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AES Warrior Run, Inc.  
11600 Mexico Farms Road, SE  
Cumberland, MD 21502  
301-777-0055

February 17, 2012

Re: CCB Report

Mr. Edward M. Dexter, Administrator  
Solid Waste Program  
Maryland Department of the Environment  
1800 Washington Blvd.  
Baltimore, MD 21230-1719

**RECEIVED**

FEB 28 2012

SOLID WASTE  
OPERATIONS DIVISION

Mr. Dexter,

Please find the enclosed CCB report for AES Warrior Run, LLC. We have completed the report as required and included applicable attachments.

If there are any questions about this report please do not hesitate to contact us.

Regards,

A handwritten signature in black ink, appearing to read "Jeff Leaf".

Jeff Leaf  
Environmental Manager  
AES Warrior Run

**Coal Combustion Byproducts (CCB)  
Annual Generator Tonnage Report  
Instructions for Calendar Year 2011**

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OPERATIONS DIVISION

The following is general information relating to the requirement for reporting quantities of coal combustion byproducts that were managed in the State of Maryland during calendar year 2011. Please answer the questions on the form provided, attaching additional information and any requested supplemental information to the back of the form. *Note that there were some changes to the form for this year, requiring 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 [edexter@mde.state.md.us](mailto:edexter@mde.state.md.us).

**I. Background.** This requirement that generators of coal combustion byproducts (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.** Coal combustion byproducts 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."*

**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 SEPERATELY 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, 2012:

A. Contact information:

Facility Name: AES Warrior Run

Name of Permit Holder: AES Warrior Run LLC

Facility Address: 11600 Mexico Farms RD SE  
Street

Facility Address: Cumberland Maryland 21502  
City State Zip

County: Allegany

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 301-777-0055 Facility Fax No.: 301-777-8772

Contact Name: Jeff Leaf

Contact Title: Environmental Manager

Contact Address: 11600 Mexico Farms RD SE  
Street

Contact Address: Cumberland Maryland 21502  
City State Zip

Contact Email: jeff.leaf@aes.com

Contact Telephone No.: 301-777-0055 ext.1167 Contact Fax No.: 301-777-8772

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

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

\_\_\_\_\_ AES Warrior Run (AES) is an electric co-generation facility located at 11600 Mexico Farms Road, S.E in Cumberland in Allegany County in Maryland. The Facility operates a 180-megawatt coal-fired steam electric cogeneration plant and a 150-ton per day food grade carbon dioxide production plant. The facility consists of an ABB CE coal-fired atmospheric fluidized bed combustion boiler (AFBC) burning bituminous coal and Number 2 fuel oil as a start up fuel.

Selective non-catalytic reduction (SNCR) system provides supplemental control of nitrogen oxides (NO<sub>x</sub>) to the AFBC boiler design. Sulfur dioxide (SO<sub>2</sub>) emissions are controlled by the introduction of limestone into the fluidized bed of the boiler. A bag house controls particulate emissions in the boiler flue gas.

Bed ash is removed at the bottom of the boiler and is loaded into a silo for eventual removal. Fly ash is removed at the bottom of the baghouse, air heater, and boiler backpass sections and is kept segregated from the bed ash in a separate silo. Both flyash and bed ash are mixed with small amounts of service water (to control dusting) and loaded into trucks for disposal off-site.

AES commenced commercial operation on February 10, 2000, and produces electricity for distribution by the Potomac Electric Power Company. The applicable SIC Code for the facility is 4911 - Electric Services

C. The volume and weight of coal combustion byproducts generated during calendar year 2011, including an identification of the different types of coal combustion byproducts 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 2011:** 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.

<b>Volume and Weight of CCBs Generated for Calendar Year 2011</b>			
<b>Fly Ash</b>	<b>Bed Ash</b>	<b>Slag Ash</b>	
Type of CCB	Type of CCB	Type of CCB	Type of CCB
<b>453,207.71</b>	<b>175,222.77</b>	<b>11,526.80</b>	
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
<b>256,141.04</b>	<b>113,473.68</b>	<b>6,903.24</b>	
Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons

Additional notes:

Slag ash consists of fly ash and bed ash as a mixture. We use the term slag ash to differentiate from the discrete fly ash and bed ash in our system.

Volumes were determined with the actual calculated densities of: Fly Ash = 0.57 tons/cu yd, Bed Ash = 0.65 tons/cu yd, Slag Ash = 0.60 tons/cu yd

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

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

(ATTACHED)

F. A description of how you disposed of or used your coal combustion byproducts in calendar year 2011, identifying:

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

<u>2011 Tons</u>	<u>Fly Ash</u>	<u>Bed Ash</u>	<u>Slag Ash</u>	<u>Use</u>
Carlos Coal	112,016.28	43,961.95	20.84	Mine Reclamation
Jackson Mountain Coal	144,124.76	69,511.73	6882.40	Mine Reclamation

(b) The different uses by type and volume of coal combustion byproducts:

<u>2011 Cubic Yards</u>	<u>Fly Ash</u>	<u>Bed Ash</u>	<u>Slag Ash</u>	<u>Use</u>
Carlos Coal	198,198.00	67,884.77	34.80	Mine Reclamation
Jackson Mountain Coal	255,009.71	107,338.00	11,492.00	Mine Reclamation

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 coal combustion byproducts in the next 5 years, identifying:

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

SAME AS PREVIOUS YEARS \_\_\_\_\_  
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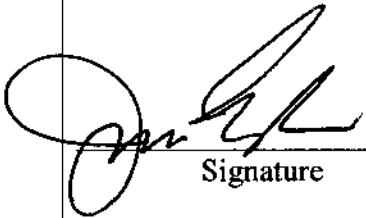
and (b) The different intended uses by type and volume of coal combustion byproducts.

SAME AS PREVIOUS YEARS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

**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	Jim Erdman Team Leader, Vice President <hr/> Name, Title, & Telephone No. (Print or Type)  <u>Jim.erdman@aes.com</u> Your Email Address	2/17/2012 <hr/> Date
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**V: Attachments (please list):**

1. Overburden Analysis Report 12/16/2011
2. Bed Ash and Fly Ash TCLP Analysis 12/28/2011





**MDE**

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**

1800 Washington Boulevard • Baltimore MD 21230

410-537-3000 • 1-800-633-6101

Martin O'Malley  
Governor

Robert M. Summers, Ph.D.  
Secretary

Anthony G. Brown  
Lieutenant Governor

**2011 CCB Annual Generator Report Notes:**

Additional lab test results were submitted to the Department along with this generator report. Inquiries regarding these additional materials should be addressed to:

Ms. Martha Hynson  
Chief, Solid Waste Operations Division  
Land Management Administration  
(410) 537-3315  
[mhynson@mde.state.md.us](mailto:mhynson@mde.state.md.us)