



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

December 18, 2019

The Honorable Mike V. Miller, Jr., President
House of Delegates
State House, H-107
Annapolis MD 21401-1991

The Honorable Adrienne A. Jones, Speaker
Senate of Maryland
State House, H-101
Annapolis MD 21401-1991

Re: FY18 Status of the State Coal Combustion By-Products Management Fund

Dear President Miller and Speaker Jones:

As required in Section 9-285 of the Environment Article, Annotated Code of Maryland, I am enclosing a copy of the Fiscal Year 2018 report on the Status of the State Coal Combustion By-Products Management Fund.

If the Department can provide you with any additional information, please contact me or Ms. Kaley Laleker, Director of the Land and Materials Administration, at 410-537-3304 or via email at kaley.laleker@maryland.gov.

Sincerely,

Thank you

Ben Grumbles
Secretary

Enclosures

cc: Kaley Laleker, Director, Land and Materials Administration
Sarah Albert, Department of Legislative Services



Maryland
Department of
the Environment

**Report to the Legislature:
Status of the State Coal Combustion
By-Products Management Fund**

FY18 Data

Prepared by:
Land and Materials Administration
Solid Waste Program

Prepared for:
The Maryland General Assembly
Annapolis, MD

House Environment and Transportation Committee

Thomas V. Mike Miller, Jr., Senate President
Maryland General Assembly

Adrienne A. Jones, Speaker of the House
Maryland General Assembly

Nov. 1, 2018

MARYLAND DEPARTMENT OF THE ENVIRONMENT
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TABLE OF CONTENTS

INTRODUCTION, BACKGROUND, AND SCOPE	2
STATUS OF THE FUND	3
USES OF THE FUND	4
CONCLUSION	5
TABLE I: CCB TONNAGE AND INVOICES CALENDAR YEAR 2017	6
TABLE II: FINANCIAL STATEMENT	7

Status of the State Coal Combustion By-Products Management Fund

INTRODUCTION, BACKGROUND, AND SCOPE

This report is submitted to the General Assembly of Maryland to satisfy §9-285 of the Environment Article, Annotated Code of Maryland, which requires that the Maryland Department of the Environment (the “Department”) inform the legislature about the status of the State Coal Combustion By-Products Management Fund (“the Fund”). Section §9-285 requires the Department to provide information on:

- (1) The status of the Fund;
- (2) Revenues of and expenditures from the Fund;
- (3) The efficiency of the coal combustion byproducts (CCBs) regulatory program;
- (4) Compliance rates within the regulatory program; and
- (5) Based on the factors listed in items (1) through (4) above, the necessity to review and adjust the fee in accordance with §9-283(g).

The purpose of the Fund is to provide the Department with the resources to oversee the disposal, beneficial use, and management of CCBs in the State of Maryland. These materials are the residuals created when coal is burned for energy. Coal consists of a large percentage of organic carbon, with a variable percentage of other naturally-occurring minerals that may contain a wide range of elements, including metals. A significant amount of volume reduction takes place when coal is burned, as a large percentage of the organic carbon in the coal is converted into carbon dioxide. The carbon dioxide escapes as a gas, but most of the chemicals that make up the other minerals remain as solids, and often oxides form when the coal is burned. The removal of the carbonaceous material causes the percentage, or concentration, of the nonvolatile elements that were present to be increased in the residual ash. So, although there is no more of a given element in the ash than there was in the original coal, it is now mixed with a much smaller volume of other chemicals, producing a higher concentration in the ash than there was in the original coal. Therefore, although largely derived from natural earth materials, including coal and limestone, CCBs can contain potentially harmful amounts of some heavy metals such as mercury, lead, chromium, cadmium, selenium, molybdenum, and boron, among others. Although not acutely toxic or immediately hazardous, the concentrations of these chemicals can be harmful to plant and aquatic life and can render the air, surface water, and groundwater unhealthy for prolonged human exposure when not handled properly.

STATUS OF THE FUND

In accordance with the CCB law, each year the Department calculates a generator fee to charge the major CCB generators. This fee supports the state’s CCB regulatory activities. This fee is based on the following factors:

- The requirements of the Code of Maryland Regulations (COMAR) 26.04.10.09;
- The amount of CCBs generated by each major generator, and the fate of those CCBs;
- The funding required to operate the Department’s CCB activities for a fiscal year; and
- The amount of money remaining in the Fund at the end of the previous fiscal year.

Revenues to the Fund. Under COMAR 26.04.10.09, CCB generators were required to submit a report detailing their CCB generation during CY16. These reports were due in March 2017. Based on the information contained in the reports, the Department developed fees for each site generating CCBs. In accordance with the regulation, the Department calculated an adjusted base fee of \$3.36302442 per ton of

CCBs disposed in Maryland, and \$1.68151221 per ton for CCBs transported outside the state. Invoices were mailed to generators, and \$1,457,585.23 was collected to support the program. A balance of \$8,144.77 was remaining in the Fund at the end of FY17.

Expenditures from the Fund. A total of \$1,465,730.00 was expended from the Fund in FY18. The expenditures were largely for salaries of technical staff, with the remainder to provide supplies needed to operate the program. A balance of \$12,343.40 was remaining in the Fund at the end of FY18.

Projected Costs for FY19. The anticipated costs to operate the program for FY19 are \$1,271,476.00. This amount has been appropriated for the FY19 budget. A balance of \$12,343.40 was remaining in the Fund at the end of FY18, which is required to be subtracted from the total amount billed for FY19 activities. This leaves \$1,259,132.60 as the total amount to be invoiced for CY17 CCBs generation, in order to cover FY19 costs.

Adjustments to the Base Fee. COMAR 26.04.10.09 provides that the base billing fee (subject to adjustment) is \$1.15 per ton of CCBs generated. The adjustment factors are 1.0 per ton for CCBs disposed or used for noncoal mine reclamation in Maryland, and 0.5 per ton for CCBs transported outside the state. No fee is charged to generators for CCBs that are beneficially used, used for coal mine reclamation in Maryland, or to generators that generated less than 10,000 tons of CCBs per year. After removing tonnages exempt from the fee and applying the adjustment factors to the remaining tonnages, there were 228,388 billable tons of CCBs disposed in state or transported outside the state. Further, the Department can adjust the base rate to accommodate anticipated expenditures. Based on the anticipated program needs and the amount of CCBs managed, the Department has calculated the base fee for this billing period (FY19) as \$5.51312941 per billable ton. The Department developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate \$1,259,133 (rounded), which would leave no surplus to be carried over if all appropriated funds are expended. Any surplus or unexpended funds will be credited to FY20's invoices.

If any generators question the Department's assessments and the Department agrees with any of the claimed exemptions (e.g., for material that was really beneficially used, or used in coal mine reclamation, which are exempted from the fee by statute), the base fee may be subject to reevaluation.

USES OF THE FUND

With the support provided by the Fund, the Department employs geologists, engineers, inspectors, and an Assistant Attorney General to focus on the management of CCBs in Maryland. The following is a description of the activities of the Department in FY18 that were supported by the Fund.

Review of engineering plans:

- Reviewed and approved engineering plans for the construction of Cell 3, and a geomembrane barrier for the west slope of Cell 2 at the Fort Armistead Road – Lot 15 Industrial Landfill (located in Baltimore City); and
- Reviewed and commented on a closure plan for the Pepco Fly Ash Landfill, i.e., Pepco transmission corridor within the Brandywine CCB Landfill (located in Prince George's County).

Review of operational plans:

- Reviewed revised operations and maintenance manual for the Westland CCB Landfill.

Review of monitoring data:

- Performed hydrogeological evaluation of groundwater and surface water data collected as part of the Nature and Extent of Contamination studies being conducted by NRG at their Faulkner (located in Charles County), Brandywine, and Westland CCB landfills.

Compliance activities:

- Performed inspections of CCB facilities, including inspections at the generating facilities, disposal sites, and mine reclamation sites;
- Performed engineering inspections of the closure cap construction activities at the Brandywine CCB Landfill and the Westland CCB Landfill; and
- Performed engineering inspections of the construction of the Cell 2 west slope geomembrane installation at the Fort Armistead Road – Lot 15 Industrial Landfill.

Revising Maryland regulations governing CCBs:

- The Department hosted four workshop meetings with interested stakeholders on developing changes to Maryland regulations on the Management of Coal Combustion Byproducts under COMAR 26.04.10 in 2016. The Department is revising the state CCB regulations to be consistent with the federal rule entitled "Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities," which became effective on Oct. 19, 2015. The revised CCB regulations will be proposed in CY20; and
- The Department is revising the draft CCB beneficial use regulations. A draft is expected to be ready for review by a stakeholder workgroup following promulgation of the changes being developed for COMAR 26.04.10.

CONCLUSION

The industry has increased its efforts to recycle CCB materials through mine reclamation and other means, and this trend is anticipated to continue. The further development of beneficial use regulations will provide industry with additional acceptable ways of utilizing these materials, instead of disposing them. The industry has already developed a number of successful ways to recycle these materials in building materials such as gypsum board and concrete, so these additional efforts will largely be supplementary.

The U.S. Environmental Protection Agency issued federal regulations governing CCBs that became effective on Oct. 19, 2015. In a few areas, these regulations are more stringent than Maryland's, so the Department convened a workgroup to discuss the manner in which COMAR 26.04.10 can be amended to match the federal rule. This will allow generators and disposers of CCBs in Maryland to follow one set of rules in managing these materials. The workgroup met with a substantial degree of consensus. These regulatory changes are anticipated to be proposed in the future. A separate set of regulations, governing the beneficial reuse of CCBs, is being developed and is expected to be ready for review by the public following promulgation of the amendments to COMAR 26.04.10.

TABLE I: CCB TONNAGE AND INVOICES CALENDAR YEAR 2017

Billable Tonnage
Generators < 10,000 tons total generation are exempt

Name	Total Generation	In State Disposal	Out of State Disposal	Out of State Beneficial Use	Billable Tons	Adjusted Per Ton Fee	Invoice Amount:
Verso Corporation - Luke Paper Company	43,659	0	0	0	0		
AES Warrior Run	305,963	0	0	0	0		
GenOn MidAtlantic, LLC - Morgantown	181,640	8,474	1,510	181,301	99,879	\$5.51312941	\$550,645.85
GenOn MidAtlantic, LLC - Dickerson	18,895	6,877	296	10,529	12,290	\$5.51312941	\$67,756.36
NRG Chalk Point, LLC	39,214	158	2,353	31,889	17,279	\$5.51312941	\$95,261.40
Raven Power - Brandon Shores	340,328	34,882	0	73,579	71,672	\$5.51312941	\$395,137.00
Raven Power - H.A. Wagner	19,792	19,617	20	0	19,627	\$5.51312941	\$108,206.19
C.P. Crane LLC	15,282	0	0	15,282	7,641	\$5.51312941	\$42,125.80
Holcim (US) Inc.		0	0	0	0		
Lehigh Cement Company LLC	83,138	0	0	0	0		
Mettiki Coal, LLC	1,302	0	0	0	0		
Allegany H.S.	47	0	0	0	0		
Braddock M.S.	14	0	0	0	0		
Fort Hill H.S.	10	0	0	0	0		
Washington M.S.	9	0	0	0	0		
TOTAL:	1,049,293	70,008	4,179	312,580	228,388		\$1,259,132.60

Green	All generated CCBs reused beneficially
Red	Invoiced amount
Blue	Below 10,000 tons per year and exempt

Amt. Appropriated:
\$1,271,476.00

Minus carryover:
\$12,343.40
Amount to be billed:
\$1,259,132.60

Materials stored in 2016, and used in 2017 are included in the billable tonnage.

TABLE II: FINANCIAL STATEMENT

**STATE COAL COMBUSTION BY-PRODUCTS
MANAGEMENT FUND
Financial Statement
July 1, 2017 to June 30, 2018**

Beginning Fund Balance \$8,144.77

Revenue \$1,457,585.23

FY18 Expenditures	
Salaries	\$1,214,709.26
Communications	\$1,102.78
Travel & Training	\$1,644.95
Vehicles	\$23,788.08
Contractual Services	\$2,313.91
Supplies	\$4,316.80
Equipment (Computers)	\$1,274.71
Total Expenditures	\$1,249,150.49
Indirect Costs	\$204,236.11
Balance in Fund 6/30/2018	\$12,343.40