

Constellation Energy
Nuclear Generation Group

November 3, 2009

Maryland Department of the Environment
Waste Management Administration – Solid Waste Program
1800 Washington Boulevard, Suite 605
Baltimore, MD 21230

ATTENTION: Allison P. Marong

SUBJECT: Calvert Cliffs Nuclear Power Plant
Sewage Sludge Utilization Permit Application – MD State Line to be Utilized at
Permitted Sites in Tennessee

REFERENCES: (a) Sewage Sludge Utilization Permit, No. S-05-30-4718-T
(b) COMAR 26.04.06.09E(7)

Effective October 30, 2009, Calvert Cliffs Nuclear Power Plant, Inc. (CCNPP, Inc.) changed its name to Calvert Cliffs Nuclear Power Plant, LLC, a Maryland limited liability company (CCNPP, LLC), through a direct transfer of the Nuclear Regulatory Commission issued licenses. Calvert Cliffs Nuclear Power Plant, Inc. was authorized to transport sewage sludge generated by operation of the Calvert Cliffs Nuclear Power Plant (the Plant) to the MD State Line to be utilized at permitted sites in Tennessee through Sewage Sludge Utilization Permit S-05-30-4718-T (Reference a). Enclosure (1) provides an application for a new permit and the required information for transport of sewage sludge by CCNPP, LLC in accordance with the requirements of Reference (b). Enclosure (2) provides documentation of the required performance bond, Enclosure (3) provides documentation of the required permit fee, and Enclosure (4) provides laboratory analysis results. The requisite five additional copies are also enclosed.

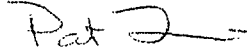
This change of name is administrative only and will have no impact upon the continued disposition of sewage sludge in full compliance with the conditions of Reference (a). Pursuant to the change of name, all of the assets of CCNPP, Inc. will be transferred to CCNPP, LLC, and all of the liabilities of CCNPP, Inc., including its obligation to operate in full compliance with Reference (a), will be assumed by CCNPP, LLC, all without the need for any further act or deed. The change of name will not cause any physical change in the facilities at the Plant, in the operational management of the Plant, or in the generation or disposal of the sewage sludge that is governed by the Reference (a). Therefore, the person authorized under Reference (a) is the same person in all material respects after the change of name as before. Based on recent conversations between Julea Hovey (Constellation) and Hussain Alhija and Allison Marong (both of MDE), it is our understanding that under the circumstances outlined above, we can continue to transport sewage sludge under the provisions of Reference (a) pending the issuance of a new permit to CCNPP, LLC by the Maryland Department of the Environment. Please notify us immediately if this assumption is not correct.

COOL
NR

Allison P. Marong
November 3, 2009
Page 2

Should you have questions regarding this matter, please contact Mr. Douglas E. Lauver at (410) 495-5219 or Ms. Brenda D. Nuse at (410) 495-4913.

Very truly yours,



for
Douglas E. Lauver
Director – Licensing

DEL/CAN/bjd

Enclosures: (1) Sewage Sludge Utilization Permit Application -- MD State Line to be Utilized at Permitted Sites in Tennessee
(2) Performance Bond Documentation
(3) Copy of Permit Fee Check
(4) Laboratory Analysis Results

cc: Document Control Desk, NRC

ENCLOSURE (1)

**Sewage Sludge Utilization Permit Application -- MD State Line to be Utilized
at Permitted Sites in Tennessee**

**Calvert Cliffs Nuclear Power Plant, LLC
November 3, 2009**

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land Management Administration • Solid Waste Program

P.O. Box 1417 • Baltimore, Maryland 21230-1417

410-537-3375 • 800-633-6101 x3375 • <http://www.mde.state.md.us>

Sewage Sludge Utilization Permit Application

Authority: Title 9, Environment Article, Annotated Code of Maryland, and Code of Maryland Regulations (COMAR) 26.04.06

Application for: ☒ New Permit ☐ Renewal Permit ☐ Permit Modification

Existing Permit No.: S-05-30-4718-T Issued Date: 08 / 31 / 2005 Expiration Date: 08 / 30 / 2010

Applicant's Legal Name: Calvert Cliffs Nuclear Power Plant, LLC

Applicant's Status: ☐ Individual ☒ Corporation ☐ Government ☐ Other:

Corporation or Government Federal Tax Identification No.: 80-0493288

Maryland State Department of Assessments and Taxation (SDAT) ID No.: W13270350

Please note that a business/entity must be registered to do business in Maryland before a permit can be issued. The business or entity's information provided in this application must match the information in the SDAT register.

Proof of workers' compensation coverage is required under § 1-202 of the Environment Article. Please provide one of the following:

(1) A copy of a Certificate of Compliance issued by the Maryland Workers' Compensation Commission; or

(2) Workers' Compensation Insurance Policy/Binder Number: C0208A1A09

Applicant's Mailing Address: 1650 Calvert Cliffs Parkway City: Lusby State: MD Zip Code: 20657

Applicant's Telephone No.: (410) 495 - 5205 Facsimile No.: (410) 495 - 5444

Emergency Contact Name & Title: Control Room Operator Telephone No.: (410) 495 - 5203

Facility/Site Name: MD State Line to be Utilized at Permitted Site in Tennessee

(Where Sewage Sludge Will Be Utilized)

Facility/Site Address: N/A City: _____ State: _____ Zip Code: _____

County: _____ Maryland Grid Coordinates: _____ / _____

County Zoning Map No.: _____ Lot/Parcel No.: _____ Deed/Liber/Folio No.: _____

State Legislative District: _____ Local Council / Election District: _____

Bay Tributary Watershed Code: _____ Latitude/Longitude (Deg/Min/Sec): _____ - _____ - _____ / _____ - _____ - _____

Site Acreage: _____ Facility Acreage (If Applicable): _____

Wastewater Treatment Plant (WWTP) Information (Source of Sewage Sludge)

(If additional space is required, please use a separate sheet)

Name Of WWTP: Calvert Cliffs Nuclear Power Plant Wastewater Treatment Plant

Total % Solids of Sewage Sludge: 0.39 %

Sewage Sludge Type:

☐ Anaerobic Digestion ☒ Aerobic Digestion ☐ Lime Stabilized ☐ Unstabilized ☐ Other: _____

Description of Project or Reason for Permit Modification:

Permittee/applicant changing from Calvert Cliffs Nuclear Power Plant, Inc., to Calvert Cliffs Nuclear Power Plant, LLC

Performance Bond or Other Financial Security:

Except for a municipal landfill operating under a separate financial security or a government agency, an applicant for a Sewage Sludge Utilization Permit is required to file with the Department a bond on a form prescribed by the Department or other financial security as approved by the Department. The bond or other financial security shall be payable to the Department and the obligation of the bond or other financial security shall be conditioned upon the fulfillment of any requirement related to the Sewage Sludge

Sludge Utilization Permit is required to file with the Department a bond on a form prescribed by the Department or other financial security as approved by the Department. The bond or other financial security shall be payable to the Department and the obligation of the bond or other financial security shall be conditioned upon the fulfillment of any requirement related to the Sewage Sludge Utilization Permit.

Required Number of Permit Application Packages:

Please submit six (6) copies of the complete permit application package for an application for a new permit or a major modification to an existing permit. For the renewal of an existing permit or a minor permit modification, please submit four (4) copies of the complete permit application package. Please be advised that the Department defines a complete application package as being this application form filled out with an original signature, payment in full of all required fees, and the submittal of the required number of copies of the information specified in COMAR 26.04.06 for the type of permit applied for.

SEWAGE SLUDGE UTILIZATION PERMITS & FEES

(Please submit a separate application for each type of permit applied for)

<input type="checkbox"/>	Application to agricultural land	\$175.00
<input type="checkbox"/>	Application to marginal land	\$350.00
<input type="checkbox"/>	Research projects	\$25.00
<input type="checkbox"/>	Innovative projects	\$750.00
<input type="checkbox"/>	Utilization at a municipal landfill (for closure cap)	\$125.00
<input type="checkbox"/>	Disposal at a municipal landfill (mix with solid waste or as cover material)	\$350.00
<input checked="" type="checkbox"/>	Transportation (out-of-State or to another WWTP)	\$45.00
<input type="checkbox"/>	Burning (to construct and operate an incinerator)*	\$750.00
<input type="checkbox"/>	Storage (to construct and operate a structure for permanent storage)**	\$350.00
<input type="checkbox"/>	Sewage sludge landfills (to construct and operate)	\$350.00
<input type="checkbox"/>	Treatment (to construct and operate a PSRP or PFRP facility)***	\$350.00
<input type="checkbox"/>	Handling (distribution of PFRP material or other types of distribution methods)	\$750.00

Notes: * May require an Air Quality Permit.
 ** Subject to the requirements of §1-601 and §10-202 of the Environment Article.
 *** Subject to the requirements of §10-202 of the Environment Article.

- ☐ Minor Permit Modification: \$40.00
- ☐ Crop change
 - ☐ Adjust application rates for different crops
 - ☐ Adjust application rates based on current sewage sludge analyses
 - ☐ Add other sewage sludge from the same source (treated by PSRP or PFRP)
 - ☐ Change haul route
 - ☐ Change application method
 - ☐ Change transportation vehicles
 - ☐ Adjust application rates
- ☐ Major Permit Modification (other than a minor modification) \$130.00

+ IMPORTANT + IMPORTANT + IMPORTANT +

Please submit a COPY of this form and a check for the total amount due made payable to the "SEWAGE SLUDGE UTILIZATION FUND" to:

Maryland Department of the Environment
 P.O. Box 1417
 Baltimore, Maryland 21230-1417

&

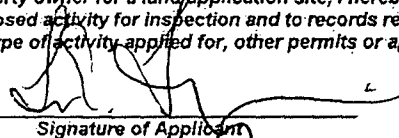
Please submit the ORIGINAL application to:

Maryland Department of the Environment
 1800 Washington Boulevard, Suite 605
 Baltimore, Maryland 21230-1719

For office use only

For office use only

By signing this form, I the applicant or duly authorized representative, do solemnly affirm under the penalties of perjury that the contents of this application are true to the best of my knowledge, information, and belief. Except for a separate authorization by the property owner for a land application site, I hereby authorize the representatives of the Department to have access to the site of the proposed activity for inspection and to records relating to this application at any reasonable time. I acknowledge that depending on the type of activity applied for, other permits or approvals may be required.



Signature of Applicant

Thomas E. Trepanier
 Applicant's Name (Print)

3 Nov 2009
 Date

Plant General Manager
 Title

Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. §552a. Disclosure of your Social Security Number or Federal Employer Identification Number on this application is mandatory pursuant to the provisions of §1-203 (2003), Environment Article, Annotated Code of Maryland, which requires the Maryland Department of the Environment to verify that an applicant for a permit has paid all undisputed taxes and unemployment insurance. Social Security or Federal Employer Identification Numbers will not be used for any purposes other than those described in this Notice.

Date: June 15, 2009

TTY Users: 1-800-735-2258

SIC#0711

PCA 13705 / PBJECT 5655 / SUFFIX 606

**Additional Information Required by COMAR 26.04.06.09 E (7)
for Transportation Permit to the
MD State Line to be utilized at permitted sites in Tennessee**

a) Description of Sludge:

Sewage sludge produced at the Calvert Cliffs Sewage Treatment Plant is produced by aerobic digestion of waste from the toilets, sinks, showers and kitchens at the site. Sludge transported under this permit is filtered and dried to remove water prior to shipment. Less than 0.2 dry tons a year was transported under this permit during 2006 through 2008.

b) Laboratory Analysis of Sewage Sludge:

Date sampled: 10/23/09

Parameter	Unit	Concentration
Percent solids	Weight %	0.39
pH		7.1
Total Kjeldahl nitrogen	mg/kg dry weight	22,400
Ammonium nitrogen	mg/kg dry weight	13,500
Nitrate nitrogen	mg/kg dry weight	17,600
Total phosphorus	mg/kg dry weight	2540
Total potassium	mg/kg dry weight	11,300
Cadmium	mg/kg dry weight	< 5
Copper	mg/kg dry weight	403
Mercury	mg/kg dry weight	0.469
Nickel	mg/kg dry weight	16.4
Lead	mg/kg dry weight	< 25
Zinc	mg/kg dry weight	490
Arsenic	mg/kg dry weight	35.6
Molybdenum	mg/kg dry weight	13.3
Selenium	mg/kg dry weight	< 30
PCBs	mg/kg dry weight	< 9.1

c) Equipment description:

Sewage sludge produced at the Calvert Cliffs Sewage Treatment Plant will be dewatered and transported in DOT approved watertight steel boxes with attached metal covers inside a Sealand truck. The transporter will be an authorized hauler for radioactive material.

d) Operations plan:

Transportation routes:

From the Sewage Treatment Plant, follow the drive out through the security gate and to Maryland Route 2/4. Turn right onto 2/4, proceed ~19 miles to Sunderland. Follow Route 4 to I-95 South. Proceed ~ 9 miles to the Potomac River, border of Maryland/Virginia.

Days and hours of operations:

The normal hours of operation will be 8:00 A.M. to 5:00 P.M., Monday through Friday. This may be extended to weekends if necessary.

Spill reporting and cleanup plans:

In the event of a spill, MDE Solid Waste Enforcement personnel, and the superintendent at the Calvert Cliffs Sewage Treatment Plant will be notified immediately. The spill area will be cleaned to remove any contamination.

Record keeping procedures:

All records associated with sludge operations will be kept at the Calvert Cliffs site. A yearly record will be maintained as to the quantity of sewage sludge hauled. CCNPP will submit the yearly sewage sludge record to the Maryland Department of the Environment for each year the permit is in effect.

e) Destination of sludge and a description of what is to be done with the sludge:

Sewage sludge as produced at the Calvert Cliffs Sewage Treatment Plant will be transported to BFI Waste Systems of North America, Inc. in Millington, TN for final disposal.

ENCLOSURE (2)

Performance Bond Documentation

**Calvert Cliffs Nuclear Power Plant, LLC
November 3, 2009**

CONTINUATION CERTIFICATE

THE AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA

(hereinafter called the Surety) hereby continues in force its Bond No. 929175978

in the sum of Five Thousand and 00/100

(\$ 5,000.00) dollars, on behalf of

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

in favor of

MARYLAND DEPARTMENT OF THE ENVIRONMENT

for the

(extended) term beginning on the 1st day of November, 2009, and ending on the

1st day of November, 2010, subject to all the covenants and conditions of said Bond.

This Continuation is executed upon the express condition that the Company's liability shall not be cumulative and shall be limited at all times by the amount of the penalty stated in the bond.

IN WITNESS WHEREOF, the Company has caused this instrument to be signed by its duly authorized Attorney-in-Fact and its corporate seal to be hereto affixed this 30th day of October, 2009.

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

Principal

By: 

AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA

Surety

By: 

Vivian Carti

Attorney-in-Fact

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company (herein called "the CNA Companies"), are duly organized and existing insurance companies having their principal offices in the City of Chicago, and State of Illinois, and that they do by virtue of the signatures and seals herein affixed hereby make, constitute and appoint

Glenn Pelletiere, Vivian Carti, Betty Calderon, Robert P Mc Donough, Debra A Deming, Evangelina L Dominick, Cynthia Farrell-Somersall, Individually

of New York, NY, their true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on their behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of their insurance companies and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Boards of Directors of the insurance companies.

In Witness Whereof, the CNA Companies have caused these presents to be signed by their Senior Vice President and their corporate seals to be hereto affixed on this 15th day of September, 2009.



Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Jacquelyne M. Belcastro Senior Vice President

State of Illinois, County of Cook, ss:

On this 15th day of September, 2009, before me personally came Jacquelyne M. Belcastro to me known, who, being by me duly sworn, did depose and say: that she resides in the City of Chicago, State of Illinois; that she is a Senior Vice President of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company described in and which executed the above instrument; that she knows the seals of said insurance companies; that the seals affixed to the said instrument are such corporate seals; that they were so affixed pursuant to authority given by the Boards of Directors of said insurance companies and that she signed her name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance companies.



My Commission Expires September 17, 2013

Eliza Price Notary Public

CERTIFICATE

I, Mary A. Ribikawskis, Assistant Secretary of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance companies printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance companies this 30th day of October, 2009.



Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Mary A. Ribikawskis Assistant Secretary

R I D E R

To be attached to and form part of:

Bond Number 929175978
dated 11/1/2000

issued by the AMERICAN CASUALTY COMPANY OF READING,
PENNSYLVANIA
in the amount of \$ 5,000.00

on behalf of CALVERT CLIFFS NUCLEAR POWER PLANT, INC.
(Principal)

and in favor of MARYLAND DEPARTMENT OF THE ENVIRONMENT
(Obligee)

Now therefore, it is agreed that in consideration of the premium charged, the attached bond shall be amended as follows:

The Principal Name shall be amended:

FROM: CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

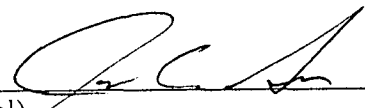
TO: CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

It is further understood and agreed that all other terms and conditions of this bond shall remain unchanged.


This Rider is to be Effective this 30th day of October, 2009.

Signed, Sealed & Dated this 30th day of October, 2009.

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

By: 
(Principal)

AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA
(Surety)

By: 
Vivian Carti, Attorney-in-Fact

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company (herein called "the CNA Companies"), are duly organized and existing insurance companies having their principal offices in the City of Chicago, and State of Illinois, and that they do by virtue of the signatures and seals herein affixed hereby make, constitute and appoint

Glenn Pelletiere, Vivian Carti, Betty Calderon, Robert P Mc Donough, Debra A Deming, Evangelina L Dominick, Cynthia Farrell-Somersall, Individually

of New York, NY, their true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on their behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -


and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of their insurance companies and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Boards of Directors of the insurance companies.

In Witness Whereof, the CNA Companies have caused these presents to be signed by their Senior Vice President and their corporate seals to be hereto affixed on this 15th day of September, 2009.



Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

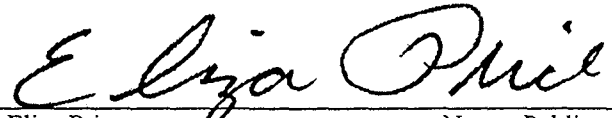

Jacquelyne M. Belcastro Senior Vice President

State of Illinois, County of Cook, ss:

On this 15th day of September, 2009, before me personally came Jacquelyne M. Belcastro to me known, who, being by me duly sworn, did depose and say: that she resides in the City of Chicago, State of Illinois; that she is a Senior Vice President of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company described in and which executed the above instrument; that she knows the seals of said insurance companies; that the seals affixed to the said instrument are such corporate seals; that they were so affixed pursuant to authority given by the Boards of Directors of said insurance companies and that she signed her name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance companies.

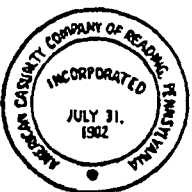


My Commission Expires September 17, 2013



Eliza Price Notary Public

CERTIFICATE

I, Mary A. Ribikawskis, Assistant Secretary of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance companies printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance companies this 30th day of October, 2009.



Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania


Mary A. Ribikawskis Assistant Secretary

ENCLOSURE (3)

Copy of Permit Fee Check

**Calvert Cliffs Nuclear Power Plant, LLC
November 3, 2009**

ENCLOSURE (4)

Laboratory Analysis Results

REPORT OF ANALYSIS
REVISED 10/30/2009

Maryland Environmental Services (B)
259 Najoles Road
Millersville, MD 21108

Attention: Mr. Jay Janney

Order Number: A09101264
Project Name: Calvert Cliffs Sludge
Receive Date: 10/23/2009
Client Code: MES_B
Project Location: Calvert Cliffs Sludge

Sample # A09101264-01

Sample Date: 10/23/2009 10:05

Site:

Matrix: Sludges

Client Sample ID: Calvert Cliffs Digester sludge

Sample Comments: None

Test	Result	Units	RDL	Method	Analysis Date	Analyst
Anions, Date Completed	10/24/09	Date Completed	N/A	EPA 300.0		
Nitrate as N	17600	mg/Kg, dry wt. as N	12.8	EPA 300.0	10/24/2009 4:47:00 PM	AWestervelt
Percent Solids	0.39	% Solids	N/A	SM 2540 G	10/26/2009 7:45:00 AM	JSantiago

Sample # A09101264-02

Sample Date: 10/23/2009 10:05

Site:

Matrix: Sludges

Client Sample ID: Calvert Cliffs Digester sludge

Sample Comments: None

Test	Result	Units	RDL	Method	Analysis Date	Analyst
Ammonia as N	13500	mg/Kg, dry wt. as N	256.4	SM 4500 NH3 G	10/27/2009 2:04:00 PM	NZacharias
Digestion, TKN-TP	10/26/09	Date Completed	N/A	EPA 351.2		
Total Kjeldahl Nitrogen as N	22400	mg/Kg, dry wt. as N	512.8	EPA 351.2	10/28/2009 1:47:00 PM	NZacharias
Total Phosphorus as P	2540	mg/Kg, dry wt. as P	128.2	EPA 365.4	10/28/2009 1:47:00 PM	NZacharias

Sample # A09101264-03

Sample Date: 10/23/2009 10:05

Site:

Matrix: Sludges

Client Sample ID: Calvert Cliffs Digester sludge

Sample Comments: None

Test	Result	Units	RDL	Method	Analysis Date	Analyst
Arsenic, Total, MS	35.6	mg/Kg, dry wt.	30.358	EPA 200.8	10/28/2009 4:22:00 AM	JHunter
Beryllium, Total, ICP	< 5.056	mg/Kg, dry wt.	5.056	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Cadmium, Total, ICP	< 5.056	mg/Kg, dry wt.	5.056	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Chromium, Total, ICP	< 12.64	mg/Kg, dry wt.	12.64	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Copper, Total, ICP	403	mg/Kg, dry wt.	12.64	EPA 200.7	10/28/2009 4:24:00 PM	LChoma

Approved:

Warren Van Arsdale
Quality Assurance Manager

Reported:

10/30/2009 8:24:27 AM

RDL = Reporting Detection Limit N/A = Not Applicable

Laboratory Certification Numbers: Delaware - DE00011 Maryland - #138 Pennsylvania - 68-335 New Jersey - DE568



ATLANTIC COAST
Laboratories, Incorporated

630 Churchmans Road
Newark, Delaware 19702
302-266-9121 • 454-8720 (FAX)
WWW.ATLANTICCOASTLABS.COM

Maryland Environmental Services (B)

Order Number: A09101264

Sample # A09101264-03

Sample Date: 10/23/2009 10:05

Site:

Matrix: Sludges

Client Sample ID: Calvert Cliffs Digester sludge

Sample Comments: None

Test	Result	Units	RDL	Method	Analysis Date	Analyst
ICP-MS	10/28/09	Date Completed	N/A	EPA 200.8		
ICP-OES	10/28/09	Date Completed	N/A	EPA 200.7		
Iron, Total, ICP	5380	mg/Kg, dry wt.	126.4	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Lead, Total, ICP	< 25.28	mg/Kg, dry wt.	25.28	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Mercury, Total, CVAA	0.469	mg/Kg, dry wt.	0.0512	EPA 245.1	10/28/2009 2:35:00 PM	LChoma
Metals Preparation, D2002	10/25/09	Date Completed	N/A	EPA 200.2		ELoynds
Molybdenum, Total, ICP	13.3	mg/Kg, dry wt.	12.64	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Nickel, Total, ICP	16.4	mg/Kg, dry wt.	5.056	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Potassium, Total, ICP	11300	mg/Kg, dry wt.	1264	EPA 200.7	10/28/2009 4:24:00 PM	LChoma
Selenium, Total, MS	< 30.358	mg/Kg, dry wt.	30.358	EPA 200.8	10/28/2009 4:22:00 AM	JHunter
Zinc, Total, ICP	490	mg/Kg, dry wt.	12.64	EPA 200.7	10/28/2009 4:24:00 PM	LChoma

Sample # A09101264-04

Sample Date: 10/23/2009 10:05

Site:

Matrix: Sludges

Client Sample ID: Calvert Cliffs Digester sludge

Sample Comments: None

Test	Result	Units	RDL	Method	Analysis Date	Analyst
PCB-1016	< 1.3	mg/Kg, dry wt.	1.3	EPA 608	10/28/2009 4:27:00 AM	SHess
PCB-1221	< 1.3	mg/Kg, dry wt.	1.3	EPA 608	10/28/2009 4:27:00 AM	SHess
PCB-1232	< 1.3	mg/Kg, dry wt.	1.3	EPA 608	10/28/2009 4:27:00 AM	SHess
PCB-1242	< 1.3	mg/Kg, dry wt.	1.3	EPA 608	10/28/2009 4:27:00 AM	SHess
PCB-1248	< 1.3	mg/Kg, dry wt.	1.3	EPA 608	10/28/2009 4:27:00 AM	SHess
PCB-1254	< 1.3	mg/Kg, dry wt.	1.3	EPA 608	10/28/2009 4:27:00 AM	SHess
PCB-1260	< 1.3	mg/Kg, dry wt.	1.3	EPA 608	10/28/2009 4:27:00 AM	SHess
Pesticide Extraction, EPA 608	10/26/09	Date Completed	N/A	EPA 608		BJones

Approved:

Warren Van Arsdale
Quality Assurance Manager

Reported:

10/30/2009 8:24:27 AM

RDL = Reporting Detection Limit N/A = Not Applicable

Laboratory Certification Numbers: Delaware - DE00011 Maryland - #138 Pennsylvania - 68-335 New Jersey - DE568

Maryland Environmental Service
Liquid Sludge Chain of Custody

Just

Project Name: CALVERT CLIFFS WQTP

Sample Collector(s): SIBAJI BANDYOPADHYAY

Project #: 413-1190

From: SLUDGE DICHESTER SLUDGE BH 599

No.	Sample Name	Date	Time	Flow Rate (L/min)	Temp (°C)	Flow Rate (L/min)	Temp (°C)	Flow Rate (L/min)	Temp (°C)	Flow Rate (L/min)	Temp (°C)
1	DICHESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1		
2	DICHESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1		
3	DICHESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1		
BROWN	DICHESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1		

Chilled to 4 Degrees Celsius?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Number of Bottles	<u>4</u>
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ANALYST	TEST	UNIT	RESULT	REMARKS
1	Total Solids	% as rec'd (wet weight)		
3	NH ₃ -N	mg/L as rec'd (wet weight)	2.5	0.5
3	NH ₄ ⁺ -N	mg/L as rec'd (wet weight)	87	1
3	TP	mg/L as rec'd (wet weight)	667	1
1	Total P	mg/L as rec'd (wet weight)	8.1	0.02
4	Total Cd	mg/L as rec'd (wet weight)	0.4	0.004
4	Total Cu	mg/L as rec'd (wet weight)	0.3	0.003
4	Total Fe	mg/L as rec'd (wet weight)	0.726	0.5
4	Total Hg	mg/L as rec'd (wet weight)	0.1	0.0002
4	Total K	mg/L as rec'd (wet weight)	31.4	1.5
4	Total Ni	mg/L as rec'd (wet weight)	1.1	0.071
4	Total Pb	mg/L as rec'd (wet weight)	2.4	0.024
4	Total Zn	mg/L as rec'd (wet weight)	0.3	0.003
4	Total As	mg/L as rec'd (wet weight)	0.1	0.04
4	Total Cr	mg/L as rec'd (wet weight)	0.8	0.008
4	Total Mn	mg/L as rec'd (wet weight)	0.5	0.005
4	Total Se	mg/L as rec'd (wet weight)	1	0.001
4	Total Ba	mg/L as rec'd (wet weight)	0.7	0.007
2	PCB's	ppb as rec'd (wet weight)	0.018	0.001

Order ID: **A09101264**



Corrected pH = (Measured pH) + [(0.005) x (Measured Temp - 25)]
where: (Measured Temp) is in degrees C

Preservatives:	1. None	⑤ 5 ml HNO ₃ / liter, acid
	② None; Ind	⑥ Flow without liter; None - acid
	③ 2 ml H ₂ SO ₄ / liter, acid	6. Other

Relinquished By	Date	Time	Accepted By	Date	Time
Sibaji Bandyopadhyay	10/23/09	11:05	Ann E. Barnes	10/23/09	11:05
Ann E. Barnes	10/23/09	12:20	Mike B. Barnes	10/23/09	12:20

Handwritten notes:
 ⑤ HES Refry 10/23/09 11:50
 ⑥ HES Refry 10/23/09 12:50
 ⑦ HES Refry 10/23/09 13:50

Rush

Sample Collector(s): SIBAJI BANDYOPADHYAY

Form: SLUDGE **DIGESTER SLUDGE** EH 9/99

Bottle Number	Sample Location	Sample Date	Sample Time	Field pH (std. units)	Temp (°C)	Final pH (Corrected* to 25°C)	Field pH Date	Field pH Time	Number of Bottles
1.	DIGESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1
2.	DIGESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1
3.	DIGESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1
BROWN	DIGESTER SLUDGE	10/23/09	10:05	7.13	23.6	7.09	10/23/09	10:08	1

Chilled to 4 Degrees Celsius? ☒ Yes ☐ No

Total Number of Bottles 2

PRBS	PARAMETERS	UNITS/REPORTED	DETECTION LIMIT	REMARKS
2	Total Solids	% as rec'd (wet weight)		
3	NO3 - N	mg/l as rec'd (wet weight)	2.5	0.5
3	NH3 - N	mg/l as rec'd (wet weight)	87	1
3	TKN	mg/l as rec'd (wet weight)	667	1
4	Total P	mg/l as rec'd (wet weight)	8.3	0.02
4	Total Cd	mg/l as rec'd (wet weight)	0.4	0.004
4	Total Cu	mg/l as rec'd (wet weight)	0.3	0.003
4	Total Fe	mg/l as rec'd (wet weight)	0.726	0.5
4	Total Hg	mg/l as rec'd (wet weight)	0.1	0.0002
4	Total K	mg/l as rec'd (wet weight)	31.4	1.5
4	Total Ni	mg/l as rec'd (wet weight)	1.1	0.071
4	Total Pb	mg/l as rec'd (wet weight)	2.4	0.024
4	Total Zn	mg/l as rec'd (wet weight)	0.3	0.003
4	Total As	mg/l as rec'd (wet weight)	6.1	0.04
4	Total Cr	mg/l as rec'd (wet weight)	0.8	0.008
4	Total Mo	mg/l as rec'd (wet weight)	0.5	0.005
4	Total Se	mg/l as rec'd (wet weight)	1	0.001
4	Total Be	mg/l as rec'd (wet weight)	0.2	0.002
5	PCB's	ppb as rec'd (wet weight)	0.018	0.001

* $\text{Corrected pH} = (\text{Measured pH}) + [(0.03) \times (\text{Measured Temp} - 25)]$
where: (Measured Temp) is in degrees C

Preservatives:

1. None

② None; Iced

(3) 2 ml H_2SO_4 / liter: iced

④ 5 ml HNO₃ / liter: iced

5. Glass w/ teflon liner: None - ice

6. Other

Relinquished By	Date	Time	Accepted By	Date	Time
S. Gaji Bandyopadhyay	10/23/09	11:05	Eric L. Barnes	10/23/09	11:05
ERIC L. BARNES	10/23/09	12:20	MES	10/23/09	12:30

① MS Refy 10/23/09