

# **Semi-Annual Progress Report-04 Selection and Design of Corrective Remedy Mountaineer Bottom Ash Ponds**

**Mountaineer Plant  
Appalachian Power Company.  
New Haven, WV**

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## **1.0 BACKGROUND**

The Bottom Ash Pond Complex (BAP) at the Mountaineer Plant is regulated by the Federal CCR Rule, 40 CFR Part 257. Sampling and analyses of groundwater from the monitoring network installed pursuant to 40 CFR §257.95 identified the following Appendix IV constituent at statistically significant levels above the respective groundwater protection standards (GWPS): lithium.

AEP determined that there are three technically feasible alternatives for remediating the groundwater at the BAP. Each alternative includes some form of source control. The current plan for source control would be to close the BAP by removing the ash. All three (3) Alternatives are currently under evaluation.

Alternative #1: Source Control with Monitored Natural Attenuation

Alternative #2: Source Control with Groundwater Plume Containment by Hydraulic Containment System

Alternative #3: Source Control and In-Situ Treatment by Permeable Reactive Barrier

The Assessment of Corrective Measures (ACM) report was prepared and posted to the Operating Record on June 24, 2019. A public meeting was conducted on August 22, 2019 in the town of New Haven, West Virginia to discuss the remediation technologies that are technically feasible for the specific site conditions at the BAP. A 30-day public comment period started on August 22 and ended on September 21, 2019. No public comments were received during the 30-day period.

## **2.0 PURPOSE**

This semiannual report is required by 40 CFR §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: March 21, 2021 – September 20, 2021.

## **3.0 PROGRESS**

During the period covered by Report-04, AEP has made progress in evaluating each of the three corrective measure alternatives.

AEP has been working with an engineering firm. The detailed engineering is continuing for design work for closure by removal and other ancillary modifications to the BAP. This work includes alternate CCR disposal methods and water treatment methods to align the facility with finalized CCR and ELG rules.

In regards to Alternatives 2 and 3, the final report on laboratory testing of potential media to remove constituents of concern was received and is being evaluated as part of the selection of remedy process.

AEP conducted 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."

Additional samples were collected from plant production wells, non-CCR wells, and surface water locations across the site. A pump test was conducted using plant production wells. The findings of the additional sampling and the pump testing will be included in a report regarding the selection and design of a remedy as per the criteria set forth in 40 CFR §257.97.

## **4.0 PLANNED WORK**

In terms of planned work, AEP will work with the Consultant to finalize the evaluation of each of the three corrective measure alternatives and plans to issue a report as per the criteria set forth in 40 CFR §257.97 regarding the selection and design of a remedy.

Source control by closure by removal is identified for each remedial alternative in the ACM. AEP plans to finalize the design and plans for the closure by removal project.

AEP will sample and test all of the monitoring wells as part of the assessment monitoring requirements.

AEP will submit another progress report by March 20, 2022, if needed.