

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 2014

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 2014. 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.”*

Facility Name: H. A. Wagner Generating Facility

CCB Tonnage Report – 2014

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, 2015:

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

City

Maryland

State

21226

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: Environmental Manager

Contact Address: 1005 Brandon Shores Road, Suite 100

Street

Contact Address: Baltimore

City

Maryland

State

21226

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 2014, 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 2014: 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 2014			
Fly Ash Type of CCB	Bottom Ash Type of CCB	---	---
95,095	2,866	---	---
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
70,608	2,128	---	---
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 2014.

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 2014.

F. A description of how you disposed of or used your CCBs in calendar year 2014, 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

11,595 tons (15,616 CY) of fly ash was delivered to Separation Technologies, Inc. in Baltimore, MD for use in concrete.

17,047 tons (22,959 CY) of fly ash was delivered to Lehigh in Union Bridge, MD for use in cement manufacturing.

882 tons (1,188 CY) of fly ash was delivered to Ashworks in Wilmington, DE for use as flow-able fill.

Fly Ash – Disposal

41,084 tons (55,332 CY) of fly ash was delivered to the Fort Armistead Road – Lot 15 Landfill in Baltimore, MD for landfilling.

1,219 tons (1,642 CY) of fly ash that was stored on site at the end of 2013 was delivered to the Fort Armistead Road – Lot 15 Landfill in Baltimore, MD for landfilling. *(note that these tons were accounted for in CY2013's Paragraph C and are not included in the Fly Ash total in Paragraph C above).*

Bottom Ash - Beneficial Reuse

194 tons (261 CY) of bottom ash was delivered to Lehigh in Union Bridge, MD for use in cement manufacturing.

Bottom Ash - Disposal

1,934 tons (2,605 CY) of bottom ash 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

28,642 tons (38,575 CY) of fly ash was used in the manufacturing of concrete or cement.

882 tons (1,188 CY) of fly ash was used as flow-able fill.

Bottom Ash

194 tons (261 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.

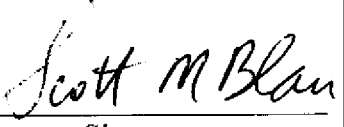
Fly Ash

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:

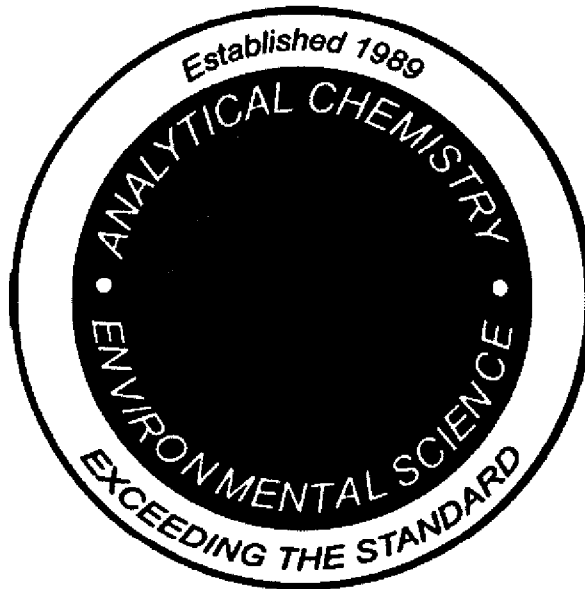
<p>This is to certify that, to the best of my knowledge, the information contained in this report and any attached documents are true, accurate, and complete.</p>		
 Signature	Scott Blair Authorized Representative 410-787-5017 <hr/> Name, Title, & Telephone No. (Print or Type) <hr/> sblair@raven-power.com <hr/> Your Email Address	2/17/2015 <hr/> Date

V: Attachments (please list):

1. Certificate of Analysis No. 14100608 – Unit 2 & 3 Flyash

Analytical Report for
Raven Power Holdings, LLC - HA Wagner
Certificate of Analysis No.: 14100608

Project Manager: Brian Ruby
Project Name : Unit 2 & 3 Flyash
Project Location: H.A. Wagner



October 13, 2014
Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723



Sample Summary

Client Name: Raven Power Holdings, LLC - HA Wagner

Project Name: Unit 2 & 3 Flyash

Work Order Number(s): 14100608

The following samples were received under chain of custody by Phase Separation Science (PSS) on 10/06/2014 at 10:40 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
14100608-001	31 North	SOLID	09/30/14 15:25
14100608-002	32 South	SOLID	09/30/14 15:15
14100608-003	31 North	SOLID	10/01/14 13:11
14100608-004	32 South	SOLID	10/01/14 13:05
14100608-005	31 North	SOLID	10/02/14 00:00
14100608-006	32 South	SOLID	10/02/14 00:00
14100608-007	31 North	SOLID	10/03/14 00:00
14100608-008	32 South	SOLID	10/03/14 00:00
14100608-009	21 North	SOLID	09/30/14 00:00
14100608-010	22 South	SOLID	09/30/14 00:00
14100608-011	21 North	SOLID	10/01/14 14:30
14100608-012	22 South	SOLID	10/01/14 14:30
14100608-013	21 North	SOLID	10/02/14 12:45
14100608-014	22 South	SOLID	10/02/14 12:45
14100608-015	21 North	SOLID	10/03/14 12:00
14100608-016	22 South	SOLID	10/03/14 12:00

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:

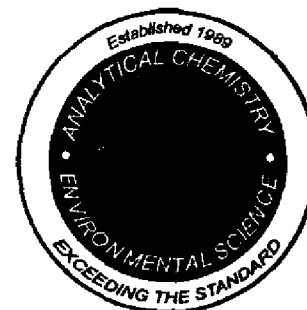
1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of 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.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].

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.

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: 14100608
 Raven Power Holdings, LLC - HA Wagner, Baltimore, MD
 October 13, 2014

Project Name: Unit 2 & 3 Flyash
 Project Location: H.A. Wagner

Sample ID: 31 North

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 09/30/2014 15:25 PSS Sample ID: 14100608-001

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
180	mg/kg	12		1	10/08/14	10/08/14 15:45	1053

Nitrogen, Ammonia (as N)

Sample ID: 32 South

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 09/30/2014 15:15 PSS Sample ID: 14100608-002

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
160	mg/kg	13		1	10/08/14	10/08/14 15:49	1053

Nitrogen, Ammonia (as N)

Sample ID: 31 North

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/01/2014 13:11 PSS Sample ID: 14100608-003

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
300	mg/kg	12		1	10/08/14	10/08/14 15:53	1053

Nitrogen, Ammonia (as N)

Sample ID: 32 South

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/01/2014 13:05 PSS Sample ID: 14100608-004

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
230	mg/kg	13		1	10/08/14	10/08/14 15:57	1053

Nitrogen, Ammonia (as N)

Sample ID: 31 North

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/02/2014 15:00 PSS Sample ID: 14100608-005

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
300	mg/kg	47		3.9474	10/08/14	10/08/14 17:27	1053

Nitrogen, Ammonia (as N)

Sample ID: 32 South

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/02/2014 15:00 PSS Sample ID: 14100608-006

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

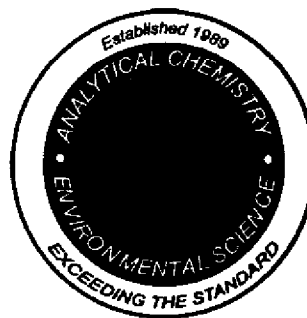
Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
300	mg/kg	13		1	10/08/14	10/08/14 16:05	1053

Nitrogen, Ammonia (as N)

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: 14100608

Raven Power Holdings, LLC - HA Wagner, Baltimore, MD

October 13, 2014

Project Name: Unit 2 & 3 Flyash

Project Location: H.A. Wagner

Sample ID: 21 North

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/02/2014 12:45 **PSS Sample ID: 14100608-013**

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
140	mg/kg	13		1	10/08/14	10/08/14 16:42	1053

Nitrogen, Ammonia (as N)

Sample ID: 22 South

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/02/2014 12:45 **PSS Sample ID: 14100608-014**

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
180	mg/kg	12		1	10/08/14	10/08/14 16:46	1053

Nitrogen, Ammonia (as N)

Sample ID: 21 North

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/03/2014 12:00 **PSS Sample ID: 14100608-015**

Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
77	mg/kg	12		1	10/08/14	10/08/14 16:50	1053

Nitrogen, Ammonia (as N)

Sample ID: 22 South

Matrix: SOLID

Nitrogen, Ammonia

Date/Time Sampled: 10/03/2014 12:00 **PSS Sample ID: 14100608-016**

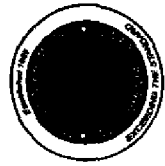
Date/Time Received: 10/06/2014 10:40

Analytical Method: SM 4500-NH3-F -2011

Preparation Method: SM4500-NH3B

Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
98	mg/kg	11		1	10/08/14	10/08/14 16:54	1053

Nitrogen, Ammonia (as N)



Analytical Data Package Information Summary

Work Order(s): 14100608

Report Prepared For: Raven Power Holdings, LLC - HA Wagner, B.

Project Name: Unit 2 & 3 Flyash

Project Manager: Brian Ruby

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed	
SM 4500-NH3-F-2011	31 North	Initial	14100608-001	1053	S	52448	117353	09/30/2014	10/08/2014 12:31	10/08/2014 15:45	
	32 South	Initial	14100608-002	1053	S	52448	117353	09/30/2014	10/08/2014 12:31	10/08/2014 15:49	
	31 North	Initial	14100608-003	1053	S	52448	117353	10/01/2014	10/08/2014 12:31	10/08/2014 15:53	
	32 South	Initial	14100608-004	1053	S	52448	117353	10/01/2014	10/08/2014 12:31	10/08/2014 15:57	
	31 North	Initial	14100608-005	1053	S	52448	117353	10/02/2014	10/08/2014 12:31	10/08/2014 17:27	
	32 South	Initial	14100608-006	1053	S	52448	117353	10/02/2014	10/08/2014 12:31	10/08/2014 16:05	
	31 North	Initial	14100608-007	1053	S	52448	117353	10/03/2014	10/08/2014 12:31	10/08/2014 17:31	
	32 South	Initial	14100608-008	1053	S	52448	117353	10/03/2014	10/08/2014 12:31	10/08/2014 16:22	
	21 North	Initial	14100608-009	1053	S	52448	117353	09/30/2014	10/08/2014 12:31	10/08/2014 16:26	
	22 South	Initial	14100608-010	1053	S	52448	117353	09/30/2014	10/08/2014 12:31	10/08/2014 16:30	
	21 North	Initial	14100608-011	1053	S	52448	117353	10/01/2014	10/08/2014 12:31	10/08/2014 16:34	
	22 South	Initial	14100608-012	1053	S	52448	117353	10/01/2014	10/08/2014 12:31	10/08/2014 16:38	
	21 North	Initial	14100608-013	1053	S	52448	117353	10/02/2014	10/08/2014 12:31	10/08/2014 16:42	
	22 South	Initial	14100608-014	1053	S	52448	117353	10/02/2014	10/08/2014 12:31	10/08/2014 16:46	
	21 North	Initial	14100608-015	1053	S	52448	117353	10/03/2014	10/08/2014 12:31	10/08/2014 16:50	
	22 South	Initial	14100608-016	1053	S	52448	117353	10/03/2014	10/08/2014 12:31	10/08/2014 16:54	
	52448-1-BKS	BKS		52448-1-BKS	1053	S	52448	117353	-----	10/08/2014 12:31	10/08/2014 15:25
	52448-1-BLK	BLK		52448-1-BLK	1053	S	52448	117353	-----	10/08/2014 12:31	10/08/2014 15:21
	52448-1-BSD	BSD		52448-1-BSD	1053	S	52448	117353	-----	10/08/2014 12:31	10/08/2014 15:29
	100614-NG Sed S	MS		14100710-003 S	1053	S	52448	117353	10/06/2014	10/08/2014 12:31	10/08/2014 15:37
100614-NG Sed SD	MSD		14100710-003 SD	1053	S	52448	117353	10/06/2014	10/08/2014 12:31	10/08/2014 15:41	



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

www.phaseonline.com
email: info@phaseonline.com

PHASE SEPARATION SCIENCE, INC.

1 CLIENT: Raven Power OFFICE LOC. H.A. Wagner PROJECT MGR: Brian Ruby PHONE NO.: 410-787-6970 EMAIL: bruby@raven-power.com FAX NO.: PROJECT NAME: Unit 2 & 3 flyash PROJECT NO.: SITE LOCATION: H.A. Wagner RO. NO.: SAMPLERS: Brian Ruby DW CERT NO.:		PSS Work Order #: 14100608 PAGE 1 OF 2							
Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr D=Oil S=Soil WL=Waste Liquid WS=Waste Solid W=Wipe No. C O N T A I N E R S		Preservative Used:							
2 LAB NO. SAMPLE IDENTIFICATION DATE TIME MATRIX (See Codes)	SAMPLE TYPE C = COMP G = GRAB	Analysis/Method Required REMARKS							
1	31 North	9/30/14	15:25	WS	1	G	✓	Ammonia Content	
2	32 South	9/30/14	15:15	WS	1	G	✓		
3	31 North	10/1/14	13:11	WS	1	G	✓		
4	32 South	10/1/14	13:05	WS	1	G	✓		
5	31 North	10/2/14		WS	1	G	✓		
6	32 South	10/2/14		WS	1	G	✓		
7	31 North	10/3/14		WS	1	G	✓		
8	32 South	10/3/13		WS	1	G	✓		
9	21 North	9/30/14		WS	1	G	✓		
10	22 South	9/30/14		WS	1	G	✓		
3 Relinquished By: (1) <i>[Signature]</i> Date: 10/6/14 Time: 7:43am Received By: <i>[Signature]</i> 1005 Relinquished By: (2) <i>[Signature]</i> Date: 10/14/14 Time: 10:40 Received By: <i>[Signature]</i>		Requested Turnaround Time <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other							
Relinquished By: (3) Date: Time: Received By:		# of Coolers: Custody Seal: ABS Ice Present: YES Temp: 2° Shipping Carrier: TTE							
Relinquished By: (4) Date: Time: Received By:		Data Deliverables Required: Special Instructions:							

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723
 The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other applicable fees if collection becomes necessary.



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	14100608	Received By	Rachel Davis
Client Name	Raven Power Holdings, LLC - HA W	Date Received	10/06/2014 10:40:00 AM
Project Name	Unit 2 & 3 Flyash	Delivered By	Trans Time Express
Disposal Date	11/10/2014	Tracking No	Not Applicable
		Logged In By	Rachel Davis

Shipping Container(s)

No. of Coolers 1

Custody Seal(s) Intact? N/A

Seal(s) Signed / Dated? N/A

Ice Present

Temp (deg C) 2

Temp Blank Present No

Documentation

COC agrees with sample labels? Yes

Chain of Custody Yes

Sampler Name Brian Ruby

MD DW Cert. No. N/A

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 16

Total No. of Containers Received 16

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

624 VOC (Rcvd at least one unpreserved VOA vial) 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:

Rachel Davis

Date: 10/06/2014

PM Review and Approval:

Cathy Thompson

Date: 10/08/2014