

September 2, 2015

Mr. Richard Bush, Program Manager
U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503-1789

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION STAFF COMMENTS ON U.S. DEPARTMENT OF ENERGY DATA VALIDATION PACKAGE ENTITLED "JULY 2014 GROUNDWATER SAMPLING AT THE SHIRLEY BASIN SOUTH, WYOMING, DISPOSAL SITE," DATED OCTOBER 2014 (Docket Number 040-6659)

Dear Mr. Bush:

I am writing in response to the U.S. Department of Energy's (DOE's) Data Validation Package (DVP) entitled "July 2014 Groundwater Sampling at the Shirley Basin South, Wyoming, Disposal Site" dated October 2014 (Agencywide Document Access and Management System (ADAMS) Accession Number ML14342A088). The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the DVP and have the following comments:

1. Wells 51-SC and 101-SC were not sampled because they were dry. These wells were dry during the 2009, 2010, 2011, 2012, and 2013 sampling events. In addition, well 102-SC was dry in 2011, 2012 and 2013. NRC staff suggests DOE consider abandoning these wells and re-establishing a new Point of Compliance well to replace well 51-SC.
2. The Static Water Level Data table showed that wells 5-DC and 19-DC had water elevations that varied more than 10 feet from the previous report. NRC staff suggests DOE determine if this is significant.
3. It is not clear why Time Concentration Graphs for chloride, nitrate and sulfate are not included in the report for the site, as the ground water samples are analyzed for these constituents.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Agency Rules of Practice and Procedure," 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 ADAMS. ADAMS is accessible from the NRC Web site at: <http://www.nrc.gov/reading-rm/adams.html>.

R. Bush

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If you have any questions concerning the NRC staff comments, please contact me at 301-415-6749, or by e-mail at: Dominick.Orlando@nrc.gov.

Sincerely,

/RA/

Dominick A. Orlando, Senior Project Manager
Materials Decommissioning Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety and Safeguards

Docket No. 040-6659

cc: Shirley Basin South Distribution List
(See next page)

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