

October 15, 2019

Attn: Mr. Roddy Rogers, P.E., D.WRE, F.ASCE
City Utilities of Springfield, Missouri
P.O. Box 551
Springfield MO 65801

Subject: Notification of Groundwater Protection Standard Exceedance

Dear Mr. Rogers,

Pursuant to the Federal Coal Combustion Residuals (CCR) Rule notification requirements under 40 Code of Federal Regulations (CFR) 257.95(g), Jacobs is notifying City Utilities of Springfield, Missouri that antimony was recently detected at statistically significant levels above the Groundwater Protection Standard (GWPS) at the John Twitty Energy Center (JTEC) utility waste landfill (UWL). The GWPS for antimony at JTEC is 9.82 micrograms per liter ($\mu\text{g/l}$) based on upgradient statistical data.

In July and August 2019, the seventeenth round of groundwater samples was collected from the JTEC groundwater monitoring well network. Analytical procedures/measurements were reviewed, and final data validation and statistical analyses were completed on October 10, 2019. Validated results from round seventeen include antimony concentrations above the GWPS at two groundwater monitoring wells, as summarized below:

- 1) MW-PZ-08D: An antimony concentration of 13.5 $\mu\text{g/l}$ was recorded.
- 2) MW-PZ-03D: An antimony concentration of 32.4 $\mu\text{g/l}$ was recorded.

Following the antimony exceedance that occurred during the thirteenth round of groundwater sampling in July 2018, an Alternative Source Demonstration (ASD) was prepared for the JTEC UWL (dated January 3, 2019) in accordance with 40 CFR 257.95(g)(3). The ASD demonstrated that the presence of antimony in the groundwater monitoring network is due to sources other than the JTEC UWL. The ASD concluded that the antimony detected in the JTEC UWL groundwater monitoring system is primarily caused by mobilized and transported antimony contained in surrounding soils from historical plant process wastewater piping releases upgradient of the JTEC UWL. Based on the low hydraulic conductivity of the site and slow-moving groundwater through the monitoring system as documented in the JTEC Groundwater Characterization Report (2018), the historical wastewater pipeline releases could impact the groundwater monitoring system for the next several years. For this reason, the ASD covers future detections of antimony in the JTEC groundwater monitoring system.

Should you have any questions, please contact me at (314) 335-4038 or by email at jeff.farah@jacobs.com.

Sincerely,



Jeff Farah, PE
Project Manager
Jacobs Engineering Group Inc.

CC: Gary Pendergrass, PE, RG, GeoEngineers