

Morgantown Station
12620 Crain Highway
Newburg MD 20664

February 24, 2021

Mr. Ed Dexter
Maryland Department of the Environment
Land Management Administration
1800 Washington Boulevard, Suite 605
Baltimore, MD 21230-1719

Re: 2020 CCB Tonnage Report for Lanyard Power Holdings, LLC
Dickerson, Chalk Point and Morgantown Generating Stations
Replacement of previously submitted report for Dickerson Generating Station

Dear Mr. Dexter,

Pursuant to COMAR 26.04.10.08, enclosed please find the 2020 CCB Tonnage Report for Lanyard Power Holdings, LLC ("Lanyard or "Company") which includes Dickerson, Chalk Point and Morgantown Generating Stations. This report replaces the report that was sent by certified mail on 12/28/2020 for the Dickerson Generating Station.

In 2020 as part of a corporate restructuring, GenOn Mid-Atlantic, LLC was renamed Lanyard and the Company, as the generator of CCBs, is submitting one report instead of three separate reports. As you are aware, the Dickerson Coal Units retired August 1, 2019, the Chalk Point Coal Units are scheduled to retire June 1, 2021.

In summary, Lanyard generated a total of 111,623 tons of CCBs. 188,312 tons of CCBs from the Company's facilities were beneficially used in the State of Maryland.

- 44,651 tons of Fly Ash was generated in 2020 and 130,419 tons were beneficially used in Maryland.
- 7,718 tons of Bottom Ash was generated in 2020 and 34 tons were beneficially used in Maryland.
- 57,173 tons of Gypsum was generated in 2020 and 57,853 tons were beneficially used in Maryland.

If you have any questions regarding this report, please contact Debra Knight at 301-843-4670 or email debra.knight@genon.com

Sincerely,



Mark Gouveia
VP Operations

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land Management Administration • Solid Waste Program
1800 Washington Boulevard • Suite 605 • Baltimore Maryland 21230-1719
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Coal Combustion Byproducts (CCBs) Annual Generator Tonnage Report Instructions for Calendar Year 2020

The following is general information relating to the requirement for reporting quantities of coal combustion byproducts (CCBs) that were managed in the State of Maryland during calendar year 2020. Please answer the questions on the form provided, attaching additional information and any requested supplemental information to the back of the form. *Note that the form requires both volume and weight of the CCBs produced. If you know one of these parameters but not the others, for example, you have the tonnage produced but not the volume, you may calculate the other parameter; however, please provide the calculations and assumptions that you used in your estimate.* Questions can be directed to the Solid Waste Program at (410) 537-3315 or via email at ed.dexter@maryland.gov.

I. Background. This requirement that generators of CCBs submit an annual report was instituted in the Code of Maryland Regulations COMAR 26.04.10.08, that was promulgated effective December 1, 2008. The regulation requires that any non-residential generator of CCBs submit a report to the Department by March 1 of each year describing the manner in which CCBs generated within the State were managed during the preceding calendar year. Additional information and specific instructions follow. For more detailed information, please refer to COMAR 26.04.10.08.

II. General Information and Applicability.

A. Definitions. CCBs are defined in COMAR 26.04.10.02B as:

"(3) Coal Combustion Byproducts. (a) "Coal combustion byproducts" means the residue generated by or resulting from the burning of coal.

(b) "Coal combustion byproducts" includes fly ash, bottom ash, boiler slag, pozzolan, and other solid residuals removed by air pollution control devices from the flue gas and combustion chambers of coal burning furnaces and boilers, including flue gas desulfurization sludge and other solid residuals recovered from flue gas by wet or dry methods."

A generator of CCBs is defined in COMAR 26.04.10.02B as:

"(9) Generator.

(a) "Generator" means a person whose operations, activities, processes, or actions create coal combustion byproducts.

(b) "Generator" does not include a person who only generates coal combustion byproducts by burning coal at a private residence."

B. Applicability. If you or your company meets the definition of a generator of CCBs as defined above, you must provide the information as required below. For the purposes of this report, “you” shall hereinafter refer to the generator defined above. Please note that COMAR 26.04.10.08 requires generators of CCBs to submit an annual report to the Department concerning the disposition of the CCBs that they generated the previous year. **THIS INCLUDES CCBS THAT WERE NOT SEPARATELY COLLECTED BUT WERE PRODUCED BY THE BURNING OF COAL AND WERE DIRECTLY CONTRIBUTED TO A PRODUCT, such as cement.** Where the amount cannot be directly measured, estimates based on the amount of coal burned can be used. The method of determining the volume of CCBs produced must be described.

III. Required Information. The following information must be provided to the Department by March 1, 2021:

A. Contact information:

Facility Name: Lanyard Power, LLC (Dickerson, Chalk Point and Morgantown Generating Stations)

Name of Permit Holder: Various

Facility Address: _____

Dickerson: 21200 Martinsburg Rd. Dickerson MD 20842 – Montgomery Co.;

Chalk Point: 25100 Chalk Point Rd, Aquasco MD 20608 – Prince Georges Co.;

Morgantown: 12620 Crain Highway Newburg MD 20664 Charles Co.

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 301-843-4670 & 240-299-2096 Facility Fax No.: 301-843-4552

Contact Name: Debra Knight & Mark Nitz

Contact Title: Environmental Specialist

Contact Address: 12620 Crain Highway, 25100 Chalk Point Rd & 21200 Martinsburg Rd
Street

Contact Address: Newburg, Aquasco MD 20664, 20608, 20842
City State Zip

Contact Email: debra.knight@genon.com and mark.nitz@genon.com

Contact Telephone No.: See Above Contact Fax No.: _____

For questions on how to complete this form, please contact the Solid Waste Program at 410-537-3315

B. A description of the process that generates the CCBs, including the type of coal or other raw material that generates the CCBs. If the space provided is insufficient, please attach additional pages:

To produce electricity, Eastern Bituminous coal, with an ash content of approximately 10% and a sulfur content of approximately 2-3%, is burned in Lanyard's coal-fired generating units. Ash produced thru coal combustion is approximately 90% flyash and 10% bottom ash. Bottom ash is typically stored at the Company's Brandywine or Westland ash storage sites or disposed at Waste Management's Amelia landfill. Some bottom ash is beneficially used in construction at the ash storage sites. Fly ash produced at Chalk Point is shipped to Morgantown, where flyash from Morgantown and Chalk Point is sold to SEFA. The fly ash is processed by SEFA in the STAR facility in Newburg, MD which produces a substitute for raw materials used in commercial products. Fly ash generated at Dickerson is sold directly to vendors for beneficial use in the state of Maryland. In addition, flyash from the Dickerson Generation Station stored at the adjacent Westland Ash Site is reclaimed and sold to vendors for beneficial use in the state of Maryland.

SO₂ formed during coal combustion is removed from the flue gas through the use of Wet Scrubbers, which inject a limestone slurry into the flue gas to absorb the SO₂. Gypsum formed as a by-product of the scrubber operation is captured and stored on-site. Chalk Point and Dickerson transport their gypsum by rail to the Morgantown station. The gypsum is unloaded and combined with Morgantown's gypsum in Morgantown's gypsum storage dome. Morgantown's gypsum storage dome has a conveying system that is used to load the gypsum onto a barge where ownership is transferred to CertainTeed for beneficial use in Newburg, MD. CertainTeed uses the gypsum as a substitute for a raw material for making commercial products. Gypsum by-products which are not suitable for sale are disposed out of state at Waste Management's Amelia landfill located in Virginia.

C. The volume and weight of CCBs generated during calendar year 2020, including an identification of the different types of CCBs generated and the volume of each type generated. If the space provided is insufficient, please attach additional pages in a similar format. If converting from volume to weight or weight to volume, please provide your calculations and assumptions.

Table I: Volume and Weight of CCBs Generated for Calendar Year 2020: Please note the change to this table from previous years, to include both the volume and weight of the types of CCBs your facility produces.

| Volume and Weight of CCBs Generated for Calendar Year 2020 | | | | |
|---|----------------------------------|-----------------------------------|---------------------------------------|----------------------------------|
| <u>Flyash</u> Type of CCB | <u>Bottom Ash</u> Type of CCB | <u>Spec Gypsum</u> Type of CCB | <u>Off-Spec Gypsum</u> Type of CCB | <u>WWTP Fines</u> Type of CCB |
| 44,651 | 7,752 | 29,268 | 180 | 868 |
| Volume of CCB, in Cubic Yards | Volume of CCB, in Cubic Yards | Volume of CCB, in Cubic Yards | Volume of CCB, in Cubic Yards | Volume of CCB, in Cubic Yards |
| 44,651 | 7,752 | 57,173 | 352 | 1,695 |
| Weight of CCB, in Tons | Weight of CCB, in Tons | Weight of CCB, in Tons | Weight of CCB, in Tons | Weight of CCB, in Tons |

Additional notes:

CCB Tonnages are reported in dry short tons. CCB volumes are reported in dry Cubic Yards. WWTP Tons represent fines from the Flue Gas Desulfurization’s Waste Water Treatment Volumes of Fly ash in Dry Cubic Yards are calculated from dry short tons using a density of 1.0 Tons/Dry CY.

Volumes of Bottom Ash in Dry Cubic Yards are calculated from dry short tons using a density of 1.0 Tons/Dry CY.

Volumes of On-Spec Gypsum and WWTP Fines are calculated from dry short tons using a density of 1.95 Tons/Dry CY.

D. Descriptions of any modeling or risk assessments, or both, conducted relating to the CCBs or their use that were performed by you or your company during the reporting year. Please attach this information to the report.

E. Copies of all laboratory reports of all chemical characterizations of the CCBs. Please attach this information to the report.

F. A description of how you disposed of or used your CCBs in calendar year 2020, identifying:

(a) The types and volume of CCBs disposed of or used (if different than described in Paragraph C above) including any CCBs stored during the previous calendar year, the location of disposal, mine reclamation and use sites, and the type and volume of CCBs disposed of or used at each site:

Fly Ash: Ash produced at Chalk Point and Morgantown Generating Stations is beneficially used in Maryland at the STAR Facility, located in Newburg, MD at the Morgantown site. (11,797 tons of fly ash was stored at the end of 2019 in Chalk Point's silos.) Ownership of the ash is transferred to SEFA at receipt and a marketable product is produced at the STAR Facility. Ash produced at the Dickerson Generating Station is sold directly for beneficial use to Lehigh Concrete, Union Bridge, MD. A total of 44,651 tons of flyash were generated by Lanyard Facilities in 2020. All this ash was beneficially used in the state of Maryland. In addition, a net total of 85,768 tons of previously stored fly ash was reclaimed from the Company's Westland ash storage site for sale for beneficial use in the state of Maryland, to yield a total of 142,269 tons of fly ash beneficially used in the state of Maryland.

Bottom Ash: A total of 7,752 tons of dry bottom ash was generated at Lanyard facilities in 2020. Of this total, 5,148 tons were disposed at Waste Management's Amelia landfill, located in Jesterville, VA, and 2,563 tons were stored at the Company's ash storage facilities in Brandywine, and Westland in Maryland. 40 tons were beneficially used as a permeable layer at the Brandywine ash storage site.

On-Spec Gypsum: 57,173 tons of On-Spec Gypsum was generated at Lanyard facilities in 2020. Gypsum generated at the Chalk Point and Dickerson facilities are transported to Morgantown via rail. The rail cars are unloaded into the Gypsum Storage Dome and combined with the gypsum generated at Morgantown which is directly conveyed into the same storage dome. 3,616 tons of on-spec gypsum was stored at the sites at the end of 2019. Of this total, 57,853 tons were sold to CertainTeed and ownership transferred when loaded on the barge for transportation in Newburg, Maryland. The gypsum is beneficially used in the manufacture of wallboard. 2,936 tons were temporarily stored at the sites at the end of 2020.

Off Spec Gypsum: The combined total produced in 2020 was 352 tons, all of which were disposed of at Waste Management's Amelia Landfill, in Jesterville, Va.

WWTP Fines: The combined total produced in 2020 was 1,695 tons, all of which was disposed of at Waste Management's Amelia Landfill, located in Jesterville, Va.

and (b) The different uses by type and volume of CCBs:

Fly ash: Volume: 142,216 tons sold

Use: Beneficially used to produce marketable construction products.

Bottom Ash: Volume: 7,718 tons disposed. 34 tons (dry) beneficially used in storage site construction.

Gypsum: Volume: 57,853 tons sold
Use: Beneficially used to produce Wallboard

If the space provided is insufficient, please attach additional pages in a similar format.

G. A description of how you intend to dispose of or use CCBs in the next 5 years, identifying:

(a) The types and volume of CCBs intended to be disposed of or used, the location of intended disposal, mine reclamation and use sites, and the type and volume of CCBs intended to be disposed of or used at each site:

Fly Ash: Approximately 30,000 tons/year to be generated and sold on-site to SEFA to be beneficially used in the state of Maryland at the Morgantown STAR Facility. Approximately 95,000 tons/year to be reclaimed from the Westland ash storage site and sold for beneficial use in the state of Maryland.

Bottom Ash: Approximately 5,000 tons/year to be generated and stored at Brandywine, Md ash storage site. 100 tons (dry) beneficially used in storage site construction.

Gypsum: Approximately 38,000 tons/year to be generated and sold for beneficial use in the state of Maryland for use in wallboard.

WWTP Fines: Approximately 1,500 tons annually to be generated and disposed of in an approved landfill.

Off-Spec Gypsum: Approximately 350 tons to be generated annually and disposed of in an approved Landfill.

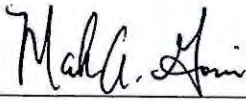
b) The different intended uses by type and volume of CCBs.

Fly Ash: Approximately 30,000 tons annually to be generated and sold on-site to SEFA for beneficial use as an ingredient in construction materials. Approximately 95,000 (400,000) tons/year to be reclaimed from the Westland ash storage site and sold for beneficial use in the state of Maryland.

Gypsum: Approximately 38,000 tons annually to be generated and sold for use in wallboard

If the space provided is insufficient, please attach additional pages in a similar format.

IV. Signature and Certification. An authorized official of the generator must sign the annual report, and certify as to the accuracy and completeness of the information contained in the annual report:

| | | |
|---|--|-------------------------|
| This is to certify that, to the best of my knowledge, the information contained in this report and any attached documents are true, accurate, and complete. | | |
|  <hr/> Signature | Mark Gouveia VP Operations 301-843-4555 <hr/> Name, Title, & Telephone No. (Print or Type) <u>mark.gouveia@genon.com</u> <hr/> Your Email Address | 2/25/2021 <hr/> Date |

V: Attachments (please list):

CCB analysis