



Maryland
Department of
the Environment

FY22 Status of the State Coal Combustion By-Products Management Fund

November 1, 2022

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Prepared for:
The Maryland General Assembly
Annapolis, MD

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INTRODUCTION, BACKGROUND, AND SCOPE

This report is submitted to the General Assembly to satisfy §9-285 of the Environment Article, Annotated Code of Maryland, which requires that the Maryland Department of the Environment (MDE or Department) 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 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. 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, despite being 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 state law, each year MDE calculates a generator fee to charge the major CCB generators. This fee supports the state's 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 Calendar Year (CY) 2020. These reports were due in March 2021. 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 \$4.69812549 per ton of CCBs disposed in Maryland, and \$2.34906275 per ton for CCBs transported outside the state. Invoices were mailed to generators, and \$89,024.78 was collected to support the program. A balance of \$920,478.37 was remaining in the Fund at the end of Fiscal Year (FY) 2021.

Expenditures from the Fund. A total of \$1,009,503.15 was expended from the Fund in FY22. The expenditures were largely for salaries for technical staff, with the remainder to provide supplies needed to operate the program. A balance of \$135,315.51 was remaining in the Fund at the end of FY22.

Projected Costs for FY23. The anticipated costs to operate the program for FY23 are \$1,125,079.49. This amount has been appropriated for the FY23 budget. A balance of \$135,315.51 was remaining in the Fund at the end of FY22, which is required to be subtracted from the total amount billed for FY23 activities. This leaves \$989,763.98 as the total amount to be invoiced for CY21 CCBs generation, to cover FY23 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 per ton for CCBs disposed of or used for non-coal 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 42,600 billable tons of CCBs disposed of 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 (FY23) as \$23.23389624 per billable ton. MDE developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate \$989,764 (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 FY24 invoices.

If any generators question MDE's assessments and MDE agrees with any of the claimed exemptions (e.g., for material that was 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 FY22 that were supported by the Fund:

Review of engineering plans:

- Reviewed Permit Modification Application for the Fort Armistead Road – Lot 15 Industrial Landfill (located in Baltimore City); and
- Reviewed Liner System Dewatering As-built for the Fort Armistead Road – Lot 15 Industrial Landfill.

Review of operational plans:

- Reviewed revised operations and maintenance manuals for the Westland Ash Management Facility (located in Montgomery County) and Brandywine Ash Management Facility (located in Prince George's County).

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 Faulkner, Brandywine, and Westland CCB landfills;
- Reviewed Corrective Measure Plan for the Westland CCB landfill; 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 vegetation growth across the closure cap 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.

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 ways of utilizing these materials, instead of disposing them. The industry has already developed several successful ways to recycle these materials in building materials such as gypsum board and concrete, so these additional efforts will largely be supplementary.

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 way 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 fourth quarter of CY23, following departmental evaluation of changes to the 2015 federal regulations that were finalized in 2018, and additional changes proposed in 2019 and 2020. Due to the significant environmental impacts from CCBs, MDE will need to continue inspection monitoring activities for the foreseeable future.

TABLE I: CCB TONNAGES AND INVOICES CY21

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:
AES Warrior Run	337,476	0	0	0	0		
Lanyard Power, LLC (Chalk Point and Morgantown)	161,888	8,829	1,246	0	9,452	\$23.233896 24	\$219,606.79
Raven Power - Brandon Shores	234,559	29,670	0	6,955	33,148	\$23.233896 24	\$770,157.19
Raven Power - H.A. Wagner	9,398	9,019	201	0	0		
Holcim (US) Inc.	*	0	0	0	0		
Lehigh Cement Company LLC	90,141	0	0	0	0		
Mettiki Coal, LLC	1,882	0	0	0	0		
Braddock M.S.	10	0	0	0	0		
Fort Hill H.S.	19	0	0	0	0		
Washington M.S.	6	0	0	0	0		
TOTAL:	835,379	47,518	1,447	6,955	42,600		\$989,763.98

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

Amt. Appropriated:
\$1,125,079.
49

Minus carryover:
\$135,315.51

Amount to be billed:
\$989,763.98

Materials stored in 2020 and used in 2021 are included in the billable tonnage.

TABLE II: FINANCIAL STATEMENT

**STATE COAL COMBUSTION BY-PRODUCTS
MANAGEMENT FUND
Financial Statement
July 1, 2021 to June 30, 2022**

Beginning Fund Balance \$920,478.37

Revenue \$89,024.78

FY22 Expenditures	
Salaries	\$699,146.94
Communications	\$1,143.78
Travel & Training	\$108.25
Vehicles	\$32,563.17
Contractual Services	\$8,450.26
Supplies	\$2,990.46
Equipment (Computers)	\$4,884.00
Other	\$960.00
Total Expenditures	\$750,246.86
Indirect Costs	\$123,940.78
Balance in Fund 6/30/2022	\$135,315.51