



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

February 28, 2019

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 2018 Annual Generator Tonnage Report to meet the requirements of COMAR 26.04.10.08. The report covers the period from January 1, 2018 through December 31, 2018.

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 21230-2119
410-537-3315 • 800-633-6101 x3315 • www.mde.maryland.gov

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LAND MANAGEMENT ADMIN.
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**Coal Combustion Byproducts (CCBs)
Annual Generator Tonnage Report
Instructions for Calendar Year 2018**

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 2018. 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.”*

Facility Name: Mettiki Coal, LLC CCB Tonnage Report – 2018

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, 2019:

A. Contact information:

Facility Name: Mettiki Coal, LLC

Name of Permit Holder: Mettiki Coal, LLC

Facility Address: 293 Table Rock Road
Street

Facility Address: Oakland Maryland 21550
City State Zip

County: Garrett

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 301-334-3952 Facility Fax No.: 301-334-1602

Contact Name: Aaron Miller

Contact Title: Manager of Environmental Affairs

Contact Address: 293 Table Rock Road
Street

Contact Address: Oakland Maryland 21550
City State Zip

Contact Email: aaron.miller@arlp.com

Contact Telephone No.: 301-334-5396 Contact Fax No.: 301-334-1602

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:

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 sulfur and ash content. In the final stage of preparation, hot air from the pulverized coal burners is passed through a fluidized bed of the wet washed coal in the thermal dryer. This is to reduce the moisture content of the processed coal from approximately 15% to approximately 5% to meet the contract specification for shipment to the consumer.

C. The volume and weight of CCBs generated during calendar year 2018, 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 2018: Please note that this table includes both the volume and weight of the types of CCBs your facility produces.

Volume and Weight of CCBs Generated for Calendar Year 2018			
Thermal Coal Dryer Ash			
Type of CCB	Type of CCB	Type of CCB	Type of CCB
709			
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
1,196.0			
Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons

Additional notes:

Cubic yards of dryer ash calculated as follows. $(1,196 \text{ tons} \times 2,000 \text{ lb/ton}) / (125 \text{ lb/cu ft} \times 27 \text{ cu ft/ cubic yard}) = 708.7 \text{ cubic yards}$

D. Descriptions of any modeling or risk assessments, or both, conducted relating to the CCBs or their use that were performed by you or your company during the reporting year. Please attach this information to the report.

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 2018, 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. All of the material is disposed of at this site and is used for the inherent alkalinity it contains.

and (b) The different uses by type and volume of CCBs:
100% of dryer ash used for disposal/reclamation.

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:

The type and volume of CCB as well as the use and location as described above are expected to continue for the next 5 years.

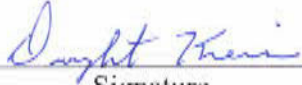
and (b) The different intended uses by type and volume of CCBs.

100% of dryer ash will continue to be used for disposal/reclamation on the permitted site.

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>Dwight Kreiser</u> V.P. of Operations 301-334-5382 Name, Title, & Telephone No. (Print or Type) <u>dwright.kreiser@arlp.com</u> Your Email Address	<u>2/28/2019</u> Date
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V: Attachments (please list):

Attachment E - Chemical characterization of Mettiki Dryer Ash

Sample Description: **Mettiki Dryer Ash Solid Sample
Quarterly CCB Reporting**

Mettiki Coal Corporation
ELLE Sample #: **SW 9883263**
ELLE Group #: **2005663**
Matrix: **Solid Waste**

Project Name: **Quarterly CCB Reporting**

Submittal Date/Time: **11/05/2018 08:20**
Collection Date/Time: **10/30/2018 11:00**

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	3,180	10.6	1
06935	Arsenic	7440-38-2	1.65 J	1.08	1
06946	Barium	7440-39-3	17.6	0.134	1
07914	Boron	7440-42-8	3.39 J	2.15	1
06949	Cadmium	7440-43-9	N.D.	0.0896	1
06951	Chromium	7440-47-3	5.45	0.188	1
06953	Copper	7440-50-8	4.14	0.448	1
01654	Iron	7439-89-6	2,920	4.48	1
06955	Lead	7439-92-1	1.14 J	0.538	1
01656	Lithium	7439-93-2	8.2	1.3	1
06958	Manganese	7439-96-5	7.64	0.807	1
06960	Molybdenum	7439-98-7	0.580 J	0.224	1
06936	Selenium	7782-49-2	N.D.	1.34	1
06966	Silver	7440-22-4	N.D.	0.359	1
06972	Zinc	7440-66-6	6.44	0.359	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0312	1
Wet Chemistry		EPA 300.0	mg/kg	mg/kg	
07338	Sulfate by IC (solid)	14808-79-8	260	9.9	2
Wet Chemistry		SM 2540 G-2011 %Moisture Calc	%	%	
00111	Moisture	n.a.	N.D.	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06935	Arsenic	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06946	Barium	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
07914	Boron	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06949	Cadmium	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06951	Chromium	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06953	Copper	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
01654	Iron	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06955	Lead	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
01656	Lithium	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06958	Manganese	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06960	Molybdenum	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06936	Selenium	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06966	Silver	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1
06972	Zinc	SW-846 6010B	1	183120570803	11/11/2018 13:53	Elaine F Stoltzfus	1

Sample Description: Mettiki Dryer Ash Solid Sample
TCLP NON-VOLATILE EXTRACTION
Quarterly CCB Reporting

Mettiki Coal Corporation
ELLE Sample #: TL 9883264
ELLE Group #: 2005663
Matrix: Leachate

Project Name: Quarterly CCB Reporting

Submittal Date/Time: 11/05/2018 08:20
Collection Date/Time: 10/30/2018 11:00

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals			mg/l	mg/l	
SW-846 6010B					
01743	Aluminum	7429-90-5	1.12	0.153	1
07035	Arsenic	7440-38-2	N.D.	0.0160	1
07046	Barium	7440-39-3	0.100	0.0010	1
08014	Boron	7440-42-8	0.0306 J	0.0120	1
07049	Cadmium	7440-43-9	0.0123	0.0010	1
07051	Chromium	7440-47-3	0.0103 J	0.0053	1
07053	Copper	7440-50-8	0.0228	0.0062	1
01754	Iron	7439-89-6	0.215	0.0400	1
07055	Lead	7439-92-1	N.D.	0.0071	1
01756	Lithium	7439-93-2	0.0494 J	0.0110	1
07058	Manganese	7439-96-5	0.0326	0.0011	1
07060	Molybdenum	7439-98-7	0.0068 J	0.0020	1
07036	Selenium	7782-49-2	N.D.	0.0210	1
07066	Silver	7440-22-4	N.D.	0.0050	1
07072	Zinc	7440-66-6	0.0653	0.0030	1
SW-846 7470A			mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	1
Wet Chemistry			mg/l	mg/l	
EPA 300.0					
00228	Sulfate	14808-79-8	18.6	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01743	Aluminum	SW-846 6010B	1	183120570502	11/12/2018 19:23	Elaine F Stoltzfus	1
07035	Arsenic	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07046	Barium	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
08014	Boron	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07053	Copper	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
01754	Iron	SW-846 6010B	1	183120570502	11/12/2018 19:23	Elaine F Stoltzfus	1
07055	Lead	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
01756	Lithium	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07060	Molybdenum	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07066	Silver	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
07072	Zinc	SW-846 6010B	1	183120570502	11/09/2018 14:52	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	183120571305	11/09/2018 11:30	Damary Valentin	1
05705	ICP-VW/TL, 3010A (tot) - U3	SW-846 3010A	1	183120570502	11/09/2018 04:25	James L Mertz	1

Sturm Environmental Services

COMPANY: METTIKI COAL LLC
 SAMPLE ID: QUARTERLY CCB SAMPLING; SAMPLED 10-30-18
 DATE: NOVEMBER 1, 2018

Calcium Carbonate Equivalent
 Tons/1000 Tons of Material

ACID BASE ACCOUNT

SAMPLE ID	DEPTH (feet)	Strata Thick (feet)	Rock Type	Fiz	Color	% Sulfur	Max from % Sulfur	N.P. CaCO ₃ Equiv	Max Needed (pH-7)	Excess CaCO ₃	Paste pH
DRYER ASH				0	10YR 4/3	.017	.53	2.71		2.18	8.3

APPROVED 