



Department of Energy

Washington, DC 20585

March 5, 2014

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
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WM-70

Subject: U.S. Department of Energy Response to U.S. Nuclear Regulatory Commission Review
Comments on the Monument Valley, Arizona, Groundwater and Surface Water
Sampling Reports Dated April 2013 (December 2012 Sampling Event) and August
2013 (June 2013 Sampling Event)

To Whom It May Concern:

Thank you for your comments regarding the December 2012 and the June 2013 groundwater and surface water sampling at the Monument Valley, Arizona, processing site. The U.S. Department of Energy, Office of Legacy Management (DOE-LM) would like to provide you with the following responses to the two comments included in the letter dated December 9, 2013 regarding these documents.

The U.S. Nuclear Regulatory Commission (NRC) suggested that DOE-LM consider including locations that do not have reported data on the sulfate results tables (Table 2) of the reports to facilitate identifying locations that were not sampled. DOE-LM will include locations that were not sampled in the sulfate results table in future reports.

The other comment received was specific to the December 2012 sampling event report and requested clarification on the exclusion of uranium data from the Potential Outliers Report in Attachment 1. Additionally, further explanation was requested by NRC on the reason for rejecting the uranium data from well 618.

The uranium values rejected from well 618 were not included in the Potential Outliers Report because the results could not be verified as valid and accurate values. Potential outliers are included in the report because they are values that are extremely large or small relative to the rest of the data, and have the potential of misrepresenting the population from which they were collected (therefore, requiring follow-up evaluation after further samples are collected). However, outliers may represent true extreme values indicative of variability beyond that expected in the population of data collected up to that time.

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In the case of well 618 uranium values from December 2012, the values were rejected because reanalysis indicated that uranium concentrations were considerably different in two different sample bottles, both collected from well 618. DOE-LM believes that this inconsistency in sample collection indicates an error in the sample collection process.

During the sampling event, samples from well 618 were collected from a tap connected to a submersible pump installed in the well for irrigation purposes. Well 618 is a production well from the former processing site and was not designed or installed as a groundwater monitoring well. Additionally, the submersible pump, from which samples were collected in December 2012, is not ideally suited for the low-flow sampling procedures that DOE-LM follows for sampling monitoring wells. DOE-LM has since installed a dedicated bladder pump in well 618, specifically designed and intended for purging and sampling groundwater. DOE-LM believes this has resolved sample collection consistency issues, and no issues related to accurate and consistent sample collection from well 618 have been identified in samples collected since the December 2012 sampling event.

Please call me at (970) 248-6073 if you have any questions. Please address any correspondence to:

U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
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Sincerely,



Richard P. Bush
Site Manager

cc:

D. Orlando, NRC

D. Miller, Stoller (e)

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