



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Lawrence J. Hogan, Jr.
Governor

Boyd K. Rutherford
Lieutenant Governor

Ben Grumbles
Acting Secretary

March 4, 2015

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
Annapolis MD 21401-1991

The Honorable Kumar P. Barve, Chair
Environment & 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 9-28⁵ of the Environment Article, Annotated Code of Maryland, I am enclosing a copy of the Fiscal Year 2014 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 Mr. Horacio Tablada, Director of the Land Management Administration, at 410-537-3304 or via email at horacio.tablada@maryland.gov.

Sincerely,

David A. Costello
Deputy Secretary

Enclosure

cc: Horacio Tablada, Director, Land Management Administration





Department of the Environment

Status of the State Coal Combustion By-Products Management Fund Fiscal Year 2014

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

January 2015



MARYLAND DEPARTMENT OF THE ENVIRONMENT
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TABLE OF CONTENTS

INTRODUCTION, BACKGROUND, AND SCOPE2

REGULATORY FRAMEWORK AND DEVELOPMENT3

STATUS OF THE FUND4

USES OF THE FUND5

CONCLUSION6

TABLE I: CCB INVOICES CALENDAR YEAR 20137

TABLE II: FINANCIAL STATEMENT8

**Status of the State Coal Combustion
By-Products Management Fund
January 2015**

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”, 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 (“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 the 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 made up the other minerals remain as solids, often oxides formed 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.

The need for closer regulation of CCBs was brought into sharp focus in 2006 and 2007 with the discovery that the site in Crofton, Anne Arundel County, where CCBs were being used to reclaim a sand and gravel mine, had contaminated nearby domestic water supplies (For more information, see the fact sheet and related materials on MDE’s website at:

<http://www.mde.maryland.gov/programs/Marylander/PublicHealthHome/Pages/citizensinfocenter/health/lyash.aspx>).

In addition to responding to that incident, MDE undertook numerous other actions to better regulate CCBs, including a survey of past and current CCB disposal sites, the development of comprehensive new regulations setting stringent standards for the disposal and use of CCBs in landfills and mine reclamation, and enforcement action against several property owners whose sites were found to be causing environmental impacts, including the Crofton site. These efforts resulted in the promulgation of several regulations, which are discussed below. This report describes the status of the Fund, its uses and the

statutorily required elements required above.

REGULATORY FRAMEWORK AND DEVELOPMENT

The Department has undertaken a strong regulatory approach to govern all aspects of the management of CCBs. These activities have led to the promulgation of several regulations governing various aspects of CCB handling, transportation, use, and disposal.

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.*

In addition, following the 2009 Legislative Session when §§9-281 through 9-290 relating to CCB disposal and use were added to the Environment Article, MDE was authorized to charge fees to the generators of CCBs in the State to help support the Department's regulatory efforts. This resulted in an addition of COMAR 26.04.10.09, initially proposed as an emergency regulation, which was effective immediately, and then a normal regulatory proposal. The regulation was subsequently adopted on February 26, 2010.

Also, as required by §9-289(b)(1), the Department has pursued the promulgation of regulations governing the transportation of CCBs to prevent the emission of fugitive dust from vehicles that haul CCB materials to various destinations. Changes to the existing regulations regarding CCB general restrictions and prohibited acts at COMAR 26.04.10.03 were adopted effective October 18, 2010. These changes require vehicles hauling CCBs to be covered, inspected, and, if necessary, cleaned prior to departure with a load of CCBs, in order to prevent CCBs from dropping off the load or the wheels and undercarriage of the vehicle.

Lastly, in compliance with §9-289(b)(2), the Department proposed comprehensive regulations governing the beneficial use of CCBs. These regulations were proposed as new Chapter COMAR 26.04.11 on February 26, 2010. The Department received numerous and extensive comments concerning this proposal. The Administrative Executive Legislative Review Committee (AELR) placed a "hold" on the proposed regulations while the Department worked with stakeholders on several issues. The proposed regulations have now expired since it has been more than one year since the proposal. The Department has met with various focus groups concerning a variety of aspects, and expects to re-propose these regulations in early 2015.

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 their CCBs;
- The funding required to operate the Department's CCB activities for a fiscal year; and
- The amount of money remaining in the CCB 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 2012. These reports were due in March, 2013. 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 \$3.305331 per ton of CCBs disposed of in Maryland, and \$1.652665 per ton for CCBs transported out of State. Invoices were mailed to generators, and \$1,154,112.47 was collected to support the program. A balance of \$44.53 was remaining in the Fund at the end of FY2013.

Expenditures from the Fund. A total of \$1,151,980.69 was expended from the Fund, largely for salaries for the technical staff, and the remainder to provide the necessary supplies needed to run the program. A balance of \$2,176.31 was remaining in the Fund at the end of FY2014.

Projected Costs for FY2015. The anticipated costs to operate the program for FY2015 are \$1,503,223.00. This amount has been appropriated for this year's budget. A balance of \$2,176.31 was remaining in the Fund at the end of FY2014, which is required to be subtracted from the total amount billed for FY2015 activities. This leaves \$1,501,046.69 as the total amount to be invoiced for calendar year 2013 CCB 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 of or used for noncoal mine reclamation in Maryland, and 0.5 for CCBs transported out of State. No fee is charged for CCBs which are beneficially used or used for coal mine reclamation in Maryland. Of these amounts, 383,741 tons are billable as either in State disposal or transportation out of 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 is \$3.91161406 per billable ton. The Department developed fees for each site generating CCBs, which are outlined in Table I. These fees are anticipated to generate \$1,501,047 (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 FY2016's invoices.

If any generators question MDE's assessments, the base fee may be subject to reevaluation if 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).

USES OF THE FUND

With the support provided by the Fund, MDE has hired 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 2013/2014 that were supported by the Fund.

- Review of closure plans. In 2014, the Department reviewed and approved engineering plans and specifications for the closure of completed fill areas at the Brandywine and Westland CCB Landfills. In accordance with a Consent Decree signed with GenOn MD Ash Management, LLC in 2013, GenOn (now NRG Energy) is required to place a low permeable cap over closed disposal cells at its three Maryland CCB landfills (Brandywine, Westland and Faulkner Landfills) by certain dates as specified in the Consent Decree. The closure cap for the Faulkner Landfill was previously approved in December 2012. NRG Energy is also required to submit a Scope of Work for a Nature and Extent of Contamination Study for all three of its landfills to characterize the nature and extent of existing groundwater and surface water contamination on the sites. The Department reviewed and provided comments to NRG Energy on their proposed Scope of Work plans for the three landfills. In addition, the Department 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. Scientific advice and testimony was also provided in support of Departmental enforcement actions.
- Compliance Activities. Inspections of CCB facilities were performed by inspectors throughout the Department, and included inspections at the generating facilities, disposal sites, mine reclamation sites, and sites where CCBs are being beneficially used.

CONCLUSION

The industry has increased its efforts to recycle CCB materials through mine reclamation and other means, and this trend is anticipated to continue. Some participants have expressed an interest in starting a dialogue with the Department concerning alternative ways to calculate the CCB generator fee, so that the Department's oversight can continue to be funded, but the assessment of the fee would be more balanced among the participants.

The further development of the proposed beneficial use regulations will provide industry with acceptable ways of utilizing these materials, instead of disposing of them.

The impact of federal regulations governing CCBs that were proposed four years ago has yet to be fully assessed. The federal regulations are complex, and as EPA proposed two separate sets of regulations and has not yet chosen between them, it is not clear what impact they will have on disposal and recycling of CCBs in Maryland.

EPA's two proposed options for public comment regarding the management of coal ash fall under the Resource Conservation and Recovery Act (RCRA). Under the first proposal, EPA would list these residuals as special wastes by rule subject to regulation under Subtitle C of RCRA when destined for disposal in landfills or surface impoundments. This would require handling of the materials under most of the requirements imposed on hazardous waste, even though CCBs usually do not test as hazardous waste when the methods applied to other industrial wastes are used. Under the second proposal, EPA would regulate coal ash under Subtitle D of RCRA, the section for nonhazardous wastes.

Essentially the same liner, closure, operational, and groundwater monitoring requirements would be required under both EPA proposals. The major difference is that under the RCRA Subtitle C proposal, EPA would have primary enforcement authority, with the States being able to obtain delegation if they adopt the federal rule. Under the RCRA Subtitle D proposal, the primary enforcement authority would lie with the States instead of with EPA, although citizen and environmental groups would be able to sue to enforce the rule. On September 30, 2013, a judge for the United States District Court for the District of Columbia ordered EPA to proceed with the rulemaking (Civil Action No. 12-0523 (RBW), Consolidated Case Nos. 12-0585 (RBW) and 12-0629 (RBW)). According to news reports, EPA hopes to re-propose regulations in 2014 in response to this decision.

More information about the regulatory proposals can be found on EPA's website:

<http://www.epa.gov/osw/nonhaz/industrial/special/fossil/ccr-rule/index.htm>. In addition, the federal regulations docket contains the proposal and all the comments that EPA has received, which can be viewed at:

<http://www.regulations.gov/#!searchResults;rpp=25;po=0;s=EPA%25E2%2580%2593HQ%25E2%2580%2593RCRA%25E2%2580%25932009%25E2%2580%25930640>.

In response to either EPA proposal, Maryland will have to alter its existing regulations at least to some extent. However, due to the large volume of comments developed nationally (reportedly over 400,000 separate comments were received by EPA), it is impossible to know when the new federal regulations may take effect.

TABLE I: CCB INVOICES CALENDAR YEAR 2013

| Vendor | For Generator: | Amount Owed |
|--|---|-----------------------|
| GenOn MidAtlantic, LLC 25100 Chalk Point Road Aquasco MD 20608 | GenOn MidAtlantic – Morgantown | \$637,698.70 |
| GenOn MidAtlantic, LLC 25100 Chalk Point Road Aquasco MD 20608 | GenOn MidAtlantic – Dickerson | \$209,165.74 |
| GenOn Chalk Point, LLC 25100 Chalk Point Road Aquasco MD 20608 | GenOn Chalk Point | \$351,509.37 |
| Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226 | Raven Power Fort Smallwood LLC - Brandon Shores | \$128,273.56 |
| Raven Power 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226 | Raven Power Fort Smallwood LLC - H. A. Wagner | \$138,275.56 |
| C.P. Crane, LLC 1005 Brandon Shores Road, Suite 100 Baltimore MD 21226 | C. P. Crane | \$36,123.76 |
| Total | | \$1,501,046.69 |

TABLE II: FINANCIAL STATEMENT

**STATE COAL COMBUSTION BY-PRODUCTS
MANAGEMENT FUND
Financial Statement
July 1, 2013 to June 30, 2014**

Beginning Fund Balance \$ 44.53

Revenue \$ 1,154,112.47

| FY2014 Expenditures | |
|-----------------------|-----------------|
| Salaries | \$ 934,182.44 |
| Communications | \$ 1,065.38 |
| Travel & Training | \$ 1,435.42 |
| Vehicles | \$ 22,802.80 |
| Contractual Services | \$ 40,945.02 |
| Supplies | \$ 6,754.43 |
| Equipment (Computers) | \$ 5,099.83 |
| Total Expenditures | \$ 1,012,285.32 |

Indirect Costs \$ 139,695.37

Balance in Fund 6/30/2014 \$ 2,176.31