Mettiki Coal, LLC
W. Hunter Burow
Manager of Environmental Affairs

February 23, 2021

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 2021 Annual Generator Tonnage Report to meet the requirements of COMAR 26.04.10.08. The report covers the period from January 1, 2021 through December 31, 2021.

If you need additional information or clarification, please call.

Sincerely,

W. Hunter Burow

293 Table Rock Road Oakland, Maryland 21550 (301) 334-5396 Fax (301) 334-1602

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 2021

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 2021. 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 MDE 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 MDE by March 1, 2022:

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.: 301-334-5396 Facility Fax No.: 301-334-1602

Contact Name: Hunter Burow

Contact Title: Manager of Environmental Affairs

Contact Address: 293 Table Rock Road
Street

Contact Address: Oakland MD 21550
City State Zip

Contact Email: hunter.burow@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:

The process that generates the subject CCBs is the operation of a 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 contract specification for shipment to the customer.

C. The volume and weight of CCBs generated during calendar year 2021, 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 2021: 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 2021			
Thermal Dryer Ash			
Type of CCB	Type of CCB	Type of CCB	Type of CCB
1115.31			
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
1882			
Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons

Additional notes:

1882 tons x 2000 lb/ton/ (125 lb/cu ft x 27 cu ft/ cu yd) =1115.31 cu yd

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 2021, 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 is 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:

No anticipated changes in 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 the existing use

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	Dwight D. Kreiser Dwight Kreiser, VP of Operations, 301-334-5382 Name, Title, & Telephone No. (Print or Type) dwight.kreiser@arlp.com Your Email Address	2/15/2022 Date

V: Attachments (please list):

Attachment E - Chemical Characterization

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample

Lab Sample ID: 410-18355-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	620	*	75	25	mg/Kg	5	☐	EPA 300.0 R2.1	Soluble
Sulfate	54	H	5.0	1.5	mg/L	5		EPA 300.0 R2.1	ASTM Leach
Aluminum	2300		17	9.2	mg/Kg	1	☐	6010C	Total/NA
Arsenic	1.2	J	4.3	1.0	mg/Kg	1	☐	6010C	Total/NA
Barium	17		0.43	0.13	mg/Kg	1	☐	6010C	Total/NA
Chromium	4.3		1.3	0.16	mg/Kg	1	☐	6010C	Total/NA
Copper	6.9		1.7	0.67	mg/Kg	1	☐	6010C	Total/NA
Iron	6000		17	5.4	mg/Kg	1	☐	6010C	Total/NA
Lead	0.60	J	1.3	0.52	mg/Kg	1	☐	6010C	Total/NA
Lithium	3.5	J	4.3	1.2	mg/Kg	1	☐	6010C	Total/NA
Manganese	6.0		1.7	0.45	mg/Kg	1	☐	6010C	Total/NA
Molybdenum	0.35	J	0.86	0.22	mg/Kg	1	☐	6010C	Total/NA
Zinc	7.0		1.7	0.86	mg/Kg	1	☐	6010C	Total/NA
Aluminum	0.26		0.20	0.15	mg/L	1		6010C	TCLP
Barium	0.066	B	0.0050	0.0010	mg/L	1		6010C	TCLP
Boron	0.016	J	0.030	0.012	mg/L	1		6010C	TCLP
Chromium	0.0032	J	0.015	0.0016	mg/L	1		6010C	TCLP
Copper	0.052		0.020	0.012	mg/L	1		6010C	TCLP
Iron	0.10	J	0.20	0.040	mg/L	1		6010C	TCLP
Lithium	0.063		0.050	0.011	mg/L	1		6010C	TCLP
Manganese	0.018		0.010	0.0030	mg/L	1		6010C	TCLP
Molybdenum	0.0099	J	0.010	0.0020	mg/L	1		6010C	TCLP
Zinc	0.028		0.020	0.0037	mg/L	1		6010C	TCLP

This Detection Summary does not include radiochemical test results.

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample
Date Collected: 10/20/20 13:30
Date Received: 10/27/20 08:20

Lab Sample ID: 410-18355-1
Matrix: Solid

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	54	H	5.0	1.5	mg/L			12/05/20 23:06	5

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.26		0.20	0.15	mg/L		10/29/20 14:55	10/30/20 10:14	1
Arsenic	ND		0.030	0.016	mg/L		10/29/20 14:55	11/02/20 13:48	1
Barium	0.066	B	0.0050	0.0010	mg/L		10/29/20 14:55	11/03/20 06:36	1
Boron	0.016	J	0.030	0.012	mg/L		10/29/20 14:55	10/30/20 10:14	1
Cadmium	ND		0.0050	0.0010	mg/L		10/29/20 14:55	10/30/20 10:14	1
Chromium	0.0032	J	0.015	0.0016	mg/L		10/29/20 14:55	10/30/20 10:14	1
Copper	0.052		0.020	0.012	mg/L		10/29/20 14:55	10/30/20 10:14	1
Iron	0.10	J	0.20	0.040	mg/L		10/29/20 14:55	10/30/20 10:14	1
Lead	ND		0.015	0.0071	mg/L		10/29/20 14:55	10/30/20 10:14	1
Lithium	0.063		0.050	0.011	mg/L		10/29/20 14:55	11/02/20 13:48	1
Manganese	0.018		0.010	0.0030	mg/L		10/29/20 14:55	10/30/20 10:14	1
Molybdenum	0.0099	J	0.010	0.0020	mg/L		10/29/20 14:55	10/30/20 10:14	1
Selenium	ND	*	0.050	0.016	mg/L		10/29/20 14:55	10/30/20 10:14	1
Silver	ND	*	0.010	0.0050	mg/L		10/29/20 14:55	10/30/20 10:14	1
Zinc	0.028		0.020	0.0037	mg/L		10/29/20 14:55	10/30/20 10:14	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		10/29/20 14:58	10/30/20 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.2		1.0	1.0	%			10/27/20 12:12	1
Percent Solids	99.8		1.0	1.0	%			10/27/20 12:12	1

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample
Date Collected: 10/20/20 13:30
Date Received: 10/27/20 08:20

Lab Sample ID: 410-18355-1
Matrix: Solid
Percent Solids: 99.8

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	620	*	75	25	mg/Kg	☼		10/28/20 16:25	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2300		17	9.2	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Arsenic	1.2	J	4.3	1.0	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Barium	17		0.43	0.13	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Boron	ND		17	5.3	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Cadmium	ND		0.43	0.086	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Chromium	4.3		1.3	0.16	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Copper	6.9		1.7	0.67	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Iron	6000		17	5.4	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Lead	0.60	J	1.3	0.52	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Lithium	3.5	J	4.3	1.2	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Manganese	6.0		1.7	0.45	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1
Molybdenum	0.35	J	0.86	0.22	mg/Kg	☼	10/27/20 18:21	10/28/20 16:21	1

Client: Mettiki Coal Corporation
Project/Site: Quarterly CCB Reporting

Job ID: 410-18355-1

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample
Date Collected: 10/20/20 13:30
Date Received: 10/27/20 08:20

Lab Sample ID: 410-18355-1
Matrix: Solid
Percent Solids: 99.8

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		4.3	1.3	mg/Kg	☐	10/27/20 18:21	10/28/20 16:21	1
Silver	ND		0.86	0.35	mg/Kg	☐	10/27/20 18:21	10/30/20 13:22	1
Zinc	7.0		1.7	0.86	mg/Kg	☐	10/27/20 18:21	10/28/20 16:21	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.058	0.024	mg/Kg	☐	11/02/20 06:01	11/03/20 16:26	1