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Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

JUN 28 2019

JUN 26 2019

Mr. John E. Kieling, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 E. Rodeo Park Dr. Bldg. 1
Santa Fe, New Mexico 87505-6303

Subject: Notification of Toluene Detected in WIPP Detection Monitoring Well
WQSP-3, Permit Number NM4890139088-TSDF

Dear Mr. Kieling:

The letter is to notify you that toluene was discovered in Detection Monitoring Well (DMW) WQSP-3, which is hydraulically upgradient from the Waste Isolation Pilot Plant (WIPP) facility shafts. Toluene was detected above the background value of 1.00 $\mu\text{g/L}$ defined in Permit Part 5, Table 5.6 for DMW WQSP-3. This DMW was sampled on April 9, 2019 as part of the annual Detection Monitoring Program (DMP) sampling plan. The laboratory data report, received on June 20, 2019, shows a toluene concentration of 2.30 micrograms per liter ($\mu\text{g/L}$) in the primary sample, and 2.13 $\mu\text{g/L}$ in the duplicate sample. Because toluene concentrations are typically below the method detection limits for this well, these values are statistically significant, and reportable.

The preliminary assessment indicates the source of toluene in the WQSP-3 sample is not the regulated unit, but activities related to the installation of a new pump in 2017. When the new pump was installed on July 13, 2017, electrical wires were spliced, and the splice secured with electrical tape. Because there is published evidence that some electrical tapes contain toluene in the adhesive, the electrical tape was coated with a sealant (3M™ Scotchkote™ Electrical Coating FD) to prevent contact with groundwater. The presence of toluene suggests that the high-salinity ground water may have accelerated the degradation of the coating, exposing the electrical tape adhesive to the water.

The Permittees intend to demonstrate that an outside source is responsible for this contamination, therefore, this notification is being made pursuant to Permit Part 5, Section 5.10.4.1. In order to demonstrate that the contamination was due to an outside source, and not the regulated unit, the following actions are planned, pursuant to Permit Part 5, Section 5.10.4.2.

Immediate actions planned are to pump at least three well-bore volumes of water from the well, re-sample the well, and analyze for the toluene. The data will be evaluated, and a final report of the contamination source will be generated within 90 calendar days of New Mexico Environment Department's receipt of this notification.



Mr. John E. Kieling

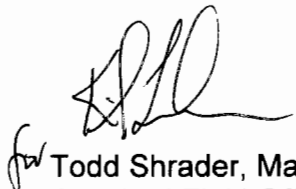
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During this evaluation period, the Permittees will continue to implement the DMP as required by Permit Part 5, Section 5.10.4.4. The long-term plan is to replace the tape and the coating with a waterproof inert material. Research into an alternate electrical line splicing method for high-salinity groundwater is ongoing.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

If you have any questions, please contact Mr. Michael R. Brown at (575) 234-7476.


for Todd Shrader, Manager
Carlsbad Field Office

Sincerely,


Bruce C. Covert, Project Manager
Nuclear Waste Partnership LLC

cc:

R. Maestas, NMED *ED

D. Biswell, NMED ED

M. McLean, NMED ED

CBFO M&RC

*ED denotes electronic distribution