



February 27, 2017

Administrator
Maryland Department of the Environment
Land Management Administration
Solid Waste Program
1800 Washington Boulevard, Suite 605
Baltimore, Maryland 21230-1719

Re: Calendar Year 2016 Generator Tonnage Reports for the Brandon Shores
and H. A. Wagner Electric Generating Stations

Dear Administrator:

Enclosed please find the 2016 Coal Combustion Byproducts (CCBs) Annual Generator Tonnage Reports for Raven Power's Brandon Shores and H.A. Wagner generating facilities. These reports cover the period from January 1, 2016 to December 31, 2016 for the coal-fired units at these facilities and reflect coal combustion byproduct production, beneficial reuse, and disposal.

For any questions regarding these reports, please contact me at 410-787-6431, or by email at bhojt@raven-power.com. You may also contact Thomas Weissinger, Director, Environmental, at 410-787-5532, or by email at tweissinger@raven-power.com.

Regards,

Brian Hoyt
Environmental Manager

Enclosures (2)

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**LAND MANAGEMENT ADMIN.
SOLID WASTE PROGRAM**

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land Management Administration • Solid Waste Program
1800 Washington Boulevard • Suite 605 • Baltimore Maryland 21230-1719
410-537-3315 • 800-633-6101 x3315 • www.mde.maryland.gov

Coal Combustion Byproducts (CCBs) Annual Generator Tonnage Report Instructions for Calendar Year 2016

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 2016. 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 for this year 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

Facility Name: H. A. Wagner Generating Facility

CCB Tonnage Report – 2016

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, 2017:

A. Contact information:

Facility Name: H. A. Wagner Generating Facility

Name of Permit Holder: H. A. Wagner LLC

Facility Address: 3000 Brandon Shores Road
Street

Facility Address: Baltimore Maryland 21226
City State Zip

County: Anne Arundel

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 410-787-5188 Facility Fax No.: 410-787-5160

Contact Name: Brian Hoyt

Contact Title: Environmental Manager

Contact Address: 1005 Brandon Shores Road, Suite 100
Street

Contact Address: Baltimore Maryland 21226
City State Zip

Contact Email: bhoyt@raven-power.com

Contact Telephone No.: 410-787-6431 Contact Fax No.: 410-787-5160

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:

The H. A. Wagner electric generating facility has two coal fired units which produce electricity for commercial sale. Unit 2 is equipped with a Babcock & Wilcox single reheat boiler which burns approximately 60 tons of bituminous Central Appalachian (“CAPP”) coal per hour at full load. Unit 3 is equipped with a Babcock & Wilcox double reheat once-through supercritical boiler which burns approximately 120 tons per hour of bituminous CAPP coal per hour at full load. For both units, coal is delivered by barge and stored in a pile adjacent to the plant. A proprietary additive, Chem-Mod®, is added to the coal for NOx and mercury emissions reduction as it is conveyed by belt from the coal pile to storage bunkers in the plant. The coal is then pulverized and fed by air to the boilers where it is burned using low NOx burners.

On both units, the heavier ash (bottom ash) drops to the bottom of the boilers where it is conveyed by water to dewatering bins before it is eventually loaded onto trucks for disposal. Lighter ash (fly ash) is conveyed by furnace air flow to electrostatic precipitators where the ash is collected and falls to storage hoppers below. Ash is conveyed pneumatically from the hoppers to storage silos where it is loaded into trucks for either beneficial reuse or disposal.

C. The volume and weight of CCBs generated during calendar year 2016, 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 2016: 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 2016			
Fly Ash Type of CCB	Bottom Ash Type of CCB	Wastewater Fines Type of CCB	---
124,431	4,346	282	---
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
92,390	3,227	209	---
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 (“CCB”) are reported in dry tons. Cubic yards are calculated using a conversion factor of 1 ton = 1.3468 cubic yards.

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 2016.

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 conducted at Wagner in 2016.

F. A description of how you disposed of or used your CCBs in calendar year 2016, 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

1,743 tons (2,347 CY) of fly ash was delivered to Lehigh in Union Bridge, MD for use in cement manufacturing.

27 tons (37 CY) of fly ash was delivered to Ashworks in Wilmington, DE for use as flow-able fill.

Fly Ash – Disposal

90,620 tons (122,047 CY) of fly ash was delivered to the Fort Armistead Road – Lot 15 Landfill in Baltimore, MD for landfilling.

Bottom Ash - Disposal

3,227 tons (4,346 CY) of bottom ash was delivered to the Fort Armistead Road – Lot 15 Landfill in Baltimore, MD for landfilling.

Wastewater Fines – Disposal

209 tons (282 CY) of wastewater fines was delivered to the Fort Armistead Road – Lot 15 Landfill in Baltimore, MD for landfilling.

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

Fly Ash

1,743 tons (2,347 CY) of fly ash was used in the manufacturing of concrete or cement.

27 tons (37 CY) of fly ash was used as flow-able fill.

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

Raven projects that as much as 100,000 tons (134,680 CY) of fly ash will be generated each year for the next five years. Approximately 2,000 tons (2,694 CY) of fly ash will be beneficially used in cement and/or concrete products and the remaining 98,000 tons (131,986 CY) will be disposed of in the Fort Armistead Road - Lot 15 LLC landfill in Baltimore, MD.

Bottom Ash

Raven projects that approximately 5,000 tons (6,734 CY) of bottom ash will be generated each year for the next five years, and will be disposed of in the Fort Armistead Road - Lot 15 LLC landfill in Baltimore, MD.

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

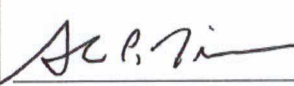
Fly Ash

Approximately 2,000 tons (2,694 CY) of fly ash each year will be beneficially used in cement and/or concrete products.

Bottom Ash

Approximately 0 tons (0 CY) of bottom ash each year will be beneficially used in cement and/or concrete products.

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	Glenn Nilsen Authorized Representative 410-787-5017 6923 _____ Name, Title, & Telephone No. (Print or Type)	3.21.17 _____ Date
	gnilsen@raven-power.com _____ Your Email Address	

V: Attachments (please list):

None