TALEN ENERGY

February 25, 2025

Mr. Andrew Grenzer
Chief, Solid Waste Operations Division
Maryland Department of the Environment
Land Management and Materials Administration
Solid Waste Program
1800 Washington Boulevard, Suite 605
Baltimore, Maryland 21230-1719

Re: Calendar Year 2024 Coal Combustion Byproducts Annual Generator Tonnage Reports for Brandon Shores and H.A. Wagner Electric Generating Stations

Dear Mr. Grenzer:

Enclosed please find the 2024 Coal Combustion Byproducts (CCBs) Annual Generator Tonnage Reports for Raven Power's Brandon Shores and H.A. Wagner Generating Stations. These reports cover the period from January 1, 2024 to December 31, 2024 and reflect CCBs production, beneficial reuse, and disposal.

For any questions regarding these reports, please contact me at 443-934-4990, or by email at joshua.sawyers@talenenergy.com.

Regards,

Joshua Sawyers
Environmental Manager

Enclosures (2)

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 MDE by March 1, 2025:

A. Contact information:

Facility Name: Brandon Shores Generating Station

Name of Permit Holder: Brandon Shores LLC

Facility Address: 2030 Brandon Shores Road
Street

Facility Address: Baltimore (City) MD (State) 21226 (Zip)

County: Anne Arundel

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 410-787-6928 Facility Fax No.: Not Applicable

Contact Name: Joshua Sawyers

Contact Title: Environmental Manager

Contact Address: 3000 Brandon Shores Road
Street

Contact Address: Baltimore (City) MD (State) 21226 (Zip)

Contact Email: joshua.sawyers@talenenergy.com

Contact Telephone No.: 443-934-4990 Contact Fax No.: Not Applicable

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

Facility Name: Brandon Shores Generating Station **CCB Tonnage Report – 2024**

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:

Brandon Shores Generating Station consists of two coal fired units which produce electricity for commercial sale. Units are equipped with Babcock & Wilcox natural circulation radiant boilers. Bituminous coal is delivered by barge and stored in a pile adjacent to the plant. The coal is pulverized and fed by air to the boilers where it is burned using low NOx burners. Heavier bottom ash drops to the bottom of the boilers where it is conveyed by high-pressure water to settling bins before being loaded onto trucks for beneficial reuse or disposal. Lighter fly ash is conveyed by furnace air flow to electrostatic precipitators where the ash is collected on charged plates and falls into storage hoppers. Fly ash from the hoppers is conveyed pneumatically to storage silos before being trucked off site for beneficial reuse or disposal. High carbon fly ash is retained and re-burned. Pulse jet fabric filters downstream of the precipitators remove remaining fly ash which has been mixed with powdered activated carbon and hydrated lime injected into the flue gas stream for emissions control. This fly ash is conveyed to storage silos for reuse or disposal. The wet flue gas desulfurization (FGD) scrubber produces CCBs including fly ash, gypsum, and FGD sludge. These CCBs are stored under cover before being loaded onto trucks for beneficial reuse or disposal. Wastewater fines are from CCB clean up or area wash downs and are sent to the settling basin at the internal wastewater treatment plant for storage. This basin is periodically de-watered and the CCBs are allowed to dry before being excavated, loaded on trucks, and sent for disposal.

C. The volume and weight of CCBs generated during calendar year 2024, 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 2024: Please note that this table includes both the volume and weight of the types of CCBs your facility produces.

Volume and Weight of CCBs Generated for Calendar Year 2024				
Fly Ash	Bottom Ash	Gypsum	FGD Sludge	Wastewater Fines
Type of CCB	Type of CCB	Type of CCB	Type of CCB	Type of CCB
100,984	7,483	188,304	8,013	7,832
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
74,981	5,556	139,816	5,950	5,815
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:

Coal combustion byproducts (CCBs) are reported in dry tons. Cubic yards are calculated using a conversion factor of 1 ton equals 1.3468 cubic yards (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.
No modeling or risk assessments were completed during 2024.

E. Copies of all laboratory reports of all chemical characterizations of the CCBs. Please attach this information to the report.
No chemical characterizations of CCBs were performed during 2024.

F. A description of how you disposed of or used your CCBs in calendar year 2024, 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 - Beneficial Reuse
59,340 tons (79,919 CY) of fly ash was received by Separation Technologies in Baltimore, MD for use in concrete.
4,603 tons (6,199 CY) of fly ash was received by Heidelberg Materials in Union Bridge, MD for cement manufacturing.

Fly Ash - Disposal
11,038 tons (14,866 CY) of fly ash was delivered to Fort Armistead - Lot 15 landfill in Baltimore, MD for landfilling.

Bottom Ash - Beneficial Reuse
5,556 tons (7,483 CY) of bottom ash was received by the Fort Armistead - Lot 15 Landfill in Baltimore, MD for drainage/protective layer above the liner.

Gypsum - Beneficial Reuse
35,623 tons (47,977 CY) received by USG in Baltimore, MD for use in wallboard manufacturing.
104,093 tons (140,192 CY) received by USG in Danville, PA for use in wallboard manufacturing.

Gypsum - Disposal
0 tons (0 CY) of gypsum was disposed of.

Gypsum - Storage
400 tons (539 CY) of gypsum was stored on site at the end of 2023.
500 tons (673 CY) of gypsum was stored on site at the end of 2024. Note that gypsum stored at the end 2024 is included in gypsum generated in 2024 (Table I).

FGD Sludge - Disposal
5,950 tons (8,013 CY) of FGD sludge was delivered to Fort Armistead Road - Lot 15 landfill in Baltimore, MD for landfilling.

Wastewater Fines - Disposal
5,815 tons (7,832 CY) of wastewater fines was delivered to the Fort Armistead - Lot 15 Landfill in Baltimore, MD for landfilling.

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

Fly Ash
63,943 tons (86,118 CY) of fly ash was used in cement/concrete manufacturing.

Bottom Ash
5,556 tons (7,483 CY) of bottom ash was used as drainage/protective layer above a landfill liner.

Gypsum
139,716 tons (188,169 CY) of gypsum was used in wallboard manufacturing.

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
The facility projects that as much as 25,000 tons (33,670 CY) of fly ash will be generated each year for the next five years. Approximately 22,500 tons (30,303 CY) of fly ash will be beneficially used in cement products and the remaining 2,500 tons (3,367 CY) will be disposed of in the Fort Armistead Road - Lot 15 Landfill in Baltimore, MD.

Bottom Ash
The facility projects that as much as 5,000 tons (6,734 CY) of bottom ash will be generated each year for the next five years, all of which will be beneficially used as drainage/protective layer above the liner in the Fort Armistead Road - Lot 15 Landfill in Baltimore, MD.

Gypsum
The facility projects that as much as 50,000 tons (67,340 CY) of gypsum will be generated each year for the next five years, all of which will be beneficially used in wallboard and cement.

FGD Sludge
The facility projects that as much as 5,000 tons (6,734 CY) of FGD sludge will be generated each year for the next five years, all of which will be disposed of in the Fort Armistead Road - Lot 15 Landfill in Baltimore, MD.

Wastewater Fines
The facility projects that as much as 5,000 tons (6,734 CY) of wastewater fines will be generated each year for the next five years, all of which will be disposed of in the Fort Armistead Road - Lot 15 Landfill in Baltimore, MD.

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

Fly Ash
Approximately 22,500 tons (30,303 CY) of fly ash each year will be beneficially used in the manufacturing of cement.

Bottom Ash
Approximately 5,000 tons (6,734 CY) of bottom ash each year will be beneficially used as drainage/protective layer above a landfill liner.

Gypsum
Approximately 50,000 tons (67,340 CY) of gypsum each year will be beneficially used in wallboard and cement.

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.		
Signature	Thomas Clisham, Senior Director-Asset Management 717-266-7510 Name, Title, & Telephone No. (Print or Type) thomas.clisham@talenenergy.com Your Email Address	2/20/25 Date

V: Attachments (please list):

None.