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Coal Combustion Residuals (CCR) Post-Closure Care Plan Solid Waste Permit Number WV0110256

Virginia Electric and Power Company
Mount Storm Power Station
Phase A FGD By-Product Disposal Facility
Grant County, West Virginia

GAI Project Number: C141182.02

October 2016



Dominion™

Prepared by: GAI Consultants
Murrysville Office
4200 Triangle Lane
Export, Pennsylvania 15632

Prepared for: Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, Virginia 23060

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Certification/Statement of Professional Opinion

This Coal Combustion Residuals CCR Unit Post-Closure Care Plan (Plan) for the Mount Storm Power Station Phase A FGD By-Product Disposal Facility was prepared by GAI Consultants, Inc. (GAI). The Plan was based on certain information that, other than for information GAI originally prepared, GAI has relied on, but not independently verified. This Certification/Statement of Professional Opinion is therefore limited to the information available to GAI at the time the Plan was written. On the basis of and subject to the foregoing, it is my professional opinion as a Professional Engineer licensed in the State of West Virginia that the Plan 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 Plan was prepared consistent with the requirements of section 257.104 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 Subpart D).

The use of the words "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.

GAI Consultants, Inc.



John R. Klamut, P.E.
Engineering Manager

Date 10/14/2016



Acronyms

CCB	Coal Combustion Byproducts
CCR	Coal Combustion Residuals
CCR Closure Plan	Phase A FGD Facility CCR Closure Plan
CCR Rule	"Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments" 40 CFR 257 (2015)
CFR	Code of Federal Regulations
Dominion	Virginia Electric and Power Company d/b/a Dominion
EPA	United States Environmental Protection Agency
Facility	Phase A FGD By-Product Disposal Facility
FGD	Flue Gas Desulfurization
Permit	Class F Industrial Landfill Facility Permit No. WV0110256
Station	Mount Storm Power Station
WVDEP	West Virginia Department of Environmental Protection

1.0 Introduction

This Post-Closure Care Plan has been developed for the Phase A flue gas desulfurization (FGD) By-Product Disposal Facility (Facility), located at the Mount Storm Power Station (Station), in Grant County, West Virginia. The Station and Facility are owned by the Virginia Electric and Power Company d/b/a Dominion Virginia Power (Dominion). The Facility was permitted by Dominion in 1993 as a component of the Station's ash disposal system, serving as a landfill containing coal combustion byproducts (CCB), which include coal combustion residuals (CCR). The Facility is regulated under the West Virginia Department of Environmental Protection (WVDEP) Class F Industrial Landfill Facility Permit No. WV0110256 (Permit).

Dominion has written this post-closure care plan for the Facility to comply with the United States Environmental Protection Agency's (EPA's) "Disposal of Coal Combustion Residuals from Electric Utilities" (CCR Rule), which was published in the Federal Register on April 17, 2015 (with an effective date of October 19, 2015) (40 CFR 257).

This Post-Closure Care Plan meets the requirements of § 257.104(d) of the CCR Rule.

2.0 Post-Closure Responsibilities and Activities

2.1 Post-Closure Period

As required by § 257.104(c) of the CCR Rule, the post-closure care period for the Facility is a minimum of 30 years. Post-closure care will commence after WVDEP's approval of the final closure of the Facility.

2.2 Post-Closure Contact

Ms. Paula A. Hamel with Dominion is designated as the contact person during the post-closure period. The contact information is as follows:

Ms. Paula A. Hamel
Director, Generation Environmental Services
Dominion Resources Services, Inc.
5000 Dominion Blvd
Glen Allen, VA 23060
(804) 273-3024
Paula.A.Hamel@dom.com

3.0 Inspections, Monitoring and Maintenance

3.1 Inspections

Inspections will be performed by a Dominion employee, independent registered engineer, or other qualified person. An example of the Post-Closure Care Landfill Inspection Checklist is provided in Appendix A and is typical of what will be used to document inspections. The closed CCR landfill will be inspected at a frequency appropriate to maintain environmental and structural integrity of the cover system, but no less than monthly for the first year after closure, and quarterly thereafter.

3.2 Monitoring

Groundwater monitoring throughout the post-closure period shall be performed semi-annually and comply with requirements outlined in 40 CFR §§ 257.90 – 257.98 and in the Facility's *Groundwater Monitoring Plan*. Monitoring will not be required for landfill gas generation, as there are no putrescible wastes placed within the Facility. Leachate will be monitored as part of the operation of the on-site treatment facility.

3.3 Maintenance

Based upon the facility inspection schedule, maintenance will be performed as required by § 257.104(b) of the CCR Rule and in accordance with this Post-Closure Care Plan, including:

- The vegetated final cover will be mowed a minimum of once per year or as necessary to deter the growth of woody vegetation, deter rodent habitat, and to allow access for inspection;
- Areas determined to be deficient in vegetative cover will be seeded, fertilized and mulched in order to deter erosion;
- Maintenance of the Groundwater Monitoring System will be performed in accordance with the Groundwater Monitoring Plan and include repairing and/or replacing damaged materials or components as needed;
- Maintenance of the leachate monitoring system, including the on-site treatment facilities, will be performed in accordance with the operations of the leachate management system and include repairing and/or replacing damaged materials or components as needed;
- Areas exhibiting rill erosion of four inches or deeper will be repaired to maintain design grade/specifications and reseeded. Application of fertilizer, selective herbicides, rodent control measures, etc., will be implemented as necessary and repairs will be monitored until Closure Plan specifications are met;
- Areas exhibiting evidence of sliding or displacement due to settling will be examined to determine the cause of the movement. These areas will be backfilled with an appropriate material to maintain positive drainage, vegetation growth, and the integrity of the site; and
- Maintenance will consist of removing sediment and/or undesirable vegetation from the channels once accumulated sediments reach a depth of 25 percent of the hydraulic capacity. Damage to linings and hydraulic structures will be repaired or replaced if necessary.

Dominion will be responsible for post closure care, monitoring, inspection, and maintenance of the Facility.

3.4 Training

Personnel responsible for conducting maintenance, inspection, and monitoring tasks will be competent individuals trained to perform their assigned tasks.

4.0 Post-Closure Uses

The closed Facility will be covered with vegetation, with the exception of durable surfaces such as lined drainage channels and road surfaces and maintained by the Station as open space.

Access to the Facility will be completely controlled with security fencing, locking gates, and signs. Since access to the Facility is controlled by the Station, the security measures used to secure the Station may be used to secure the Facility. Access will be limited to authorized personnel.

5.0 Post-Closure Termination

The post-closure care period will be a minimum of 30 years following completion of closure. As required by § 257.104(e) of the CCR Rule, no less than 60 days after the completion of post-closure care, a notification will be prepared verifying that post-closure care has been completed and posted on the Company's publicly available website.

APPENDIX A

Example Phase A FGD By-Product Disposal Facility Post-Closure Care Inspection Checklist

Site Name		Weather	
Date of Inspection		Temperature	
Inspected By		Rain in Last 24 Hours	

Interior & Exterior Slopes

Conditions Present	Comments	Monitor	Investigate	Repair	Escalate
Animal Burrows					
Bare Spots/Erosion					
Horizontal Alignment					
Sinkhole/Depression					
Seeps, Standing Water					
Slide, Slough, Bulges					
Vegetation – High					
Vegetation – Stressed					
Condition of Sign/Fences/Gates					

*This is an example checklist. A site-specific plan will be developed prior to the start of post-closure care.

Closure area

		Monitor	Investigate	Repair	Escalate
Conditions Present	Comments				
Animal Burrows					
Bare Spots/Erosion					
Horizontal Alignment					
Sinkhole/Depression					
Seeps, Standing Water					
Slide, Slough, Bulges					
Vegetation – High					
Vegetation – Stressed					
Roadways & Parking Lot					

Channels and Sedimentation Ponds

		Monitor	Investigate	Repair	Escalate
Conditions Present	Comments				
Channel Lining Condition					
Deposition in Channels					
Channels undercutting					
Standing Water/Ponding					
Erosions Adjacent to Channels					
Slide, Slough, Bulges					
Scour at/downstream of Spillway					

*This is an example checklist. A site-specific plan will be developed prior to the start of post-closure care.

Previous Conditions for Repair or Escalation have been mitigated and the condition has returned to monitor status? If no, provide date for completion in Comments box below.	Yes	No

Definitions

Monitor	Observation indicates a safe condition protective of the environment.
Investigate	Observation indicates a condition that has changed from a monitor condition and requires investigation to determine whether condition is unsafe or not protective of the environment.
Repair	Observation indicates a condition that requires a near term repair to ensure that condition does not worsen and become a serious concern.
Escalate	Observation indicates a condition that must be addressed immediately to ensure the safety of the surface impoundment, facilities, or public or protection of the environment.

General Comments [Document any unusual events or conditions]:

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*This is an example checklist. A site-specific plan will be developed prior to the start of post-closure care.