



# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Martin O'Malley  
Governor

Robert M. Summers, Ph.D.  
Secretary

Anthony G. Brown  
Lieutenant Governor

May 1, 2013

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 Maggie McIntosh, Chair  
Environmental Matters Committee  
House of Delegates  
House Office Building, Room 251  
6 Bladen Street  
Annapolis, MD 21401-1991

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

As required in Section 9-282 of the Environment Article, Annotated Code of Maryland, I am enclosing a copy of the Fiscal Year 2012 report on the Status of the State Coal Combustion By-Products Management Fund.

If we 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 e-mail at [htablada@mde.state.md.us](mailto:htablada@mde.state.md.us)

Sincerely,

Robert M. Summers, Ph.D.  
Secretary

Enclosures

cc: Horacio Tablada, Director, Land Management Administration  
Heather Barthel, Director, Legislative and Intergovernmental Affairs



**REPORT TO THE LEGISLATURE:**  
**Status of the State Coal Combustion**  
**By-Products Management Fund**  
**Fiscal Year 2012**

Prepared for:

Senate Health, Environment, and Educational Affairs Committee  
And the  
House Environmental Matters Committee  
Maryland General Assembly



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**REPORT TO THE LEGISLATURE:**  
**Status of the State Coal Combustion**  
**By-Products Management Fund**  
**January 2013**

**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) Compliance rates within the regulatory program; and
- (4) 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 rock 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 and both 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 a 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/flyash.aspx>). In addition to responding to that crisis, 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 sites which were found to be causing environmental impacts, including the Crofton site. Among other successful outcomes, 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.\\*](http://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](http://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.\\*](http://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 both 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, be inspected, and, if necessary, cleaned prior to departure with a load of CCBs, in order to prevent CCBs from blowing 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, and is in the process of reviewing them. 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 the one year after promulgation has passed. The Department has met with various focus groups concerning a variety of aspects, and expects to be able to proceed with these regulations in 2013.

## STATUS OF THE FUND

Each year, the Department calculates a generator fee to charge the major generators to support 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 coal combustion byproducts 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 2010. These reports were due in March 2011. 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 \$1.31111 per ton of CCBs disposed of in Maryland, and \$0.655555 per ton for CCBs transported out of State. Invoices were mailed to generators, and \$906,637.95 was collected to support the program.

Expenditures from the Fund. A total of \$904,000.73 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 \$2,637.22 was remaining in the Fund at the end of FY2012, which was required to be subtracted from the total amount billed for calendar year 2011 activities.

Projected Costs for FY2013. The anticipated costs to operate the program for FY2013 are \$1,053,525.00. This amount has been appropriated for this year's budget. A balance of \$2,637.22 was remaining in the Fund at the end of FY2012, which is required to be subtracted from the total amount billed for this year's activities. This leaves \$1,050,887.78 as the total amount to be billed for calendar year 2011 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, 521,220 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 that the base billing fee for this billing period is \$2.0162077 per billable ton. The Department developed fees for each site generating CCBs, which are outlined in Table I. This is anticipated to generate \$1,050,888 (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 next year's bills.

If any generators question MDE's assessments, this value 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 geological scientists, engineers, inspectors, and an Assistant Attorney General to focus on the management of coal combustion byproducts in Maryland. The following is a description of the activities of the Department in 2011/2012 that were supported by the Fund.

- Review of plans and construction of liners in CCB landfills. Constellation Energy started construction of a 28-acre landfill cell of the existing Millennium Chemical industrial waste landfill near the Key Bridge in southeast Baltimore City dedicated to the disposal of CCBs from the Constellation coal fired plants in the Baltimore Area. The Department conducted quality assurance/construction quality control inspections and approved liner installation in the cell. In addition, the Department reviewed plans from Constellation for a proposed lateral expansion of the landfill cell and a change of permittee from Millennium Inorganic Chemicals to Fort Armistead Road – Lot 15 Landfill, LLC.
- Review of closure plans for CCB landfill. The Department reviewed plans for the construction of a low permeable cap on the closed Faulkner fly ash disposal site in Charles County.
- Review of groundwater data from CCB landfills. Geologists are needed throughout the Department to evaluate groundwater monitoring data from potential pollution sources, in order to discriminate between chemical pollution and naturally occurring concentrations. The CCB staff review 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 is also provided in support of Departmental enforcement actions.
- Compliance Activities. Inspections of CCB facilities are performed by inspectors throughout the Department, and include inspections at the generating facilities, disposal sites, mine reclamation sites, and sites where CCBs are being beneficially used. During FY2012, Departmental counsel and scientific and enforcement staff participated in the ongoing litigation against GenOn over the Faulkner fly ash disposal site in Charles County, and the Brandywine fly ash disposal site in Prince George's County.

## 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 accepted and desirable ways of utilizing these materials, instead of disposing of them.

The impact of federal regulations governing CCBs that were proposed two 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 has proposed two possible options for public comment regarding the management of coal ash. Both options 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 out 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 proposals. The major difference is that under the RCRA 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 D proposal, the primary enforcement authority would lie with the States instead of with EPA, although citizen and environmental groups would also be able to sue to enforce the rule.

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>.

That Maryland may have to alter its existing regulations at least to some extent is a certainty, but due to the large volume of comments being developed nationally – reportedly over 400,000 separate comments were received by EPA, it is impossible to know when they might take effect. Legislation that is pending in Congress would force EPA to adopt the non-hazardous RCRA D proposal, with some amendments.

**TABLE I: CCB INVOICES CALENDAR YEAR 2011**

Vendor	For Generator:	Amount Owed
GenOn MidAtlantic 8301 Professional Place Suite 230 Landover MD 20785	GenOn MidAtlantic – Morgantown	<b>\$422,514.47</b>
GenOn MidAtlantic 8301 Professional Place Suite 230 Landover MD 20785	GenOn MidAtlantic – Dickerson	<b>\$140,116.35</b>
GenOn MidAtlantic 8301 Professional Place Suite 230 Landover MD 20785	GenOn Chalk Point, LLC	<b>\$346,961.12</b>
Constellation 1005 Brandon Shores Road Baltimore MD 21226	Constellation – Brandon Shores	<b>\$58,556.72</b>
Constellation 1005 Brandon Shores Road Baltimore MD 21226	Constellation – H. A. Wagner	<b>\$49,072.48</b>
Constellation 1005 Brandon Shores Road Baltimore MD 21226	Constellation – C.P. Crane	<b>\$33,666.64</b>
<b>Total</b>		<b>\$ 1,050,887.78</b>

**TABLE II: FINANCIAL STATEMENT**

**STATE COAL COMBUSTION BY-PRODUCTS  
MANAGEMENT FUND  
Financial Statement  
July 1, 2011 to June 30, 2012**

Beginning Fund Balance \$ 0.00

Revenue \$ 906,637.95

FY2012 Expenditures	
Salaries	\$ 760,093.24
Communications	\$ 970.98
Travel	\$ 5,814.40
Contractual Services	\$ 1,736.85
Supplies	\$ 12,682.65
Equipment (Computers)	\$ 26,022.88
Other	\$ 183.00
Total Expenditures	\$ 807,504.00

Indirect Costs \$ 96,496.73

Balance in Fund 6/30/2012 \$ 2,637.22