Maryland
Department of
the Environment

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

FY20 Data

Prepared by:
Land and Materials Administration
Solid Waste Program

Prepared for:
The Maryland General Assembly
Annapolis, MD

Bill Ferguson, Senate President
Maryland General Assembly

Adrienne A. Jones, House Speaker
Maryland General Assembly

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MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard | Baltimore, MD 21230 | mde.maryland.gov
410-537-3314 | 800-633-6101 x3314 | TTY Users: 800-735-2258
Larry Hogan, Governor | Boyd K. Rutherford, Lt. Governor | Ben Grumbles, Secretary

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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 (Department or MDE) inform the legislature about the status of the State Coal Combustion By-Products (CCBs) Management Fund (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 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 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 CY18. These reports were due in March 2019. 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 $6.53070050 per ton of CCBs disposed of in Maryland, and $3.26535025 per ton for CCBs transported outside the state. Invoices were mailed to

generators, and $1,647,721.86 was collected to support the program. A balance of $32,618.14 was

remaining in the Fund at the end of FY19.

Expenditures from the Fund. A total of $1,554,034.86 was expended from the Fund in FY20. The expenditures were largely for salaries for technical staff, with the remainder to provide supplies needed to operate the program. A balance of $126,305.14 was remaining in the Fund at the end of FY20.

Projected Costs for FY21. The anticipated costs to operate the program for FY21 are $1,837,966.57. This amount has been appropriated for the FY21 budget. A balance of $126,305.14 was remaining in the Fund at the end of FY20, which is required to be subtracted from the total amount billed for FY21 activities. This leaves $1,711,661.43 as the total amount to be invoiced for CY19 CCBs generation, in order to cover FY21 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 of 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 121,944 billable tons of CCBs disposed of in the 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 (FY21) as $14.03645468 per billable ton. MDE developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate $1,711,661 (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 FY22's invoices.

If any generator questions 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 FY20 that were supported by the Fund.

Review of engineering plans:

- Reviewed and approved ash storage site deconstruction plan for the inactive unlined Cell B Phases 2-5 at the Westland CCB Landfill (located in Montgomery County); and
- Reviewed and approved construction as-built report for the Cell 2 west slope geomembrane installation and Cell 3 construction at the Fort Armistead Road – Lot 15 Industrial Landfill (located in Baltimore City).

Review of operational plans:

- Reviewed revised operations and maintenance manuals for the Westland and Brandywine CCB landfills (located in Prince George's county);
- Reviewed water quality plan for Faulkner CCB Landfill (located in Charles County); and
- Reviewed environmental monitoring plan for the Westland and Brandywine CCB landfills.

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; and
- Inspected the closure activities at the Pepco Fly Ash Landfill, (i.e., Pepco transmission corridor within the Brandywine CCB Landfill).

Consent Decree:

- Revised consent decree for Westland, Brandywine and Faulkner CCB landfills.

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 and 2020 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 (EPA), and is anticipated to occur in 2021.

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 EPA 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, and 2020. These regulatory amendments are expected to be proposed in 2021.

TABLE I: CCB TONNAGES AND INVOICES CALENDAR YEAR 2019

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	18,863	0	0	0	0		
AES Warrior Run	298,811	0	0	0	0		
GenOn MidAtlantic, LLC - Morgantown	126,652	0	11,341	120,976	66,158	$14.03645468	$928,623.77
GenOn MidAtlantic, LLC - Dickerson	16,095	2,489	480	5,263	5,361	$14.03645468	$75,249.40
GenOn Chalk Point, LLC	39,259	0	1,984	27,307	14,646	$14.03645468	$205,577.90
Raven Power - Brandon Shores	183,332	17,695	0	7,384	21,387	$14.03645468	$300,197.66
Raven Power - H.A. Wagner	15,091	14,392	0	0	14,392	$14.03645468	$202,012.70
Holcim (US) Inc.	*	0	0	0	0		
Lehigh Cement Company LLC	291,280	0	0	0	0		
Mettiki Coal, LLC	1,434	0	0	0	0		
Braddock M.S.	35	0	0	0	0		
Fort Hill H.S.	14	0	0	0	0		
Washington M.S.	24	0	0	0	0		
TOTAL:	**990,890**	**34,576**	**13,805**	**160,930**	**121,944**		**$1,711,661.43**

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

Amt. Appropriated:
$1,837,966.57
Minus carryover:
$126,305.14
Amount to be billed:
$1,711,661.43

Materials stored in 2018 and used in 2019 are included in the billable tonnage.

TABLE II: FINANCIAL STATEMENT

STATE COAL COMBUSTION BY-PRODUCTS MANAGEMENT FUND
Financial Statement
July 1, 2019 to June 30, 2020

Beginning Fund Balance $32,618.14
Revenue $1,647,721.86

FY20 Expenditures	
Salaries	$1,319,195.26
Communications	$1,368.61
Travel & Training	$173.20
Vehicles	$24,578.10
Supplies	$1,144.63
Equipment	$207.00
Total Expenditures	$1,346,666.80
Indirect Costs	$207,368.06
Balance in Fund 6/30/2020	$126,305.14