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LAND MANAGEMENT ADMIN. SOLID WASTE PROGRAM



Mettiki Coal, LLC Aaron M. Miller Manager of Environmental Affairs

March 20, 2018

Mr. Ed Dexter Solid Waste Program Maryland Department of the Environment Waste Management Administration 1800 Washington Blvd., STE 605 Baltimore, MD 21230-1719

Dear Mr. Dexter:

Enclosed please find one (1) copy of our 2017 Annual Generator Tonnage Report to meet the requirements of COMAR 26.04.10.08. The report covers the period from January 1, 2017 through December 31, 2017.

If you need additional information or clarification, please call.

Sincerely,

Aaron M. Miller

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MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials 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 2017

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 2017. 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 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."

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TTY Users: 800-735-2258

Facility Name:	Mettiki Coal, LLC	CCB Tonnage Report - 2017	7

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.

<u>III. Required Information.</u> The following information must be provided to the Department by March 1, 2018:

A. Contact information:										
Facility Name: Mettiki Coal, LLC										
Name of Permit Holder: Mettiki Coal, LLC										
Facility Address: 293 Table Rock Road										
Facility Address: Street										
Facility Address:	Oakland	Maryland	215	50						
	City	State		Zip						
County: Garrett										
Contact Information (Person filing report or Environmental Manager)										
Facility Telephone No.: 301-334-5396 Facility Fax No.: 301-334-1602										
	Aaron M. Miller									
Contact Title: Manager of Environmental Affairs										
	Contact Address: 293 Table Rock Road									
		Street	21550							
Contact Address:	Oakland	State	21330	Zip						
Contact Email: 2	aaron.miller@arlp	o.com								
	ne No.: 301-334-53		301-334-	1602						

For questions on how to complete this form, please contact the Solid Waste Program at 410-537-3315

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Facility Name:	Mettiki Coal, LLC	CCB Tonnage Report – 2017

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:

Coal thermal dryer burning bituminous coal. Raw coal is first sent to the preparation plant where it is washed in a water bath to reduce sulfer and ash content. In the final stage of preparation, hot air from pulverized coal burners is passed through a fluidized bed of the wet washed coal in the thermal dryer to reduce the moisture content of the processed coal from approximately 15% to approximately 5% to meet the contract specifications for shipment to the consumer.

C. The volume and weight of CCBs generated during calendar year 2017, 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 2017: Please note that this table includes both the volume and weight of the types of CCBs your facility produces.

Volume a	Volume and Weight of CCBs Generated for Calendar Year 2017											
Thermal Coal Dryer Ash												
Type of CCB	Type of CCB	Type of CCB	Type of CCB									
772 Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards									
1,302.0 Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons									

Additional notes:

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Facility Name:	Mettiki Coal, LLC	_ CCB Tonnage Report – 2017

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- 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 2017, 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:

Volumes presented in Table I are disposed of in MDE Permit # DM 84-101 refuse disposal site on Mettiki owned property near the mine in Garrett County Maryland. Material is comingled with alkaline materials on site for reclamation.

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Facility Name: Mettiki Coal, LLC	CCB Tonnage Report – 2017									
to some or the second consequences and the second consequences are second consequences.	and (b) The different uses by type and volume of CCBs: All volume of the described dryer ash is disposed of in the permitted site.									
If the space provided is insufficient, please attach	additional pages in a similar format.									
G. A description of how you intend to dispose of	For use CCBs in the next 5 years, identifying:									
(a) The types and volume of CCBs intend intended disposal, mine reclamation and use sites be disposed of or used at each site:	ed to be disposed of or used, the location of , and the type and volume of CCBs intended to									
The previous (5) year average of approximat of ash generation is expected to continue to l disposal site.										
and (b) The different intended uses by type and v	olume of CCBs.									
Disposal/reclamation										

If the space provided is insufficient, please attach additional pages in a similar format.

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CCB Tonnage Report – 2017

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 be any attached documents are tr	est of my knowledge, the information contained in ue, accurate, and complete.	this report and
Mechosolowee of Signature	Michael Burch, General Manager, 301-334-5331 Name, Title, & Telephone No. (Print or Type) mike.burch@arlp.com Your Email Address	03/19/2018 Date

V: Attachments (please list):

Please see attached the applicable chemical characterization of the CCB produced as requested in Section III E.

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COMPANY: METTIKI COAL LLC

SAMPLE ID: QUARTERLY CCB SAMPLING; SAMPLED 11-15-17 11:00 AM

DATE: NOVEMBER 16, 2017

ACID BASE ACCOUNT

Calcium Carbonate Equilvalent Tons/1000 Tons of Material

1			_	_		_	_							
	Paste pH	8.2												
	Excess CaCO ₃	4.32												
588885 m	Max Needed (pH-7)													
	N.P. CaCO ₃ Equiv	5.85												
	Max from % Sulfur	1.53												
	% Sulfur	.049												
	Color	10YR 3/2												
	Fīz	0												
	Rock Type													
	Strata Thick (feet)													
	DEPTH (feet)													
	SAMPLE ID	DRYER ASH												

APPROVED_

Charles Asi



Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEm

Sample Description:

Mettiki Dryer Ash Grab Solid Sample

Quarterly CCB Reporting

Project Name:

06958

Manganese

Quarterly CCB Reporting

Submittal Date/Time: Collection Date/Time: 12/01/2017 09:35 11/30/2017 06:30 **Mettiki Coal Corporation**

ELLE Sample #: ELLE Group #:

SW 9345008 1881742

Matrix: Solid Waste

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	2,740	8.76	1
06935	Arsenic	7440-38-2	1.20 J	0.941	1
06946	Barium	7440-39-3	19.2	0.0431	1
07914	Boron	7440-42-8	1.37 J	0.824	1
06949	Cadmium	7440-43-9	N.D.	0.0529	1
06951	Chromium	7440-47-3	13.1	0.167	1
06953	Copper	7440-50-8	8.28	0.235	1
01654	Iron	7439-89-6	10,900	7.89	1
06955	Lead	7439-92-1	1.24 J	0.588	1
01656	Lithium	7439-93-2	6.8	0.76	1
06958	Manganese	7439-96-5	17.2	0.0814	1
06960	Molybdenum	7439-98-7	0.729 J	0.176	1
06936	Selenium	7782-49-2	N.D.	0.912	1
06966	Silver	7440-22-4	N.D.	0.235	1
06972	Zinc	7440-66-6	9.75	0.235	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0095	1
Wet Ch	emistry	EPA 300.0	mg/kg	mg/kg	
07338	Sulfate by IC (solid)	14808-79-8	185	9.9	2
Wet Ch	emistry	SM 2540 G-1997 %Moisture Calc	%	%	
00111		n.a. e loss in weight of the sample after ove		0.50	1
	103 - 105 degrees Cels as-received basis.	sius. The moisture result reported is on	an		

Sample Comments

Laboratory Sample Analysis Record

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

SW-846 6010B

Method CAT Trial# **Analysis Name** Batch# **Analysis Analyst** Dilution **Date and Time Factor** 01643 Aluminum SW-846 6010B 173380570804 12/12/2017 18:14 Cindy M Gehman SW-846 6010B 173380570804 Cindy M Gehman 06935 Arsenic 12/12/2017 18:14 12/12/2017 18:14 SW-846 6010B 173380570804 06946 Barium Cindy M Gehman 1 07914 Boron SW-846 6010B 173380570804 12/12/2017 18:14 Cindy M Gehman Cindy M Gehman 06949 Cadmium SW-846 6010B 173380570804 12/12/2017 18:14 SW-846 6010B 12/12/2017 18:14 Cindy M Gehman 06951 Chromium 173380570804 06953 Copper SW-846 6010B 173380570804 12/12/2017 18:14 Cindy M Gehman 01654 SW-846 6010B 173380570804 12/12/2017 18:14 Cindy M Gehman Iron Cindy M Gehman 06955 Lead SW-846 6010B 173380570804 12/12/2017 18:14 01656 Lithium SW-846 6010B 173380570804 12/12/2017 18:14 Cindy M Gehman

173380570804

12/12/2017 18:14

Cindy M Gehman



Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: Mettiki Dryer Ash Grab Solid Sample

TCLP NON-VOLATILE EXTRACTION

Quarterly CCB Reporting

Project Name: Quarterly CCB Reporting

Submittal Date/Time: 12/01/2017 09:35 Collection Date/Time: 11/30/2017 06:30 Mettiki Coal Corporation
ELLE Sample #: TL 9345009
ELLE Group #: 1881742

Matrix: Leachate

Metals SW-846 6010B mg/l mg/l 01743 Aluminum 7429-90-5 N.D. 0.0894 1 07035 Arsenic 7440-38-2 N.D. 0.0096 1 07046 Barium 7440-39-3 0.156 0.00085 1 08014 Boron 7440-42-8 0.287 0.0101 1 07049 Cadmium 7440-43-9 N.D. 0.0018 1 07051 Chromium 7440-47-3 N.D. 0.0033 1 07053 Copper 7440-50-8 0.0099 J 0.0040 1 01754 Iron 7439-89-6 2.14 0.0805 1 07055 Lead 7439-92-1 0.0078 J 0.0060 1	
07035 Arsenic 7440-38-2 N.D. 0.0096 1 07046 Barium 7440-39-3 0.156 0.00085 1 08014 Boron 7440-42-8 0.287 0.0101 1 07049 Cadmium 7440-43-9 N.D. 0.0018 1 07051 Chromium 7440-47-3 N.D. 0.0033 1 07053 Copper 7440-50-8 0.0099 J 0.0040 1 01754 Iron 7439-89-6 2.14 0.0805 1	
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08014 Boron 7440-42-8 0.287 0.0101 1 07049 Cadmium 7440-43-9 N.D. 0.0018 1 07051 Chromium 7440-47-3 N.D. 0.0033 1 07053 Copper 7440-50-8 0.0099 J 0.0040 1 01754 Iron 7439-89-6 2.14 0.0805 1	
07049 Cadmium 7440-43-9 N.D. 0.0018 1 07051 Chromium 7440-47-3 N.D. 0.0033 1 07053 Copper 7440-50-8 0.0099 J 0.0040 1 01754 Iron 7439-89-6 2.14 0.0805 1	
07051 Chromium 7440-47-3 N.D. 0.0033 1 07053 Copper 7440-50-8 0.0099 J 0.0040 1 01754 Iron 7439-89-6 2.14 0.0805 1	
07053 Copper 7440-50-8 0.0099 J 0.0040 1 01754 Iron 7439-89-6 2.14 0.0805 1	
01754 Iron 7439-89-6 2.14 0.0805 1	
- TAMEN - 1770	
07055 Lead 7439-92-1 0.0078 J 0.0060 1	
01756 Lithium 7439-93-2 0.0391 0.0090 1	
07058 Manganese 7439-96-5 0.390 0.0016 1	
07060 Molybdenum 7439-98-7 0.0079 J 0.0034 1	
07036 Selenium 7782-49-2 N.D. 0.0093 1	
07066 Silver 7440-22-4 N.D. 0.0024 1	
07072 Zinc 7440-66-6 0.0832 0.0065 1	
SW-846 7470A mg/l mg/l	
00259 Mercury 7439-97-6 0.00010 J 0.000050 1	
Wet Chemistry EPA 300.0 mg/l mg/l	
00228 Sulfate 14808-79-8 6.5 1.5 5	

Sample Comments

If the analysis is for determination of Hazardous Waste Characteristics, see Table 1 in EPA Code of Federal Regulations 40 CFR 261.24.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record											
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor				
01743	Aluminum	SW-846 6010B	1	173410570501	12/19/2017 04:58	Jonathan J Allen	1				
07035	Arsenic	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07046	Barium	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
08014	Boron	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07049	Cadmium	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07051	Chromium	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07053	Copper	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
01754	Iron	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07055	Lead	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
01756	Lithium	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07058	Manganese	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07060	Molybdenum	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07036	Selenium	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				
07066	Silver	SW-846 6010B	1	173410570501	12/18/2017 12:51	Suzanne M Will	1				