

July 28, 2023

Subject:
Semiannual Progress Report - Selection of Remedy
JH Campbell Pond A CCR Unit

This Semiannual Progress Report, prepared as a requirement of §257.97(a) of 40 CFR Parts 257 and 261, Disposal of Coal Combustion Residuals from Electric Utilities, under subtitle D of the Resource Conservation and Recovery Act (RCRA), also known as the Coal Combustion Residuals (CCR) Rule, describes progress toward selecting and designing remedies for CCR units that triggered Assessment of Corrective Measures (ACM) under the CCR Rule at the JH Campbell Solid Waste Disposal Area. Based on the schedule of self-implementation prescribed in the CCR Rule, a progress report is required to be prepared semiannually upon completion of the Assessment of Corrective Measures Report until the remedy is selected.

Consumers Energy completed the remedy selection for the Ponds 1-2 CCR Unit by placing a remedy selection report in the operating record as required by § 257.105(h)(12) in July 2023. As a result this semi-annual progress report will no longer reflect activities necessary to select a remedy for Ponds 1-2.

Consumers Energy (CE) reported statistically significant exceedances above the groundwater protection standard (GWPS) for a single Appendix IV constituent, arsenic, in the "Notification of Appendix IV Constituent Exceeding Groundwater Protection Standard per §257.95(g)" (Consumers Energy Company, January 2019). Subsequently, the Assessment of Corrective Measures Report (TRC, September 2019) was completed on September 11, 2019.

Unit with GWPS Exceedance	Constituent	# of Downgradient Wells Observed
Pond A	Arsenic	1 of 6

Remedy selection for Pond A, prescribed by the CCR Rule, is being undertaken in coordination with a Michigan Department of Environment, Great Lakes, and Energy (EGLE) Consent Agreement 115-01-2018 (the Agreement), which was executed on December 28, 2018. Per the Agreement, a Remedial Action Plan (RAP) was submitted to EGLE on September 30, 2021. Negotiations for a final RAP are ongoing with EGLE.

Semiannual Update

The ACM Report identified final cover as the primary corrective action for Pond A but also considered five technically feasible groundwater management alternatives to address the potential for residual arsenic if necessary.

Consumers Energy closed Pond A according to the “*JH Campbell Generating Facility Pond A Closure Plan, West Olive, Michigan*” (Golder, October 2016) and an updated closure plan detailing the final cover system submitted to EGLE in 2019. The state closure certification as required by Paragraph 4.2 of the Agreement was approved by EGLE on November 25, 2019.

Arsenic was identified at statistically significant levels exceeding the GWPS in one well during the initial assessment monitoring event conducted in June 2018. Arsenic continued to be present at statistically significant levels at or above the GWPS through second quarter 2021. Arsenic concentrations show a steady decline since 2019 and decreased to below the GWPS in third quarter 2021 through second quarter 2023 (with the exception of fourth quarter 2022 slightly above the GWPS).

The decrease in arsenic concentrations since 2019 demonstrates the effectiveness of the final cover on addressing the arsenic concentrations associated with operations at Pond A. However, as the groundwater flow regime has changed and Pond A has been dewatered and capped, changes in groundwater concentrations are being observed for several Appendix III constituents (e.g. boron) and Appendix IV constituents within the Pond A monitoring network. These observations are associated with influence from immediately adjacent, upgradient, closed, pre-existing CCR units on-site.

Trends continue to be monitored and statistical significance relative to applicable GWPSs continue to be evaluated during the post-closure period as groundwater continues to reach its new equilibrium and groundwater travels from the upgradient, closed units. The closed, pre-existing units are not currently regulated under the CCR Rule, but remedial action is being taken in coordination with EGLE under the Agreement.

Following the source control activities, the remedy for Pond A will be formally selected per §257.97 once the selected option is reviewed and commented on by EGLE and a public meeting is conducted at least 30-days prior to the final selection as required under §257.96(e).

References

Barr Engineering. September 2021. Site-Wide Remedial Action Plan. JH Campbell Solid Waste Disposal and Surrounding Areas. Prepared for Consumers Energy Company.

Consumers Energy Company. January 14, 2019. Notification of Appendix IV Constituent Exceeding Groundwater Protection Standard per §257.95(g), JH Campbell Pond A CCR Unit.

Consumers Energy Company. July 21, 2023. JH Campbell Ponds 1-2 North and 1-2 South Coal Combustion Residual (CCR) Unit 40 CFR 257.97(a) Selection of Remedy Letter Report.

EGLE. November 2019. Pond A Closure Certification, JH Campbell Landfill; Waste Data System Number 395496.

Golder Associates. October 2016. JH Campbell Generating Facility Pond A Closure Plan, West Olive, Michigan. Prepared for Consumers Energy Company.

Golder Associates. January 2019. JH Campbell Generating Facility Pond A Closure Plan, West Olive, Michigan. Prepared for Consumers Energy Company.

TRC Environmental Corporation. September 2019. Assessment of Corrective Measures, Consumers Energy Company JH Campbell Ponds 1-2 North and 1-2 South and Pond A Coal Combustion Residual Units. Prepared for Consumers Energy Company.