CLOSURE PLAN

Chesapeake Energy Center CCR Surface Impoundment:
Bottom Ash Pond

Submitted to:

Virginia Electric and Power Company d/b/a Dominion Energy Virginia
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Submitted by:

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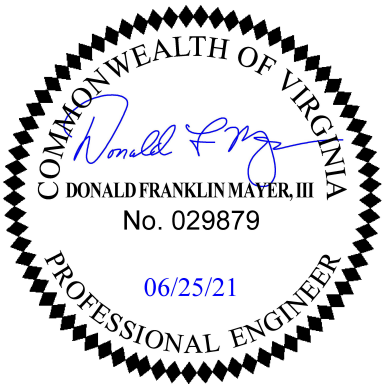
1.0 CERTIFICATION

This Closure Plan for the Chesapeake Energy Center's Bottom Ash Pond was prepared by Golder Associates Inc. (Golder). The document and Certification/Statement of Professional Opinion are based on and limited to information that Golder has relied on from Dominion and others, but not independently verified, as well as work products produced by Golder.

On the basis of and subject to the foregoing, it is my professional opinion as a Professional Engineer licensed in the Commonwealth of Virginia that this document has been prepared in accordance with good and accepted engineering practices as exercised by other engineers practicing in the same discipline(s), under similar circumstances, at the same time, and in the same locale. It is my professional opinion that the document was prepared consistent with the requirements in 40 CFR §257.102 of the United States Environmental Protection Agency's "Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments," published in the Federal Register on April 17, 2015, with an effective date of October 19, 2015, and subsequent amendments.

The use of the word "certification" and/or "certify" in this document shall be interpreted and construed as a Statement of Professional Opinion and is not and shall not be interpreted or construed as a guarantee, warranty, or legal opinion.

Donald Mayer, P.E., LEED AP	Associate and Practice Leader
Print Name	Title
	June 25, 2021
Signature	Date



2.0 INTRODUCTION

This amended Closure Plan was prepared for the inactive Coal Combustion Residuals (CCR) surface impoundment at the Chesapeake Energy Center (CEC), the Bottom Ash Pond (BAP). This Closure Plan was prepared in accordance with 40 CFR Part 257, Subpart D and is consistent with the requirements of 40 CFR §257.102 for closure of CCR surface impoundments. The Closure Plan is being amended to update the closure method, timeframes listed in Section 4.0, and other relevant information.

The Station, owned and operated by Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion), is located at 2701 Vepco Street, Chesapeake, Virginia. The Station includes one inactive CCR surface impoundment, the BAP, as defined by the Federal Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule (40 C.F.R. Part 257, Subpart D; "CCR Rule"). The BAP will complete closure by removal of CCR in accordance with §257.102(c) of the CCR rule, 9 VAC 20-81-800-820 of the Virginia Solid Waste Management Regulations, and §10.1-1402.03 of the Code of Virginia.

2.1 Bottom Ash Pond Information

The current configuration of the BAP was developed in approximately 1985 when the onsite industrial landfill was constructed. The BAP was designed for bottom ash management (separate from the sedimentation pond) and is approximately 4.5 acres in plan area. As-built drawings for the current configuration indicate that the unlined BAP is approximately 11 feet deep and has varying interior sideslopes. Based on historical construction documents and ash handling records, the BAP currently contains approximately 42,000 cubic yards (CY) of CCR.

The BAP received bottom ash sluice from the CEC as part of normal station operations. The sluiced bottom ash entered the pond on the northeast corner, where it then flowed through a serpentine path to the outlet on the west side. The bottom ash solids dropped out by gravity and the water decanted into the adjacent sedimentation pond for eventual discharge through Outfall 002, which is regulated under Virginia Pollutant Discharge Elimination System (VPDES) Permit # VA0004081. Historically, bottom ash solids were excavated, stockpiled within the bounds of the pond for further dewatering, and then placed in the landfill or sent offsite for beneficial use.

In December 2014, the Station ceased coal-fired electric generating activities, and subsequently ceased placing CCR in the pond. The BAP continues to receive surface water runoff from the adjacent landfill which discharges to the adjacent sedimentation basin.

The berm incorporating the BAP and the sedimentation pond is regulated under Virginia Department of Conservation and Recreation (DCR) Operation and Maintenance Certificate, Inventory No. 550002.

3.0 CLOSURE IMPLEMENTATION AND APPROACH

3.1 Material Removal and Disposal

Dominion intends to complete closure of the BAP by removal of the CCR, which will be performed by common earthwork equipment consisting of excavators, bulldozers, dump trucks, etc. Dewatering of the material, if required, will be accomplished by placing the wet material into windrows and allowing it to drain until a suitable moisture content is reached. This technique was successfully applied at the BAP during its operational period, owing to the relatively free-draining nature of the bottom ash. CCR removed from the BAP will be preferentially used for beneficial reuse projects, subject to market demand and needs. Any CCR that is not identified for beneficial reuse will be taken to an off-site permitted solid waste disposal facility.

Pursuant to §10.1-1402.03 of the Code of Virginia, CCR material from the BAP, industrial landfill, and the underlying historical pond area will be removed as part of closure. CCR within the BAP will be excavated until the original design grades of the pond are reached, or until the sand drainage layer is reached, whichever comes first. Certification of the removal will be provided by a Virginia-licensed Professional Engineer. Excavation of CCR material from the landfill and the underlying historic pond area may occur in advance or concurrently with the work at the BAP to aid in the BAP excavation and subsequent stabilization.

3.2 Post-Excavation Embankment Stability

3.2.1 East, West, and South Embankments

Golder evaluated the BAP embankment stability during the anticipated conditions of excavation, immediately after excavation, and after final closure (Initial Safety Factor Assessment dated April 2018). This evaluation shows that the east, west, and south embankments exhibit satisfactory calculated factors of safety during all phases of excavation and at their final configuration. No special considerations are needed for these embankments during pond closure.

3.2.2 North Embankment

Removing the bottom ash up to the north (landfill) embankment removes the buttressing effect provided by the material and lowers the north embankment's long-term factor of safety below recommended values, as described in Golder's Bottom Ash Pond Excavation Plan and Stability Analysis. Conditions described in this memo are subject to change if the adjacent landfill materials are removed prior to or concurrent with the BAP excavation.

The excavation along the north embankment will be made within the "Limits of Buttress" and will be sequenced to minimize the duration of excavation and related activities in this area. Potential reductions in the factors of safety caused by removal of the north embankment buttress will be addressed during removal of CCR from the BAP, landfill, and the underlying historical pond area.

3.3 Groundwater

Groundwater monitoring for the BAP and landfill will continue to be conducted in accordance with the CEC Groundwater Monitoring Plan, in addition to applicable requirements of the CCR Rule, Virginia Solid Waste Management Regulations, and existing and future solid waste permits.

3.4 Site Grading and Stabilization

After completing removal of the CCR from the BAP in accordance with §10.1-1402.03 of the Code of Virginia, final grading and stabilization will be performed. Specifications and requirements for final grades and stabilization will be addressed in the future solid waste permit.

4.0 CLOSURE TIMEFRAMES

BAP closure will meet the projected closure schedule in Table 2 below to ensure compliance with 40 CFR §257.102(f) and the Virginia Solid Waste Management Regulations. At this time, as reflected in the timeline below, Dominion anticipates that closure of the BAP may extend beyond the 5-year closure timeframe established under the CCR Rule due to potential state or local permitting delays associated with an ongoing local zoning dispute and the complexity of planning for removal of CCR from the on-site industrial landfill and underlying historic pond area (in addition to the BAP) in accordance with §10.1-1402.03 of the Code of Virginia.

Table 1: Closure Schedule

Activity	Tentative Date
Engineering design and receipt of required permits	By July 1, 2025
Commence closure construction	By 3rd Quarter 2025
Closure construction complete	By August 1, 2027
Certification of construction completion	By October 1, 2027

Closure is considered complete when the elements of this Closure Plan specified above have been performed and certified by a Professional Engineer licensed in the Commonwealth of Virginia. This certification will be included as part of a closure certification report. In accordance with 40 CFR §257.102(h), Dominion will prepare a notification of closure of the CCR unit within 30 days of completion of closure and place the notification in the operating record.

5.0 INVENTORY REMOVAL AND DISPOSAL

The protocol for closure by removal will involve removing accumulated CCR within the BAP to its original design grades or to the sand drainage layer separating the BAP from the historical ash fill underneath. Visual inspection and subsequent certification of CCR removal from the BAP will be performed by a Virginia licensed Professional Engineer. Removed CCR and CCR-mixed soil will be beneficially reused or transferred to a permitted solid waste disposal facility.

6.0 CLOSURE OF RELATED AREAS

In accordance with §10.1-1402.03 of the Code of Virginia, CCR materials from the BAP, industrial landfill, and the underlying historic pond area will be removed and transported offsite either for beneficial use or to a disposal facility. Plans for sequencing the required removal of CCR at the site are still being developed and will be subject to future solid waste permitting by the Virginia Department of Environmental Quality (DEQ).

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