spreng, CDPHE, will review the above plan and schedule to address this reportable condition and, after consulting with EPA, may approve, approve with modifications, or disapprove this Contact Record.

**Closeout of Contact Record:** This Contact Record will be closed when the proposed erosion and water management control methods have been implemented and revegetation is complete.

**Contact Record Prepared by:** Jody Nelson, J.G. Management Systems, Inc.; David Ward, George Squibb, Kurt Franzen, SN3

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**Distribution:**

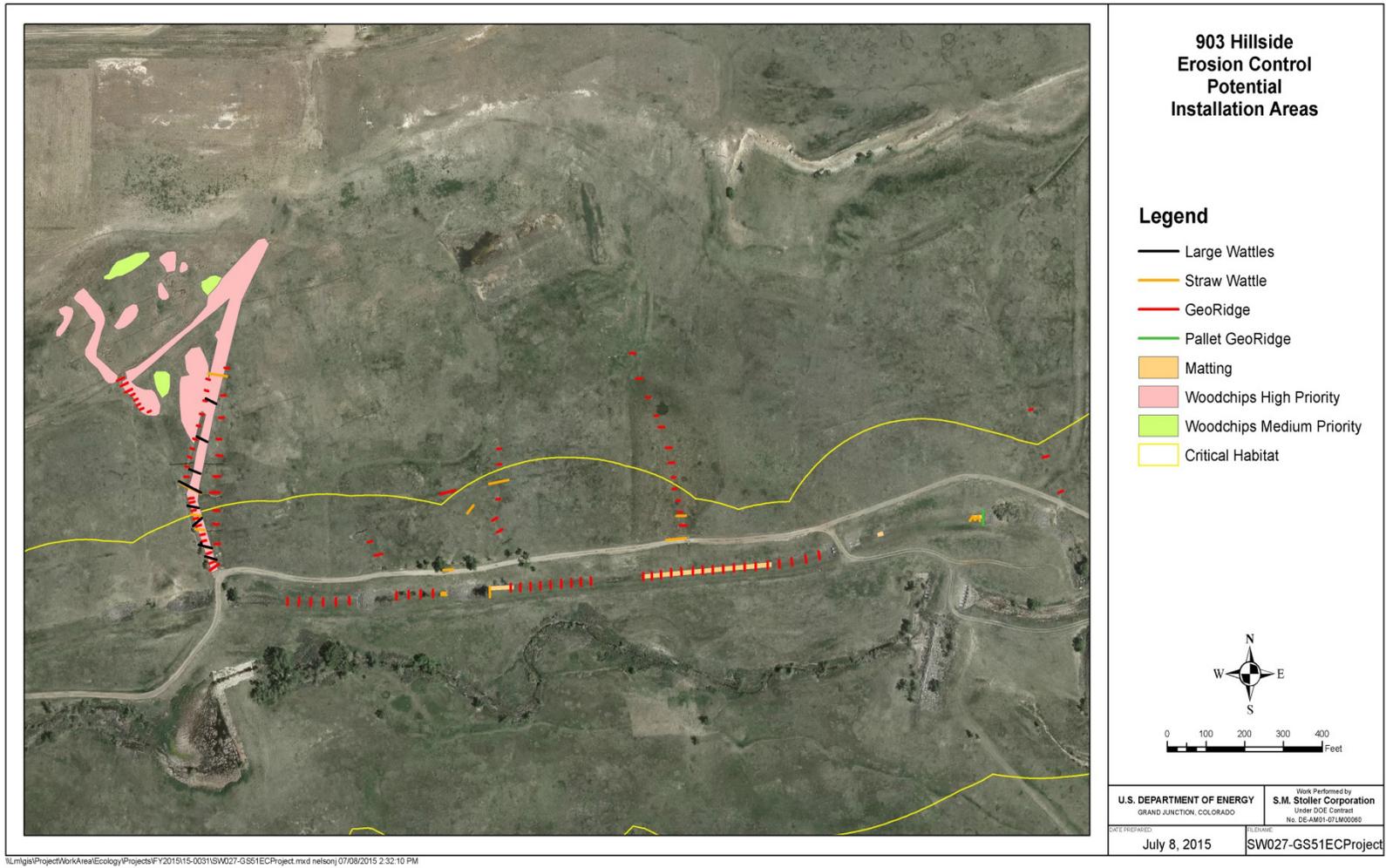
Carl Spreng, CDPHE  
Scott Surovchak, DOE  
Vera Moritz, EPA  
Linda Kaiser, Stoller  
Rocky Flats Contact Record File



*Figure 1.*



*Figure 2. June 17, 2015*



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Figure 3. Planned Action Locations