



Raven Power

June 26, 2013

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

RECEIVED

JUN 28 2013

SOLID WASTE
OPERATIONS DIVISION

Re: Amended Annual Generator Tonnage Reports for Calendar Year 2012
Brandon Shores and H. A. Wagner Electric Generating Stations

Dear Ms. Hynson:

Enclosed as requested please find signed amended copies of the 2012 Annual Generator Tonnage Reports for the Brandon Shores and H. A. Wagner generating facilities. These reports cover the period from January 1, 2012 to December 31, 2012 for all of the coal-fired units at these facilities and have been amended based on updated generation, disposal and reuse data, and to reflect the disposal of fly ash stored on site at the end of 2012.

Please direct any questions concerning these amended reports to me at 410-787-5188, or by email at amontier@raven-power.com. You may also contact Thomas Weissinger, Director, Environmental, at 410-787-5532, or by email at tweissinger@raven-power.com

Regards,

Anthony Montier
Sr. Environmental Specialist

Enclosures (2)

**Coal Combustion Byproducts (CCBs)
Annual Generator Tonnage Report
Instructions for Calendar Year 2012**

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 2012. 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 edexter@mde.state.md.us.

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, 2013:

A. Contact information:

Facility Name: H. A. Wagner Generating Station

Name of Permit Holder: Raven Power Fort Smallwood 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: Anthony Montier

Contact Title: Sr. Environmental Specialist

Contact Address: 1005 Brandon Shores Road, Suite 100
Street

Contact Address: Baltimore Maryland 21226
City State Zip

Contact Email: amontier@raven-power.com

Contact Telephone No.: 410-787-5188 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 2012, 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 2012: 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 2012			
Fly Ash Type of CCB	Bottom Ash Type of CCB	---	---
88,531	2,367	---	---
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
65,734	1,758	---	---
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 2012.

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

Test reports are attached.

F. A description of how you disposed of or used your CCBs in calendar year 2012, 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

19,825 tons (26,700 CY) of fly ash delivered to Separation Technologies, Inc. in Baltimore, MD for use in concrete.

30,175 tons (40,640 CY) of fly ash delivered to Lehigh in Baltimore, MD for use in cement manufacturing.

2,193 tons (2,953 CY) of fly ash delivered to Ashworks in Wilmington, DE for use as flow-able fill.

13,541 tons (18,238 CY) of fly ash landfilled at the Fort Armistead Road – Lot 15 Landfill in Baltimore, MD.

8,272 tons (11,140 CY) of fly ash previously stored on site and reported on the 2011 CCB Report was delivered to Fort Armistead Road - Lot 15 LLC landfill in Baltimore, MD for landfilling.

Bottom Ash

182 tons (245 CY) of bottom ash delivered to Lehigh in Baltimore, MD for use in cement manufacturing.

1,576 tons (2,122 CY) of bottom ash landfilled at the Fort Armistead Road – Lot 15 Landfill in Baltimore, MD.

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

Fly Ash

50,000 tons (67,340 CY) of fly ash was used in the manufacturing of concrete or cement.

2,193 tons (2,953 CY) of fly ash was used as flow-able fill.

Bottom Ash

182 tons (245 CY) of bottom ash was used in cement manufacturing.

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 75,000 tons (101,025 CY) of fly ash will be generated each year for the next five years. Approximately 62,000 tons (83,514 CY) of fly ash will be beneficially used in cement and/or concrete products and the remaining 13,000 tons (17,511 CY) will be disposed of in the Fort Armistead Road - Lot 15 LLC landfill in Baltimore, MD.

Bottom Ash

Raven projects that approximately 3,000 tons (4,000 CY) of bottom ash will be generated each year for the next five years, of which 2,500 tons (3,375 CY) will be beneficially used in cement and/or concrete products and 500 tons (675 CY) 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.

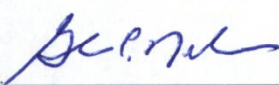
Fly Ash

Approximately 62,000 tons (83,513 CY) of fly ash each year will be beneficially used in cement and/or concrete products.

Bottom Ash

Approximately 2,500 tons (3,375 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 For Scott Blair	Scott Blair Plant General Manager, H. A. Wagner 410-787-5017 <hr/> Name, Title, & Telephone No. (Print or Type) sblair@raven-power.com <hr/> Your Email Address	6-26-13 <hr/> Date

V: Attachments (please list):

1. Analytical Report for Exelon Power Generation – H. A. Wagner, October 8, 2012
2. Sample Analysis Report – H. A. Wagner, September 14, 2012

Analytical Report for

Exelon Power Generation - HA Wagner

Certificate of Analysis No.: 12100304

Project Manager: John Basciano

Project Name : Wagner #3 Test Ash

Project Location: Wagner



October 8, 2012

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

Phone: (410) 747-8770

Fax: (410) 788-8723

OFFICES:
6630 BALTIMORE NATIONAL PIKE
ROUTE 40 WEST
BALTIMORE, MD 21228
410-747-8770
800-932-9047
FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



October 8, 2012

John Basciano
Exelon Power Generation - HA Wagner
1005 Brandon Shores Road
Baltimore, MD 21226

Reference: PSS Work Order No: **12100304**
Project Name: Wagner #3 Test Ash
Project Location: Wagner

Dear John Basciano :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order numbered **12100304**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on November 7, 2012. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Dan Prucnal

Dan Prucnal
Laboratory Manager



Sample Summary

Client Name: Exelon Power Generation - HA Wagner

Project Name: Wagner #3 Test Ash

Project ID: N/A

Work Order Number: 12100304

The following samples were received under chain of custody by Phase Separation Science (PSS) on 10/03/2012 at 11:45 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
12100304-001	Wagner #3 DSI test ash	SOLID	10/03/2012 09:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of common laboratory contaminants such as acetone, methylene chloride and phthalates, may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. The following analytical results are never reported on a dry weight basis: pH, flashpoint, moisture and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the LOD.
- LOD Limit of Detection. An estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.



Case Narrative Summary

Client Name: Exelon Power Generation - HA Wagner

Project Name: Wagner #3 Test Ash

Project ID: N/A

Work Order Number: 12100304

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Sample Receipt:

All sample receipt conditions were acceptable.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

OFFICES:
 6630 BALTIMORE NATIONAL PIKE
 ROUTE 40 WEST
 BALTIMORE, MD 21228
 410-747-8770
 800-932-9047
 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 12100304

Exelon Power Generation - HA Wagner, Baltimore, MD

October 8, 2012

Project Name: Wagner #3 Test Ash

Project Location: Wagner

Sample ID: Wagner #3 DSI test ash Date/Time Sampled: 10/03/2012 09:00 PSS Sample ID: 12100304-001
Matrix: SOLID Date/Time Received: 10/03/2012 11:45

TCLP Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	TCLP Limit	Prepared	Analyzed	Analyst
Arsenic	ND	mg/L	0.050		1	5	10/05/12	10/06/12 10:51	1033
Barium	ND	mg/L	1.0		1	100	10/05/12	10/06/12 10:51	1033
Cadmium	ND	mg/L	0.050		1	1	10/05/12	10/06/12 10:51	1033
Chromium	0.13	mg/L	0.050		1	5	10/05/12	10/06/12 10:51	1033
Lead	ND	mg/L	0.050		1	5	10/05/12	10/06/12 10:51	1033
Mercury	ND	mg/L	0.0020		1	0.2	10/05/12	10/06/12 10:51	1033
Selenium	0.18	mg/L	0.050		1	1	10/05/12	10/06/12 10:51	1033
Silver	ND	mg/L	0.050		1	5	10/05/12	10/06/12 10:51	1033



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	12100304	Received By	Lynn Moran
Client Name	Exelon Power Generation - HA Wagr	Date Received	10/03/2012 11:45:00 AM
Project Name	Wagner #3 Test Ash	Delivered By	Client
Project Number	N/A	Tracking No	Not Applicable
Disposal Date	11/07/2012	Logged In By	Lynn Moran

Shipping Container(s)

No. of Coolers	1	Ice	Absent
Custody Seal(s) Intact?	N/A	Temp (deg C)	23
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes
Chain of Custody	Yes

Sampler Name	<u>Not Provided</u>
	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes
Intact?	Yes
Labeled and Labels Legible?	Yes

Custody Seal(s) Intact?	Not Applicable
Seal(s) Signed / Dated	Not Applicable

Total No. of Samples Received 1

Total No. of Containers Received 1

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Lynn Moran

Date: 10/03/2012

Lynn Moran

PM Review and Approval:

Amy Friedlander

Date: 10/03/2012

Amy Friedlander



SAMPLE ANALYSIS REPORT

REPORT DATE: 9/14/2012

Page 1 of 1

ORG. / DEPT:	H. A. Wagner	SAMPLE NUMBER:	F0218577
SAMPLE SITE:	H. A. Wagner	SAMPLE COLL. DATE:	09/11/2012
LOCATION / DESCRIPTION:	Flyash Test #1	SAMPLE COLL. TIME	2:00 pm
SUBMITTED BY:	Brian Ruby		

ANALYSIS OR TEST NAME	RESULT	UNITS
Aluminum (Al)	<0.100*	ppm
Antimony (Sb)	<0.002*	ppm
Arsenic (As)	0.013	ppm
Barium (Ba)	0.800	ppm
Beryllium (Be)	<0.002*	ppm
Cadmium (Cd)	<0.002*	ppm
Chromium (Cr)	0.131	ppm
Copper (Cu)	<0.002*	ppm
Iron (Fe)	0.007	ppm
Lead (Pb)	<0.002*	ppm
Magnesium (Mg)	0.062	ppm
Manganese (Mn)	<0.002*	ppm
Nickel (Ni)	0.004	ppm
Selenium (Se)	0.259	ppm
Silver (Ag)	0.007	ppm
Thallium (Tl)	<0.002*	ppm
Zinc (Zn)	<0.002*	ppm

Approved Data, Final Report

REPORTED BY: Mbugua, S.

* - The value reported is the method detection limit.