

CLOSURE PLAN

40 CFR 257.102(b)

Bottom Ash Complex

Mountaineer Plant
New Haven, West Virginia

October 2016
Revised June 2020
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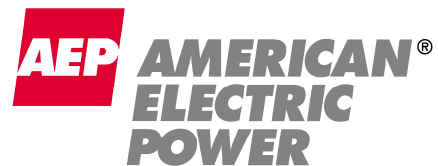
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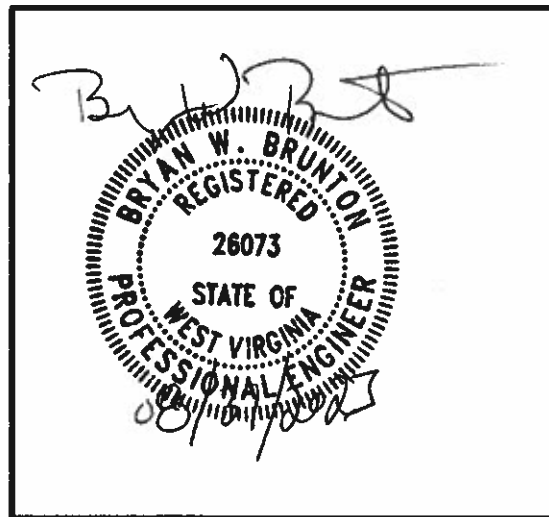
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CLOSURE PLAN (REVISED AUGUST 2023)
40 CFR 257.102(b)
MOUNTAINEER PLANT
BOTTOM ASH COMPLEX

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I certify to the best of my knowledge, information, and belief that the information contained in this closure plan meets the requirements of 40 CFR § 257.102(b)

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1.0 OBJECTIVE

This report was prepared by AEP- Geotechnical Engineering Services (GES) section to fulfill requirements of 40 CFR 257.102(b) for Closure Plans of Existing CCR Surface Impoundments

2.0 DESCRIPTION OF THE CCR UNIT

The Mountaineer Power Plant is located near the City of New Haven, Mason County, West Virginia. It is owned and operated by Appalachian Power Company (APCO). The facility operates one surface impoundment for storing CCR called the Bottom Ash Complex.

The Bottom Ash Complex is comprised of diked embankments on the north, east, and west sides. The south side of the Bottom Ash Complex is incised. There are six main ponds within the Bottom Ash Complex as listed below. The Bottom Ash Ponds and Wastewater Ponds were designed in tandem; one Bottom Ash Pond and one Wastewater Pond are in service at a given time. The East and West bottom ash ponds are collectively referenced as the Bottom Ash Ponds in this document.

List of Main Ponds within the Bottom Ash Complex

East Bottom Ash Pond (CCR Unit)
West Bottom Ash Pond (CCR Unit)
East Wastewater Pond (Non-CCR Pond)
West Wastewater Pond (Non-CCR Pond)
Reclaim Pond (Non-CCR Pond)
Clearwater Pond (Non-CCR Pond)

3.0 DESCRIPTION OF CLOSURE PLAN 257.102(b)(1)(i)

[A narrative description of how the CCR unit will be closed in accordance with this section]

The Mountaineer Bottom Ash Ponds will be closed by removal of the CCR material. The Mountaineer Plant will convert to dry bottom ash handling system.

4.0 CLOSURE BY REMOVAL 257.102 (b)(1)(ii)

[If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with paragraph (c) of this section.]

Closure by removal of CCR will include removal of all CCR from the CCR unit. The removal of all CCR from the CCR unit, and bottom soils that may have been affected by releases from the CCR unit, will be accomplished by excavation of the material, the hauling and placing of the material in the Little Broad Run Landfill at the Mountaineer Power Plant.

A visual evaluation of the pond bottom by a third party consultant will be the basis for declaring the CCR material has been removed. All CCR material and an additional 12 inches of soil from the pond bottom will be removed, after which soil samples will be collected from the excavation area and analyzed for the presence of appendix IV parameters. Soil decontamination and/or additional excavation will continue to the extent needed to ensure the protection of human health and the environment. Consistent with EPA and/or West Virginia Regulatory Standards.

The bottom ash ponds will be repurposed as wastewater settling ponds with a new geosynthetic liner system.

4.1 CLOSURE PERFORMANCE STANDARDS 257.102 (c)

[An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to §257.95(h) for constituents listed in appendix IV to this part.]

Closure of the CCR unit will be completed when all CCR in the unit and any areas affected by releases from the CCR unit have been removed, and groundwater monitoring demonstrates that all concentrations of the assessment monitoring constituents listed in appendix IV to part 257 do not exceed groundwater protection standards for a minimum of three years (257.96(c)) using the statistical procedures in § 257.93(g).

5.0 ESTIMATE OF MAXIMUM CCR VOLUME 257.102 (b)(1)(iv)

[An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.]

The storage volume of the bottom ash pond is 955 acre feet. The estimate of the maximum volume of CCR ever on-site 484,000 cubic yards.

6.0 ESTIMATE OF LARGEST AREA OF CCR REQUIRING COVER 257.102 (b)(1)(v)

[An estimate of the largest area of CCR unit ever requiring a final cover]

This pond will be closed by removal of CCR materials as such this section is not applicable.

7.0 CLOSURE SCHEDULE 257.102(b)(1)(vi)

[A schedule for completing all activities necessary to satisfy the closure criteria in the section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of the CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of the CCR unit closure.]

The closure of the Bottom Ash Ponds will be a phased approach as generally outlined below allowing the West BAP to continue to receive CCR material and wastewaters until the East BAP is closed and repurposed as a lined pond for non-CCR wastestreams. The West BAP when then be closed and also repurposed as a lined pond for non-CCR wastestreams. The table below is a summary of major activities and milestone dates to complete the closure project.

Engineering and design of closure	August 2020 - September 2021
Bid and award Civil construction contract	September 2021 - March 2022
Submit and obtain permits	November 2020 – December 2021
Remove CCR and soil material from East BAP	March 2022 – July 2022
Construct new wastewater liner in East BAP	July 2022 – January 2023
Remove CCR and soil material West BAP	March 2023 – July 2023
Construct new wastewater liner in West BAP	July 2023 – November 2023

Record of Plan Revisions		
Revision Number	Date	Revision Description
0	October 2016	Original Document
1	June 2020	Revised Document from Closure in place to closure by removal
2	November 2020	Updated Document Section 4.0 to reference cleanup standard
3	August 2023	Updated Section 4.0 to reference protection of human health and the environment