

# **Semi-Annual Progress Report-01 Selection and Design of Corrective Remedy Conesville Ash Pond System**

**Conesville Plant  
AEP Generation Resources  
Conesville, OH**

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## **1.0 BACKGROUND**

The Ash Pond System (APS) at the Conesville 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 constituents at statistically significant levels above the respective groundwater protection standards (GWPS): arsenic, lithium, molybdenum.

AEP determined that there are three technically feasible alternatives for remediating the groundwater at the APS. Each could be implemented with two options for source control: closure by removal or closure by capping.

Alternative #1: Source Control with Monitored Natural Attenuation

Alternative #2: Source Control with Plume Containment by Groundwater Extraction; Treatment and Surface Water Discharge of Extracted Groundwater

Alternative #3: Source Control with Plume Containment by Groundwater Extraction; Treatment and ReInjection of Extracted Groundwater

An Assessment of Corrective Measures (ACM) Report describing these alternatives was prepared in accordance with 40 CFR §257.96 and posted to the Operating Record on June 24, 2019. The alternatives were presented at a public meeting held on August 8, 2019 in Conesville, Ohio. A 30-day public comment period started on August 8, 2019 and ended on September 7, 2019. No public comments were 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-01 covers the period from: September 7, 2019 – March 6, 2020.

## **3.0 PROGRESS**

As noted in the ACM Report, AEP determined that source control could be achieved by either closing the APS and leaving CCR materials in place with a CCR compliant cap system or by removing all CCR materials from the APS and disposing of them at an acceptable landfill.

During the period covered by Report-01, AEP evaluated the construction duration and constraints associated with the removal of CCR from the APS and prepared a construction cost estimate for this source control option. At this time, AEP Management is reviewing the cost estimate, as well as the risks and benefits of each source control option.

AEP conducted the semi-annual groundwater sampling and testing during this report period. In addition to sampling the monitoring wells in the CCR groundwater network, the monitoring wells installed in 2018 and 2019 were also sampled. A total of 47 wells (19 Network and 28 Other) were sampled and the results summarized in the report, "Annual Groundwater Monitoring and Corrective Action Report."

AEP continued laboratory testing of potential media to remove the constituents of concern. This initially involved bench scale treatability testing by mixing potential media with quartz sand as a base soil matrix.

Site-specific groundwater was added to the base soil matrix. The test solutions were analyzed to evaluate metals removal rates and efficiency.

The bench scale test results were then used to design a series of laboratory testing called column tests. The column tests mixed media with site-specific aquifer soils to create the soil matrix. Site-specific groundwater was pumped through the soil column and allowed to infiltrate through the soil matrix. The results of this testing will be used during the evaluation of Alternatives 2 and 3.

## **4.0 PLANNED WORK**

AEP will continue the next phase of media testing and evaluation. This work is being conducted under a contract with the Electric Power Research Institute (EPRI).

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

AEP also plans to retain the services of a consultant to further evaluate the technologies identified in the ACM as per the criteria set forth in 40 CCR §257.97

AEP will submit another progress report by September 6, 2020.