GENON BRANDYWINE ASH STORAGE SITE
BRANDYWINE, MARYLAND
2023 ANNUAL CCR FUGITIVE DUST CONTROL REPORT

To: Jay Spence, GenOn MD Ash Management LLC (GenOn)

From: Tom White, P.E., AECOM Technical Services, Inc. (AECOM)

Date: December 11, 2023

RE: Annual CCR Fugitive Dust Control Report
Brandywine Ash Storage Site Operating Cell Phase 2

1.0 Introduction

As of April 17, 2015, the Brandywine Ash Storage Site (Brandywine Site) located at 11700 North Keys Road, Brandywine, Prince George's County, Maryland 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 §257.80 required GenOn to prepare a CCR Fugitive Dust Control Plan and place it into GenOn's operating record by October 19, 2015. Section §257.80(c) requires GenOn to prepare an annual CCR Fugitive Dust Control Report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The first annual report was completed and placed in GenOn's operating record by December 19, 2016 − as required under the regulations − 14 months after placing the Initial CCR Fugitive Dust Control Plan in the facility's operating record. Subsequent Annual Reports are required to be completed and placed in GenOn's operating record one year after the date of completing the previous report. This 2023 Annual Report will be completed and placed in the GenOn operating record by December 19, 2023.

2.0 Summary of Current CCR Fugitive Dust Control Measures

The Brandywine Site has historically received and stored CCRs produced at the Morgantown and Chalk Point Generating Stations in Newburg, MD and Aquasco, MD, respectively. The Morgantown Generating Station coal fired units were decommissioned on June 1, 2022, and the Chalk Point Generating Station coal fired units were decommissioned on June 1, 2021. Disposal of non-CCR material at the Brandywine Site during the report period was limited. During the period from January 1, 2023 through the November 15, 2023 inspection, the Brandywine Site received 1,083 tons of non-CCR pond solids from the Chalk Point Generating Station. In 2023, GenOn also began a pilot program to mine and screen bottom ash from the Phase 2A operations area for beneficial use offsite at cinder block plants. During the period from September 14, 2023 through November 8, 2023, 1,017 tons of bottom ash were hauled offsite. A stockpile of mined and screened bottom ash is currently being maintained within the Phase 2A operations area.

CCR and non-CCRs transferred to the Brandywine Site are currently offloaded and stored in the operational area of Phase 2A. During 2023, GenOn has fully implemented the measures described in the Initial CCR Fugitive Dust Control Plan to control all sources of CCR fugitive dust resulting from GenOn's operations at the Morgantown and Chalk Point Generating Stations and the Brandywine Site. GenOn has not received any citizen input or complaints during this reporting period, and thus no corrective measures have been required to be implemented.

GenOn Morgantown and Chalk Point Generating Stations

All CCRs that have historically been shipped to the Brandywine Site from the Morgantown and Chalk Point Generating Station are either conditioned with water before loading and leaving the station or have sufficient moisture content to minimize fugitive dust emissions.

- Due to the decommissioning of both generating stations, fly ash is no longer being generated for disposal at the Brandywine Site.
- Bottom ash from the generating stations is conditioned with water as necessary to an acceptable moisture content, as determined by the GenOn operator, to load into trucks for hauling to the Brandywine Site. No bottom ash has been disposed at the Brandywine Site in 2023 to date.
- Pond solids, non-CCR waste, typically have a sufficient moisture content to minimize fugitive dust emissions.

Transportation of CCRs to the Brandywine Site

CCRs are transported from GenOn's Morgantown and Chalk Point Generating Stations by means of semi-trucks and dump trucks that are fully enclosed on all four sides and have been completely covered with a firmly secured tarp system to prevent loss of CCRs and to minimize dust emissions during transportation.

- Before leaving the generating station, vehicles transporting CCRs are inspected by the transporter and cleaned of any excess material or debris that could blow off, fall off, or spill during transportation. The transporter maintains an inspection log in the truck for 30 days for each of these inspections.
- Trucks are washed at the plant's truck washing station to control tracking of CCRs onto plant roads and onto public roads.
- Truck speeds are limited to 15 mph on site haul roads.

Offloading and Emplacement of CCRs

- When the CCR haul trucks arrive at the Brandywine Site, they are routed to the active fill area in Phase 2A. Haul roads are posted with a maximum speed limit of 15 mph as a safety measure and to minimize the generation of dust.
- CCRs are deposited at the working face under the direction of a site operator also serving as a spotter. CCRs are spread over the current working face with a bulldozer in uniform lifts and compacted with a smooth-drum roller. Pond solids are typically stockpiled in the active work area until they have sufficiently dried, then it is spread and compacted in uniform lifts.
- The active CCR working area is routinely watered by the facility's dedicated mobile water truck to maximize ash compaction and for dust suppression. The mobile water truck is filled for watering of the active CCR working area either from an onsite groundwater well near the Wastewater Treatment Plant (WTP) or from the WTP bioreactor backwash.
- Trucks and equipment are cleaned inside Phase 2A, and all trucks are cleaned and/or washed at the facility's truck wash station prior to leaving the Brandywine Site.

Bottom Ash Mining

In 2023, GenOn began a pilot program to mine and screen bottom ash from the Phase 2A operations area for beneficial use offsite at cinder block plants. The mining, screening, stockpiling, and loading of bottom ash material are all performed within the Phase 2A operations area. These operations follow similar procedures as the transportation, offloading, and emplacement of incoming CCRs described above to minimize dust generation and prevent tracking of material outside of the Phase 2A operations area.

Fugitive Dust Control Measures

During 2023, fugitive dust control by GenOn has consisted of implementing dust control measures on the existing CCR surface of Phase 2A and Brandywine's internal roadways. GenOn's operations and maintenance (O&M) contractor inspects the CCR surface of Phase 2A daily to determine if the CCR surface has dried to a point where fugitive dust could be an issue in the near future. Observations of any fugitive dust issues and control measures employed to mitigate these issues are documented in the site's daily log and weekly CCR inspection reports that are maintained at the site office trailer. GenOn's O&M contractor personnel utilize the following methods to control fugitive dust at such time when it is deemed necessary to control CCR dust from Phase 2A.

- Short Term: GenOn's O&M contractor utilizes a dedicated mobile water truck onsite that it fills either from an onsite groundwater well near the Wastewater Treatment Plant (WTP) or from the WTP bioreactor backwash. GenOn's O&M contractor uses this dedicated water truck to spray water and thoroughly wet the existing CCR surface of Phase 2A.
- Longer Term: If needed, for longer term control of fugitive dust, GenOn uses a proprietary product "DustCap" manufactured by Terra Novo, which is a specifically formulated liquid product for dust control. It is a high concentration liquid (2.5 gallons) that is mixed with 4,000 gallons of water in the site's water truck and sprayed onto the CCR surface of Phase 2A. Once sprayed on the surface, DustCap forms a crusty surface on top of the CCR that maintains moisture in the CCR and inhibits the formation of dust. The crusty surface can last for many weeks if the crust is not broken by equipment or machinery riding on top of it. However, due to the moisture content of the current incoming CCR and non-CCRs, DustCap is not typically needed.

Road Watering

Paved and aggregated-surfaced areas and access roads are visually inspected on a daily basis to determine the presence of CCRs, sediment, and dust. All CCRs and sediment material are routinely removed and disposed in the Phase 2A active working area using site operating equipment. Roads receive water applied from the site's dedicated mobile water truck to minimize dust generation. Unpaved areas that might carry vehicle traffic are visually inspected and receive water to reduce dust as well. For watering of roads and areas outside of the lined Phase 2 disposal area, the mobile water truck only uses water supplied from the onsite groundwater well near the WTP.

3.0 Citizen Input

The site maintains a formal log dedicated to citizen input and complaints regarding fugitive dust emissions from the Brandywine Site and public roads leading to the site. This form was included as part of the Initial CCR Fugitive Dust Control Plan. There have been no citizen complaints or input provided by citizens received by the Brandywine Site in 2023 to date. As a result, no corrective measures were required to be implemented.

4.0 Summary

In 2023, GenOn has implemented the measures presented in the Initial CCR Fugitive Dust control Plan to control fugitive CCR dust from the disposal and mining operations in the active Phase 2A cell at the Brandywine Site, from the generation and transport of CCR and/or non-CCRs from the Morgantown and Chalk Point Generating Stations to the Brandywine Site, and from the hauling of mined bottom ash offsite. During the reporting period, there were no citizen complaints or input received by the GenOn site supervisor and no corrective measures were required.

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