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

MARYLAND
Department of the Environment

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

February 2018

MARYLAND DEPARTMENT OF THE ENVIRONMENT
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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"), 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 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 2013. These reports were due in March, 2014. 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 $3.911614 per ton of CCBs disposed in Maryland, and $1.955807 per ton for CCBs transported outside the State. Invoices were mailed to generators, and $1,501,046.69 was collected to support the program. A balance of $2,176.31 was remaining in the Fund at the end of FY2014.

Expenditures from the Fund. A total of $1,503,214.38 was expended from the Fund in FY2015, largely for salaries for technical staff, and the remainder to provide the necessary supplies needed to operate the program. A balance of $8.62 was remaining in the Fund at the end of FY2015.

Projected Costs for FY2016. The anticipated costs to operate the program for FY2016 are $1,470,697.00. This amount has been appropriated for this year's budget. A balance of $8.62 was remaining in the Fund at the end of FY2015, which is required to be subtracted from the total amount billed for FY2016 activities. This leaves $1,470,688.38 as the total amount to be invoiced for calendar year 2014 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 452,798 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 FY2016 is $3.24800105 per billable ton. The Department developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate $1,470,688 (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 FY2017'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 2014/2015 that were supported by the Fund.

Review of design modification application.

- In 2014, the Department reviewed and approved engineering plans and specifications for the cell liner design modification and sump pump redesign for the Fort Armistead Road – Lot 15 Industrial Landfill.

Review of plans.

- The Department reviewed and approved the release response and rectification plan and stormwater management plan for the Westland Landfill (located in Montgomery County), and the operation and maintenance plans for the Westland and Brandywine (located in Prince George's County) Landfills.
- The Department reviewed and provided comments to NRG Energy on their proposed Scope of Work for a Nature and Extent of Contamination Study for Brandywine, Faulkner (located in Charles County), and Westland Landfills.
- The Department inspected the closure cap constructions at the Faulkner and Westland Landfills and periodically inspected the operations at the Brandywine and Westland Landfills.

Review of groundwater data from CCB landfills.

- Department geologists evaluated groundwater monitoring data relating to CCB landfills located in the State to evaluate whether they have caused an impact to the local water resources.

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.

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 impact of federal regulations governing CCBs that were proposed five years ago were just finalized and republished in June 2015, with an effective date of October 19, 2015. The federal regulations are complex, and it is not clear what impact they will have on disposal and recycling of CCBs in Maryland.

The Department is currently analyzing these regulations, and determining what changes to Maryland's existing CCB regulations might be needed for conformity with the minimum federal regulations, so that the regulated community can comply with both if they comply with Maryland's regulations.

TABLE I: CCB INVOICES CALENDAR YEAR 2014

Vendor	For Generator:	Amount Owed
GenOn MidAtlantic, LLC 25100 Chalk Point Road Aquasco MD 20608	GenOn MidAtlantic – Morgantown	**$680,729.05**
GenOn MidAtlantic, LLC 25100 Chalk Point Road Aquasco MD 20608	GenOn MidAtlantic – Dickerson	**$224,060.11**
GenOn Chalk Point, LLC 25100 Chalk Point Road Aquasco MD 20608	GenOn Chalk Point	**$244,766.11**
Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	Raven Power Fort Smallwood LLC - Brandon Shores	**$144,149.53**
Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	Raven Power Fort Smallwood LLC - H. A. Wagner	**$145,114.19**
C.P. Crane, LLC 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226	C. P. Crane	**$31,869.39**
Total		**$1,470,688.38**

TABLE II: FINANCIAL STATEMENT

STATE COAL COMBUSTION BY-PRODUCTS MANAGEMENT FUND
Financial Statement
July 1, 2014 to June 30, 2015

Beginning Fund Balance $ 2,176.31
Revenue $ 1,501,046.69

FY2015 Expenditures	
Salaries	$1,279,881.27
Communications	$1,311.70
Travel & Training	$-401.48
Vehicles	$12,837.50
Contractual Services	$2,564.44
Supplies	$7,079.56
Equipment (Computers)	$1,940.50
Total Expenditures	$1,305,213.49

Indirect Costs $198,000.89

Balance in Fund 6/30/2015 $8.62