



NRG Energy
Dickerson Generating Station
21200 Martinsburg Road
Dickerson, Maryland 20842

Certified Mail/Return Receipt Requested
7011 3500 0000 7058 7495

Mr. Edward M. Dexter
Solid Waste Program, Suite 605
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, MD. 21230

RECEIVED

MAR 07 2014

SOLID WASTE
OPERATIONS DIVISION

February 27, 2013

Re: 2013 CCB Tonnage Report for GenOn Mid-Atlantic, LLC, Dickerson Generating Station.

Dear Mr. Dexter,

Pursuant to COMAR 26.04.10.08, enclosed please find the 2013 CCB Tonnage Report for GenOn Mid-Atlantic, LLC's Dickerson Generating Station.

If you have any questions regarding this report, please contact me at 301-601-6515, or at Peter.Heimlicher@nrgenergy.com.

Regards,

A handwritten signature in black ink that reads "Peter Heimlicher". The signature is written in a cursive, flowing style.

Peter Heimlicher
Environmental Specialist
NRG Energy

Enclosure

**Coal Combustion Byproducts (CCBs)
Annual Generator Tonnage Report
Instructions for Calendar Year 2013**

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 2013. 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 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, 2014:

A. Contact information:

Facility Name: Dickerson Generating Station

Name of Permit Holder: GenOn Mid-Atlantic, LLC

Facility Address: 21200 Martinsburg Road
Street

Facility Address: Dickerson Maryland 20842
City State Zip

County: Montgomery

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 301-601-6500 Facility Fax No.: 301-601-6556

Contact Name: Peter Heimlicher

Contact Title: Environmental Specialist

Contact Address: 21200 Martinsburg Rd.
Street

Contact Address: Dickerson Maryland 20842
City State Zip

Contact Email: Peter.Heimlicher@nrgenergy.com

Contact Telephone No.: 301-601-6515 Contact Fax No.: 301 601-6556

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:

See Attachment A.

C. The volume and weight of CCBs generated during calendar year 2013, 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 2013: 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 2013				
<u>Flyash</u> Type of CCB	<u>Bottom Ash</u> Type of CCB	<u>On-Spec Gypsum</u> Type of CCB	<u>Off Spec Gypsum</u> Type of CCB	<u>WWTP Fines</u> Type of CCB
26,880	4,465	23,276	338	373
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
26,880	4,465	45,468	660	729
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 Flyash 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, Off-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. (See Attachment B).

F. A description of how you disposed of or used your CCBs in calendar year 2013, 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:

Of the 26,880 tons of **flyash** generated at Dickerson in 2013, 822 tons were sold to SEFA, headquartered in Columbia, SC, and 26,058 tons were disposed of at the Westland Ash Site, located in Montgomery Co., Md.

All of the 4,465 tons of **bottom ash** generated in 2013 were sent to the Westland Ash Site, located in Montgomery Co., Md for disposal.

On-Spec Gypsum generated at Dickerson in 2013 was 45,468 tons. 2,822 tons were stored on-site at the end of 2012, and 4,601 tons were stored on-site at the end of 2013. Of this total, 43,689 tons were transported by barge to LaFarge, located in Buchanan, NY.

Off-Spec Gypsum generated in 2013 was 660 tons, all of which was disposed of at Waste Management's Amelia Landfill located in Jetersville, Va.

WWTP Fines produced in 2013 was 729 tons, all of which was disposed of at Waste Management's Amelia Landfill located in Jetersville, Va.

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

FlyAsh:

Volume: 822 tons sold for Geotechnical Grout Applications..

On-Spec Gypsum:

Volume: 43,689 tons sold

Use: 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:

FlyAsh: Approximately 27,000 tons/year to be generated, with about 800 tons to be sold to SEFA, headquartered in Columbia, SC, and 26,200 tons to be sent for disposal at the Westland Ash Site, located in Montgomery Co., Md.

Bottom Ash: Anticipate 4,500 tons/year to be generated and sent to the Westland Ash Site, located in Montgomery Co., Md, for disposal.

On-Spec Gypsum: Anticipate 45,500 tons/year to be generated, with approximately 4,500 tons stored on site at the Dickerson Generating Station and approximately 44,000 tons/year being transported by barge to LaFarge, located in Buchanan, NY.

Off-Spec Gypsum: Approximately 700 tons/year to be generated and disposed of at Waste Management's Amelia Landfill located in Jetersville, Va.

WWTP Fines: Approximately 700 tons/year to be generated and disposed of at Waste Management's Amelia Landfill located in Jetersville, Va.

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

FlyAsh:

Volume:800 tons/year to be sold for Geotechnical Grout Applications..

On-Spec Gypsum:


Volume:44,000 tons/year to be sold.

Use: 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.

 _____ Signature	<u>Jay Bellingham, General Manager, Dickerson Generating Station</u> 301-601-6521 _____ Name, Title, & Telephone No. (Print or Type) Jay.bellingham@nrenergy.com _____ Your Email Address	<u>2/26/14</u> _____ Date
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V: Attachments (please list):

A) Dickerson Generating Station Process Description _____

B) Microbac Analyses for Dickerson Fly Ash, Bottom Ash, Off- Spec Gypsum and WWTP Fines

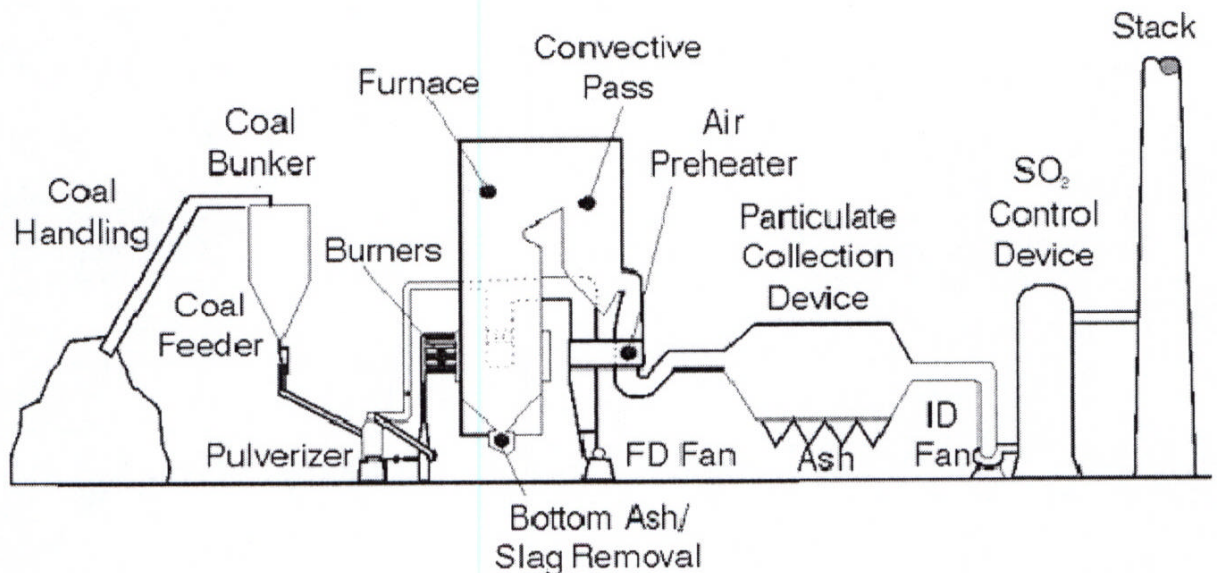
Attachment A

Dickerson Generating Station
21200 Martinsburg Road,
Dickerson, Montgomery County, MD. 20842
301-601-6500

The Dickerson Generating Station is located on the Potomac River, south of the Monocacy River in upper Montgomery County, near Dickerson, MD. The facility is engaged in the generation of electric energy for sale. The primary SIC code for this facility is 4911, and the NAICS code is 221112. The facility consists of three steam units, each rated at 191 MWs (base loaded), firing bituminous coal. Each unit is tangentially fired, with a superheater, reheat and economizer. Electrostatic precipitators (ESPs) and a baghouse are installed for particulate control. Low NOx burners, Separated Over-Fired Air (SOFA), Selective Non Catalytic Reduction (SNCR) along with an advanced combustion control system are installed on each unit to reduce and control emissions of oxides of nitrogen (NOx). A Wet Scrubber (FGD) was installed and went in service on the three units in late 2009. The units exhaust through the scrubber stack or, when the FGD is not in service, through a common 700 ft. stack.

Coal is delivered to the Dickerson facility by rail. The rail cars are emptied using a rotary dumper, then transferred by conveyor to either a storage pile or fed directly to a unit's bunker.

The illustration below shows a simple schematic diagram for a typical pulverized coal combustion system. The coal is prepared by grinding to a very fine consistency for combustion.



Attachment A

The CCBs currently produced and used are a result of the combustion of pulverized coal.

Ash is formed in the boiler while coal combusts. In general, pulverized coal combustion results in approximately 10 % ash, of which 65%–85% is fly ash, and the remainder is coarser bottom ash. Bottom ash is a coarse material and falls to the bottom of the boiler. Fly ash is finer than bottom ash and is carried along the combustion process with flue gas. Particulate collection devices remove fly ash from the flue gas and the collected ash is transferred to two ash silos. Fly ash that is not marketed is sent to the Westland Ash Site, whose property is separated from the Dickerson facility by a public road, and is also located in Montgomery County. The bottom ash is conveyed out of the bottom of the boiler via a wet sluice system to hydrobins, where the water is then decanted and the bottom ash sent to the Westland Ash Site.

Gypsum is a byproduct of SO₂ removal by the Flue Gas Desulfurization (FGD) system, commonly known as a scrubber. Dickerson uses wet scrubbers for SO₂ removal. Wet scrubbing utilizes a chemical reaction with limestone alkaline sorbent to remove SO₂ from the air stream. The byproduct - gypsum - is sent by rail to the Morgantown Generating Station where it is then conveyed to a barge and transported to La Farge located in Buchanan, New York where it is made into wallboard. Gypsum that doesn't meet the specifications for wallboard production is transported for disposal to Waste Management's Amelia Landfill in Virginia. Waste Water Treatment Plant Fines (WWTP Fines) are removed from the Scrubber's WWTP as needed and transported to Waste Management's Amelia Landfill in Virginia for disposal.



Microbac Laboratories, Inc.

Baltimore Division
2101 Van Deman Street • Baltimore, MD 21224

Phone: 410-633-1800
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www.microbac.com

COVER LETTER

Andrew McCulloch
NRG Energy - Dickerson
21200 Martinsburg Rd.
Dickerson, MD 20842
RE: Coal Combustion By Products

September 06, 2013
Report No.: 13H0296

The report of analyses contains test results for samples received at Microbac Laboratories, Inc., Baltimore Division on 08/01/2013 14:10.

The enclosed results were obtained from and applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report has been reviewed and meet the applicable project and certification specific requirements, unless otherwise noted.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories, Inc.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

This Data Package contains the following:

- This Cover Page
- Sample Summary
- Test Results
- Certifications/Notes and Definitions
- Cooler Receipt Log
- Chain of Custody

9/6/2013

Final report reviewed by:

Mark B. Horan/Laboratory Director

Report issue date

All samples received in proper condition and results conform to ISO 17025 and TNI NELAC standards unless otherwise noted.

If we have not met or exceeded your expectations, please contact Mark Horan, Managing Director, at 410-633-1800 You may also contact Sean Hyde, Chief Operating Officer at sean.hyde@microbac.com or James Nokes, President james.nokes@microbac.com



Microbac Laboratories, Inc.

Baltimore Division

2101 Van Deman Street • Baltimore, MD 21224

Phone: 410-633-1800
Fax: 410-633-6553
www.microbac.com

CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson
21200 Martinsburg Rd.
Dickerson, MD 20842

Project: Coal Combustion By Products
Project Number: Coal Combustion By Products
Project Manager: Andrew McCulloch

Report: 13H0296
Reported: 09/06/2013 08:53

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
Dickerson Fly Ash	13H0296-01	Solid	Grab	07/25/2013 12:00	08/01/2013 14:10
Dickerson Bottom Ash	13H0296-02	Solid	Grab	07/25/2013 12:00	08/01/2013 14:10
Dickerson FGD WWTP Fines	13H0296-03	Solid	Grab	07/25/2013 06:50	08/01/2013 14:10
FGD Synthetic Gypsum	13H0296-04	Solid	Grab	07/25/2013 07:00	08/01/2013 14:10

Microbac Laboratories, Inc., Baltimore Division

Mark B. Horan, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Original Lab Report



Microbac Laboratories, Inc.

Baltimore Division

2101 Van Deman Street • Baltimore, MD 21224

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson
 21200 Martinsburg Rd.
 Dickerson, MD 20842

Project: Coal Combustion By Products
 Project Number: Coal Combustion By Products
 Project Manager: Andrew McCulloch

Report: 13H0296
 Reported: 09/06/2013 08:53

Dickerson Fly Ash

13H0296-01 (Solid) Sampled: 07/25/2013 12:00; Type: Grab

Analyte	Result	Reporting		Prepared	Analyzed	Analyst	Method	Notes
		Limit	Units					

Microbac Laboratories, Inc., Baltimore Division

Mercury, Total by EPA 7000 Series Methods

Mercury	2.1	0.24	mg/kg dry	080613 1436	080813 1140	APS	EPA 7471A
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Metals, Total by EPA 6000/7000 Series Methods

Silver	ND	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Aluminum	16000	20	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Arsenic	90	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Boron	310	25	mg/kg dry	080813 1618	080913 1337	APS	EPA 6010B
Barium	210	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Beryllium	5.1	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Calcium	10000	25	mg/kg dry	080813 1618	080913 1337	APS	EPA 6010B
Cadmium	ND	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Cobalt	18	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Chromium	31	4.9	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Copper	39	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Iron	41000	9.8	mg/kg dry	080813 1618	080913 1337	APS	EPA 6010B
Potassium	1900	25	mg/kg dry	080813 1618	080913 1337	APS	EPA 6010B
Lithium	36	4.9	mg/kg dry	080813 1618	080913 1337	APS	EPA 6010B
Manganese	66	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Molybdenum	12	4.9	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Sodium	650	250	mg/kg dry	080813 1618	080913 1337	APS	EPA 6010B
Nickel	47	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Lead	28	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Antimony	ND	4.9	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Selenium	16	4.9	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Thallium	3.5	0.98	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Vanadium	110	4.9	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020
Zinc	51	9.8	mg/kg dry	080813 1625	082613 1515	MPH	EPA 6020

Microbac Laboratories, Inc., Baltimore Division

Mark B. Horan, Laboratory Director

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Original Lab Report



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Baltimore Division

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Phone: 410-633-1800

Fax: 410-633-6553

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson 21200 Martinsburg Rd. Dickerson, MD 20842	Project: Coal Combustion By Products Project Number: Coal Combustion By Products Project Manager: Andrew McCulloch	Report: 13H0296 Reported: 09/06/2013 08:53
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Dickerson Fly Ash

13H0296-01 (Solid) Sampled: 07/25/2013 12:00; Type: Grab

Analyte	Result	Reporting Limit	Units	Prepared	Analyzed	Analyst	Method	Notes
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Microbac Laboratories, Inc., Baltimore Division

TCLP Extraction by EPA 1311

TCLP Extraction	COMPLETED		N/A	080613 1253	080913 0900	BAB	EPA 1311	
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TCLP Metals by 6000/7000 Series Methods

Silver	ND	0.20	mg/L	080713 1805	080813 1608	APS	EPA 6010B	D
Arsenic	ND	0.20	mg/L	080713 1805	080813 1608	APS	EPA 6010B	D
Barium	ND	0.50	mg/L	080713 1805	080813 1608	APS	EPA 6010B	D
Cadmium	ND	0.20	mg/L	080713 1805	080813 1608	APS	EPA 6010B	D
Chromium	ND	0.20	mg/L	080713 1805	080813 1608	APS	EPA 6010B	D
Mercury	ND	0.0020	mg/L	080813 1243	080813 1619	APS	EPA 7470A	D
Lead	ND	0.20	mg/L	080713 1805	080813 1608	APS	EPA 6010B	D
Selenium	ND	0.20	mg/L	080713 1805	080813 1608	APS	EPA 6010B	D

Wet Chemistry

% Solids	100.8	0.05	% by Weight	080913 1600	081213 0915	LCR	SM (20) 2540G	
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Microbac Laboratories, Inc., Baltimore Division

Mark B. Horan, Laboratory Director

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson
 21200 Martinsburg Rd.
 Dickerson, MD 20842

Project: Coal Combustion By Products
 Project Number: Coal Combustion By Products
 Project Manager: Andrew McCulloch

Report: 13H0296
 Reported: 09/06/2013 08:53

Dickerson Bottom Ash

13H0296-02 (Solid) Sampled: 07/25/2013 12:00; Type: Grab

Analyte	Result	Reporting Limit	Units	Prepared	Analyzed	Analyst	Method	Notes
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Microbac Laboratories, Inc., Baltimore Division

Mercury, Total by EPA 7000 Series Methods

Mercury	0.038	0.031	mg/kg dry	080613 1436	080713 1736	APS	EPA 7471A	
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Metals, Total by EPA 6000/7000 Series Methods

Silver	ND	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Aluminum	22000	26	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Arsenic	4.2	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Boron	48	32	mg/kg dry	080813 1618	080913 1415	APS	EPA 6010B	
Barium	140	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Beryllium	3.0	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Calcium	3400	32	mg/kg dry	080813 1618	080913 1415	APS	EPA 6010B	
Cadmium	ND	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Cobalt	14	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Chromium	13	6.4	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Copper	32	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Iron	48000	13	mg/kg dry	080813 1618	080913 1415	APS	EPA 6010B	
Potassium	1400	32	mg/kg dry	080813 1618	080913 1415	APS	EPA 6010B	
Lithium	18	6.4	mg/kg dry	080813 1618	080913 1415	APS	EPA 6010B	
Manganese	81	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Molybdenum	ND	6.4	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Sodium	ND	320	mg/kg dry	080813 1618	080913 1415	APS	EPA 6010B	
Nickel	31	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Lead	2.2	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Antimony	ND	6.4	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Selenium	ND	6.4	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Thallium	ND	1.3	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Vanadium	39	6.4	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	
Zinc	18	13	mg/kg dry	080813 1625	082613 1537	MPH	EPA 6020	

Microbac Laboratories, Inc., Baltimore Division

Mark B. Horan, Laboratory Director

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson 21200 Martinsburg Rd. Dickerson, MD 20842	Project: Coal Combustion By Products Project Number: Coal Combustion By Products Project Manager: Andrew McCulloch	Report: 13H0296 Reported: 09/06/2013 08:53
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Dickerson Bottom Ash

13H0296-02 (Solid) Sampled: 07/25/2013 12:00; Type: Grab

Analyte	Result	Reporting		Units	Prepared	Analyzed	Analyst	Method	Notes
		Limit							

Microbac Laboratories, Inc., Baltimore Division

TCLP Extraction by EPA 1311

TCLP Extraction	COMPLETED		N/A		080613 1253	080913 0900	BAB	EPA 1311	
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TCLP Metals by 6000/7000 Series Methods

Silver	ND	0.20	mg/L		080713 1805	080813 1613	APS	EPA 6010B	D
Arsenic	ND	0.20	mg/L		080713 1805	080813 1613	APS	EPA 6010B	D
Barium	ND	0.50	mg/L		080713 1805	080813 1613	APS	EPA 6010B	D
Cadmium	ND	0.20	mg/L		080713 1805	080813 1613	APS	EPA 6010B	D
Chromium	ND	0.20	mg/L		080713 1805	080813 1613	APS	EPA 6010B	D
Mercury	ND	0.0020	mg/L		080813 1243	080813 1621	APS	EPA 7470A	D
Lead	ND	0.20	mg/L		080713 1805	080813 1613	APS	EPA 6010B	D
Selenium	ND	0.20	mg/L		080713 1805	080813 1613	APS	EPA 6010B	D

Wet Chemistry

% Solids	77.39	0.05	% by Weight		080913 1600	081213 0915	LCR	SM (20) 2540G	
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Microbac Laboratories, Inc., Baltimore Division

Mark B. Horan, Laboratory Director

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Original Lab Report



Microbac Laboratories, Inc.

Baltimore Division

2101 Van Deman Street • Baltimore, MD 21224

Phone: 410-633-1800

Fax: 410-633-6553

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson
21200 Martinsburg Rd.
Dickerson, MD 20842

Project: Coal Combustion By Products
Project Number: Coal Combustion By Products
Project Manager: Andrew McCulloch

Report: 13H0296
Reported: 09/06/2013 08:53

Dickerson FGD WWTP Fines
13H0296-03 (Solid) Sampled: 07/25/2013 06:50; Type: Grab

Analyte	Result	Reporting		Units	Prepared	Analyzed	Analyst	Method	Notes
		Limit							

Microbac Laboratories, Inc., Baltimore Division

Mercury, Total by EPA 7000 Series Methods

Mercury	14	0.52	mg/kg dry	080613 1436	080813 1142	APS	EPA 7471A
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Metals, Total by EPA 6000/7000 Series Methods

Silver	ND	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Aluminum	6000	22	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Arsenic	12	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Boron	290	28	mg/kg dry	080813 1618	080913 1419	APS	EPA 6010B
Barium	74	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Beryllium	ND	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Calcium	240000	280	mg/kg dry	080813 1618	080913 1432	APS	EPA 6010B
Cadmium	ND	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Cobalt	4.8	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Chromium	24	5.6	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Copper	19	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Iron	8800	11	mg/kg dry	080813 1618	080913 1419	APS	EPA 6010B
Potassium	2900	28	mg/kg dry	080813 1618	080913 1419	APS	EPA 6010B
Lithium	6.4	5.6	mg/kg dry	080813 1618	080913 1419	APS	EPA 6010B
Manganese	470	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Molybdenum	6.2	5.6	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Sodium	ND	280	mg/kg dry	080813 1618	080913 1419	APS	EPA 6010B
Nickel	35	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Lead	7.3	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Antimony	ND	5.6	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Selenium	120	5.6	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Thallium	ND	1.1	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Vanadium	15	5.6	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020
Zinc	66	11	mg/kg dry	080813 1625	082613 1542	MPH	EPA 6020

Microbac Laboratories, Inc., Baltimore Division

Mark B. Horan, Laboratory Director

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Baltimore Division

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson 21200 Martinsburg Rd. Dickerson, MD 20842	Project: Coal Combustion By Products Project Number: Coal Combustion By Products Project Manager: Andrew McCulloch	Report: 13H0296 Reported: 09/06/2013 08:53
--	--	---

Dickerson FGD WWTP Fines
13H0296-03 (Solid) Sampled: 07/25/2013 06:50; Type: Grab

Analyte	Result	Reporting Limit	Units	Prepared	Analyzed	Analyst	Method	Notes
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Microbac Laboratories, Inc., Baltimore Division

TCLP Extraction by EPA 1311

TCLP Extraction	COMPLETED		N/A	080613 1253	080913 0900	BAB	EPA 1311	
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TCLP Metals by 6000/7000 Series Methods

Silver	ND	0.20	mg/L	080713 1805	080813 1616	APS	EPA 6010B	D
Arsenic	ND	0.20	mg/L	080713 1805	080813 1616	APS	EPA 6010B	D
Barium	ND	0.50	mg/L	080713 1805	080813 1616	APS	EPA 6010B	D
Cadmium	ND	0.20	mg/L	080713 1805	080813 1616	APS	EPA 6010B	D
Chromium	ND	0.20	mg/L	080713 1805	080813 1616	APS	EPA 6010B	D
Mercury	ND	0.0020	mg/L	080813 1243	080813 1624	APS	EPA 7470A	D
Lead	ND	0.20	mg/L	080713 1805	080813 1616	APS	EPA 6010B	D
Selenium	ND	0.20	mg/L	080713 1805	080813 1616	APS	EPA 6010B	D

Wet Chemistry

% Solids	88.85	0.05	% by Weight	080913 1600	081213 0915	LCR	SM (20) 2540G	
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Microbac Laboratories, Inc., Baltimore Division

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Mark B. Horan, Laboratory Director

Original Lab Report



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Baltimore Division

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson 21200 Martinsburg Rd. Dickerson, MD 20842	Project: Coal Combustion By Products Project Number: Coal Combustion By Products Project Manager: Andrew McCulloch	Report: 13H0296 Reported: 09/06/2013 08:53
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FGD Synthetic Gypsum

13H0296-04 (Solid) Sampled: 07/25/2013 07:00; Type: Grab

Analyte	Result	Reporting		Prepared	Analyzed	Analyst	Method	Notes
		Limit	Units					

Microbac Laboratories, Inc., Baltimore Division

Mercury, Total by EPA 7000 Series Methods

Mercury	0.25	0.030	mg/kg dry	080613 1436	080713 1744	APS	EPA 7471A
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Metals, Total by EPA 6000/7000 Series Methods

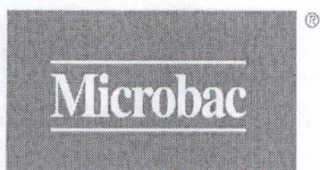
Silver	ND	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Aluminum	350	22	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Arsenic	ND	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Boron	ND	28	mg/kg dry	080813 1618	080913 1424	APS	EPA 6010B
Barium	27	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Beryllium	ND	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Calcium	260000	280	mg/kg dry	080813 1618	080913 1436	APS	EPA 6010B
Cadmium	ND	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Cobalt	ND	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Chromium	ND	5.6	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Copper	1.9	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Iron	430	11	mg/kg dry	080813 1618	080913 1424	APS	EPA 6010B
Potassium	230	28	mg/kg dry	080813 1618	080913 1424	APS	EPA 6010B
Lithium	ND	5.6	mg/kg dry	080813 1618	080913 1424	APS	EPA 6010B
Manganese	1.4	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Molybdenum	ND	5.6	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Sodium	ND	280	mg/kg dry	080813 1618	080913 1424	APS	EPA 6010B
Nickel	6.2	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Lead	ND	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Antimony	ND	5.6	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Selenium	ND	5.6	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Thallium	ND	1.1	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Vanadium	ND	5.6	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020
Zinc	ND	11	mg/kg dry	080813 1625	082613 1557	MPH	EPA 6020

Microbac Laboratories, Inc., Baltimore Division

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Mark B. Horan, Laboratory Director

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Baltimore Division

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson 21200 Martinsburg Rd. Dickerson, MD 20842	Project: Coal Combustion By Products Project Number: Coal Combustion By Products Project Manager: Andrew McCulloch	Report: 13H0296 Reported: 09/06/2013 08:53
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FGD Synthetic Gypsum

13H0296-04 (Solid) Sampled: 07/25/2013 07:00; Type: Grab

Analyte	Result	Reporting		Units	Prepared	Analyzed	Analyst	Method	Notes
		Limit							

Microbac Laboratories, Inc., Baltimore Division

TCLP Extraction by EPA 1311

TCLP Extraction	COMPLETED		N/A		080613 1253	080913 0900	BAB	EPA 1311	
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TCLP Metals by 6000/7000 Series Methods

Silver	ND	0.20	mg/L		080713 1805	080813 1621	APS	EPA 6010B	D
Arsenic	ND	0.20	mg/L		080713 1805	080813 1621	APS	EPA 6010B	D
Barium	ND	0.50	mg/L		080713 1805	080813 1621	APS	EPA 6010B	D
Cadmium	ND	0.20	mg/L		080713 1805	080813 1621	APS	EPA 6010B	D
Chromium	ND	0.20	mg/L		080713 1805	080813 1621	APS	EPA 6010B	D
Mercury	ND	0.0020	mg/L		080813 1243	080813 1626	APS	EPA 7470A	D
Lead	ND	0.20	mg/L		080713 1805	080813 1621	APS	EPA 6010B	D
Selenium	ND	0.20	mg/L		080713 1805	080813 1621	APS	EPA 6010B	D

Wet Chemistry

% Solids	80.42	0.05	% by Weight		080913 1600	081213 0915	LCR	SM (20) 2540G	
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Microbac Laboratories, Inc., Baltimore Division

Mark B. Horan, Laboratory Director

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Baltimore Division

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CERTIFICATE OF ANALYSIS

NRG Energy - Dickerson 21200 Martinsburg Rd. Dickerson, MD 20842	Project: Coal Combustion By Products Project Number: Coal Combustion By Products Project Manager: Andrew McCulloch	Report: 13H0296 Reported: 09/06/2013 08:53
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Project Requested Certification(s):

A2LA (Environmental)

Analyte Certification Exception Summary

Microbac Laboratories, Inc., Baltimore Division

Matrix: Solid

SM (20) 2540G

% Solids: No Certification

All analysis performed were analyzed under the required certification unless otherwise noted in the above summary.

Certification List

Below is a list of certifications maintained by Microbac Laboratories, Inc. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. A complete list of individual analytes pursuant to each certification below is available upon request.

Code	Description	Certification Number	Expires
Microbac Laboratories, Inc., Baltimore Division			
A2LA1	A2LA (Biology)	410.02	09/30/2013
A2LA2	A2LA (Environmental)	410.01	09/30/2013
VA-B	Commonwealth of Virginia (NELAC) - Baltimore	460170-1829	06/13/2013
CPSC	CPSC Testing of Childrens Products and Jewelry	1115	09/30/2013
Pb	Environmental Lead (ELLAP)	410.01	09/30/2013
NJ	New Jersey	NLC120001	06/30/2013
MD	State of Maryland (Drinking Water)	109	06/30/2014
PA	State of Pennsylvania (NELAC)	68-00339	07/02/2013
WV	West Virginia	054	08/31/2013
Microbac Laboratories, Inc., Richmond Division			
VA-R	Commonwealth of Virginia (NELAC) - Richmond	460022-2348	06/14/2014

Microbac Laboratories, Inc., Baltimore Division

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Mark B. Horan, Laboratory Director

Original Lab Report

Analysis Qualifiers/Notes:

Microbac Laboratories, Inc., Baltimore Division

D Sample Diluted



Microbac Laboratories, Inc.
Baltimore Division
2101 Van Deman Street • Baltimore, MD 21224

Phone: 410-633-1800
Fax: 410-633-6553
www.microbac.com

Cooler Receipt Log

Cooler ID: Default Cooler

Cooler Temp: 8.00 °C

Work Order: 13H0296

Custody Seals Intact: Yes
Containers Intact: Yes
Received On Ice: Yes
Radiation Scan Acceptable: Yes
COC Present: Yes

COC/Containers Agree: Yes
Correct Preservation: Yes
Correct Number of Containers Received: Yes
Sufficient Sample Volume for Testing: Yes
Samples Received in Proper Condition: Yes

Comments:



Microbac Laboratories Inc., Baltimore Division
 2101 Van Deman St, Baltimore, MD 21224
 Tel: 410-633-1800
 Fax: 410-633-6553
 www.microbac.com

Work Order Number

Chain of Custody Record

Page 1 of 1
 Instructions for completing the Chain of Custody Record on back

Client Name: NRG Energy Project: Dickerson CCB's Turnaround Time: _____
 Address: 21200 Martinsburg Rd Location: Dickerson Gen Sta. QC and EDD Type (Required):
 Level I (NAC) EDD
 Level II** Format:
 Level III** Comments:
 Level IV**
 City, State, Zip: 20884 Dickerson, MD 20884 PO #: _____
 Compliance Monitoring? Yes No
 * Please notify lab prior to drop off.
 Telephone #: 3016016515 (1) Agency/Program: _____
 Sampler Signature: A Galvin Sampler Phone #: 3016016530 Sampler (DW) Cert#: _____
 Send Report via e-mail (address) Peter.hornbacher@nrgenergy.com Mail Telephone Fax (fax #)

*** Matrix Types: Air(A), Childrens Product(CP), Food(F), Paint(P), Soil/Solid(S), Oil(O), Wipet(W), Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (

Client Sample ID	Matrix**	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Requested Analysis	Comments
Dickerson Fly Ash	S	<input checked="" type="checkbox"/>			7/25/13	1200	1	TLP Metals	Please see attached.
Dickerson Bottom Ash	S	<input checked="" type="checkbox"/>			7/25/13	1200	1		Time: 0650
Dickerson FGDWWTP fines	S	<input checked="" type="checkbox"/>			7/25/13	0600	1		
FGD synthetic Gypsum	S	<input checked="" type="checkbox"/>			7/25/13	0700	1		



Possible Hazard Identification: Hazardous Non-Hazardous Sample Disposition: Dispose as appropriate Return Archive
 Number of Containers: _____
 Cooler Number: 8.0
 Temp upon receipt(°C): _____
 Sample Refrigerated on Ice: Yes No
 Refrigerated from Client: Yes No
 Radiation Scan Acceptable: Yes No

Relinquished By (signature)	Printed Name/Affiliation	Date/Time	Received By (signature)	Printed Name/Affiliation	Date/Time
<i>[Signature]</i>	<u>Rod Andrews</u>	<u>8/1/13 1040</u>	<i>[Signature]</i>	<u>J. JAWORSKI</u>	<u>8-1-13</u>
<i>[Signature]</i>	<u>J. JAWORSKI</u>	<u>8-1-13 1410</u>	<i>[Signature]</i>	<u>N.W. H. H. H.</u>	<u>10.90</u>
<i>[Signature]</i>	<u>J. JAWORSKI</u>	<u>8-1-13 1410</u>	<i>[Signature]</i>	<u>N.W. H. H. H.</u>	

GenOn Dickerson Generating Station
 Annual CCB Analysis List
 (CCB – Fly Ash, Bottom Ash, FGD WWTP Fines & Synthetic Gypsum)

Analysis	Test Method	
Chloride	SM(20) 4500 Cl-C (M)	Geochemical Testing @ 814-443-1671 Elwood L. Kennell (Woody) ekennell@geo-ces.com Geochemical Testing 2005 North Center Avenue Somerset, PA 15501
Sulfate as SO4	ASTM D516-02 (M)	Geochemical Testing
pH (as received)	EPA 9045	Geochemical Testing
Paint Filter Test	EPA 9095	Geochemical Testing
Sulfate / Sulfur	ASTM D 2492	Geochemical Testing
TCLP Metals	EPA 6010B	Microbac
Silver	EPA 6010B	Microbac
Arsenic	EPA 6010B	Microbac
Barium	EPA 6010B	Microbac
Cadmium	EPA 6010B	Microbac
Chromium	EPA 6010B	Microbac
Mercury	SW846 7471A	Microbac
Lead	EPA 6010B	Microbac
Selenium	EPA 6010B	Microbac
		Microbac
Total Metals		Microbac
Silver	EPA 6010B	Microbac
Aluminum	EPA 6010B	Microbac
Arsenic	EPA 6010B	Microbac
Antimony	EPA 6010B	Microbac
Barium	EPA 6010B	Microbac
Beryllium	EPA 6010B	Microbac
Calcium	EPA 6010B	Microbac
Cadmium	EPA 6010B	Microbac
Cobalt	EPA 6010B	Microbac
Copper	EPA 6010B	Microbac
Chromium	EPA 6010B	Microbac
Iron	EPA 6010B	Microbac
Lead	EPA 6010B	Microbac
Lithium	EPA 6010B	Microbac
Potassium	EPA 6010B	Microbac
Magnesium	EPA 6010B	Microbac
Mercury	SW846 7471A	Microbac
Molybdenum	EPA 6010B	Microbac
Nickel	EPA 6010B	Microbac
Selenium	EPA 6010B	Microbac
Sodium	EPA 6010B	Microbac
Sulfur	EPA 6010B	Microbac
Thallium	EPA 6010B	Microbac
Vanadium	EPA 6010B	Microbac
Zinc	EPA 6010B	Microbac



GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 14, 2013

PETER HEIMLICHER
GenOn ENERGY INC. - DICKERSON GENERATING STATION
21200 MARTINSBURG ROAD
DICKERSON, MD 20842

Order No.: G1308222

Dear PETER HEIMLICHER:

Geochemical Testing received 4 sample(s) on 8/6/2013 for the analyses presented in the following report.

There were no problems with the analyses and all QC data met NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services



Geochemical Testing

Date: 14-Aug-13

CLIENT: GenOn ENERGY INC. - DICKERSON GE
Project:
Lab Order: G1308222

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Legend:	ND - Not Detected at the Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	J - Indicates an estimated value.	R - RPD outside accepted recovery limits
	U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	** - Value exceeds Action Limit
	Q - Qualifier	H - Method Hold Time Exceeded
	QL -Quantitation Limit	MCL - Contaminant Limit
	DF - Dilution Factor	



Laboratory Results

Geochemical Testing

Date: 14-Aug-13

CLIENT:	GenOn ENERGY INC. - DICKERSON GENERAT	Client Sample ID:	Fly Ash
Lab Order:	G1308222		
Project:		Sampled By:	Client
Lab ID:	G1308222-001	Collection Date:	7/25/2013 12:00:00 PM
Matrix:	ASH	Received Date:	8/6/2013 12:04:43 PM

Analyses	Result	QL	Q	Units	DF	Date Analyzed
SOLID CHLORIDE				USGS-I-1187-85		Analyst: SEF
Chloride	ND	10		mg/Kg	1	8/7/2013 1:41:00 PM
COLORIMETRIC SOLID ANIONS				ASTM D516-02 (MOD)		Analyst: SEF
Sulfate	520	100		mg/Kg	20	8/7/2013 2:39:00 PM
TOTAL METALS				EPA 6010		Analyst: RXS
Sulfur as Sulfate	9820	300		mg/Kg-dry	1	8/8/2013 4:24:50 PM
PHYSICAL TESTS				EPA 9095		Analyst: MLG
Paint Filter Test	No Free Liquid	1.0			1	8/6/2013 1:05:00 PM
SOLID PH				EPA 9045		Analyst: DMS
Solid pH	4.39	1.00		S.U.	1	8/6/2013 2:50:00 PM
Temperature	22.80	0		S.U.	1	8/6/2013 2:50:00 PM

Laboratory Results

Geochemical Testing

Date: 14-Aug-13

CLIENT:	GenOn ENERGY INC. - DICKERSON GENERAT	Client Sample ID:	Bottom Ash
Lab Order:	G1308222	Sampled By:	Client
Project:		Collection Date:	7/25/2013 12:00:00 PM
Lab ID:	G1308222-002	Received Date:	8/6/2013 12:04:43 PM
Matrix:	ASH		

Analyses	Result	QL	Q	Units	DF	Date Analyzed
SOLID CHLORIDE				USGS-I-1187-85		Analyst: SEF
Chloride	ND	10		mg/Kg	1	8/7/2013 1:41:00 PM
COLORIMETRIC SOLID ANIONS				ASTM D516-02 (MOD)		Analyst: SEF
Sulfate	330	5.0		mg/Kg	1	8/7/2013 2:39:00 PM
TOTAL METALS				EPA 6010		Analyst: RXS
Sulfur as Sulfate	678	300		mg/Kg-dry	1	8/8/2013 4:27:24 PM
PHYSICAL TESTS				EPA 9095		Analyst: MLG
Paint Filter Test	No Free Liquid	1.0			1	8/6/2013 1:05:00 PM
SOLID PH				EPA 9045		Analyst: DMS
Solid pH	8.46	1.00		S.U.	1	8/6/2013 2:50:00 PM
Temperature	22.40	0		S.U.	1	8/6/2013 2:50:00 PM

Laboratory Results

Geochemical Testing

Date: 14-Aug-13

CLIENT:	GenOn ENERGY INC. - DICKERSON GENERAT	Client Sample ID:	FGD WWTP Fines
Lab Order:	G1308222		
Project:		Sampled By:	Client
Lab ID:	G1308222-003	Collection Date:	7/25/2013 6:50:00 AM
Matrix:	SOLID	Received Date:	8/6/2013 12:04:43 PM

Analyses	Result	QL	Q	Units	DF	Date Analyzed
SOLID CHLORIDE				USGS-I-1187-85		Analyst: SEF
Chloride	120	20		mg/Kg	2	8/7/2013 1:41:00 PM
COLORIMETRIC SOLID ANIONS				ASTM D516-02 (MOD)		Analyst: SEF
Sulfate	1600	250		mg/Kg	49.9	8/7/2013 2:39:00 PM
TOTAL METALS				EPA 6010		Analyst: RXS
Sulfur as Sulfate	424000	3000		mg/Kg-dry	10	8/9/2013 1:01:00 PM
PHYSICAL TESTS				EPA 9095		Analyst: MLG
Paint Filter Test	No Free Liquid	1.0			1	8/6/2013 1:05:00 PM
SOLID PH				EPA 9045		Analyst: DMS
Solid pH	8.27	1.00		S.U.	1	8/6/2013 2:50:00 PM
Temperature	22.40	0		S.U.	1	8/6/2013 2:50:00 PM

Laboratory Results

Geochemical Testing

Date: 14-Aug-13

CLIENT:	GenOn ENERGY INC. - DICKERSON GENERAT	Client Sample ID:	FGD Synthetic Gypsum
Lab Order:	G1308222		
Project:		Sampled By:	Client
Lab ID:	G1308222-004	Collection Date:	7/25/2013 7:00:00 AM
Matrix:	SOLID	Received Date:	8/6/2013 12:04:43 PM

Analyses	Result	QL	Q	Units	DF	Date Analyzed
SOLID CHLORIDE				USGS-I-1187-85		Analyst: SEF
Chloride	92	10		mg/Kg	1	8/7/2013 1:41:00 PM
COLORIMETRIC SOLID ANIONS				ASTM D516-02 (MOD)		Analyst: SEF
Sulfate	1500	250		mg/Kg	50.1	8/7/2013 2:39:00 PM
TOTAL METALS				EPA 6010		Analyst: RXS
Sulfur as Sulfate	507000	3000		mg/Kg-dry	10	8/9/2013 1:16:00 PM
PHYSICAL TESTS				EPA 9095		Analyst: MLG
Paint Filter Test	No Free Liquid	1.0			1	8/6/2013 1:05:00 PM
SOLID PH				EPA 9045		Analyst: DMS
Solid pH	7.70	1.00		S.U.	1	8/6/2013 2:50:00 PM
Temperature	22.40	0		S.U.	1	8/6/2013 2:50:00 PM