

Raynes, Scott (CONTR)

From: DOE Office of Legacy Management
Sent: Thursday, June 16, 2011 11:14 AM
To: Bob Krugmire; Bruce Hastings (bruce_hastings@fws.gov); Carl Spreng (carl.spreng@state.co.us); Cathy Shugarts; David Abelson (dabelson@rockyflatssc.org); David Allen; Ed Lanyon (edward.lanyon@cityofthornton.net); Emily Hunt (emily.hunt@cityofthornton.net); Laura Hubbard (lhubbard@broomfield.org); Raymond Reling; rc-rocky.flats; Rik Getty (rgetty@rockyflatssc.org); Scott Surovchak (scott.surovchak@lm.doe.gov); Shelly Stanley (SStanley@northglenn.org); Steve Berendzen (steve_berendzen@fws.gov); Vera Moritz
Subject: DOE LM Rocky Flats Site notification of a reportable condition at RFLMA Point of Evaluation GS10

This notification is to inform you of a reportable condition under RFLMA Attachment 2, Section 6.0, Action Determinations, at the RFLMA Point of Evaluation, GS10.

A reportable condition was determined based on evaluation of the most recently available validated analytical results for uranium from the composite sample collected during the period 4/11/11 10:50 - 5/4/11 11:39. The result for this sample was 71.0 ug/L total uranium. Validated results were received on 6/14/2011.

The evaluation was performed in accordance with RFLMA Attachment 2, Figure 6, Points of Evaluation, which resulted in a calculated value 12-month rolling average concentration for uranium on April 30, 2011 of 18.8 ug/L, which exceeds the RFLMA applicable Table 1 Standard of 16.8ug/L.

For perspective, GS10 results were previously above the RFLMA standard for the period 4/30/2006 to 3/31/2009, with the 12-month rolling averages in the range of 10.2 to 15.8 pCi/L. The RFLMA uranium standard was subsequently revised from a radionuclide parameter of 10 pCi/L to a metal parameter of 16.8 ug/L, which equates to approximately 11.3 pCi/L. Thus, the foregoing ranges equate to approximately 15.2 to 23.5 ug/L.

The elevated concentrations are generally associated with proportionally increased groundwater contribution to surface water baseflow due to reduced surface runoff resulting from removal of impervious surfaces (e.g. pavement, buildings) during Site closure. The groundwater in the GS10 area has high concentrations of naturally occurring uranium in addition to lower concentrations of anthropogenic uranium. In addition to the general increase in groundwater contribution to the stream, the below normal precipitation from the late fall of 2010 until mid May of 2011 resulted in a further proportional increase in groundwater contribution.

Pursuant to RFLMA Attachment 2, Section 6.0, Action Determinations, for a 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 the remedy remains protective.

* Results of consultation will be documented in contact records and/or written correspondence.

Although further evaluation and consultation is required, some preliminary steps are being or have been taken that will inform the evaluation.

* Water from a more recent GS10 sampling event has been sent to Los Alamos National Laboratory (LANL) for isotopic analysis to determine the percentages of natural and anthropogenic uranium to compare with percentages in pre-closure and post-closure samples previously analyzed by LANL, which showed predominantly natural uranium.

* The 12-month rolling average uranium concentration at the Pond B-5 outlet, Point of Compliance GS08, is 7.8 ug/L and includes the sample results through the last Pond B-5 discharge from 3/24/2011 to 3/30/2011. Uranium results from the non-RFLMA monitoring project location B5INFLOW upstream of GS08 have been reviewed and concentrations are also below the RFLMA standard. Non-RFLMA sampling downstream of GS10 will continue. The non-RFLMA sampling project is described in Contact Record 2010-03.

* A sample from upgradient well 99405, which historically has high concentrations of 100% natural uranium, was recently collected and sent to LANL as part of the ongoing non-RFLMA sampling project.

If you have any questions, please contact:

Scott Surovchak

DOE Office of Legacy Management

Rocky Flats Site manager

Scott.surovchak@lm.doe.gov

720-377-9672

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Bob Darr

Public Affairs

SM Stoller Corporation

DOE Legacy Management Support Contractor

720-377-9672

bob.darr@lm.doe.gov