



Department of Energy

Washington, DC 20585

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U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Deputy Director
Mail Stop T8-F5
Washington, DC 20555-0001

Subject: U.S. Department of Energy Responses to U.S. Nuclear Regulatory Commission Staff
Comments on the 2018 Annual Site Inspection and Monitoring Report for Uranium
Mill Tailings Radiation Control Act Title I Disposal Sites
(NRC Docket Nos. WM-42 and WM-64)

To Whom It May Concern:

In response to U.S. Nuclear Regulatory Commission's (NRC's) letter dated May 9, regarding the NRC Staff Review of the 2018 Annual Site Inspection and Monitoring Report for Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I Disposal Sites, to Paul Kerl from Dominick Orlando, the U.S. Department of Energy (DOE) Office of Legacy Management's (LM's) response to NRC's comments are provided as follows.

NRC Comment 1

For the Canonsburg site, the groundwater sampling indicates that the uranium concentrations in wells 412 and 413 are below the alternate concentration limit (ACL), but above the maximum concentration limit (MCL). The uranium concentration in well 413 has remained relatively constant, while the uranium concentration in well 412 has increased from 1996 to the present. However, the 2000 Groundwater Compliance Action Plan states that the natural groundwater movement and geochemical attenuation processes will reduce uranium concentrations in groundwater to less than the MCL or background within 30 years. As this reduction does not appear to be occurring in these wells, how is DOE going to use this information to inform future decisions about the site?

DOE Response

LM recognizes the concentrations of uranium in groundwater at wells 412 and 413 have not decreased as originally predicted in the groundwater transport modeling for the Canonsburg, Pennsylvania, Disposal Site. However, the modeling showed that Chartiers Creek will significantly dilute groundwater contaminants as measured at the point of exposure (POE). Monitoring has shown the uranium concentration in surface water at the POE has remained at least one order of magnitude below the surface water ACL concentration defined for the POE, and therefore it remains protective of human health and environment. In the future, if monitoring results show concentrations in groundwater beneath the site exceed the groundwater ACL at the point of compliance, the compliance strategy for the site will be reevaluated. However, at this time, the compliance strategy remains effective and LM will continue to follow Canonsburg's Long-Term Surveillance Plan to ensure the environment and public are protected.

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NRC Comment 2

As noted in the NRC's Lakeview observational site visit (OSV) report (ADAMS Accession Number ML 17303A827), domestic well 0543 was not being sampled as required (ADAMS Accession Numbers ML 13137A377 and ML 12334A175). The OSV report states that the DOE site manager agreed to sample the well in 2018. However, the 2018 Title I inspection report states that sampling will occur in 2019. DOE should ensure that well 0543, or a suitable alternative well, is sampled during the 2019 sampling activity.

DOE Response

In a letter to NRC dated July 2, 2018, LM provided a response to this comment as follows:

DOE was unable to sample domestic well 0543 near the Lakeview, Oregon, Processing Site (site) during the May 2018 sampling event due to lack of right-of-entry from the owner. This well is located at 2250 Missouri Avenue, Lakeview, Oregon, more than 1000 feet cross-gradient from the site boundary. Exclusion of the upper 250 feet for domestic groundwater use within the institutional control (IC) boundary was codified by the Oregon Water Resources Commission, an office within the Oregon Water Resources Department, on March 12, 2004. The well was completed in 1962 to a depth of 155 feet.

NRC has stated that DOE can consider well 0543 to be "grandfathered in" (exempt) under the IC restrictions, and the State of Oregon has concurred with the concept that there are some pockets of relatively good quality water within the IC area. To ensure compliance with the IC boundary, DOE visited the property owners in 2005 and 2009 in an attempt to provide them with a hookup to municipal water or to drill a deeper well. The State of Oregon made similar attempts; however, the previous owner was not interested.

In 2010, the property was sold to Lakeview Cogeneration LLC. In email correspondence from a company representative to DOE dated May 12, 2016, the company representative stated, "The house continues to be on city water and sewer so the well is not used; we do have a renter in the house, and they are aware of the overlay in the area." From January to May 2018, DOE made nine attempts via phone, email, and certified mail to Lakeview Cogeneration LLC to gain access to the well for the May 2018 sampling event. Of those attempts, a company representative returned one phone call on January 30, 2018. He confirmed the property is connected to city water and that well 0543 is not being used. Ultimately, LM was not able to obtain right-of-entry to sample the well. In April 2018, the City of Lakeview was also able to confirm that the city water line has been hooked up to the property, but at the time city water was not being used. During the May 2018 sampling event, the water sampling team drove by the property and noted that the house appeared vacant with no sign of occupancy. The other four DOE-owned wells were sampled successfully, and the results are still pending.

As stated in the Groundwater Compliance Action Plan for the Lakeview, Oregon, Processing Site, DOE concluded this well will not be affected by the site in the future based on its cross-gradient location, depth, and low sulfate concentrations (based on sampling results from

1993 – 2010). Well 0543 is one of a kind in the area due to its completion depth and its status as the only well grandfathered in under the current IC restrictions; therefore, a suitable alternative well does not exist. Since both the property owner and the City of Lakeview have stated that the house is now connected to the city water system, the use of well 0543 as a potable water source is unlikely. For these reasons, DOE states that further attempts to sample this well are not necessary at this time. DOE will reassess the status of well 0543 prior to the next sampling event (in 2020).

Please contact me at (202) 586-8324, or Paul.Kerl@hq.doe.gov, or Mark Kautsky, UMTRCA Program Manager, at (970) 248-6018 or Mark.Kautsky@lm.doe.gov, if you have any questions. Please address any correspondence to:

U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

Sincerely,

Paul A Kerl

Paul A. Kerl
UMTRCA/NVOS Team Lead

cc:

D. Orlando, NRC
C. Carpenter, DOE-LM (e)
M. Kautsky, DOE-LM (e)
J. Nguyen, DOE-LM (e)
K. Broberg, Navarro (e)
J. Carman, Navarro (e)
D. Miller, Navarro (e)
C. Wentz, Navarro (e)
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