DEPARTMENT OF THE NAVY
NAVAL SUPPORT ACTIVITY SOUTH POTOMAC
6509 SAMPSON ROAD, SUITE 217
DAHLGREN, VIRGINIA 22448-5108

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IN REPLY REFER TO

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Ser PRSI41FH/23

FEB 25 2014

CCB Reports
c/o Mr. Edward M. Dexter, Administrator
Solid Waste Program, Suite 605
Maryland Department of the Environment
1800 Washington Blvd
Baltimore, MD 21230-1719

SOLID WASTE
MAR 05 2014
PROGRAM

Dear Mr. Dexter:

Naval Support Facility Indian Head (NSFIH) is submitting the attached Coal Combustion Byproducts (CCB) Annual Generator Tonnage Report for Calendar Year 2013 (Enclosure 1). Also, included you will find Laboratory Analysis Results (Enclosure 2) and a Calculations Sheet (Enclosure 3).

Please mail all correspondence to:

ATTN: Director Environmental Division
Department of Navy
NAVFAC Washington, PWD South Potomac
3972 Ward Road, Suite 101
Indian Head, MD 20640-5157

If you have any questions or comments concerning this letter, please contact Mr. Dave Hoffman on (301) 744-1616.

Sincerely,

JEFFREY C. BOSSART
By direction

Enclosure: (1) CCB Tonnage Report - 2013
(2) Laboratory Analysis Results
(3) Calculations Sheet

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 2013

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 2013. 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."*

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, 2014:

A. Contact information:

Facility Name: Naval Support Facility Indian Head

Name of Permit Holder: Naval Support Activity South Potomac

Facility Address: 3972 Ward Road, Suite 101
Street

Facility Address: Indian Head Maryland 20640
City State Zip

County: Charles

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 301-744-4705 Facility Fax No.: 301-744-4180

Contact Name: Jeff Bossart

Contact Title: Installation Environmental Program Manager

Contact Address: 3972 Ward Road, Suite 101
Street

Contact Address: Indian Head Maryland 20640
City State Zip

Contact Email: Jeffrey.bossart@navy.mil

Contact Telephone No.: 301-744-4705 Contact Fax No.: 301-744-4180

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

Coal is utilized as a fuel source for operation of 3 boiler systems at the Goddard Steam Plant. Fly ash is generated as a combustion byproduct. Coal type is bituminous, modified stocker coal, 2" x ¼" with certified analysis as follows: 5.66% moisture, 39.02% volatile matter (dry basis), 7.99% dry ash, 1.32% sulfur (dry basis) and 13,570 BTU (dry basis).

C. The volume and weight of CCBs generated during calendar year 2013, 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 2013: 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 2013			
Bituminous Type of CCB	Type of CCB	Type of CCB	Type of CCB
87,942 Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
1701 Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons

Additional notes: NA

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 2013, 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:

All (100%) of CCB has been hauled and disposed at King George Landfill in King George County, VA. All CCB is from Goddard Steam Plant and consists of ash from coal combustion.

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

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:

Over the next five years, Naval Support Facility Indian Head intends to dispose of all (100%) of CCB at King George Landfill in King George County, VA. All CCB will be from Goddard Steam Plant and consists of ash from bituminous coal combustion.

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

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	Jeffrey Bossart, Installation Environmental Program Manager, (301) 744-4705 Name, Title, & Telephone No. (Print or Type) Jeffrey.bossart@navy.mil Your Email Address	2/25/14 Date

V: Attachments (please list):

1. Laboratory analysis results for fly ash
2. Calculations sheet

ENVIRO-CHEM LABORATORIES, INC.

47 Loveton Circle, Suite K • Sparks, Maryland 21152 410-472-1112

FINAL REPORT OF ANALYSES

International Chemstar Inc.
6931 Golden Ring Road
Baltimore, MD 21237

PROJECT NAME: ICI-13-0199
REPORT DATE: 14-Feb-13
REPORT NUMBER: 4478

LAB#- ECL027842-001 SAMPLE ID- NSWC Fly Ash
LOCATION-
DATE SAMPLED- 1/29/2013 TIME SAMPLED- SAMPLER- S Carrier
DATE RECEIVED- 2/1/2013 TIME RECEIVED- 12:14
DELIVERED BY- UPS RECEIVED BY- VPS

ANALYSIS	METHOD	ANALYSIS DATE/TIME	BY	RESULT		DETECTION LIMIT
Ignitability	EPA 1030	2/5/2013 09:35	AAA	NonFlamm		
pH	EPA 9045D	2/14/2013 14:00	JRB	4.2	std units	0.1
TCLP Extraction	EPA 1311	2/3/2013 16:00	SES			
Arsenic	EPA 6010C	2/4/2013 14:09	CHK	< 0.030	mg/L	0.030
Barium	EPA 6010C	2/4/2013 14:09	CHK	0.191	mg/L	0.020
Cadmium	EPA 6010C	2/4/2013 14:09	CHK	0.005	mg/L	0.005
Chromium	EPA 6010C	2/4/2013 14:09	CHK	< 0.010	mg/L	0.010
Lead	EPA 6010C	2/4/2013 14:09	CHK	< 0.050	mg/L	0.050
Mercury	EPA 7470	2/5/2013 12:45	CHK	< 0.001	mg/L	0.001
Selenium	EPA 6010C	2/4/2013 16:07	CHK	< 0.050	mg/L	0.050
Silver	EPA 6010C	2/4/2013 14:09	CHK	< 0.010	mg/L	0.010

Gordon E. Kelly
LABORATORY DIRECTOR

ENCLOSURE (2)

Mineral Labs, Inc.

Box 549
Salyersville, Kentucky 41465
Phone (606) 349-6145

Certificate of Analysis

Company
RIVER TRADING COMPANY
559 LIBERTY HILL
CINCINNATI, OHIO 45202-6848

Lab No. 13074941 2655
Date Recd. 12/19/2013
Date Analyzed 12/19/2013

SAMPLE IDENTIFICATION AS SUPPLIED BY SAMPLER SAMPLED BY *LAB SAMPLED TYPE:AUTOMATIC

DOCKS CREEK CTC-0603
NAVFAC WASHINGTON INDIAN HEAD, MD
CONTRACT # SPE600-13-D-0651 LINE ITEM # 0001
VARIOUS MINES 2" X 1/4" PRODUCT
MERCURY = 0.10 PPM DRY CHLORINE = 1317 PPM DRY
*OBSERVED AUTOMATIC SAMPLER

)	% Moisture D3302	% Ash D3174	% Volatile D3175	% Fixed Carbon (Calculated)	% BTU D5865	% Sulfur D4239
As Recd	5.66	7.54	36.81	49.99	12,802	1.25
Dry Basis		7.99	39.02	52.99	13,570	1.32
M.A.F.B.T.U (Calculated)					14,749	

Free Swelling Index No. D720-91	XXX
Grindability Index No. D409	45

-FUSION TEMPERATURE OF- D1857-04

	Reducing	Oxidizing
Initial	2580 °F	XXX °F
Softening	2640 °F	XXX °F
Hemispherical	2700+°F	XXX °F
Fluid	2700+°F	XXX °F

D 4749-87

SCREEN/WET SIEVE ANALYSIS

SIZE 1	% WT. RETAINED
+ 2	3.15 %
2 X 1/4	90.69 %
1/4 X 0	6.16 %
	100.00%

WEIGHT DETERMINATION

Average Light Draft	1'5.80"	
Average Loaded Draft	9'8.60"	
Weight of Coal Loaded	1659.27	Tons

DRAFT READINGS TAKEN AND
CALCULATED BY LAB PERSONNEL

9124959

Submitted By

Paul Lyon

NSF Indian Head - Additional Information for 2013 CCB Report		
Reporting Year	CCB Type: Fly Ash from Coal Combustion	
	Tons	**Cu.Ft. ***
2013	1701	**87,091**
2012	3959	**202,701**
2011	4729	**242,125**
2010	3320	**169,984**
2009	4672	**239,206**
2008	5585	**285,952**
Data provided by contracted hauler utilized during reporting period		
*Cubic Feet determined from average vehicle tonnages, dimensions, and % capacity		
Average Load Weight	22 Tons/Load	
Average Capacity of Ash	80%	
Average Trailer Volume	1408 Cubic Feet	
Average Fly Ash Volume	1408 Cubic Feet * 80% Ash =	1126 cubic feet Ash/load
Average Volume/Ton	1126 cubic feet/load * 1 load/22 tons =	**51.2 cubic feet/ton**
Cu. Ft Calculation is then:	Tons/year * 51.2 cubic feet/ton =	**See Above Table**
Calculated Cu. Ft/ton is within 25% of average density of fly ash of 2.3 g/cm^3, reported in the following reference:		
Chandra, Satish. "Waste Materials used in Concrete Manufacturing", 1997.		
Avg. Density of Fly Ash per source:	2.3 g/cm^3	
Avg. Density in cu. Ft/ton:		
$2.3\,g/cm^3 * \frac{(100\,cm)^3}{m^3} * \frac{m^3}{(3.28\,ft)^3} * \frac{kg}{1000\,g} * \frac{lb}{2.2\,Kg} = (\frac{29.6\,lb}{ft^3} * \frac{Ton}{2000\,lb})$		
$(\frac{29.6\,lb}{ft^3} * \frac{Ton}{2000\,lb})^{-1} = \frac{67.6\,ft^3}{ton}$		
Within 25% of calculated density at Goddard Power Plant		
Cubic Feet to Cubic Yard Conversion		
1 cubic yard = 27 cubic feet	87091 / 27 = 3226 cubic yards	

ENCLOSURE (3)