



Periodic Hazard Potential Classification Assessment

Possum Point Power Station CCR Surface Impoundment: Pond D

Submitted to:



Possum Point Power Station

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Submitted by:

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October 2021

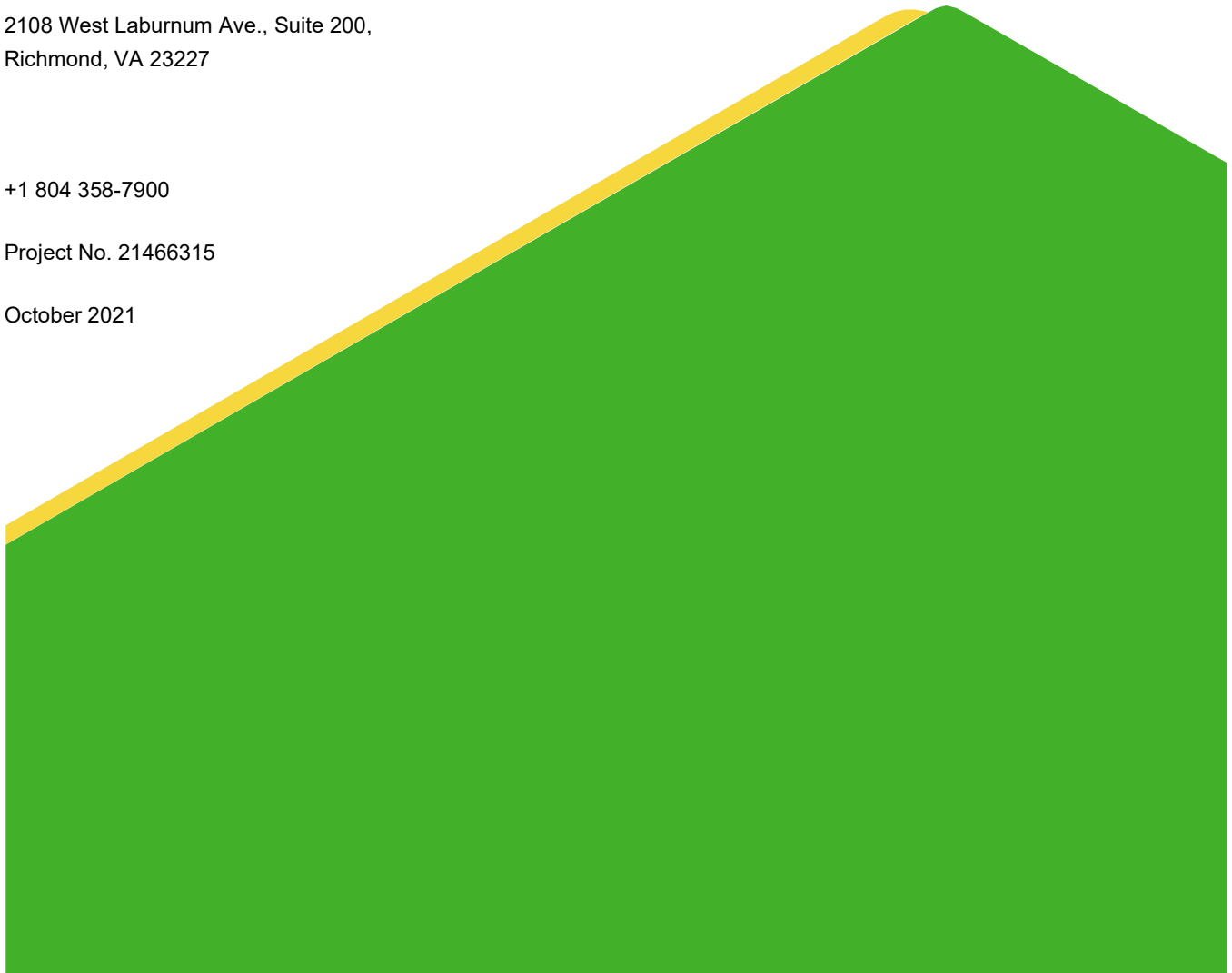


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1.0 CERTIFICATION

This Periodic Hazard Potential Classification Assessment 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 § 257.73(a)(2) 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 [40 CFR §257.73(a)(2)].

The use of the word "Certification" 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.

Andrew T. North

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Senior Civil Engineer

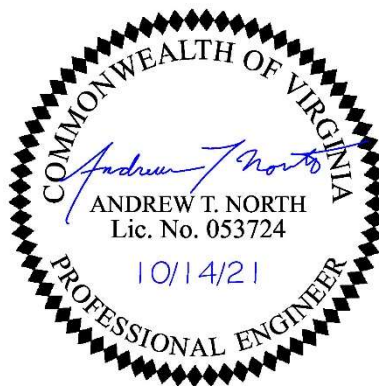
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Signature

10/14/2021

Date



2.0 INTRODUCTION

This Periodic Hazard Potential Classification Assessment was prepared for the Possum Point Power Station's (Station) existing Coal Combustion Residuals (CCR) surface impoundment known as Pond D. This Periodic Hazard Potential Classification Assessment (Assessment) was prepared in accordance with 40 CFR Part §257, Subpart D and is consistent with the requirements of 40 CFR §257.73(a)(2).

The Station, owned and operated by Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion), is located in Prince William County, Virginia, at 19000 Possum Point Road, east of I-95 and West of the Potomac River. The Station includes an existing CCR surface impoundment, Pond D, as defined by the Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule (40 CFR §257; the CCR rule). Pond D is also regulated as a dam by the Virginia Department of Conservation and Recreation (DCR) with Inventory Number 153020 (DCR Dam Permit).

3.0 PURPOSE

This certification and assessment is required under 40 CFR §257.73(a)(2), Periodic Hazard Potential Classification Assessments, regarding the hazard potential classification assessment of Pond D at Possum Point Power Station. The initial hazard potential classification was completed on October 17, 2016. The Periodic Hazard Potential Classification Assessments are to be updated every five (5) years pursuant to 40 CFR §257.73(f)(3).

4.0 HAZARD POTENTIAL CLASSIFICATION

According to § 257.53 of the CCR Rule [40 CFR § 257.53], the hazard potential classifications are:

- Low hazard potential - "failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment owner's property."
- Significant hazard potential - "failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns."
- High hazard potential - "failure or mis-operation operation will probably cause loss of human life."

Pond D was assigned an initial hazard potential classification of "significant hazard potential CCR surface impoundment" [40 CFR § 257.53, 40 CFR § 257.73(a)(2)]. Pond D is assigned a periodic hazard potential rating of "significant hazard potential CCR surface impoundment" [40 CFR § 257.53, 40 CFR § 257.73(a)(2)] in this Assessment.

5.0 PERIODIC HAZARD POTENTIAL CLASSIFICATION ASSESSMENT

The references listed in Section 6.0 of this Assessment were used as the basis to make this periodic "significant hazard" potential classification. The following items are noted:

1. Pond D is located within close proximity of the Potomac River, Quantico Creek, and two public roads (Possum Point Road and Cockpit Point Road).
2. Golder's December 2012 Virginia Department of Conservation and Recreation (DCR) Inundation Study for the Pond D Dam evaluated the predicted inundation from Pond D for the following scenarios:
 - "Sunny day" breach scenario;
 - Structure breach during Spillway Design Flood (SDF);

- Baseline outflow of the SDF with no structure breach; and
 - Structure breach with Probable Maximum Flood (PMF).
3. Pursuant to DCR regulations at 4VAC50-20-40(B)(1), the dam associated with Pond D is currently listed as a High Hazard Potential classification.

The hydraulic modeling from the 2012 inundation study showed that Possum Point Road would be overtopped in all three breach scenarios. The report concluded that “the resulting impacts to Possum Point Road by an impoundment breach event may cause appreciable economic damage and may result in loss of life” (Golder, 2012).

There is a potential for environmental damage and economic loss due to release of CCR material through a breach into Quantico Creek, as well as economic loss due to the impacts to Possum Point Road. Though the Golder 2012 inundation study concluded that the breach scenarios may result in loss of life, loss of human life is not considered probable. These criteria correspond to a Significant Hazard Potential designation per the CCR Rule [40 CFR § 257.53]. Therefore, reliance is made on the previous inundation study and existing known site conditions to make a current determination of a significant hazard potential classification.

6.0 REFERENCES

Code of Virginia, 4VAC50-20-40. Hazard potential classifications of impounding structures; effective November 8, 2012.

GAI Consultants. Coal Combustion Residuals Initial Hazard Potential Classification Assessment Surface Impoundment D. October 2016.

Golder Associates. Inundation Study Possum Point Power Station Ash Pond ‘D’ Dam. December 2012.

Virginia DCR Dam Permit, Inventory No. 153020.



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