

**SEMI-ANNUAL  
SELECTION OF REMEDY (SoR)  
PROGRESS REPORT  
(Q1 and Q2 2020)**

**McELROY'S RUN COAL COMBUSTION  
BYPRODUCT DISPOSAL FACILITY**

Pleasants Power Station  
Pleasants County, West Virginia

*Prepared for:*

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## 1.0 INTRODUCTION

This Semi-Annual Selection of Remedy (SoR) Progress Report was prepared by Tetra Tech, Inc. (Tetra Tech) on behalf of Allegheny Energy Supply Company (AES) for the Coal Combustion Byproduct Disposal Facility (“CCBDF”, “CCR unit”, or “Site”) at the Pleasants Power Station (hereinafter referred to as the “Station”). The Station and CCBDF are located near the town of Belmont in Pleasants County, West Virginia. The period covered by this report is the first two quarters (Q1 and Q2) of calendar year 2020 (January 1<sup>st</sup> through June 30<sup>th</sup>).

As per 40 CFR 257.97(a), once a Coal Combustion Residual (CCR) unit has completed an Assessment of Corrective Measures (ACM) and transitions to SoR, “The owner or operator must prepare a semiannual report describing the progress in selecting and designing the remedy.” Accordingly, this report summarizes the progress to date in selecting and designing the remedy for addressing arsenic concentrations in groundwater downgradient of the CCR unit and also includes a summary of anticipated SoR activities which will be conducted over the next SoR reporting period.

Detailed background information on the CCR unit, hydrogeologic site conditions, and CCR monitoring results can be found in various other documents on the CCBDF’s publicly accessible website, the most recent of which being the 2019 Annual CCR Rule Groundwater Monitoring and Corrective Action Report ( [McElroy's Run CCB Disposal Facility 2019 Annual GWMCA Report](#) ). The following section provides background information as it relates to the SoR at the CCR unit.

### 1.1 Background

Groundwater Assessment Monitoring (AM) conducted at the site in accordance with the federal CCR Rule identified arsenic, barium, lithium and radium concentrations in certain downgradient CCR monitoring wells which were at Statistically Significant Levels (SSLs) above their corresponding Groundwater Protection Standards (GWPS). Pursuant to 40 CFR 257.95(g)(3)(ii), Tetra Tech performed an Alternative Source Demonstration (ASD) to assess if the Appendix IV SSLs determined for sampling events AM-1, -2, and -3 were attributable to a release from the CCR unit or from a demonstrable alternative source(s). The Appendix IV ASD is included as Attachment A of the ACM Report prepared for the Site ( [McElroy's Run CCB Disposal Facility 2019 ACM Report](#) ) and determined that the barium and radium SSLs can be attributed to historical and current oil and gas exploration and production activities that have occurred at the Site; that the source of the lithium SSLs are currently indeterminate but there is a high potential they are also attributable to oil and gas impacts at the Site; and that the arsenic SSLs could not be attributed to sources other than the CCR unit. As such, a transition to Nature and Extent (N&E) of release

characterization and ACM for arsenic per 40 CFR 257.96 of the CCR Rule were implemented.

As required by 40 CFR 257.96(c), the ACM conducted by Tetra Tech on behalf of FE included an analysis of the effectiveness of potential corrective measures in meeting the remedy requirements and objectives as described under 40 CFR 257.97. The ACM Report evaluated the following corrective measures against the criteria referenced in 40 CFR 257.96(c): Source Control, Groundwater Extraction and Treatment, In-Situ Technologies and Monitored Natural Attenuation (MNA).

Based on the evaluation of viable remediation technologies, MNA, combined with source control by the eventual installation of a final cover system, ranks highest among the evaluated options. In September 2019, pursuant to 40 CFR 257.96(d), the ACM Report was posted in the CCR unit's Operating Record, and then subsequently posted to the facility's publicly accessible website on October 16, 2019 ( [McElroy's Run CCB Disposal Facility 2019 ACM Report](#) ).

## 1.2 SoR Regulatory Basis

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SoR activities must be completed in compliance with 40 CFR 257.97(a), which states that as soon as feasible after completion of the ACM, a remedy must be selected that, at a minimum, meets the performance standards listed in 40 CFR 257.97(b), and considers the evaluation factors listed in 40 CFR 257.97(c).

## 2.0 CURRENT STATUS OF THE SELECTION OF REMEDY PROGRAM

The following activities have been performed during the current reporting period as part of selecting the remedy at the Site:

- 40 CFR 257.95(g)(1)(i) requires that the extent of groundwater impacts be defined by installing additional monitoring wells as necessary. In order to fulfill this requirement, six new downgradient monitoring wells, including three off-site locations, have been identified and field staked. These new monitoring wells will serve to better characterize the extent of arsenic in groundwater and to evaluate potential natural attenuation impacts on arsenic concentrations downgradient of the CCR unit. For the proposed off-site well locations, FE is currently negotiating right-of-access and lease agreements with the landowners so the new wells can be installed.
- Initiating development of a Natural Attenuation Evaluation Work Plan to include evaluating historic concentrations of parameters which can affect the natural attenuation of arsenic (e.g., iron, pH, ORP, etc.) as well as planning the sampling and analysis program that would be associated with future MNA activities.

- Initiated a review of candidate technologies with regard to their potential to meet the performance standards listed in 40 CFR 257.97(b) and the evaluation factors listed in 40 CFR 257.97(c).
- Continued AM with a sampling event in February 2020, which included sampling of the site's eleven CCR monitoring wells with analyses for all Appendix III and Appendix IV parameters along with targeted general chemistry parameters to assist in evaluating potential natural attenuation impacts.
- Determined February 2020 groundwater flow patterns in the monitoring network area downgradient of the CCR unit and found they were consistent with established flow patterns at the Site.

### **3.0 PLANNED SoR ACTIVITIES**

The following activities are planned as part of the ongoing SoR process:

- Continue evaluation of the historic groundwater monitoring data set for relationships between key parameters affecting arsenic natural attenuation and arsenic concentrations in groundwater.
- Complete development of the Arsenic Natural Attenuation Evaluation Work Plan.
- Install, develop, and sample the six additional downgradient groundwater monitoring wells for arsenic and natural attenuation parameters.
- Continue evaluating the candidate technologies identified in the ACM against the performance standards listed in 40 CFR 257.97(b) and the evaluation factors listed in 40 CFR 257.97(c).
- As required by 40 CFR 257.96(e), FE will discuss the results of the corrective measures assessment at least 30 days prior to the final selection of remedy, in a public meeting.
- Upon completion of all required SoR activities, FE will prepare a final report describing the selected remedy and how it, at a minimum, meets the performance standards listed in 40 CFR 257.97(b) and considers the evaluation factors listed in 40 CFR 257.97(c).
- As required by 40 CFR 257.97(d), FE will specify, as part of the selected arsenic remedy, a schedule(s) for implementing and completing remedial activities.
- Complete the second scheduled 2020 AM sampling event at the Site.

Should the final remedy for the CCR unit not be selected during 3Q or 4Q 2020, then another Semi-Annual SoR Report will be prepared as required by 40 CFR 257.97(a).