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: FY19 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 2019 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*. Thank you.

Sincerely,

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

FY 19 Data

Prepared by:
Land and Materials Administration
Solid Waste Program

Prepared for:
The Maryland General Assembly
Annapolis, MD

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

Adrienne A. Jones, House Speaker
Maryland General Assembly

Nov. 1, 2019

MARYLAND DEPARTMENT OF THE ENVIRONMENT
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Report to the Legislature:
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 (MDE) inform the legislature about the status of the State Coal Combustion By-Products (CCBs) Management Fund ("the Fund"). Section §9-285 requires MDE 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 by-products (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 MDE 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 MDE 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 MDE'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 CY17. These reports were due in March 2018. Based on the information contained in the reports, MDE developed fees for each site generating CCBs. In accordance with the regulation, MDE calculated an adjusted base fee of $5.51312941 per ton of CCBs disposed in Maryland, and $2.756564705 per ton for CCBs transported outside the state. Invoices were mailed to

generators, and $1,259,132.60 was collected to support the program. A balance of $12,343.40 was remaining in the Fund at the end of FY18.

Expenditures from the Fund. A total of $1,271,476.00 was expended from the Fund in FY19. The expenditures were largely for salaries for technical staff, with the remainder to provide supplies needed to operate the program. A balance of $32,618.14 was remaining in the Fund at the end of FY19.

Projected Costs for FY20. The anticipated costs to operate the program for FY20 are $1,680,340.00. This amount has been appropriated for the FY20 budget. A balance of $32,618.14 was remaining in the Fund at the end of FY19, which is required to be subtracted from the total amount billed for FY20 activities. This leaves $1,647,721.86 as the total amount to be invoiced for CY18 CCBs generation, in order to cover FY20 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 252,304 billable tons of CCBs disposed in state or transported outside the state. Further, MDE can adjust the base rate to accommodate anticipated expenditures. Based on the anticipated program needs and the amount of CCBs managed, MDE has calculated the base fee for this billing period (FY20) as $6.53070050 per billable ton. MDE developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate $1,647,722 (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 FY21's invoices.

If any generators question MDE's assessments and MDE 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, MDE 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 MDE in FY19 that were supported by the Fund.

Review of engineering plans:

- Reviewed and approved engineering plans for the construction of a closure cap for the Pepco Fly Ash Landfill, i.e., Pepco transmission corridor within the Brandywine CCB Landfill (located in Prince George's County); and
- Reviewed and approved construction as-built reports for the Cells B and C closure cap at the Westland CCB Landfill (located in Montgomery County), closure cap at Historical Areas 1 & 2/Phase 1 at the Brandywine CCB Landfill, and closure cap at the Faulkner CCB Landfill (located in Charles County).

Review of operational plans:

- Reviewed environmental monitoring plans for the Westland, Brandywine and Faulkner CCB landfills;
- Reviewed revised operations and maintenance manuals for the Westland and Brandywine CCB landfills; and
- Reviewed and approved an ash removal plan for Cell B1A at 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 at the Brandywine and Westland CCB landfills; and
- Reviewed environmental monitoring data reports for the Westland, Brandywine and Faulkner CCB landfills.

Compliance activities:

- Performed inspections of CCB facilities, including inspections at the generating facilities, disposal sites, and mine reclamation sites.

Revising Maryland regulations governing CCBs:

- MDE 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. MDE 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, and revised in 2018 with additional proposed changes pending. The revised CCB regulations will be proposed following evaluation of the additional changes proposed by the U.S. Environmental Protection Agency; and

- MDE is revising the draft CCB beneficial use regulations. A draft is expected to be ready for review by a stakeholder workgroup after promulgation of the revisions to the existing CCB regulations.

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 MDE 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 third quarter of CY20, following departmental evaluation of changes to the 2015 federal regulations that were finalized in 2018, and additional changes proposed in 2019. A separate set of regulations, governing the beneficial reuse of CCBs, is being developed and is expected to be ready for review by a stakeholder workgroup following the promulgation of the amendments to the existing CCB regulations, so that those changes can be assimilated into the beneficial use regulations as well.

TABLE I: CCB TONNAGES AND INVOICES CALENDAR YEAR 2018

(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	35,807	0	0	0	0		
AES Warrior Run	317,547	0	0	0	0		
GenOn MidAtlantic, LLC - Morgantown	180,251	5,257	13,120	135,996	79,815	$6.53070050	$521,247.86
GenOn MidAtlantic, LLC - Dickerson	21,296	7,721	149	13,780	14,686	$6.53070050	$95,909.87
NRG Chalk Point, LLC	63,883	0	3,639	56,936	30,288	$6.53070050	$197,801.86
Raven Power - Brandon Shores	428,939	32,252	0	87,846	76,175	$6.53070050	$497,476.11
Raven Power - H.A. Wagner	43,835	43,625	16	0	43,633	$6.53070050	$284,954.05
C.P. Crane LLC	15,414	0	0	15,414	7,707	$6.53070050	$50,332.11
Holcim (US) Inc.	*	0	0	0	0		
Lehigh Cement Company LLC	80,436	0	0	0	0		
Mettiki Coal, LLC	1,196	0	0	0	0		
Allegany H.S.	17	0	0	0	0		
Braddock M.S.	24	0	0	0	0		
Fort Hill H.S.	14	0	0	0	0		
Washington M.S.	13	0	0	0	0		
TOTAL:	**1,188,672**	**88,855**	**16,924**	**309,972**	**252,304**		**$1,647,721.86**

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

Amt. Appropriated:
$1,680,340.00

Minus carryover:
$32,618.14
Amount to be billed:
$1,647,721.86

Materials stored in 2017, and used in 2018 are included in the billable tonnage.

TABLE II: FINANCIAL STATEMENT

STATE COAL COMBUSTION BY-PRODUCTS MANAGEMENT FUND
Financial Statement
July 1, 2018 to June 30, 2019

Beginning Fund Balance $12,343.40
Revenue $1,259,132.60

FY18 Expenditures	
Salaries	$1,013,693.30
Communications	$1,415.31
Travel & Training	$1,376.40
Vehicles	$51,814.50
Contractual Services	$1,372.75
Supplies	$5,221.19
Equipment (Computers)	$10,491.04
Total Expenditures	$1,085,384.49
Indirect Costs	$153,473.37
Balance in Fund 6/30/2019	$32,618.14