



Maryland

Department of the Environment

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

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

February 7, 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 2016 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 (5 copies)
Hilary Miller, Director, Land and Materials Administration



Status of the State Coal Combustion By-Products Management Fund Fiscal Year 2016

Prepared by:
Solid Waste Program
Land Management 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

February 2018



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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, which was created by §9-282 of the Environment Article effective July 1, 2009. The specific topics that §9-285 requires the Department to provide information about are:

- (1) The status of the Fund;
- (2) Revenues of and expenditures from the Fund;
- (3) The efficiency of the regulatory program under this part;
- (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 State Coal Combustion By-Products Management Fund (the “Fund”) is to provide the Department with the resources to oversee the disposal, beneficial use, and management of coal combustion byproducts (“CCB”) 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 uses a regulatory approach to govern all aspects of CCB management including 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 2014. These reports were due in March, 2015. 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 \$3.248001 per ton of CCBs disposed in Maryland, and \$1.6240005 per ton for CCBs transported outside the State. Invoices were mailed to generators, and \$1,470,688.38 was collected to support the program. A balance of \$8.62 was remaining in the Fund at the end of FY2015.

Expenditures from the Fund. A total of \$1,470,697.00 was expended from the Fund in FY2016, largely for salaries for technical staff, and the remainder to provide the necessary supplies needed to operate the program. A balance of \$1.02 was remaining in the Fund at the end of FY2016.

Projected Costs for FY2017. The anticipated costs to operate the program for FY2017 are \$1,264,045.00. This amount has been appropriated for this year's budget. A balance of \$1.02 was remaining in the Fund at the end of FY2016, which is required to be subtracted from the total amount billed for FY2017 activities. This leaves \$1,264,043.98 as the total amount to be invoiced for calendar year 2015 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 416,174 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 FY2017 is \$3.03729685 per billable ton. The Department developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate \$1,264,044 (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 FY2018'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, 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 the Department in 2015/2016 that were supported by the Fund.

Review of engineering plans.

- Reviewed and approved engineering plans and specifications for the closure of the inactive areas of the Brandywine CCB Landfill (owned by NRG and located in Prince George's County);
- Reviewed Dominion Power documents concerning the closure of the CCB holding lagoons at the Possum Point electric power generating station in Quantico, Virginia, which discharges to the Potomac River; and
- Reviewed and commented on engineering plans for NRG's proposal to infill CCBs between existing fill areas at the Brandywine CCB Landfill.

Review of operational plans.

- Reviewed operations and maintenance manuals for NRG's Westland CCB Landfill (located in Montgomery County) 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 their Faulkner (located in Charles County), Brandywine, and Westland CCB Landfills.

Compliance activities.

- Inspections of CCB facilities were performed by inspectors throughout the Department, and included inspections at the generating facilities, disposal sites, and mine reclamation sites; and
- Inspected the closure activities at the NRG Faulkner CCB Landfill and the Westland CCB Landfill.

Revising Maryland regulations governing CCBs.

- The Department is revising the draft CCB beneficial use regulations which should be ready for review by a stakeholders workgroup in 2017; and
- The Department hosted four workshop meetings with interested stakeholders on developing changes to Maryland regulations on Management of Coal Combustion Byproducts under COMAR 26.04.10. The Department 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 October 19, 2015.

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 the proposed 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, so that generators and disposers of CCBs in Maryland will have 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 2017.

TABLE I: CCB INVOICES CALENDAR YEAR 2015

Vendor	For Generator:	Amount Owed
GenOn MidAtlantic, LLC 25100 Chalk Point Road Aquasco MD 20608	GenOn MidAtlantic – Morgantown	\$476,746.26
GenOn MidAtlantic, LLC 25100 Chalk Point Road Aquasco MD 20608	GenOn MidAtlantic – Dickerson	\$101,433.56
GenOn Chalk Point, LLC 25100 Chalk Point Road Aquasco MD 20608	GenOn Chalk Point LLC – Chalk Point	\$177,669.72
Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	Raven Power Fort Smallwood LLC - Brandon Shores	\$291,826.52
Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	Raven Power Fort Smallwood LLC - H. A. Wagner	\$181,487.60
C.P. Crane, LLC 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	C. P. Crane LLC – C.P. Crane	\$34,880.32
Total		\$1,264,043.98

TABLE II: FINANCIAL STATEMENT

**STATE COAL COMBUSTION BY-PRODUCTS
MANAGEMENT FUND
Financial Statement
July 1, 2015 to June 30, 2016**

Beginning Fund Balance \$ 8.62

Revenue \$ 1,470,688.38

FY2016 Expenditures	
Salaries	\$1,138,654.99
Communications	\$1,320.06
Travel & Training	\$3,462.92
Vehicles	\$119,699.88
Contractual Services*	-\$548.80
Supplies	\$7,797.57
Equipment (Computers)	\$1,374.42
Other	\$1,992.00
Total Expenditures	\$1,273,753.04

Indirect Costs \$196,942.94

Balance in Fund 6/30/2016 \$1.02

*Equipment repair charged to FY15 Fund and subsequently credited to FY16 Fund