



**Department of Energy**  
Washington, DC 20585

February 16, 2016

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Deputy Director  
Mail Stop T8F5  
Washington, DC 20555-0001

Subject: U.S. Department of Energy Office of Legacy Management (DOE-LM) Response to the U.S. Nuclear Regulatory Commission (NRC) Letter dated December 15, 2015 ["U.S. Nuclear Regulatory Commission Staff Review of November 2014 Water Sampling at the Old and New Rifle, Colorado, Processing Sites (WM-00062)"]

To Whom It May Concern:

In response to NRC's letter dated December 15, 2015, regarding the "U.S. Nuclear Regulatory Commission Staff Review of November 2014 Water Sampling at the Old and New Rifle, Colorado, Processing Sites (WM-00062)", DOE-LM's responses to NRC's comments are provided as follows:

**NRC Comment 1**

*The October 2014 report for the June and August 2014 sampling at the sites indicated that DOE was going to determine if seven wells in the center of the mill site should be retained. Has the DOE made a determination as to the status of these wells?*

**DOE-LM Response 1**

The seven wells to be evaluated are CW06, CW09, CW12, CW19, CW22, CW23, and CW25. DOE-LM is still in the process of determining if the wells should be retained. These were construction dewatering wells installed by the city and not intended to be part of the compliance well network.

**NRC Comment 2**

*Wells 322 and 635 (New Rifle) were not sampled and an explanation was not provided. Suggest the DOE provide an explanation in the report when wells listed in the Groundwater Corrective Action Plan are not sampled.*

**DOE-LM Response 2**

Locations 0322 and 0635 are inaccessible due to a fence recently installed by the Colorado Department of Transportation. This information was provided to NRC in the October 2014 Data Validation Package (DVP). Also note that location 0322 is a surface water location. The status of these locations has not changed, and negotiation with the Colorado Department of Transportation is ongoing in an effort to obtain permission to safely access these locations. For the November 2014 sampling event, locations 0322 and 0635 were not scheduled to be sampled.



NM5501

**NRC Comment 3**

*One equipment blank was analyzed and the results indicate that no contamination from the sampling collection process occurred. However, only one equipment blank was analyzed for 35 samples while the Water Sampling Field Activity Verification Checklist states that one equipment blank will be collected per 20 samples. This may not be an issue if the Old Rifle samples were collected with dedicated equipment.*

**DOE-LM Response 3**

All Old Rifle locations were sampled with dedicated equipment and two New Rifle locations were sampled with non-dedicated equipment, so the frequency requirement for equipment blank sample submission and analysis was met, as indicated by the Water Sampling Field Activity Verification Checklist.

**NRC Comment 4**

*The potassium level at sample location 0395 appears to be elevated, and is identified as a potential outlier, but no explanation is provided as to the possible reason for the increased potassium level (note that the increased uranium level in sample for location 656 was explained in the report).*

**DOE-LM Response 4**

The potassium and uranium outliers in question are presented in the DVP on page 37. For both outliers, it was determined that the results did not appear to be affected by laboratory errors. No explanation was provided for either outlier, but it was noted that uranium seemed to be increasing at location 0656. Further evaluation of these analytes is expected to continue but is beyond the scope of the DVP. Groundwater monitoring evaluation is typically included with the annual groundwater report for the respective site.

**NRC Comment 5**

*The report states (on page 24- "Equipment Blank Assessment") that magnesium, sodium, uranium, and vanadium were detected in the equipment blank but were qualified during data validation as "not detected." It is not clear why these analytes were qualified as not detected when they were detected in the sample at over 10 times the detection limit for sodium and uranium.*

**DOE-LM Response 5**

The reasons these analytes were qualified as not detected are provided on pages 9 and 11 of the DVP. On page 9, "Table 4, Data Qualifier Summary," the magnesium, sodium, uranium, and vanadium results for the equipment blank are shown to be qualified with a "U" flag because these results were less than 5 times the calibration blanks. On page 11, "Method and Calibration Blanks," it is explained that, "In cases where a [calibration] blank concentration exceeds the [method detection limit (MDL)], the associated sample results are qualified with a "U" flag (not detected) when the sample result is greater than the MDL but less than 5 times the [calibration] blank concentration."

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

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Sincerely,



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