

## Closure Plan

Possum Point Power Station CCR Surface Impoundment: Pond D

Submitted to:



#### **Possum Point Power Station**

19000 Possum Point Road Dumfries, VA 22026

Submitted by:

#### **Golder Associates Inc.**

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Project No. 19133483

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#### 1.0 CERTIFICATION

This Closure Plan for the Possum Point Power Station's Pond D 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 Title	
Print Name		
Wonded & My	October 15, 2021	
Signature	Date	



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#### 2.0 INTRODUCTION

This amended Closure Plan was prepared for the existing Coal Combustion Residuals (CCR) surface impoundment at the Possum Point Power Station (Station), Pond D. 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 19000 Possum Point Road, Dumfries, Virginia. The Station includes an existing CCR surface impoundment, Pond D, 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"). Pond D 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 Pond D Background Information

The current configuration of Pond D was constructed in 1988 to replace an unlined ash pond at the same location. It is impounded by an earthen berm approximately 140 feet tall and has a contributing drainage area of approximately 115 acres. The impoundment is underlain with natural soils that consist of interbedded clay, clayey sand, and sandy silts. Based on historical construction documents and ash handling records, Pond D currently contains approximately 4.4 million cubic yards (CY) of CCR.

Pond D received ash sluice from the Station as part of normal station operations. The ash solids dropped out by gravity, and the water decanted into the principal spillway for eventual discharge through Outfall 005, which was regulated under Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0002071. The principal spillway has been plugged, and discharge from the Pond is currently regulated under the VPDES Permit through internal Outfall 503.

In 2003, the Station ceased coal-fired electric generating activities, and subsequently ceased placing new CCR in the pond. Beginning in 2016, CCR materials from other surface impoundments onsite (Ponds ABC and E) were dredged or excavated and then consolidated within the bounds of Pond D as part of closure of the other Ponds. Pond D continues to receive water from the Pond's direct contributing drainage area (approximately 115 acres) and surface water runoff from Ponds ABC and E that is pumped to Pond D.

The Pond D Dam is regulated under Virginia Department of Conservation and Recreation (DCR) Operation and Maintenance Certificate, Inventory No. 153020.

#### 3.0 CLOSURE IMPLEMENTATION AND APPROACH

## 3.1 Material Removal and Disposal

Dominion intends to complete closure of Pond D by removal of the CCR pursuant to State Code §10.1-1402.03, which will be performed by common earthwork equipment consisting of excavators, bulldozers, dump trucks, etc. Dewatering of the Pond and subsequently the material will be accomplished by mechanical means (e.g., vacuum wells, sump pumps, or other in situ withdrawal methods) and/or passive methods (e.g., cutting drainage ditches or rim ditches into the CCR mass) until a suitable moisture content is reached. CCR removed from Pond D is expected to be taken to a permitted solid waste disposal facility or beneficially reused.



Pond D will be excavated until all CCR has been removed from the unit followed by an over-excavation of approximately six inches of soil. Certification of the removal will be provided by a Virginia-licensed Professional Engineer.

#### 3.2 Groundwater

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

### 3.3 Site Grading and Stabilization

After completing removal of the CCR from Pond D 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

The CCR Rule in 40 CFR §257.102(b)(1)(iv) requires a listing of major milestones for completing closure. At this time, as reflected in the timeline below, Dominion anticipates that closure of Pond D will extend beyond the 5-year closure timeframe established under the CCR Rule due to the complexity of planning for the removal of the approximately 4.4 million CY of CCR from Pond D and subsequent beneficial reuse or disposal of the CCR in a permitted landfill in accordance with §10.1-1402.03 of the Code of Virginia.

Activity

Engineering design and receipt of required permits

November 2023

Commence closure construction

November 2023

Closure construction complete

September 2030

Certification of construction completion

December 2030

**Table 1: Closure Schedule** 

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 final closure certification report required under 40 CFR §257.102(f)(3). 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 stored CCR within Pond D as well as approximately six inches of underlying soil. Visual inspection and subsequent certification of CCR removal from Pond D will be performed by a Virginia licensed Professional Engineer. Removed CCR and CCR-mixed soil will be transferred to a permitted solid waste disposal facility or beneficially reused.





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