



**GENON WESTLAND ASH STORAGE SITE
DICKERSON, MARYLAND
2019 ANNUAL CCR INSPECTION REPORT**

To: Walter Johnson, GenOn MD Ash Management LLC
From: Jeffrey Hutchins, P.E., AECOM
Date: January 6, 2020
RE: Annual Coal Combustion Residuals (CCR) Inspection Report
Westland Ash Storage Site Operating Cell B

1.0 Introduction

As of October 19, 2015, the Westland Ash Storage Site (Westland site) has been regulated by the Code of Federal Regulations (CFR) under 40 CFR §257 Subpart D – Standards for Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments. Section §257.84 of this regulation requires operators of existing CCR units to conduct an annual inspection by a qualified professional engineer to ensure the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices.

The initial Annual CCR Inspection Report for the Westland Cell B site was completed and placed in the Westland Operating Record on January 18, 2016, as required by Section §257.84.b(3). The regulations require that subsequent to completion of the initial Annual CCR Inspection Report, the owner/operator conduct inspections on an annual basis, with the completion date of the Annual Inspection Report being based on the completion date of the previous Annual Inspection Report.

The annual inspection for the Cell B operational area for the Westland site was conducted on December 11, 2019 and will be placed in the Westland operating record by January 18, 2020.

2.0 Site Background

The Westland site is located on Martinsburg Road in Dickerson, Maryland. The facility and access road connecting the facility to the Dickerson Generating Station were initially designed by D'Appolonia for Potomac Electric Power Co. in 1977. The facility design received regulatory authorization and construction began in 1979. The site is comprised of three disposal cells, Cells A, B and C, with Cell B being the only operating cell at the site. These three cells are described below.

- **Cell B** is the current operational cell at the site; it encompasses approximately 64.4 acres over the center of the site. The access road from the Dickerson Generating Station enters the facility at the northwest corner of Cell B. Approximately 22.8 acres of Cell B along the northern, western, and southern perimeter slopes are currently complete and closed by way of a Maryland Department of Environment (MDE)-approved engineered geosynthetic closure cap (completed in October 2017), leaving approximately 41.6 acres as the active, operating portion of the site. MDE conducted a final walkthrough of the completed closure cap on April 11, 2018, and issued a letter to GenOn on June 21, 2019 approving the closure cap.

The 41.6-acre operating portion of Cell B is divided into (1) the northern CCR fill area (approximately 24.4 acres) and (2) the southern portion consisting of Cell B-1A and Cell B-1B, encompassing approximately 17.2 acres. Cell B-1A was the only portion of Cell B

used for CCR storage in 2019; Cell B-1A receives CCR material from the nearby Dickerson Generating Station. The northern CCR fill area is heavily vegetated and stabilized; several well-stabilized soil stockpiles are located on top of this area. Cell B-1B was constructed with a crushed aggregate subbase layer and does not currently receive any CCR, so all stormwater runoff for this area is considered “clean, non-contact stormwater” that is allowed to drain to the site’s perimeter stormwater drainage channels.

- **Cell C:** which encompasses approximately 18.5 acres, is located at the northwest corner of the site, separated from Cell B by a 250-foot wide transmission line right-of-way which runs along the eastern edge of Cell C. Cell C has been closed for many years, and was formally closure capped with a MDE-approved engineered geosynthetic closure capping system in 2016. MDE conducted a final walkthrough on the Cell C closure cap on April 11, 2018, and issued a letter to GenOn on June 21, 2019 approving the closure cap.
- **Cell A:** There are no future plans to construct Cell A. Cell A is the largest planned area at the Westland site (approximately 96.6 acres); it is situated directly east of Cell B, and divided from Cell B by an approximately 400-foot wide strip of land denoted as “Preservation Area D.”

3.0 Cell B Operational Areas Inspection Results

On December 11, 2019, a Maryland Registered Professional Engineer employed by AECOM, accompanied by a representative of Bowling Brothers, GenOn’s onsite operations and maintenance contractor, conducted an inspection of the operating portion of Cell B on behalf of GenOn. The results of the inspection are presented in the subsections below. The inspection form that was prepared during the inspection is presented as Attachment A to this report.

3.1 Access Roads and Security

Any person, contractor, or vendor entering the Westland site must first pass through the GenOn plant’s security guard station located at the main security gate into the generating plant. From there, an interior plant road must be followed to an automated security gate at Martinsburg Road (a County road) that is activated by a key card. Access to the Westland site, which is located on the opposite side of Martinsburg Road, is also controlled by an automated security gate activated by a key card. The security measures to gain access into the Westland site appeared to be appropriate and acceptable.

The access road into the Westland site through the security gate and to the office trailer area is paved and is in acceptable condition. The access road around Cell B is a thick layer of crushed aggregate and is in acceptable condition. Roadside drainage features are well kept and in acceptable condition. The interior access roads have a speed limit of 15 miles per hour and have the proper signage.

3.2 Cell B Operating Areas

The Westland site has historically received and stored CCR material produced at GenOn’s Dickerson Generating Station. CCR transferred to the Westland site has been offloaded and stored in the currently operational area of Cell B. During the period from December 2018 to December 2019, GenOn began a new phase of work at the site, designated as the “deconstruction phase” where the existing CCR material in the active and uncapped portion of Cell B (Cell B-1A) is being excavated, loaded, and hauled from the Westland site to a cement plant in Union Bridge, Maryland for recycling of the CCR material (beneficial reuse of the CCR material). All of the deconstruction work at the Westland site and hauling of the CCR material is being undertaken by a third-party vendor to GenOn that excavates and transports the CCR material from the Westland site to the cement plant in Union Bridge.

- CCR Storage in 2019: GenOn's daily ash delivery records for the Westland site show that Cell B-1A received 8,440 cubic yards of CCR material from the Dickerson Generating Station. Once the CCR arrived in Cell B-1A, it was either placed in lifts or loaded onto third party trucks for hauling to the cement plant in Union Bridge, Maryland. The exterior side slopes of Cell B and Cell B-1A remain fixed in location; consequently, there has been no change in the overall geometry of Cell B.
- CCR Beneficial Reuse: During 2019, over 45,000 cubic yards/tons of CCR material was removed from Cell B-1A and hauled to the cement plant in Union Bridge as part of GenOn's beneficial reuse program for the site. As part of these site and transport activities, GenOn implemented the fugitive dust control measures described in its initial CCR Fugitive Dust Control Plan to control all sources of CCR fugitive dust from Phase 2.
- Cell B Geometry: The exterior side slopes of Cell B remain fixed in location; consequently, there has been no change in the overall geometry of Cell B/B-1A. The delivery of CCR material from the Dickerson Generating Station in 2019 has not altered the geometry of Cell B-1A where the CCR material was placed in controlled lifts inside the cell.
- Estimated In-place CCR Volume: It can be estimated that the in-place volume of CCR in Cell B is approximately 3.98 million cubic yards (MCY). This volume is based on (1) the original 1979 design documents for the Westland site and the estimated CCR capacity of Cell B of approximately 5.6 MCY, (2) the estimated in-place volume of CCR in Cell B based on aerial topography of the site and the estimated percent filled in various sub-areas of Cell B, and (3) the CCR delivery and placement during the years 2016 to 2019.
- Exterior Side Slopes: The operating cell exterior side slopes are heavily vegetated and stabilized in good condition; there are minimal signs of erosion on these slopes.
- Interior Side Slopes: The operating cell interior side slopes are vegetated and well stabilized with grass, mulch, and in many cases with erosion control matting; minimal signs of erosion were observed on these stabilized slopes.
- Cell B-1A Operating Cell Floor: Shipments of CCR material in 2019 were deposited on the floor of Cell B-1A in controlled lifts or mixed with stored ash and loaded onto trucks destined for Union Bridge. Ash stored at Westland was graded in an acceptable manner toward the chimney drains. The CCR surface of the Cell B-1A floor is in good condition with no eroded gullies or undercutting. The Cell B-1B floor is stone aggregate in good condition with no erosion gullies. No ash filling has occurred in Cell B-1B.
- Chimney Drains: The existing chimney drains appear to be constructed and functioning properly. GenOn maintenance staff adjust the chimney drains as necessary to address the height of the ash lifts. With ash being removed from the cell, the top of the chimney drains are currently of adequate elevation.
- Gabion Diversion Structures: The four gabion diversion structures appear to be constructed and functioning properly.
- Leachate Piping: Visible HDPE leachate piping downstream of the Cell B-1A and B-1B sumps that cross the perimeter drainage ditch appears to be in good condition. During 2018, these pipes were labeled "Contact Water" (pipe from Cell B-1A) and "Non-contact Water" (pipe from Cell B-1B). The existing gate valves on the Cell B-1B leachate piping are in good condition and oriented properly. A gate valve was previously installed in the HDPE leachate pipe from the Cell B-1A leachate sump at the point where it crosses the perimeter drainage ditch. Closing this valve allows leachate to be detained in Cell B-1A to allow the water treatment plant to process excessive amounts of leachate from the site.
- Stockpiles: All of the stockpiles located on the top of Cell B are stabilized with vegetation, mulch and/or temporary matting with no signs of erosion.

3.3 Sediment and Erosion Control Measures

- Proper sediment control measures are being employed as required in the operating portion of Cell B. The existing sediment trap appears to be functioning properly, and super silt fence has been installed as required for the deconstruction activities within Cell B. Rip rap aprons are in good condition and functioning properly.

3.4 Storm Drainage Features

- Roadside Drainage Channels: Drainage channels along the access roads are well vegetated and stabilized with no signs of erosion.
- Interior Drainage Channels: Interior drainage channels are stabilized with vegetation and erosion control matted with minimal signs of erosion.
- Run-on Control: The gabion diversion structures and chimney drains have been installed to mitigate stormwater run on from the historic operating areas of Cell B. The chimney drains and gabion diversion structures appear to be constructed and functioning properly.
- Pond 3 Treatment Area: Leachate from Cell B and Cell B-1A drains to the Pond 3 treatment area by way of an 8-inch HDPE leachate transmission pipe. At Pond 3, the leachate is collected and pumped to the water treatment system collection tank for management and discharge under the site's NPDES permit. GenOn's maintenance contractor provides routine maintenance and erosion control of the Pond 3 area.

3.5 Recordkeeping

- Daily operations and maintenance inspection reports and weekly CCR inspection reports are kept in a binder in the onsite GenOn MD Ash office trailer. These reports are organized and maintained by GenOn's onsite operations and maintenance contractor.

4.0 Westland Cell B Operational Areas Overview

During 2019, the operating portion of Cell B (Cell B-1A) received CCR material from the Dickerson Generating Station. The CCR hauled to the site has been installed in lifts in the operational portions of Cell B-1A. The geometry of the site has not changed during 2019 other than the small vertical rise of the CCR filling areas in Cell B-1A.

Deconstruction activities in Cell B-1A consisted of excavation and hauling of CCR material from the Westland site to a cement plant in Union Bridge, Maryland.

The operating portion of Cell B is well maintained by GenOn's maintenance contractor, and drainage and erosion control features appearing to functioning properly. There did not appear to be any areas in Cell B that represent actual or potential areas of structural weakness of the CCR unit. There are no existing conditions that are disrupting or have the potential to disrupt the operation or safety of the CCR unit.

Name: Jeffrey Hutchins

Date: 1/06/20


Maryland PE #: 13186



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ANNUAL CCR STORAGE SITE INSPECTION CHECKLIST

Facility Name: Westland Ash Storage Facility				
Address: 20831 Martinsburg Road, Dickerson, Maryland 20842				
Date: 12/11/2019	Time: 10:05	Weather: Sunny, 34°		
Inspection Representatives				
GenOn: George Mantz (Bowling Brothers GenOn contractor)				
AECOM: Jeffrey Hutchins		PE License #: 13186		
Other:				
Site Data				
Cell ID: Cell B	Acreage: 64.4 acres			
Operational Area of Cell: 41.6 acres	Closed Area of Cell: 22.8 acres			
Operational Criteria				
	Acceptable	Needs Improvement	Comments	
1. Security/Entrance Gate	√		The Westland site security gate has been replaced with a new gate by GenOn security and is operating properly.	
2. Condition of Access Road	√			
3. Operating Cell	√			
3a. Condition of Exposed Ash	√			
3b. Condition of Periodic Cover Soils	√			
3c. Acceptable Dust Control Measures	√			
3d. General Integrity of Operating Cell/Signs of Distress	√			
3e. Condition of Chimney Drains	√			Appears to be in good condition
3f. Condition of Erosion Control Measures	√			
3g. Visual signs of Erosion or Washouts	√			None observed.
3h. General Condition of Leachate Piping, Cleanouts	√			
4. Stormwater Management	√			
4a. Condition of Ditches, Diversions, Letdowns	√			Appears to be in good condition
4b. Condition of Run-Off Control System	√			
4c. Condition of Perimeter Areas (stable, unstable, erosion, etc.)	√			
Comments:				
<p>The operating portion of Cell B is well maintained with no areas of instability or potential weakness.</p> <p>There are no conditions at the present time that are disrupting or have the potential to disrupt the operation or safety of Cell B.</p>				
Jeffrey Hutchins			12/11/2019	
Print Name of Engineer Completing Form	Signature		Date	