



Maryland

Department of the Environment

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

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

February 16, 2018

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

The Honorable Michael E. Busch, Speaker
House of Delegates
State House, H-101
Annapolis MD 21401-1991

The Honorable Joan Carter Conway, Chair
Senate Education, Health and
Environmental Affairs Committee
Miller Senate Office Building
2 West Wing
11 Bladen Street
Annapolis MD 21401-1991

The Honorable Kumar P. Barve, Chair
Environment and Transportation Committee
House of Delegates
House Office Building, Room 251
6 Bladen Street
Annapolis MD 21401-1991

Dear President Miller, Speaker Busch, Chairs Conway and Barve:

As required in Section 9-282 of the Environment Article, Annotated Code of Maryland, I am enclosing a copy of the Fiscal Year 2017 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. Hilary Miller, Director of the Land and Materials Administration, at 410-537-3304 or via email at hilary.miller@maryland.gov.

Sincerely,

Ben Grumbles
Secretary

Enclosures

cc: Sarah Albert, Department of Legislative Services, Mandated Report Specialist
Hilary Miller, Director, Land and Materials Administration



Status of the State Coal Combustion By-Products Management Fund Fiscal Year 2017

Prepared by:
Solid Waste Program
Land and Materials Administration

Prepared for:

The Maryland General Assembly
Annapolis, MD

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

Michael E. Busch, House Speaker
Maryland General Assembly

2017



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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 consumption when not handled properly.

REGULATORY FRAMEWORK AND DEVELOPMENT

The Department regulates the handling, transportation, use, and disposal of CCBs.

The following regulations became effective in December, 2008:

- COMAR 26.04.10, Management of Coal Combustion Byproducts
www.dsd.state.md.us/comar/SubtitleSearch.aspx?search=26.04.10.
- Subtitle 20 Surface Coal Mining and Reclamation Under Federally Approved Program COMAR 26.20.24 Special Performance Standards
www.dsd.state.md.us/comar/comarhtml/26/26.20.24.08.htm
- Subtitle 21 Mining COMAR 26.21.04 Utilization of Coal Combustion Byproducts in Noncoal Surface Mine Reclamation www.dsd.state.md.us/comar/SubtitleSearch.aspx?search=26.21.04.*

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 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 calendar year 2015. These reports were due in March 2016. 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 \$3.03729685 per ton of CCBs disposed in Maryland, and \$1.51864842 per ton of CCBs transported outside the State. Invoices were mailed to generators, and \$1,264,043.98 was collected to support the program. A balance of \$1.02 was remaining in the Fund at the end of FY 2016 with a prior year encumbrance of \$29,641.00.

Expenditures from the Fund. A total of \$1,293,686.00 was expended from the Fund in FY 2017. The expenditures were largely for salaries for technical staff, with the remainder to provide supplies needed to operate the program. A balance of \$8,144.77 was remaining in the Fund at the end of FY 2017.

Projected Costs for FY 2018. The anticipated costs to operate the program for FY 2018 are \$1,465,730.00. This amount has been appropriated for this year's budget. A balance of \$8,144.77 was remaining in the Fund at the end of FY 2017, which is required to be subtracted from the total amount billed for FY 2018 activities. This leaves \$1,457,585.23 as the total amount to be invoiced for calendar year 2016 CCBs generation.

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 for CCBs disposed or used for noncoal mine reclamation in Maryland, and 0.5 for CCBs transported outside the State. No fee is charged to generators for CCBs which are beneficially used or 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 433,415 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 FY 2018 is \$3.36302442 per billable ton. The Department developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate \$1,457,585 (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 FY 2019'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 2016/2017 that were supported by the Fund.

Review of engineering plans.

- Reviewed and commented engineering plans for the Phase 2C Cell construction of the Brandywine CCB Landfill (owned by NRG and located in Prince George's County); and
- Reviewed as-built report for a Stormwater Management Plan at the NRG's Westland CCB Landfill (located in Montgomery County).

Review of operational plans.

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

Review of monitoring data.

- Reviewed ground water and surface water data collected as part of the Nature and Extent of Contamination studies being conducted by NRG at the Faulkner (located in Charles County), Brandywine, and Westland CCB Landfills.

Compliance activities.

- Inspected CCB facilities, including at the generating facilities, disposal sites, and mine reclamation sites; and
- Inspected the closure activities at the Brandywine CCB Landfill, the Faulkner CCB Landfill and the Westland CCB Landfill.

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 October 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 2018. A separate set of regulations, governing the beneficial reuse of CCBs, is being developed and is expected to be ready for review by a stakeholders workgroup in 2018.

TABLE I: CCB INVOICES CALENDAR YEAR 2016

Vendor	For Generator:	Amount Owed
NRG Energy 25100 Chalk Point Road Aquasco MD 20608	NRG Energy – Morgantown	\$511,976.75
NRG Energy 25100 Chalk Point Road Aquasco MD 20608	NRG Energy – Dickerson	\$109,725.40
NRG Chalk Point, LLC 25100 Chalk Point Road Aquasco MD 20608	NRG Chalk Point LLC – Chalk Point	\$187,465.07
Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	Raven Power Fort Smallwood LLC - Brandon Shores	\$294,580.76
Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	Raven Power Fort Smallwood LLC - H. A. Wagner	\$316,359.71
C.P. Crane, LLC 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	C. P. Crane LLC – C.P. Crane	\$37,477.54
Total		\$1,457,585.23

TABLE II: FINANCIAL STATEMENT

**STATE COAL COMBUSTION BY-PRODUCTS
MANAGEMENT FUND
Financial Statement
July 1, 2016 to June 30, 2017**

Beginning Fund Balance \$1.02
Prior year encumbrance \$29,641.00
Revenue \$ 1,264,043.98

FY2017 Expenditures	
Salaries	\$1,019,177.98
Communications	\$1,714.17
Travel & Training	\$2,533.90
Vehicles	\$77,835.34
Contractual Services	\$1,922.43
Supplies	\$1,202.65
Equipment (Computers)	\$505.00
Total Expenditures	\$1,104,891.47
Indirect Costs	\$180,649.76
Balance in Fund 6/30/2017	\$8,144.77