MARYLAND DEPARTMENT OF THE ENVIRONMENT
Land Management Administration • Solid Waste Program
1800 Washington Boulevard • Suite 605 • Baltimore Maryland 21230-1719
410-537-3315 • 800-633-6101 x3315 • www.mde.maryland.gov

Coal Combustion Byproducts (CCBs)
Annual Generator Tonnage Report
Instructions for Calendar Year 2014

The following is general information relating to the requirement for reporting quantities of coal combustion byproducts (CCBs) that were managed in the State of Maryland during calendar year 2014. Please answer the questions on the form provided, attaching additional information and any requested supplemental information to the back of the form. *Note that the form for this year requires both volume and weight of the CCBs produced. If you know one of these parameters but not the others, for example, you have the tonnage produced but not the volume, you may calculate the other parameter; however, please provide the calculations and assumptions that you used in your estimate.* Questions can be directed to the Solid Waste Program at (410) 537-3315 or via email at ed.dexter@maryland.gov.

I. Background. This requirement that generators of CCBs submit an annual report was instituted in the Code of Maryland Regulations COMAR 26.04.10.08, that was promulgated effective December 1, 2008. The regulation requires that any non-residential generator of CCBs submit a report to the Department by March 1 of each year describing the manner in which CCBs generated within the State were managed during the preceding calendar year. Additional information and specific instructions follow. For more detailed information, please refer to COMAR 26.04.10.08.

II. General Information and Applicability.

A. Definitions. CCBs are defined in COMAR 26.04.10.02B as:

> *"(3) Coal Combustion Byproducts. (a) "Coal combustion byproducts" means the residue generated by or resulting from the burning of coal.*
> *(b) "Coal combustion byproducts" includes fly ash, bottom ash, boiler slag, pozzolan, and other solid residuals removed by air pollution control devices from the flue gas and combustion chambers of coal burning furnaces and boilers, including flue gas desulfurization sludge and other solid residuals recovered from flue gas by wet or dry methods."*

A generator of CCBs is defined in COMAR 26.04.10.02B as:

> *"(9) Generator.*
> *(a) "Generator" means a person whose operations, activities, processes, or actions create coal combustion byproducts.*
> *(b) "Generator" does not include a person who only generates coal combustion byproducts by burning coal at a private residence."*

Facility Name: Lehigh Cement Co. **CCB Tonnage Report – 2014**

B. Applicability. **If you or your company meets the definition of a generator of CCBs as defined above, you must provide the information as required below.** For the purposes of this report, "you" shall hereinafter refer to the generator defined above. Please note that COMAR 26.04.10.08 requires generators of CCBs to submit an annual report to the Department concerning the disposition of the CCBs that they generated the previous year. **THIS INCLUDES CCBS THAT WERE NOT SEPARATELY COLLECTED BUT WERE PRODUCED BY THE BURNING OF COAL AND WERE DIRECTLY CONTRIBUTED TO A PRODUCT, such as cement.** Where the amount cannot be directly measured, estimates based on the amount of coal burned can be used. The method of determining the volume of CCBs produced must be described.

III. Required Information. The following information must be provided to the Department by March 1, 2015:

A. Contact information:

Facility Name: Lehigh Cement Co.

Name of Permit Holder: No permit required

Facility Address: 675 Quaker Hill Road
Street

Facility Address: Union Bridge MD 21791
City State Zip

County: Carroll

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 410-386-1229 Facility Fax No.: 410-386-1296

Contact Name: Kurt W. Deery, REM, CSEM

Contact Title: Environmental Engineer

Contact Address: Same
Street

Contact Address: Same
City State Zip

Contact Email: Kdeery@lehighcement.com

Contact Telephone No.: 410-386-1229 Contact Fax No.: same

For questions on how to complete this form, please contact the Solid Waste Program at 410-537-3315

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B. A description of the process that generates the CCBs, including the type of coal or other raw material that generates the CCBs. If the space provided is insufficient, please attach additional pages:

Lehigh generates coal ash by burning coal in the cement kiln burner. All coal ash is incorporated into the clinker produced inseide the cement kiln. The coal ash during the clinker production is converted to calcium silicates.

Lehigh does not dispose of or store coal ash generated by burning coal within the cement kiln process

C. The volume and weight of CCBs generated during calendar year 2014, including an identification of the different types of CCBs generated and the volume of each type generated. If the space provided is insufficient, please attach additional pages in a similar format. If converting from volume to weight or weight to volume, please provide your calculations and assumptions.

Table I: Volume and Weight of CCBs Generated for Calendar Year 2014: Please note the change to this table from previous years, to include both the volume and weight of the types of CCBs your facility produces.

Volume and Weight of CCBs Generated for Calendar Year 2014			
Coal ash			
Type of CCB	Type of CCB	Type of CCB	Type of CCB
NA, no density measure			
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
75,065			
Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons

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Additional notes:

In year 2014, 258,843.4 dry tons of coal were burned at Lehigh Union Bridge site. The ash content was 29%.

D. Descriptions of any modeling or risk assessments, or both, conducted relating to the CCBs or their use that were performed by you or your company during the reporting year. Please attach this information to the report.

E. Copies of all laboratory reports of all chemical characterizations of the CCBs. Please attach this information to the report.

F. A description of how you disposed of or used your CCBs in calendar year 2014, identifying:

(a) The types and volume of CCBs disposed of or used (if different than described in Paragraph C above) including any CCBs stored during the previous calendar year, the location of disposal, mine reclamation and use sites, and the type and volume of CCBs disposed of or used at each site:

Lehigh beneficially uses, fly ash, bottom ash and gypsum. See attached.

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and (b) The different uses by type and volume of CCBs:

see attached

If the space provided is insufficient, please attach additional pages in a similar format.

G. A description of how you intend to dispose of or use CCBs in the next 5 years, identifying:

(a) The types and volume of CCBs intended to be disposed of or used, the location of intended disposal, mine reclamation and use sites, and the type and volume of CCBs intended to be disposed of or used at each site:

NA

and (b) The different intended uses by type and volume of CCBs.

Lehigh beneficially utilizes fly ash and bottom ash due to their alumina content

Lehigh beneficially utilizes gypsum in the clinker grinding into cement due to the calcium sulfate content of gypsum.

If the space provided is insufficient, please attach additional pages in a similar format.

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IV. Signature and Certification. An authorized official of the generator must sign the annual report, and certify as to the accuracy and completeness of the information contained in the annual report:

This is to certify that, to the best of my knowledge, the information contained in this report and any attached documents are true, accurate, and complete.		
Signature	410-386-1229 Kurt W. Deery, REM CSEM, Environmental Engineer Name, Title, & Telephone No. (Print or Type) Kdeery@lehighcement.com Your Email Address	5/4/2016 Date

V: Attachments (please list):

List of CCB's used at Lehigh Cement Company, Union Bridge.

Attachment 1

Table 1: Fly Ash Totals

Fly Ash Suppplier	Supplier Location	Total Short Tons Delivered to Lehigh	Cubic Feet of Material*	Yards of Material
Raven Power	Baltimore, MD	39,620.00	1,760,889	65,218
PSE&G	Jersey City, NJ	1,789.00	79,511	2,945
PSE&G	Mercer, NJ	7,426.00	330,044	12,224
PSE&G	Bridgeprot	2,869.00	127,511	4,723
PPL	York Haven, PA	30,976.00	1,376,711	50,989
PPL	Washingtonville, PA	5,666.00	251,822	9,327
Chalk Point	Baltimore, MD			
	Total	**88,346.00**	**3,926,489**	**145,425.51**

***Note: Fly ash = 45 lbs/cu. Ft as measured by Lehigh Lab**

Table 2: Bottom Ash Totals

Bottom Ash Suppplier	Supplier Location	Total Short Tons Delivered to Lehigh	Cubic Feet of Material*	Yards of Material
Raven Power	Baltimore, MD	6,407.00	183,057	6,780
PH Gladfelter	Springrove, PA	14,170.00	404,857	14,995
First Energy	R Paul Smith, Hagerstown, MD	220,950.00	6,312,857	233,810
RFI	Ox Paper, WV	1,251.00	35,743	1,324
RFI	Rocket	538.00	15,371	569
PPL	York Haven, Pa	36,870.00	1,053,429	39,016
	Total	**280,186.00**	**8,005,314**	**296,493.12**

***Note: Bottom Ash = 70 lbs/cu. Ft as measured by lehigh Lab**

Table 3: Synthetic Gypsum

Gypsum Suppplier	Supplier Location	Total Short Tons Delivered to Lehigh	Cubic Feet of Material*	Yards of Material
MERG	West Virginia	7,262.00	290,480	10,759
Keystone & Conemaugh	Johnstown, PA	12,933.00	517,320	19,160
Raven Power	Baltimore, MD	14,001.00	560,040	20,742
USG	Dupont Plant in Richmond, VA	987.00	39,480	1,462
International Materials (IMI), Baltimore	Import from Spain	694.00	27,760	1,028
PPL	York Haven, PA	93,531.00	3,741,240	138,564
	Total	**129,408.00**	**5,176,320**	**191,715.56**

***Note: Synthetic Gypsum = 50 lbs/cu. Ft as measured by Lehigh Lab**

Attachment 1

Total short tons of CCBs used Year 2014 = 497,940.00

Total Yards of CCBs used Year 2014 = 633,634.2

Calculations

(Tons * 2000 lb/ton / lbs/cu ft) = cubic feet of material

Cubic Feet of material * (1 yard/ 3ft)^3 = yards of material