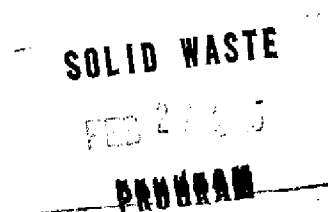


NRG Energy
Dickerson Generating Station
21200 Martinsburg Road
Dickerson, Maryland 20842

Ms. Martha Hynson
Maryland Department of the Environment
Land Management Administration
1800 Washington Boulevard, Suite 605
Baltimore MD 21230-1719

Certified Mail/Return Receipt Requested
7011 3500 0003 6606 3320

February 24, 2014



Re: 2014 CCB Tonnage Report for GenOn Mid-Atlantic, LLC's Dickerson Generating Station.

Dear Ms. Hynson,

Pursuant to COMAR 26.04.10.08, enclosed please find the 2014 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@nrg.com.

NRG Energy, Inc. (NRG) and GenOn Energy, Inc. (GenOn) merged on December 14, 2012 and retained the name NRG Energy, Inc. As a result, all GenOn entities are wholly owned subsidiaries of NRG. Although the parent corporations, NRG and GenOn, have merged, the entities have not merged or changed names.

Regards,

Peter Heimlicher
Environmental Specialist

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: Dickerson Generating Station **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: 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 Road
Street

Contact Address: Dickerson Maryland 20842
City State Zip

Contact Email: Peter.Heimlicher@nrg.com

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

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 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				
Flyash Type of CCB	Bottom Ash Type of CCB	On-Spec Gypsum Type of CCB	Off Spec Gypsum Type of CCB	WWTP Fines Type of CCB
30,821	5,120	30,687	308	497
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
30,821	5,120	59,945	601	971
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.

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:

All of the 30,821 tons of **flyash** generated at Dickerson in 2014 were disposed of at the Westland Ash Site, located in Montgomery Co., Md.

All of the 5,120 tons of **bottom ash** generated in 2014 were sent to the Westland Ash Site, located in Montgomery Co., Md for disposal.

On-Spec Gypsum generated at Dickerson in 2014 was 59,945 tons. 4,601 tons were stored on-site at the end of 2013, and 33 tons were stored on-site at the end of 2014. Of this total, 64,513 tons were transported by barge to LaFarge, located in Buchanan, NY.

Off-Spec Gypsum generated in 2014 was 601 tons, all of which was disposed of at Waste Management's Amelia Landfill located in Jetersville, Va.

WWTP Fines produced in 2014 was 971 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:

On-Spec Gypsum: _____
Volume: 64,513 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:

Fly Ash: Approximately 31,000 tons/year to be generated and sent for disposal at the Westland Ash Site, located in Montgomery Co., Md.
Bottom Ash: Anticipate 5,100 tons/year to be generated and sent to the Westland Ash Site, located in Montgomery Co., Md, for disposal.
On-Spec Gypsum: Anticipate 60,000 tons/year to be generated, with approximately 100 tons stored on site at the Dickerson Generating Station and approximately 59,900 tons/year being transported by barge to LaFarge, located in Buchanan, NY.
Off-Spec Gypsum: Approximately 600 tons/year to be generated and disposed of at Waste Management's Amelia Landfill located in Jetersville, Va.
WWTP Fines: Approximately 1,000 tons/year to be generated and disposed of at Waste Management's Amelia Landfill located in Jetersville, Va.

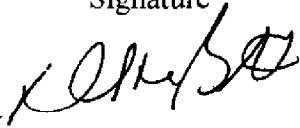
and (b) The different intended uses by type and volume of CCBs.

On-Spec Gypsum: _____
Volume: 59,900 tons/year to be sold.
Use: Wallboard

Facility Name: Dickerson Generating Station **CCB Tonnage Report – 2014**

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:

	<u>Mike Bennett, Plant Manager, Dickerson Generating Station</u> 301-601-6522	
Signature 	Name, Title, & Telephone No. (Print or Type) David.m.bennett@nrg.com	Date 2/24/15
	Your Email Address	

V: Attachments (please list):

A) Dickerson Generating Station Process Description

B) Microbac Report # 14F1408: Analyses for Dickerson Off- Spec Gypsum and WWTP Fines

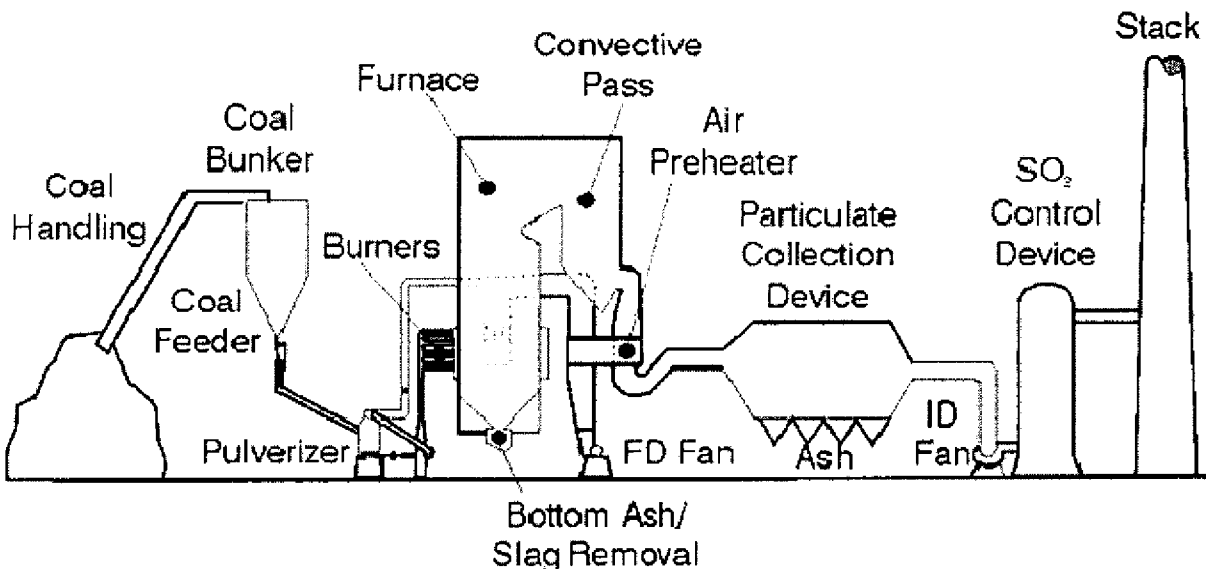
Attachment A

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. The facility consists of three steam units, each rated at 173 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, where it is often used in the construction of flyash disposal cells.

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.

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COVER LETTER

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

July 16, 2014
Report No.: 14F1408

The report of analyses contains test results for samples received at Microbac Laboratories, Inc., Baltimore Division on 06/26/2014 16:45.

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

7/16/2014

Final report reviewed by:

Melanie C. Duszynski/Project Manager

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 Melanie C. Duszynski/Project Manager at 410-633-1800. You may also contact Trevor Boyce, President at tboyce@microbac.com



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: 14F1408 Reported: 07/16/2014 11:49
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SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
FGD-WT Fines	14F1408-01	Solid	Grab	06/25/2014 08:00	06/26/2014 16:45
Synthetic Gypsum	14F1408-02	Solid	Grab	06/25/2014 08:00	06/26/2014 16:45

Microbac Laboratories, Inc. - Baltimore

Melanie C. Duszynski, Project Manager

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 Report



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Baltimore Division

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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: 14F1408 Reported: 07/16/2014 11:49
--	--	---

FGD-WT Fines

14F1408-01 (Solid) Sampled: 06/25/2014 08:00; Type: Grab

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

Wet Chemistry

% Solids	56.16	0.05	% by Weight		070214 1423	070314 1030	EWM	SM (20) 2540G	
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Mercury, Total by EPA 7000 Series Methods

Mercury	12	0.88	mg/kg dry		070214 1510	070314 1310	FAK	EPA 7471A	
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Metals, Total by EPA 6000/7000 Series Methods

Silver	ND	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Aluminum	7000	16	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Arsenic	24	8.2	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Barium	220	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Beryllium	ND	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Calcium	220000	220	mg/kg dry		070214 0955	070914 1710	APS	EPA 6010B	
Cadmium	ND	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Cobalt	9.0	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Chromium	31	8.2	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Copper	24	8.2	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Iron	11000	17	mg/kg dry		070214 0955	070814 1613	APS	EPA 6010B	
Potassium	2500	43	mg/kg dry		070214 0955	070814 1613	APS	EPA 6010B	
Lithium	ND	8.7	mg/kg dry		070214 0955	070814 1613	APS	EPA 6010B	
Manganese	920	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Molybdenum	8.6	8.2	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Sodium	1100	870	mg/kg dry		070214 0955	070814 1613	APS	EPA 6010B	B17, B18
Nickel	74	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Lead	9.7	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Selenium	85	8.2	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Thallium	ND	1.6	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
Vanadium	ND	33	mg/kg dry		070214 1000	070314 1312	PBK	EPA 6020	

Microbac Laboratories, Inc. - Baltimore

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Melanie C. Duszyński, Project Manager

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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: 14F1408 Reported: 07/16/2014 11:49
--	--	---

FGD-WT Fines

14F1408-01 (Solid) Sampled: 06/25/2014 08:00; Type: Grab

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

Metals, Total by EPA 6000/7000 Series Methods

Zinc	95	16	mg/kg dry		070214 1000	070314 1018	PBK	EPA 6020	
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TCLP Extraction by EPA 1311

TCLP Extraction	COMPLETED		N/A		070214 1707	070314 1216	MKM	EPA 1311	
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TCLP Metals by 6000/7000 Series Methods

Silver	ND	0.20	mg/L	5.0	070714 0937	070814 1511	APS	EPA 6010B	
Arsenic	ND	0.20	mg/L	5.0	070714 0937	070814 1511	APS	EPA 6010B	
Barium	ND	0.50	mg/L	100	070714 0937	070814 1511	APS	EPA 6010B	
Cadmium	ND	0.20	mg/L	1.0	070714 0937	070814 1511	APS	EPA 6010B	
Chromium	ND	0.20	mg/L	5.0	070714 0937	070814 1511	APS	EPA 6010B	
Mercury	ND	0.0020	mg/L	0.20	070814 1257	070914 1431	FAK	EPA 7470A	
Lead	ND	0.20	mg/L	5.0	070714 0937	070814 1511	APS	EPA 6010B	
Selenium	ND	0.20	mg/L	1.0	070714 0937	070814 1511	APS	EPA 6010B	

Microbac Laboratories, Inc. - Chicagoland

Wet Chemistry

Sulfur (from SO4)	4300	320	mg/Kg		070914 1445	071014 1409	AGRIE	ASTM D129 MOD	
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Microbac Laboratories, Inc. - Baltimore

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Melanie C. Duszynski

Melanie C. Duszynski, Project Manager

Original Report

Page 4 of 15



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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: 14F1408 Reported: 07/16/2014 11:49
--	--	---

Synthetic Gypsum

14F1408-02 (Solid) Sampled: 06/25/2014 08:00; Type: Grab

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

Wet Chemistry

% Solids	74.98	0.05	% by Weight		070214 1423	070314 1030	EWM	SM (20) 2540G	
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Mercury, Total by EPA 7000 Series Methods

Mercury	0.37	0.033	mg/kg dry		070214 1510	070314 1311	FAK	EPA 7471A	
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Metals, Total by EPA 6000/7000 Series Methods

Silver	ND	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Aluminum	280	13	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Arsenic	ND	6.4	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Barium	26	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Beryllium	ND	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Calcium	240000	160	mg/kg dry		070214 0955	070914 1714	APS	EPA 6010B	
Cadmium	ND	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Cobalt	ND	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Chromium	ND	6.4	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Copper	ND	6.4	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Iron	250	13	mg/kg dry		070214 0955	070814 1617	APS	EPA 6010B	
Potassium	110	32	mg/kg dry		070214 0955	070814 1617	APS	EPA 6010B	
Lithium	ND	6.3	mg/kg dry		070214 0955	070814 1617	APS	EPA 6010B	
Manganese	ND	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Molybdenum	ND	6.4	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Sodium	920	630	mg/kg dry		070214 0955	070814 1617	APS	EPA 6010B	B17, B18
Nickel	6.8	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Lead	ND	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Selenium	ND	6.4	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Thallium	ND	1.3	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	
Vanadium	ND	26	mg/kg dry		070214 1000	070314 1320	PBK	EPA 6020	
Zinc	ND	13	mg/kg dry		070214 1000	070314 1036	PBK	EPA 6020	

Microbac Laboratories, Inc. - Baltimore

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Melanie C. Duszynski

Melanie C. Duszynski, Project Manager

Original Report



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: 14F1408 Reported: 07/16/2014 11:49
--	--	---

Synthetic Gypsum

14F1408-02 (Solid) Sampled: 06/25/2014 08:00; Type: Grab

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

TCLP Extraction by EPA 1311

TCLP Extraction	COMPLETED		N/A		070214 1707	070314 1216	MKM	EPA 1311	
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TCLP Metals by 6000/7000 Series Methods

Silver	ND	0.20	mg/L	5.0	070714 0937	070814 1515	APS	EPA 6010B	
Arsenic	ND	0.20	mg/L	5.0	070714 0937	070814 1515	APS	EPA 6010B	
Barium	ND	0.50	mg/L	100	070714 0937	070814 1515	APS	EPA 6010B	
Cadmium	ND	0.20	mg/L	1.0	070714 0937	070814 1515	APS	EPA 6010B	
Chromium	ND	0.20	mg/L	5.0	070714 0937	070814 1515	APS	EPA 6010B	
Mercury	ND	0.0020	mg/L	0.20	070814 1257	070914 1432	FAK	EPA 7470A	
Lead	ND	0.20	mg/L	5.0	070714 0937	070814 1515	APS	EPA 6010B	
Selenium	ND	0.20	mg/L	1.0	070714 0937	070814 1515	APS	EPA 6010B	

Microbac Laboratories, Inc. - Chicagoland

Wet Chemistry

Sulfur (from SO4)	98000	16000	mg/Kg		070914 1445	071014 1427	AGRIE	ASTM D129 MOD	
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Microbac Laboratories, Inc. - Baltimore

Melanie C. Duszyński

Melanie C. Duszyński, Project Manager

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 Report



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 Baltimore Division
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 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: 14F1408 Reported: 07/16/2014 11:49
--	--	---

Project Requested Certification(s):
 A2LA (Environmental)

Analyte Certification Exception Summary
 No certification exceptions
 All analysis performed were analyzed under the required certification unless otherwise noted in the above summary.

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Melanie C. Duszynski, Project Manager

Original Report



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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			
A2LA1	A2LA (Biology)	410.02	04/30/2015
A2LA2	A2LA (Environmental)	410.01	04/30/2015
CPSC	CPSC Testing of Childrens Products and Jewelry	1115	04/30/2015
Pb	Environmental Lead (ELLAP)	410.01	04/30/2015
MD	State of Maryland (Drinking Water)	109	06/30/2015
Microbac Laboratories, Inc. - Chicagoland			
A2LA_	A2LA ISO/IEC 17025 Biological Testing	3045.01	09/30/2014
A2LA	A2LA ISO/IEC 17025 Env. DoD Testing	3045.02	09/30/2014
ILDPH	Illinois DOPH Micro analysis of drinking water	1755266	12/31/2016
ILEPA	Illinois EPA wastewater and solid waste analysis	200064	04/01/2015
INDEM	Indiana DEM support lab wastewater and solid waste	A305-9-292	12/31/2013
INSDH	Indiana SDH chemical analysis of drinking water	C-45-03	08/14/2016
INDH	Indiana SDH Micro analysis of drinking water	M-45-8	12/31/2016
KSDOH	Kansas Dept Health & Env. NELAP	E-10397	01/31/2015
KYEPP	Kentucky EPPC analysis Underground Storage Tanks	75	01/31/2015
NYDOH	New York State Department of Health Wadsworth	49179	04/01/2015
NYDOH-1	New York State Department of Health Wadsworth	49386	04/01/2015
NCDEN	North Carolina DENR NPDES effluent, surface water	597	12/31/2014
PEDEP	Pennsylvania DEP Registration for Air analysis	68-04863	
PADEP	Pennsylvania Department of Environmental Protect	68-04863	07/31/2014
USDAS	USDA Permit To Receive Soil	P330-12-00174	06/20/2015
WADOE	Washington State Department of Ecology	C992	10/22/2014
WSDNR	Wisconsin DRN chemical analysis wastewater, solids	998036710	08/31/2014
Microbac Laboratories, Inc., Richmond Division			
VA-R	Commonwealth of Virginia (NELAC) - Richmond	460022	06/14/2015

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Melanie C. Duszyński, Project Manager

Original Report

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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: 14F1408
Reported: 07/16/2014 11:49

Qualifiers/Notes and Definitions

General Definitions:

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Analysis Qualifiers/Notes:

Microbac Laboratories, Inc. - Baltimore

B18 Target analyte detected in the initial calibration blank >2.2 times the MDL but less than the reporting limit.
B17 Target analyte detected in continuing calibration blank >2.2 times the MDL but less than the reporting limit.



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Cooler Receipt Log

Cooler ID: Default Cooler	Cooler Temp: 3.30°C	Work Order: 14F1408
Custody Seals Intact: Yes	COC/Containers Agree: Yes	
Containers Intact: Yes	Correct Preservation: Yes	
Received On Ice: Yes	Correct Number of Containers Received: Yes	
Radiation Scan Acceptable: Yes	Sufficient Sample Volume for Testing: Yes	
COC Present: Yes	Samples Received in Proper Condition: Yes	

Comments:



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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: Dickinson Gen STA. Turnaround Time: _____ QC and EDD Type (Required): _____
 Address: 21200 MARINERSBURG DR Location: FGD-WT Standard (7 Business Days) Level I (NAC) EDD
 City, State, Zip: Dickinson, MD 21842 PO # _____ RUSH* Needed By: _____ Level II** Format: _____
 Contact: A. McColloch Compliance Monitoring? Yes No * Please notify lab prior to drop off. Level III** Comments: _____
 Telephone # 301-601-6520 (1) Agency/Program _____ Level IV**
 Sampled by (PRINT): R. Cardosi Sampler Signature: [Signature] Sampler Phone # _____ Sampler (DW) Cert# _____
 Send Report via e-mail (address) _____ Mail Telephone Fax (fax #) _____

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

Client Sample ID	Matrix***	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Requested Analysis	Comments
EGD-WT FINES	✓				6/25/14	0800	2	TCLP METALS	
Synthetic Capsum	✓				6/25/14	0800	2	TCLP METALS	



Possible Hazard Identification: Hazardous Non-Hazardous
 Relinquished By (signature): [Signature] Date/Time: _____
 Relinquished By (signature): [Signature] Date/Time: _____
 Relinquished By (signature): [Signature] Date/Time: _____
 Relinquished By (signature): _____ Date/Time: _____
 Sample Disposition: Dispose as appropriate Return Archive
 Received By (signature): [Signature] Date/Time: 6/26/14 1409
 Received By (signature): [Signature] Date/Time: 6/26/14 1645
 Received for Lab By (signature): _____ Date/Time: _____
 Printed Name/Affiliation: Chris Ryan
 Printed Name/Affiliation: MCI
 Printed Name/Affiliation: MCI
 Printed Name/Affiliation: Ben Reddel
 Printed Name/Affiliation: MCI

**NRG Energy
Dickerson Generating Station
21200 Martinsburg Road
Dickerson, MD 21755**

June 25, 2014

**Microbac Laboratories Inc.
Baltimore Division
2101 Van Deman St.
Baltimore, MD 21224**

To Whom it May Concern,

We have enclosed four (4) samples collected at Dickerson Generating Station on June 25, 2014 that we would like to have analyzed. A list of the sample types and requested analysis is attached. If you have any questions please contact Andrew McCulloch @ 301.318.6103 or by e-mail @ Andrew.Mcculloch@nrgenergy.com.

Thank you,

**Dawn Dickinson
Chemical Process Technician
NRG Energy**

NRG Energy Dickerson Generating Station
Annual CCB Analysis List
(CCB – Fly Ash, Bottom Ash, FGD IWWTP Fines & Synthetic Gypsum)
Microbac

Analysis	Test Method
TCLP Metals	
Silver	EPA 6010B
Arsenic	EPA 6010B
Barium	EPA 6010B
Cadmium	EPA 6010B
Chromium	EPA 6010B
Mercury	SW846 7471A
Lead	EPA 6010B
Selenium	EPA 6010B
Total Metals	
Silver	EPA 6010B
Aluminum	EPA 6010B
Arsenic	EPA 6010B
Antimony	EPA 6010B
Barium	EPA 6010B
Beryllium	EPA 6010B
Calcium	EPA 6010B
Cadmium	EPA 6010B
Cobalt	EPA 6010B
Copper	EPA 6010B
Chromium	EPA 6010B
Iron	EPA 6010B
Lead	EPA 6010B
Lithium	EPA 6010B
Potassium	EPA 6010B
Magnesium	EPA 6010B
Mercury	SW846 7471A
Molybdenum	EPA 6010B
Nickel	EPA 6010B
Selenium	EPA 6010B
Sodium	EPA 6010B
Sulfur	EPA 6010B
Thallium	EPA 6010B
Vanadium	EPA 6010B
Zinc	EPA 6010B



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250 West 84th Drive
Merrillville, IN 46410
Phone : (219) 769-8378
Fax: (219) 769-1664

CERTIFICATION NEEDED:

- MD - Drinking Water, VA - NELAC, A2LA - Environmental, Other
NJ - NELAC, PA - NELAC, A2LA - Microbiology, NONE

Project name: Coal Combustion By Products

Work Order TAT: 10

Project Manager: Melanie C. Duszynski

Report Due : 07/14/2014 17:00

Sample ID: 14F1408-01

Matrix: Solid

Sampled: 06/25/2014 08:00

Table with columns: Analysis, TAT, Due Date, Expires, Comments. Row: SUB_Sulfur / ASTM D129-91, 10, 07/14/2014 15:00, 07/23/2014 08:00

Containers Supplied:

Sample ID: 14F1408-02

Matrix: Solid

Sampled: 06/25/2014 08:00

Table with columns: Analysis, TAT, Due Date, Expires, Comments. Row: SUB_Sulfur / ASTM D129-91, 10, 07/14/2014 15:00, 07/23/2014 08:00

Containers Supplied:

Handwritten signature: Bryan Reddick 6/30/14

Released By, Date, Received By, Date

Released By, Date, Received By, Date



Microbac Laboratories, Inc. - Baltimore

SENDING LABORATORY:

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Merrillville, IN 46410
Phone : (219) 769-8378
Fax: (219) 769-1664

CERTIFICATION NEEDED:

- MD - Drinking Water, VA - NELAC, A2LA - Environmental, Other
NJ - NELAC, PA - NELAC, A2LA - Microbiology, NONE

Project name: Coal Combustion By Products

Work Order TAT: 10

Project Manager: Melanie C. Duszynski

Report Due : 07/14/2014 17:00

Table with columns: Analysis, TAT, Due Date, Expires, Comments. Row 1: SUB_Sulfur / ASTM D129-91, 10, 07/14/2014 15:00, 07/23/2014 08:00

Table with columns: Analysis, TAT, Due Date, Expires, Comments. Row 1: SUB_Sulfur / ASTM D129-91, 10, 07/14/2014 15:00, 07/23/2014 08:00

Handwritten signature: Bryan Reddick 6/30/14
Released By Date Received By Date