

**Semi-Annual Progress Report-05
Selection and Design of Corrective Remedy
Clinch River Ash Pond 1**

**Clinch River Plant
Appalachian Power Company
Cleveland, Virginia**

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1.0 BACKGROUND

The Ash Pond 1 site at the Clinch River Plant is subject to the federal CCR rule (40 CFR Part 257) and the Virginia Department of Environmental Quality (VA DEQ) solid waste regulations (9 VAC 20-81-800 *et seq.*). The pond is considered an inactive impoundment (out of service, but still containing standing water when the rule took effect on 19 October 2015), and is currently subject to 40 CFR Part 257, as amended in October 2016 to include Extension of Compliance Deadlines for Certain Inactive Impoundments and 9 VAC 20-81-820. The permitting process with VA DEQ for closing the impoundment began in October 2015, and in June 2017 VA DEQ issued Permit #620 for Ash Pond 1. Closure of Ash Pond 1 was completed in 2018.

As of this progress report, Virginia DEQ has not received CCR permit program authority from U.S. EPA to operate in lieu of the federal CCR rule, and American Electric Power (AEP) must comply with both regulations. This progress report focuses on the federal CCR rule requirements except where permit approval from VA DEQ is necessary to meet aspects of those federal requirements.

Sampling and analyses of groundwater from the monitoring network installed pursuant to 40 CFR §257.95 identified the following Appendix IV constituents at statistically significant levels above the respective groundwater protection standards (GWPS): barium, cobalt, lithium, and molybdenum.

AEP identified two technically feasible alternatives for remediating the groundwater, which are listed. Alternative 2A is currently being evaluated.

Alternative #1: Source Removal with Monitored Natural Attenuation

Alternative #2: Groundwater Extraction, Treatment and Surface Water Discharge

Alternative #2A: Groundwater Extraction and Treatment at the Downgradient Edge of the Unit

Alternative #2B: Groundwater Extraction and Treatment at the Downgradient Edge of the Unit with Upgradient Barrier

Alternative #2C: Groundwater Extraction and Treatment at the Upgradient Unit Boundary.

The Assessment of Corrective Measures (ACM) report was prepared and posted to the Operating Record on December 11, 2019. A public meeting was conducted on December 19, 2019, in the town of Lebanon, Virginia to discuss the remediation technologies that are technically feasible for the specific site conditions at pond 1. A 30-day public comment period occurred from December 19, 2019, to January 20, 2020. One public comment was received during the 30-day period.

2.0 PURPOSE

This semiannual report is required by 40 CCR §257.97 and describes AEP's progress in selecting and designing the corrective measure(s) discussed in the ACM Report.

This report covers the period from: January 21, 2022 - July 18, 2022.

3.0 PROGRESS

AEP received comments from the VA DEQ regarding the ACM and Nature and Extent Study (NES) reports on May 19, 2021. AEP addressed the comments and finalized and resubmitted the reports on August 25, 2021. Additional wells were installed during this reporting period to address comments on the NES report. AEP has not received final approval of the ACM and NES reports as of this update. Approval of the ACM and NES by VA DEQ is necessary before submitting a Corrective Action Plan and Corrective Action Monitoring Plan to modify the permit and implement the selected remedy per the requirements in 9 VAC 20-81-260. This VADEQ permit is also needed to formally select the remedy as required by the federal CCR Rule.

AEP also conducted the semi-annual groundwater sampling and testing during this report period. The results will be summarized in the report, “Annual Groundwater Monitoring and Corrective Action Report” to be posted to the operating record on January 31, 2023.

4.0 PLANNED WORK

AEP plans to continue to evaluate and advance the design of the groundwater extraction and treatment system as part of determining a final remedy.

AEP will respond to comments, if any, on the ACM and NES reports submitted to VA DEQ

AEP will sample and test all of the monitoring wells as part of the semi-annual requirement.

AEP will submit another progress report by January 18, 2023.