

# CLOSURE PLAN

**CFR 257.102(b)**

Bottom Ash Complex

Amos Plant  
Putnam County, West Virginia

October 2016  
Revised November 2020

Prepared for: Appalachian Power Company – John E. Amos Plant

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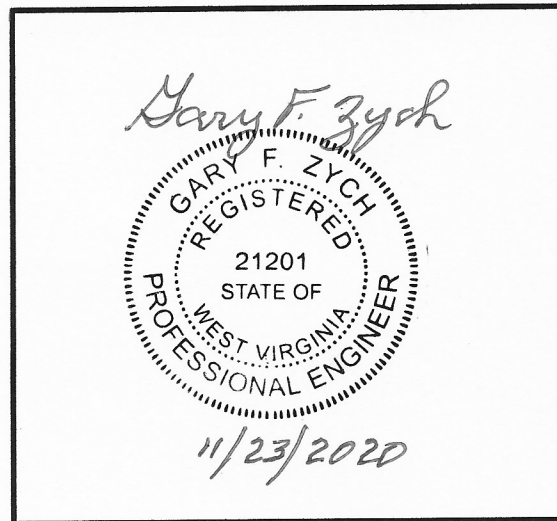
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CLOSURE PLAN (REVISED NOVEMBER 2020)  
CFR 257.102(b)  
JOHN E. AMOS PLANT  
BOTTOM ASH COMPLEX

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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 CCR 257.102(b) for Closure Plans of Existing CCR Surface Impoundments

## **2.0 DESCRIPTION OF THE CCR UNIT**

The John E. Amos Power Plant is located near Winfield, Putnam 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 four main ponds within the Bottom Ash Pond Complex as listed below.

### List of Main Ponds within the Bottom Ash Complex

Bottom Ash Pond 1A  
Bottom Ash Pond 1B  
Reclaim Pond  
Clearwater 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 John E. Amos Bottom Ash Complex will be closed by removal of the CCR material. The Amos Plant will convert to dry bottom ash handling systems at all three power generating units.

## **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 of the bottom ash pond complex will be accomplished by removal of all CCR from the CCR unit. The removal of all CCR from the CCR unit and soils from the bottom area of the pond will be accomplished by excavation, hauling and placing of the material in the John E Amos Landfill.

A visual evaluation of the pond bottom by a third party consultant will be the basis for declaring the CCR material has been removed. After all CCR material has been removed, an additional 12 inches of soil from the pond bottom will be removed as part of the procedure.

The Bottom Ash Pond 1B, the Reclaim Pond and the Clearwater Pond will be repurposed as wastewater ponds with a new geosynthetic liner system. The Bottom Ash Pond 1A will be backfilled and graded-to-drain using clean borrow soils.

#### **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 the 12-inches of bottom soil 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 either statistically equivalent background levels or MCLs for two consecutive sampling events 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 estimated maximum CCR volume ever on-site is 511,000 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 Pond Complex will be a phased approach as generally outlined below allowing BAP 1A to continue to receive CCR material and wastewaters until the dry bottom ash handling systems are operational and new lined wastewater ponds are available for non-CCR wastestreams. The table bellows is a summary of major activities and milestone dates to complete the closure project.

Engineering and design of pond closure	November 2020 – February 2021
File permit applications	March 2021
Acquire State/Local Permits	September 2021
Remove CCR material from BAP 1B	August 2021 – November 2021
Construct Pond 1B wastewater liner	November 2021- June 2022
Remove CCR material from Reclaim Pond	September 2022 – November 2022
Construct Reclaim wastewater liner	November 2022 – April 2023
Remove CCR material from Clearwater Pond	May 2023 – July 2023
Construct Clearwater wastewater liner	July 2023- October 2023
Remove CCR material from BAP 1A	November 2023 – February 2024
Complete Backfill and grade-to-drain BAP 1A	March 2024 – July 2024
Seed and mulch BAP 1A	July 2024 – September 2024