



Status of the State Coal Combustion By-Products Management Fund

Fiscal Year 2024

Maryland Department of the Environment

Prepared for:

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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 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 reduction in volume 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 CY22. These reports were due in March 2023. 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 \$32.08381532 per ton of CCBs disposed of in Maryland, and \$16.0419076 per ton for CCBs transported outside the state. Invoices were mailed to generators, and \$1,476,657.60 was collected to support the program. A balance of \$119,165.40 remained in the Fund at the end of FY23.

Expenditures from the Fund

A total of \$1,095,197.98 was expended from the Fund in FY24. The expenditures were largely for salaries for technical staff, with the remainder to provide supplies needed to operate the program. A balance of \$500,625.02 remained in the Fund at the end of FY24.

Projected Costs for FY25

The anticipated costs to operate the program for FY25 are \$1,721,807.00. This amount has been appropriated for the FY25 budget. A balance of \$500,625.02 was remaining in the Fund at the end of FY24, which is required to be subtracted from the total amount billed for FY25 activities. This leaves \$1,221,181.98 as the total amount to be invoiced for CY23 CCBs generation to cover FY25 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 15,167 billable tons of CCBs disposed 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 (FY25) as \$80.51572361 per billable ton. MDE developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate \$1,221,182 (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 FY26'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.

As the last coal plant in Maryland that generates coal ash for which MDE can obtain revenue for the Fund, the Brandon Shores generating station is slated to cease coal use by 2025 and transition to oil. It is anticipated that the Fund will soon be entirely depleted unless a statutory change to the source of funding is enacted. This will render MDE without the resources necessary to continue monitoring and inspecting the existing coal ash landfills, which will continue to be a potential source of surface and groundwater contamination.

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 FY24 that the Fund supported.

Review of engineering plans:

- Reviewed Permit Modification Application for 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 Ash Management Facility (located in Montgomery County) and Brandywine Ash Management Facility (located in Prince George’s County); and
- Reviewed revised operations and maintenance manuals for the Fort Armistead Road – Lot 15 Industrial 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; and
- Inspected the Westland Ash Management Facility.

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 the 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 the 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 the industry with additional acceptable ways of utilizing these materials, instead of disposing of 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, and in several subsequent years. In a few areas, these regulations are more

stringent than Maryland's, so MDE convened a workgroup to discuss how 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 in development. They were originally anticipated to be proposed in the third quarter of CY20, but subsequent changes to the federal regulations have required revisions to the draft regulations that are still ongoing.

TABLE I: CCB TONNAGES AND INVOICES CALENDAR YEAR 2023

Generators with < 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	174,671	0	0	0	0				
Raven Power - Brandon Shores	126,054	15,167	0	0	15,167	\$80.51572361	\$1,221,181.98		
Raven Power - H.A. Wagner	2,830	2,822	0	0	0				
Holcim (US) Inc.	*	0	0	0	0				
Heidelberg Materials US Cement LLC (Lehigh)	76,418	0	0	0	0				
Mettiki Coal, LLC	920	0	0	0	0				
Fort Hill H.S.	10	0	0	0	0				
TOTAL:	380,903	17,989	0	0	15,167		\$1,221,181.98		

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

Amt. Appropriated:

\$1,721,807.00

Minus

carryover:

\$500,625.02

Amount to be billed:

\$1,221,181.98

*Holcim (US) reporting withheld at Holcim's request as a trade secret or confidential commercial information under Section 10-617(d) of the Public Informational Act, Annotated Code of Maryland.

TABLE II: FINANCIAL STATEMENT

**STATE COAL COMBUSTION BY-PRODUCTS
MANAGEMENT FUND
Financial Statement
July 1, 2023 to June 30, 2024**

FY24 Beginning Fund Balance	\$119,165.40
FY24 Revenue	\$1,476,657.60
FY24 Expenditures	
Salaries	\$896,908.58
Communications	\$974.02
Travel & Training	\$104.80
Vehicles	\$36,542.17
Contractual Services	\$0
Supplies	\$178.96
Equipment (Computers)	\$0
Other	\$0
Indirect Costs	\$160,489.45
FY24 Total Expenditures	\$1,095,197.98
FY24 Closing Fund Balance	\$500,625.02