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Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy LLC
1155 Conshohocken Road
Conshohocken, Pennsylvania 19428
Tel: 610.940.6000 • Fax: 610.940.6012

March 28, 2024

Mr. Thomas L. Magge
Environmental Program Manager
Clean Water Program
Pennsylvania Department of Environmental Protection
Southeastern Regional Office
2 East Main Street
Norristown, PA 19401

Re: Covanta Plymouth Renewable Energy LP
NPDES Permit PA 0052906
IW Stormwater Individual Permit
Permit Renewal Application

Dear Mr. Maggee:

Enclosed, please find the renewal application for the National Pollutant Discharge Elimination System for Covanta Plymouth Renewable Energy, LLC (Covanta) Industrial Stormwater Discharge. In accordance with 40 CFR 122.41(b) and 122.21(d)(2), this application is being submitted to the Pennsylvania Department of Environmental Protection at least 180 days before the expiration of this permit, September 30, 2024. The facility has had this NPDES permit since November 3, 1993. Covanta is a zero-discharge facility and request to discharge stormwater from the facility to a facility retention pond then eventually to Plymouth Creek, as previously permitted. Should you have any questions, feel free to contact Kim Bradford at 610-291-3890.

Sincerely,

Frank Capobianco
Facility Manager

Enclosures

CC: Delaware River Basin Commission
File

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Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

TABLE OF CONTENTS

Section 1 – NPDES Industrial Stormwater Application Checklist

Section 2 – Proof of Mailing to DRBC

Section 3 – GIF

Section 4 – Municipal Notifications

Section 5 – NPDES Industrial Stormwater Discharge Application

Section 6 – SemiAnnual Stormwater Sampling Analytical Reports

Section 7 – Figures

- 7.1 – Aerial
- 7.2 – USGS Topo Map
- 7.3 – Site Map

Section 8 – PPC Plan

SECTION 1

NPDES Industrial Stormwater Application Checklist

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Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
APPLICATION FOR INDIVIDUAL PERMIT TO DISCHARGE
INDUSTRIAL STORMWATER

APPLICANT'S ✓ CHECKLIST

Applicant Name	Covanta Plymouth Renewable Energy, LLC.

Check the following list to make sure you have included all the required information. Place a checkmark in the box provided for all items completed and/or provided.

ENCLOSE THIS CHECKLIST WITH YOUR COMPLETED APPLICATION. FAILURE TO SUBMIT ALL REQUIRED INFORMATION MAY RESULT IN DENIAL OF THE APPLICATION.

	REQUIREMENTS	Check ✓ If Included	DEP Use Only
1.	Application Fee (new applications only). Amount Enclosed $ _____	☐	☐
2.	One signed original and 2 copies of the *completed* application with all applicable Analytical Results Tables (One copy if submitted electronically through OnBase).	☒	☐
3.	One additional copy of application for ECHD (if located in Erie County).	☐	☐
4.	One copy of application mailed to Delaware River Basin Commission (if discharge is in the Delaware River Basin)	☒	☐
5.	One copy of the General Information Form (0210-PM-PIO0001).	☒	☐
6.	Proper evidence of Act 14 municipal and county notifications.	☒	☐
7.	Evidence of newspaper publication for 4 consecutive weeks (new and modified discharges only)	☐	☐
8.	Copy of topographic/aerial map of facility and outfalls.	☒	☐
9.	Site plan identifying significant site features.	☒	☐
10.	Preparedness, Prevention and Contingency (PPC) Plan (optional)	☒	☐
11.	Module 1 – Anti-Degradation, and attachments (if applicable)	☐	☐
12.	Optional site-specific data: _____	☐	☐

SECTION 2

PROOF OF APPLICATION SUBMISSION TO DELAWARE RIVER BASIN COMMISSION (DRBC)

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Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

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Covanta Plymouth Renewable Energy LLC
1155 Conshohocken Road
Conshohocken, PA 19428
Tel: 610.940.6000
Fax: 610.940.6012

DELIVERED VIA UPS TRACKING NO: 1ZA5R494NT91180474

March 28, 2024

Mr. David Kovach, P.G.
Manager, Project Review
Delaware River Basin Commission
25 Cosey Road
West Trenton, NJ 08628-0360

RE: Covanta Plymouth Renewable Energy, LLC.
Montgomery County Resource Recovery Facility
NPDEPS Permit No. PA0052906
Delaware River Basin Notification

Dear Mr. Kovach:

Enclosed, please find the renewal application for the National Pollutant Discharge Elimination System for Covanta Plymouth Renewable Energy, LLC (Covanta) Industrial Stormwater Discharge. In accordance with 40 CFR 122.41(b) and 122.21(d)(2), this application is being submitted to the Pennsylvania Department of Environmental Protection at least 180 days before the expiration of this permit, September 30, 2024. The facility has had this NPDES permit since November 3, 1993. Covanta is a zero-discharge facility and request to discharge stormwater from the facility to a facility retention pond then eventually to Plymouth Creek, as previously permitted. Should you have any questions, feel free to contact Kim Bradford at 610-291-3890.

Application Type:	Renewal
Applicant Name:	Covanta Plymouth Renewable Energy, LLC.
Facility Address:	1155 Conshohocken Road Conshohocken, PA 19428
Municipality:	Plymouth Township
County:	Montgomery
Description of Project:	Renewal of Industrial Stormwater Discharge Permit. Requestion no permit changes. Application for renewal must be submitted 180 days prior to permit expiration date of September 30, 2024.

If you have any questions, please contact me or Kim Bradford at (610) 940-6000 or kbraford@covanta.com.

Regards

Frank Capobianco
Facility Manager
Covanta Plymouth Renewable Energy, LLC

SECTION 3

GENERAL INFORMATION FORM (GIF)

COVANTA

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Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the Department.

Related ID#s (If Known)				DEP USE ONLY
Client ID#	**0**	**APS ID#**	816633	Date Received & General Notes
Site ID#	400558	**Auth ID#**	983322	
Facility ID#	482359			

CLIENT INFORMATION

DEP Client ID#	**Client Type / Code**
	LLC

Organization Name or Registered Fictitious Name	**Employer ID#** (EIN)	**Dun & Bradstreet ID#**
Covanta Plymouth Renewable Energy, LLC.	65-0314688	00-195-0773

Individual Last Name	**First Name**	**MI**	**Suffix**	**SSN**
N/A				

Additional Individual Last Name	**First Name**	**MI**	**Suffix**	**SSN**
N/A				

Mailing Address Line 1	**Mailing Address Line 2**
1155 Conshohocken Road	

Address Last Line – City	**State**	**ZIP+4**	**Country**
Conshohocken	PA	19428	USA

Client Contact Last Name	**First Name**	**MI**	**Suffix**
Capobianco	Frank		

Client Contact Title	**Phone**	**Ext**
Facility Manager	(610)940-6000	

Email Address	**FAX**
fcapobianco@covanta.com	

SITE INFORMATION

DEP Site ID#	**Site Name**
400558	Covanta Plymouth Renewable Energy, LLC.

EPA ID#	**Estimated Number of Employees to be Present at Site**

Description of Site
Resource Recovery Facility

County Name	**Municipality**	**City**	**Boro**	**Twp**	**State**
Montgomery	Plymouth	☐	☐	☒	
County Name	**Municipality**	**City**	**Boro**	**Twp**	**State**
N/A		☐	☐	☐	

Site Location Line 1	**Site Location Line 2**
1155 Conshohocken Road	

Site Location Last Line – City	**State**	**ZIP+4**
Conshohocken	PA	19428

Detailed Written Directions to Site
From I-476N, take Exit 18B, merge onto Chemical Road, in approximately 0.1 mile, turn right onto West Ridge Pike (From I-476S take Exit 18 and merge onto West Ridge Pike). Proceed onto Ridge Pike and turn left onto Conshohocken Road. Follow Conshohocken Road approximately 1 mile and turn left at the Montgomery County Fire Training Academy. Follow road to entrance gate.

Site Contact Last Name	**First Name**	**MI**	**Suffix**
Capobianco	Frank		

Site Contact Title	**Site Contact Firm**
Facility Manager	Covanta Plymouth Renewable Energy, LLC.

Mailing Address Line 1	**Mailing Address Line 2**
1155 Conshohocken Road	

Mailing Address Last Line – City	**State**	**ZIP+4**
Conshohocken	**PA**	**19428**

Phone	**Ext**	**FAX**	**Email Address**
610-940-6000			

NAICS Codes (Two- & Three-Digit Codes – List All That Apply) **6-Digit Code** (Optional)
236210

Client to Site Relationship
OWNER AND OPERATOR

FACILITY INFORMATION

Modification of Existing Facility	**Yes**	**No**
1. Will this project modify an existing facility, system, or activity?	☐	☒
2. Will this project involve an addition to an existing facility, system, or activity?	☐	☒

If "Yes", check all relevant facility types and provide DEP facility identification numbers below.

	Facility Type	**DEP Fac ID#**		**Facility Type**	**DEP Fac ID#**
☐	Air Emission Plant		☐	Industrial Minerals Mining Operation	
☐	Beneficial Use (water)		☐	Laboratory Location	
☐	Blasting Operation		☐	Land Recycling Cleanup Location	
☐	Captive Hazardous Waste Operation		☐	Mine DrainageTrmt/LandRecyProjLocation	
☐	Coal Ash Beneficial Use Operation		☐	Municipal Waste Operation	
☐	Coal Mining Operation		☐	Oil & Gas Encroachment Location	
☐	Coal Pillar Location		☐	Oil & Gas Location	
☐	Commercial Hazardous Waste Operation		☐	Oil & Gas Water Poll Control Facility	
☐	Dam Location		☐	Oil & Gas Wastewater Storage Impoundment	
☐	Deep Mine Safety Operation -Anthracite		☐	Public Water Supply System	
☐	Deep Mine Safety Operation -Bituminous		☐	Radiation Facility	
☐	Deep Mine Safety Operation -Ind Minerals		☐	Residual Waste Operation	
☐	Encroachment Location (water, wetland)		☐	Storage Tank Location	
☐	Erosion & Sediment Control Facility		☐	Water Pollution Control Facility	
☐	Explosive Storage Location		☐	Water Resource	
			☐	Other:	

Latitude/Longitude Point of Origin	**Latitude**			**Longitude**		
	Degrees	**Minutes**	**Seconds**	**Degrees**	**Minutes**	**Seconds**
ENTGN	40	5	48	75	18	37

Horizontal Accuracy Measure Feet *--or--* Meters

Horizontal Reference Datum Code
- ☐ North American Datum of 1927
- ☒ North American Datum of 1983
- ☐ World Geodetic System of 1984

Horizontal Collection Method Code ITPMP

Reference Point Code ENTGN

Altitude Feet 150 *--or--* Meters

Altitude Datum Name
- ☐ The National Geodetic Vertical Datum of 1929
- ☒ The North American Vertical Datum of 1988 (NAVD88)

Altitude (Vertical) Location Datum Collection Method Code

Geometric Type Code POINT

Data Collection Date

Source Map Scale Number 1 Inch(es) = 2000 Feet

--or-- Centimeter(s) = Meters

PROJECT INFORMATION

Project Name
Solid Waste Permit Renewal

Project Description
Renewal Application For Solid Waste Permit

Project Consultant Last Name	**First Name**	**MI**	**Suffix**
Brooks	Stefan		

Project Consultant Title	**Consulting Firm**
Sr. Regulatory Compliance Specialist	Compliance Plus Services, Inc.

Mailing Address Line 1	**Mailing Address Line 2**	
240 Gibraltar Road	Suite 100	
Address Last Line – City	**State**	**ZIP+4**
Horsham	PA	19044

Phone	**Ext**	**FAX**	**Email Address**
215-734-1414		215-734-1424	

Time Schedules	**Project Milestone (Optional)**
04/03/2024	PA0052906 Permit Application Due To PADEP
09/30/2024	**PA0052906 Set to expire at midnight**

1.	**Have you informed the surrounding community and addressed any concerns prior to submitting the application to the Department?**	☒	Yes	☐	No
2.	**Is your project funded by state or federal grants?**	☐	Yes	☒	No
	Note: If "Yes", specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date. Aspect of Project Related to Grant Grant Source: _____ Grant Contact Person: _____ Grant Expiration Date: _____				
3.	**Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions)**	☐	Yes	☒	No
	Note: If "No" to Question 3, the application is not subject to the Land Use Policy. If "Yes" to Question 3, the application is subject to this policy and the Applicant should answer the additional questions in the **Land Use Information** section.				

LAND USE INFORMATION

Note: Applicants are encouraged to submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1.	**Is there an adopted county or multi-county comprehensive plan?**	☒	Yes	☐	No
2.	**Is there an adopted municipal or multi-municipal comprehensive plan?**	☒	Yes	☐	No
3.	**Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?**	☒	Yes	☐	No
	Note: If the Applicant answers "No" to either Questions 1, 2 or 3, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 4 and 5 below. If the Applicant answers "Yes" to questions 1, 2 and 3, the Applicant should respond to questions 4 and 5 below.				
4.	**Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval?** If zoning approval has been received, attach documentation.	☒	Yes	☐	No
5.	**Have you attached Municipal and County Land Use Letters for the project?**	☐	Yes	☒	No

COORDINATION INFORMATION

Note: The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 and the accompanying Cultural Resource Notice Form.

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	**Is this a coal mining project?** If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	☐	Yes	☒	No
1.1	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?**	☐	Yes	☐	No
1.2	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?**	☐	Yes	☐	No
1.3	**Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?**	☐	Yes	☐	No
1.4	**For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
1.5	**Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
1.6	**Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?**	☐	Yes	☐	No
2.0	**Is this a non-coal (industrial minerals) mining project?** If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	☐	Yes	☒	No
2.1	**Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?**	☐	Yes	☐	No
2.2	**Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?**	☐	Yes	☐	No
2.3	**Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?**	☐	Yes	☐	No
2.4	**For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
2.5	**Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
3.0	**Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well?** If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	☐	Yes	☒	No

3.1	**Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?**	☐	Yes	☐	No
3.2	**Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system?** If "Yes", discuss in *Project Description*.	☐	Yes	☐	No
3.3	**Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?**	☐	Yes	☐	No
4.0	**Will the project involve a construction activity that results in earth disturbance?** If "Yes", specify the total disturbed acreage. **4.0.1 Total Disturbed Acreage**	☐	Yes	☒	No
5.0	**Does the project involve any of the following?** If "Yes", respond to 5.1-5.3. If "No", skip to Question 6.0.	☐	Yes	☒	No
5.1	**Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?**	☐	Yes	☐	No
5.2	**Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?**	☐	Yes	☐	No
5.3	**Floodplain Projects by the commonwealth, a Political Subdivision of the commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?**	☐	Yes	☐	No
6.0	**Will the project involve discharge of stormwater or wastewater from an industrial activity to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?**	☒	Yes	☐	No
7.0	**Will the project involve the construction and operation of industrial waste treatment facilities?**	☐	Yes	☒	No
8.0	**Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations?** If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the *Project Description*, where applicable. **8.0.1 Estimated Proposed Flow (gal/day)**	☐	Yes	☒	No
9.0	**Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?**	☐	Yes	☒	No
	9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval.	☐	Yes	☐	No
10.0	**Is this project for the beneficial use of biosolids for land application within Pennsylvania?** If "Yes" indicate how much (i.e. gallons or dry tons per year). **10.0.1 Gallons Per Year (residential septage)** _____ **10.0.2 Dry Tons Per Year (biosolids)**	☐	Yes	☒	No
11.0	**Does the project involve construction, modification or removal of a dam?** If "Yes", identify the dam. **11.0.1 Dam Name**	☐	Yes	☒	No
12.0	**Will the project interfere with the flow from, or otherwise impact, a dam?** If "Yes", identify the dam. **12.0.1 Dam Name**	☐	Yes	☒	No

13.0	**Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?** If "Yes", identify each type of emission followed by the amount of that emission.	☒	Yes	☐	No
	13.0.1 Enter all types & amounts of emissions; separate each set with semicolons. Existing Emission Approved Under T5 Permit 46-00010				
14.0	**Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year?** If "Yes", check all proposed sub-facilities.	☐	Yes	☒	No
	14.0.1 Number of Persons Served				
	14.0.2 Number of Employee/Guests				
	14.0.3 Number of Connections				
	14.0.4 Sub-Fac: Distribution System	☐	Yes	☐	No
	14.0.5 Sub-Fac: Water Treatment Plant	☐	Yes	☐	No
	14.0.6 Sub-Fac: Source	☐	Yes	☐	No
	14.0.7 Sub-Fac: Pump Station	☐	Yes	☐	No
	14.0.8 Sub Fac: Transmission Main	☐	Yes	☐	No
	14.0.9 Sub-Fac: Storage Facility	☐	Yes	☐	No
15.0	**Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?**	☐	Yes	☒	No
16.0	**Is your project to be served by an existing public water supply?** If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project.	☒	Yes	☐	No
	16.0.1 Supplier's Name Aqua America				
	16.0.2 Letter of Approval from Supplier is Attached	☐	Yes	☒	No
17.0	**Will this project involve a new or increased drinking water withdrawal from a stream or other water body?** If "Yes", should reference both Water Supply and Watershed Management.	☐	Yes	☒	No
	17.0.1 Stream Name				
18.0	**Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste?** If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.	☐	Yes	☒	No
	18.0.1 Type & Amount				
19.0	**Will your project involve the removal of coal, minerals, etc. as part of any earth disturbance activities?**	☐	Yes	☒	No
20.0	**Does your project involve installation of a field constructed underground storage tank?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☐	Yes	☒	No
	20.0.1 Enter all substances & capacity of each; separate each set with semicolons.				
21.0	**Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☐	Yes	☒	No
	21.0.1 Enter all substances & capacity of each; separate each set with semicolons.				

22.0	**Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **22.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☐	Yes	☒	No
23.0	**Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **23.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☐	Yes	☒	No
24.0	**Will the intended activity involve the use of a radiation source?**	☐	Yes	☒	No

CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

Type or Print Name Frank Capobianco

Signature	Title	Date
	Facility Manager	03/28/2024

SECTION 4

MUNICIPAL NOTIFICATIONS

COVANTA

Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

COVANTA
Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy LLC
1155 Conshohocken Road
Conshohocken, PA 19428
Tel: 610.940.6000
Fax: 610.940.6012

DELIVERED VIA UPS TRACKING NO: 1ZA5R4942993957423

March 21, 2024

Ms. Karen B. Weiss
Plymouth Township Manager
700 Belvoir Road
Plymouth Meeting, PA 19462

RE: Covanta Plymouth Renewable Energy, LLC.
Montgomery County Resource Recovery Facility
NPDEPS Permit No. PA0052906
ACT 14 Notification of Application for Industrial Stormwater Discharge Renewal

Dear Ms. Weiss:

In accordance with Pennsylvania Administrative Code Act 14, Covanta Plymouth Renewable Energy, LLC. (Covanta), is notifying the municipality and county in which the facility is located of the facilities' intentions to submit an application to the Pennsylvania Department of Environmental Protection (PADEP) to renew our industrial stormwater discharge permit. The facility has had this NPDES permit since 11/03/1993. Covanta is a zero-discharge facility and requests to discharge stormwater from the facility to a retention pond and then eventually to Plymouth Creek, as previously permitted. The renewal application will be submitted to PADEP before April 3, 2024.

Application Type:	Renewal
Applicant Name:	Covanta Plymouth Renewable Energy, LLC.
Facility Address:	1155 Conshohocken Road Conshohocken, PA 19428
Municipality:	Plymouth Township
County:	Montgomery
Description of Project:	Renewal of Industrial Stormwater Discharge Permit. Requestion no permit changes. Application for renewal must be submitted 180 days prior to permit expiration date of September 30, 2024.

On behalf of Covanta Plymouth Renewable Energy, LLC., please accept this letter as written notification of the application for a permit renewal at our Facility and our appreciation of your time in the review of the notification. If you have any questions, please contact me or Kim Bradford at (610) 940-6000 or kbraford@covanta.com.

Very truly yours,

Frank Capobianco
Facility Manager
Covanta Plymouth Renewable Energy, LLC.

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS

   Customers with a Daily Pickup

   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup

   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.
   Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

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Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

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1ZA5R4942993957423

Service

UPS Next Day Air Saver®

Shipped / Billed On

03/21/2024

Additional Information

Signature Required

Delivered On

03/25/2024 2:05 P.M.

Delivered To

PLYMOUTH MEETING, PA, US
Received By

MIKE

Left At

Reception

Please print for your records as photo and details are only available for a limited time.

Sincerely,

UPS

Tracking results provided by UPS: 03/25/2024 3:07 P.M. EST

COVANTA
Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy LLC
1155 Conshohocken Road
Conshohocken, PA 19428
Tel: 610.940.6000
Fax: 610.940.6012

DELIVERED VIA UPS TRACKING NO: 1ZA5R4942995147474

June 7, 2023

Mr. Scott France, Executive Director
Montgomery County Planning Commission
One Montgomery Plaza
425 Swede Street, Suite 201
Norristown, PA 19401

RE: Covanta Plymouth Renewable Energy, LLC.
Montgomery County Resource Recovery Facility
NPDEPS Permit No. PA0052906
ACT 14 Notification of Application for Industrial Stormwater Discharge Renewal

Dear Mr. France:

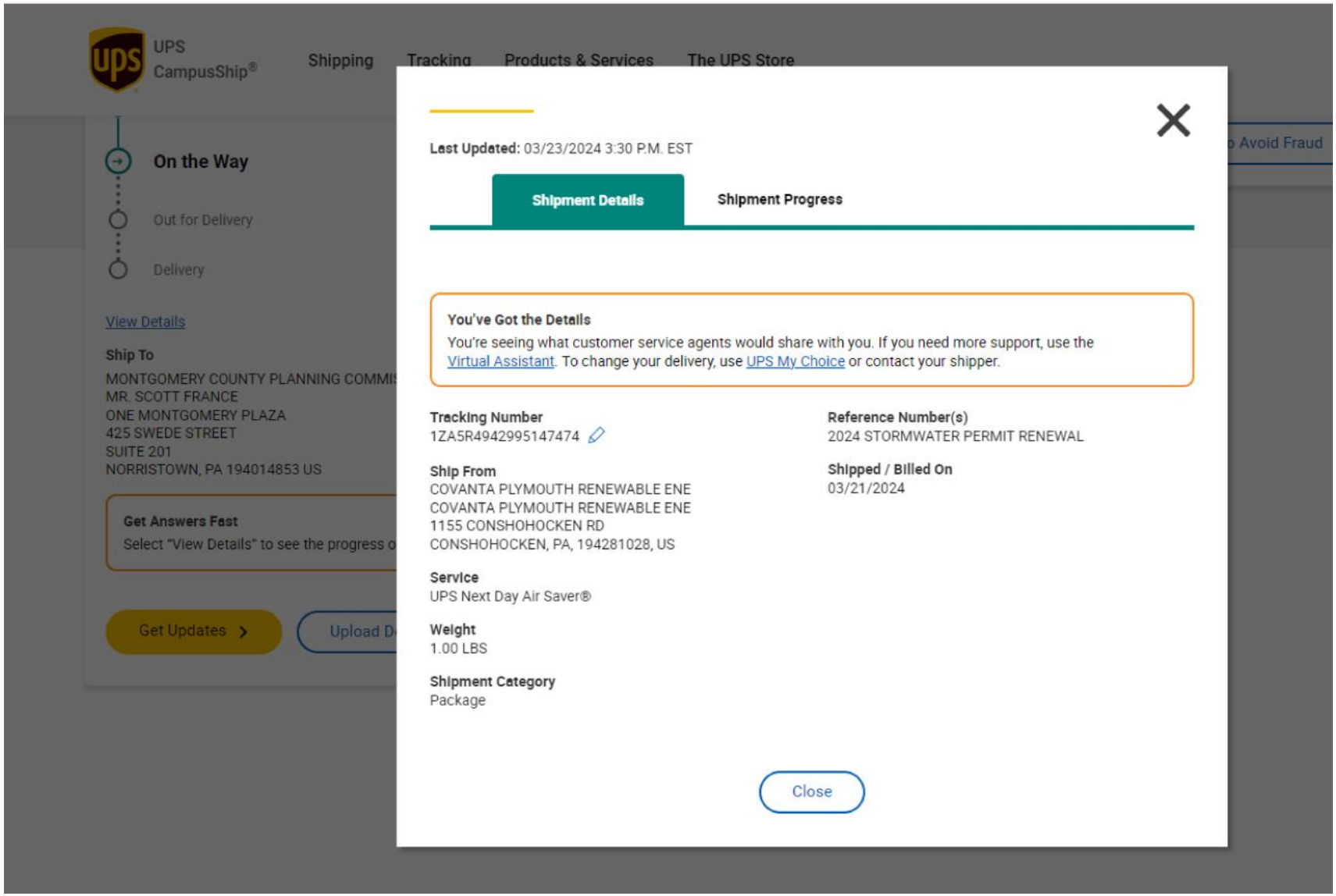
In accordance with Pennsylvania Administrative Code Act 14, Covanta Plymouth Renewable Energy, LLC. (Covanta), is notifying the municipality and county in which the facility is located of the facilities' intentions to submit an application to the Pennsylvania Department of Environmental Protection (PADEP) to renew our industrial stormwater discharge permit. The facility has had this NPDES permit since 11/03/1993. Covanta is a zero-discharge facility and requests to discharge stormwater from the facility to a retention pond and then eventually to Plymouth Creek, as previously permitted. The renewal application will be submitted to PADEP before April 3, 2024.

Application Type:	Renewal
Applicant Name:	Covanta Plymouth Renewable Energy, LLC.
Facility Address:	1155 Conshohocken Road Conshohocken, PA 19428
Municipality:	Plymouth Township
County:	Montgomery
Description of Project:	Renewal of Industrial Stormwater Discharge Permit. Requestion no permit changes. Application for renewal must be submitted 180 days prior to permit expiration date of September 30, 2024.

On behalf of Covanta Plymouth Renewable Energy, LLC., please accept this letter as written notification of the application for a permit renewal at our Facility and our appreciation of your time in the review of the notification. If you have any questions, please contact me or Kim Bradford at (610) 940-6000 or kbraford@covanta.com.

Very truly yours,

Frank Capobianco
Facility Manager
Covanta Plymouth Renewable Energy, LLC.


UPS CampusShip®
Shipping
Tracking
Products & Services
The UPS Store
On the Way
Out for Delivery
Delivery
View Details
Ship To
MONTGOMERY COUNTY PLANNING COMMI
MR. SCOTT FRANCE
ONE MONTGOMERY PLAZA
425 SWEDE STREET
SUITE 201
NORRISTOWN, PA 194014853 US
Get Answers Fast
Select "View Details" to see the progress o
Get Updates
Upload D
o Avoid Fraud
Last Updated: 03/23/2024 3:30 P.M. EST
Shipment Details
Shipment Progress
You've Got the Details
You're seeing what customer service agents would share with you. If you need more support, use the Virtual Assistant. To change your delivery, use UPS My Choice or contact your shipper.
Tracking Number
1ZA5R4942995147474
Ship From
COVANTA PLYMOUTH RENEWABLE ENE
COVANTA PLYMOUTH RENEWABLE ENE
1155 CONSHOHOCKEN RD
CONSHOHOCKEN, PA, 194281028, US
Service
UPS Next Day Air Saver®
Weight
1.00 LBS
Shipment Category
Package
Reference Number(s)
2024 STORMWATER PERMIT RENEWAL
Shipped / Billed On
03/21/2024
Close

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1ZA5R4942995147474

Weight

1.00 LBS

Service

UPS Next Day Air Saver®

Shipped / Billed On

03/21/2024

Additional Information

Signature Required

Delivered On

03/25/2024 12:03 P.M.

Delivered To

NORRISTOWN, PA, US
Received By

MCLEAN

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Inside Delivery

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Sincerely,

UPS

Tracking results provided by UPS: 04/02/2024 3:48 P.M. EST

COVANTA
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Covanta Plymouth Renewable Energy LLC
1155 Conshohocken Road
Conshohocken, PA 19428
Tel: 610.940.6000
Fax: 610.940.6012

DELIVERED VIA UPS TRACKING NO: 1ZA5R4942998753465

March 21, 2024

Mr. Lee Soltysiak, Chief Operating Officer
Montgomery County
One Montgomery Plaza
425 Swede Street, Suite 800
Norristown, PA 19401

RE: Covanta Plymouth Renewable Energy, LLC.
Montgomery County Resource Recovery Facility
NPDEPS Permit No. PA0052906
ACT 14 Notification of Application for Industrial Stormwater Discharge Renewal

Dear Mr. Soltysiak:

In accordance with Pennsylvania Administrative Code Act 14, Covanta Plymouth Renewable Energy, LLC. (Covanta), is notifying the municipality and county in which the facility is located of the facilities' intentions to submit an application to the Pennsylvania Department of Environmental Protection (PADEP) to renew our industrial stormwater discharge permit. The facility has had this NPDES permit since 11/03/1993. Covanta is a zero-discharge facility and requests to discharge stormwater from the facility to a retention pond and then eventually to Plymouth Creek, as previously permitted. The renewal application will be submitted to PADEP before April 3, 2024.

Application Type:	Renewal
Applicant Name:	Covanta Plymouth Renewable Energy, LLC.
Facility Address:	1155 Conshohocken Road Conshohocken, PA 19428
Municipality:	Plymouth Township
County:	Montgomery
Description of Project:	Renewal of Industrial Stormwater Discharge Permit. Requestion no permit changes. Application for renewal must be submitted 180 days prior to permit expiration date of September 30, 2024.

On behalf of Covanta Plymouth Renewable Energy, LLC., please accept this letter as written notification of the application for a permit renewal at our Facility and our appreciation of your time in the review of the notification. If you have any questions, please contact me or Kim Bradford at (610) 940-6000 or kbraford@covanta.com.

Very truly yours,

Frank Capobianco
Facility Manager
Covanta Plymouth Renewable Energy, LLC.

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS

   Customers with a Daily Pickup

   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup

   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.
   Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

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Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1ZA5R4942998753465

Weight

1.00 LBS

Service

UPS Next Day Air Saver®

Shipped / Billed On

03/21/2024

Additional Information

Signature Required

Delivered On

03/25/2024 11:58 A.M.

Delivered To

NORRISTOWN, PA, US
Received By

FRANK

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Inside Delivery

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Sincerely,

UPS

Tracking results provided by UPS: 03/25/2024 3:04 P.M. EST

SECTION 5

NPDES Application

COVANTA

Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
APPLICATION FOR INDIVIDUAL PERMIT TO DISCHARGE
INDUSTRIAL STORMWATER

Before completing this form, please read the instructions (3800-PM-BCW0403a). FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN DENIAL OF THE APPLICATION.

Related ID#s (If Known)				DEP USE ONLY
Client ID#	**52238**	**APS ID#**		Date Received:
Site ID#	**45453**	**Facility ID#**	**482359**	Permit No.:
				Auth ID: PDG?

GENERAL INFORMATION

Applicant/Operator Name	COVANTA PLYMOUTH RENEWABLE ENERGY, LLC.

☐ New Permit (Anticipated Discharge Date: _____)
☒ Permit Renewal: NPDES No. PA **0058906**
Permit Expiration Date: September 30, 2024
Permit Renewal Application Due Date: April 3, 2024
WQM Permit No(s).: NA
WQM Permit Issuance Date(s): NA
Currently Using eDMR System? ☒ Yes ☐ No Start Date: 1/28/2015

Describe the nature of the industrial activity that may come into contact with stormwater: **Please see Sections A (Facility Description) and X (Stormwater Management Practices) of the CPRE PPC included in this renewal. Located in Section XX of this application.**

Applicable ELG: 40 CFR: Subpart:

SIC Code	Primary?	Description	NAICS Code	Primary?	Description
4953		Refuse Systems / Municipal Solid Waste Combustors or Incineration	562213		

OTHER ENVIRONMENTAL PERMITS

Type of Permit	Agency That Issued Permit	Date Issued
Air Permit	PADEP - Air Quality	Nov. 22, 2017
Solid Waste	PADEP - Solid Waste	March 22, 2024
Water Withdrawal	DRBC	March 9, 2032

FACILITY AND DISCHARGE INFORMATION

1. Attach a site plan and topographic or aerial map with the facility and discharge or internal monitoring locations clearly identified (see instructions).

2. Total area of site (sf): 912,150 % Pervious: **59.2** % Impervious: **40.8**

3. Report the latitude and longitude of the facility below (see instructions).

Latitude			**Longitude**		
Degrees	**Minutes**	**Seconds**	**Degrees**	**Minutes**	**Seconds**
40	5	48	75	18	37

Horizontal Reference Datum: ☐ NAD of 1927 ☒ NAD of 1983 ☐ WGS of 1984 ☐ Unknown

4. The applicant may optionally attach its PPC Plan or related plan to the application. This information may be useful to DEP in completing its review of the application. If the PPC Plan is not attached to the application, DEP may request submission of the Plan during the review. Electronic transmission of large PPC Plans is encouraged.

   Note for existing facilities: if there have been leaks or spills on-site within the past five years, report in the PPC Plan the cause of leaks or spills, the substance(s) released, measures taken to remediate the incident(s) and preventative measure(s) taken to reduce the possibility of future incidents.

Type or Description of Plan (e.g., PPC, SPCC, etc.)	Attached?	Date of Latest Plan Update
PPC	☒	**March 2024**
	☐	
	☐	

5. Identify and describe all non-stormwater discharges that are expected to occur during the 5 years following permit issuance. Describe the frequency and volume of all such anticipated discharges.

   ☒ No non-stormwater discharges are anticipated during the 5 years following coverage or approval

6. Describe how often stormwater outfalls are inspected and routine maintenance performed.

   Stormwater conveyance system is inspected at least twice annually (more if necessary). Debris and follage is removed as required.

7. List all stormwater discharge points (outfalls) and internal monitoring points (IMPs). If numbers were previously assigned in a permit, use those numbers. Order sequentially and use additional pages as necessary.

Outfall / IMP No.	LATITUDE			LONGITUDE			RECEIVING WATERS			
	Deg	Min	Sec	Deg	Min	Sec	Name of Receiving Waters	Ch. 93 Class.	Impaired?	TMDL?
001	40	06	00	75	18	30	None		☐	☐
									☐	☐
									☐	☐
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8. Do any of the outfalls identified above discharge to a storm sewer system? ☐ Yes ☒ No Is the storm sewer an MS4? ☐ Yes ☒ No

Name of storm sewer owner/operator: Outfalls discharging to storm sewer:

9. List all outfalls / IMPs in the same order as No. 7, above, and provide the requested information.

Outfall No.	Drainage Area (ft^2)	% Impervious	Description of Materials/Activities in Drainage Area Exposed to Precipitation	No Exposure?
NA				☐
				☐
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10. List all outfalls / IMPs in the same order as No. 7, above, and provide the requested information.

Outfall / IMP No.	Sampling Completed?	Representative Outfall No.	Treatment?	Description of Treatment or BMPs in Drainage Area to Control Pollutants in Stormwater	PCSM?
NA	☐		☐		☐
	☐		☐		☐
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11. If there have been leaks or spills on-site within the past five years that have reached stormwater outfall(s), identify the outfall(s) receiving the leaks or spills, the substance(s) released, measures taken to remediate the incident(s) and preventative measure(s) taken to reduce the possibility of future incidents. Attach additional sheets as necessary.

Please 5-Year Spill History Addendum located in this section.

STORMWATER SAMPLING RESULTS

Complete the following tables for each stormwater outfall / IMP sampled for analysis.

OUTFALL / IMP NO.: 001

1. You must provide the results of at least one analysis for every pollutant in the table below.

Pollutant	Average Concentration		Maximum Concentration		No. Storm Events Sampled	Quantitation Limit
	Grab Sample	Flow-Weighted Composite Sample	Grab Sample	Flow-Weighted Composite Sample		
Oil and Grease (mg/L)	<5	NA	<5	NA	9	NA
BOD5 (mg/L)	NA	NA	NA	NA	NA	NA
COD (mg/L)	113.33	NA	326	NA	9	NA
TSS (mg/L)	25.78	NA	39	NA	9	NA
Total Nitrogen (mg/L)	1.47	NA	2.24	NA	6	NA
Total Phosphorus (mg/L)	NA	NA	NA	NA	NA	NA
pH (S.U.)	Min: 7	Max: 8.25	Min: 7	Max: 8.25	9	XXX

2. List all pollutants contained within an Effluent Limitation Guideline (ELG) that is applicable to the facility's industrial activity. Also, list all pollutants listed in the facility's existing NPDES permit for the outfall or IMP identified above; and any other pollutants that are considered the cause of impairment to waters receiving stormwater discharges from the outfall or IMP. Provide the results of at least one analysis for every pollutant listed. Specify the units with your results (e.g., mg/L).

Pollutant	Average Concentration		Maximum Concentration		No. Storm Events Sampled	Quantitation Limit
	Grab Sample	Flow-Weighted Composite Sample	Grab Sample	Flow-Weighted Composite Sample		
Ammonia Nitrogen	0.64	NA	1.10	NA	9	NA
Magnesium, Dissolved	7.18	NA	13.60	NA	9	NA
Mercury	<0.21	NA	<.24	NA	9	NA
Arsenic	<0.02	NA	<0.02	NA	6	NA
Barium	0.08	NA	0.15	NA	6	NA
Cadmium	0.01	NA	0.01	NA	9	NA
Chromium	<0.01	NA	<0.01	NA	6	NA
Iron	0.90	NA	2.27	NA	9	NA
Lead	0.07	NA	0.31	NA	9	NA
Magnesium	16.94	NA	92.30	NA	9	NA
Selenium	<0.02	NA	<0.02	NA	6	NA
Silver	<0.01	NA	<0.005	NA	6	NA
Total Organic Carbon	50.72	NA	116	NA	6	NA
		NA		NA		NA
		NA		NA		NA

OUTFALL / IMP NO.:	001

3. List all pollutants contained in Pollutant Groups 1 through 7, as identified in Attachment A of the industrial stormwater application instructions (3800-PM-BCW0403a), which are not identified in questions 1 or 2 of the Stormwater Sampling Results section, but the applicant knows or has reason to believe are present in the stormwater discharge.

Pollutant	Average Concentration		Maximum Concentration		No. Storm Events Sampled	Quantitation Limit
	Grab Sample	Flow-Weighted Composite Sample	Grab Sample	Flow-Weighted Composite Sample		

4. Provide the information requested below for the storm event(s) that resulted in the maximum values reported in questions 1, 2, and 3 for the flow-weighted composite sample.

Storm Event Date	Duration of Storm Event (Min)	Total Rainfall During Storm Event (In)	No. Hours Since End of Previous Measurable Storm Event	Maximum Flow Rate During Storm Event (GPM)	Volume of Stormwater at Outfall from Storm Event
11/21/2021	300	0.32	>72	1.5E-07	116,786.26
05/27/2022	180	0.68	>72	2.1E-08	109,487.12
10/17/2022	120	0.38	>72	3.7E-07	138,683.68
06/12/2023	240	0.81	>72	8.7E-07	317,512.64

ANTI-DEGRADATION

If the applicant is proposing a new or increased discharge to High Quality (HQ) or Exceptional Value (EV) waters, Module 1 (Anti Degradation Module) must be attached to the application. In addition, for HQ waters only, if the analysis concludes that the new or increased discharge will produce a measurable change in water quality, a social or economic justification (SEJ) must be attached if the applicant desires approval for the discharge.

1. Is the Anti-Degradation Module (Module 1) attached to the application? ☐ Yes ☒ No
2. Is a social or economic justification (SEJ) (HQ waters only) attached to the application? ☐ Yes ☒ No

COOLING WATER INTAKE STRUCTURES

1. Does the facility use cooling water? ☒ Yes ☐ No
2. Does the facility operate a cooling water intake structure? ☐ Yes ☒ No (If No, skip question 3).
3. Does the facility meet the regulatory definition of a new or existing facility (see instructions)? ☐ Yes ☒ No
   If yes, the permittee must submit the Individual NPDES Permit Application for Industrial Waste Facilities (3800-PM-BCW0008) in lieu of this application.

STORMWATER TREATMENT CHEMICALS

Identify all chemicals that will be used for wastewater treatment over the next five years

Chemical Name	Purpose	Max Usage Rate	Units	Acrylamide?
				☐
				☐
				☐
				☐
				☐
				☐
				☐

LABORATORY INFORMATION

Did an off-site laboratory perform any of the analyses required by this application? ☒ Yes ☐ No
If Yes, provide the information below.

Name	**Geochemical Testing**	Analyses Performed:
Address	**2005 N. Center Ave. Somerset, PA 15501**	All Reported Parameters (except Field pH)
Phone	(**814**) **443-1671**	
Name		Analyses Performed:
Address		
Phone	( )	

COMPLIANCE HISTORY REVIEW

Is the facility owner or operator in violation of any DEP regulation, permit, order or schedule of compliance at this or any other facility?
☐ Yes ☒ No

If Yes, list each permit, order or schedule of compliance and provide compliance status. Use additional sheets as necessary.

Permit Program:		Permit No.:	
Permit Program:		Permit No.:	
Permit Program:		Permit No.:	

Brief Description of Non-Compliance:

Steps Taken to Achieve Compliance	Date(s) Compliance Achieved

Current Compliance Status: ☒ In Compliance ☐ In Non-Compliance

CERTIFICATION AND SIGNATURE OF APPLICANT

I certify under penalty of law that this document and all attachments and modules were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Frank Capobianco	**Facility Manager**
Name (Type or Print Legibly)	**Official Title**
	**3/28/2024**
Signature	**Date**

DOCUMENT REVISION HISTORY

Date	Revision Reason
May 2019	Added row for additional SIC/NAICS code; removed corporate/professional seal request.
November 2017	Clarified that analysis results are required for each pollutant listed in the sampling results table.

SECTION 6

Semi-Annual Sampling Results

COVANTA

Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

CURRENT PERMIT SAMPLING RESULTS

Start Date: 10/1/2019
End Date: 9/30/2024

dead deer

	Benchmark		2H2019	1H2020	2H2020	1H2021	2H2021	1H2022	2H2022	1H2023	2H2023		
	Value	Units	11/22/19	6/18/20	9/15/20	6/3/2021	11/12/21	5/27/2022	10/17/2022	6/12/2023	11/21/2023	Avg	Max
Total Dissolved Solids	--	mg/L	820	256	300	380	222	614	< 100	1520	380	510.22	1520.00
Total Suspended Solids	100	mg/L	8	23	22	11	39	34	38	36	21	25.78	39.00
Chemical Oxygen Demand	120	mg/L	120	74	91	74	< 10	111	93	326	121	113.33	326.00
Cyanide, Total	--	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Ammonia Nitrogen	--	mg/L	0.5	0.47	0.33	0.99	0.32	1.10	0.53	1.03	0.52	0.64	1.10
Nitrate-Nitrite	--	mg/L	1.84	0.85		0.8		1.67		2.24	1.4	1.47	2.24
Magnesium, Dissolved	--	mg/L	11.1	4.1	3.2	3.1	4.1	10.3	4.3	13.6	10.8	7.18	13.60
Mercury	--	mg/L	< 0.2	0.24	< 0.2	< 0.2	0.24	0.22	< 0.2	< 0.2	< 0.2	< 0.21	< 0.24
Arsenic	--	mg/L	< 0.02	< 0.02		< 0.02		< 0.02		< 0.02	< 0.02	< 0.02	< 0.02
Barium	--	mg/L	0.08	0.06		0.07		0.1		0.15	0.04	0.08	0.15
Cadmium	--	mg/L	0.004	0.013	0.004	0.003	0.004	0.013	< 0.002	0.009	< 0.002	0.01	0.01
Chromium	--	mg/L	< 0.01	< 0.01		< 0.01		< 0.01		< 0.01	< 0.01	< 0.01	< 0.01
Iron	--	mg/L	0.28	1.65	0.7	0.18	1.14	0.74	2.27	0.89	0.29	0.90	2.27
Lead	--	mg/L	0.03	0.09	0.04	0.03	0.04	0.31	< 0.02	0.09	< 0.02	0.07	0.31
Magnesium	--	mg/L	8.6	5.5	3	< 0.02	5.9	10.9	92.3	14.8	11.4	16.94	92.30
Selenium	--	mg/L	< 0.02	< 0.02		< 0.02		< 0.02		< 0.02	< 0.02	< 0.02	< 0.02
Silver	--	mg/L	< 0.005	< 0.005		< 0.005		< 0.005		< 0.005	< 0.005	< 0.01	< 0.005
Oil & Grease	30	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5.00	< 5.00
Total Organic Carbon	--	mg/L	49.6	27.4		26.8		45.6		116	38.9	50.72	116.00
pH			7.54	7.6	8.25	8	8	8	7	8	8	7.82	8.25

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
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FAX: 814/445-6729

Friday, November 26, 2021

Kim Bradford
COVANTA PLYMOUTH RENEWABLE ENERGY
1155 CONSHOHOCKEN ROAD
CONSHOHOCKEN, PA 19428

RE: Stormwater Analysis 2nd SA Order No.: G2111B42

Dear Kim Bradford:

Geochemical Testing received 1 sample(s) on 11/17/2021 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

Leslie A. Nemeth
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *26-Nov-21*

CLIENT: COVANTA PLYMOUTH RENEWABLE
Project: Stormwater Analysis 2nd SA
Lab Order: G2111B42

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Submitted COC documentation incomplete with the following deficiencies: missing complete analysis requested (no additional attachments). Sample ID, sample date, sample time, sample matrix, sample type, number of containers and the appropriate preservation used with a specific container(s).

Samples were not filtered in the field for dissolved metals by EPA 200.7; samples were lab filtered and then preserved to pH < 2. The field filtering requirements of 40 CFR Part 136 were not met.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *26-Nov-21*

CLIENT:	COVANTA PLYMOUTH RENEWABLE ENERG	**Client Sample ID:**	1
Lab Order:	G2111B42		
Project:	Stormwater Analysis 2nd SA	**Sampled By:**	Covanta
Lab ID:	G2111B42-001	**Collection Date:**	11/12/2021 6:30:00 AM
Matrix:	AQUEOUS	**Received Date:**	11/17/2021 2:33:37 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
INORGANIC NON-METALS		Analyst: **GMG**				**SM 2540C**	**SM 2540 C**
Total dissolved solids	222	20		mg/L	1	11/18/21 2:00 PM	11/18/21 2:08 PM
PHYSICAL TESTS		Analyst: **GMG**				**SM 2540 D**	**SM 2540 D**
Total suspended solids	39	2		mg/L	1	11/18/21 4:10 PM	11/18/21 4:18 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **DMM**				**HACH 8000**	**HACH 8000**
Chemical Oxygen Demand	< 10	10		mg/L	1	11/18/21 10:40 AM	11/18/21 1:30 PM
INORGANIC NON-METALS		Analyst: **BEH**					**ASTM D7511-12**
Cyanide, total	< 0.020	0.020		mg/L	1		11/22/21 11:38 AM
INORGANIC NON-METALS		Analyst: **DMM**					**EPA 350.1 REV 2.0**
Ammonia Nitrogen	0.32	0.10		mg/L as N	1		11/19/21 9:40 AM
INORGANIC METALS		Analyst: **LEB**				**EPA 200.2**	**EPA 200.7 REV 4.4**
Magnesium, dissolved	4.1	0.1	Q1	mg/L	1	11/18/21 11:00 AM	11/19/21 9:53 AM
INORGANIC METALS		Analyst: **LXM**				**SM 3112 B**	**SM 3112 B**
Mercury	0.24	0.20		µg/L	1	11/18/21 9:35 AM	11/18/21 12:28 PM
INORGANIC METALS		Analyst: **LEB**				**EPA 200.2**	**EPA 200.7 REV 4.4**
Cadmium	0.004	0.002		mg/L	1	11/18/21 11:00 AM	11/19/21 9:45 AM
Iron	1.14	0.05		mg/L	1	11/18/21 11:00 AM	11/19/21 9:45 AM
Lead	0.04	0.02		mg/L	1	11/18/21 11:00 AM	11/19/21 9:45 AM
Magnesium	5.9	0.1		mg/L	1	11/18/21 11:00 AM	11/19/21 9:45 AM
INDICATOR ORGANIC PARAMETERS		Analyst: **HBB**				**EPA 1664A**	**EPA 1664 B**
Oil & Grease	< 5	5		mg/L	1	11/19/21 7:16 AM	11/19/21 2:52 PM

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

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Wednesday, June 8, 2022

Kim Bradford
COVANTA PLYMOUTH RENEWABLE ENERGY
1155 CONSHOHOCKEN ROAD
CONSHOHOCKEN, PA 19428

RE: Stormwater Analysis 1st SA Order No.: G2206028

Dear Kim Bradford:

Geochemical Testing received 1 sample(s) on 6/1/2022 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

Leslie A. Nemeth
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *08-Jun-22*

CLIENT: COVANTA PLYMOUTH RENEWABLE
Project: Stormwater Analysis 1st SA
Lab Order: G2206028

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Samples were not filtered in the field for dissolved metals by EPA 200.7; samples were lab filtered and then preserved to pH < 2. The field filtering requirements of 40 CFR Part 136 were not met.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *08-Jun-22*

CLIENT:	COVANTA PLYMOUTH RENEWABLE ENERG	**Client Sample ID:**	1H22 SW 05.27.22
Lab Order:	G2206028		
Project:	Stormwater Analysis 1st SA	**Sampled By:**	Covanta
Lab ID:	G2206028-001	**Collection Date:**	5/27/2022 3:45:00 PM
Matrix:	STORM WATER	**Received Date:**	6/1/2022 10:32:46 AM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
INORGANIC NON-METALS		Analyst: **GMG**				**SM 2540C**	**SM 2540 C**
Total dissolved solids	614	20		mg/L	1	06/01/22 1:30 PM	06/01/22 1:44 PM
PHYSICAL TESTS		Analyst: **GMG**				**SM 2540 D**	**SM 2540 D**
Total suspended solids	34	2		mg/L	1	06/02/22 2:45 PM	06/02/22 2:51 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **DMM**				**HACH 8000**	**HACH 8000**
Chemical Oxygen Demand	111	10		mg/L	1	06/02/22 9:22 AM	06/02/22 12:00 PM
INORGANIC NON-METALS		Analyst: **CML**					**ASTM D7511-12**
Cyanide, total	< 0.020	0.020		mg/L	1		06/02/22 4:51 PM
INORGANIC NON-METALS		Analyst: **DMM**					**EPA 350.1 REV 2.0**
Ammonia Nitrogen	1.10	0.10		mg/L as N	1		06/03/22 12:15 PM
INORGANIC NON-METALS		Analyst: **MJR**				**EPA 353.2**	**EPA 353.2**
Nitrate - Nitrite	1.67	0.05		mg/L as N	1	06/02/22 10:18 AM	06/03/22 9:50 AM
INORGANIC METALS		Analyst: **LEB**				**EPA 200.2**	**EPA 200.7 REV 4.4**
Magnesium, dissolved	10.3	0.1	Q1	mg/L	1	06/02/22 8:45 AM	06/02/22 9:18 PM
INORGANIC METALS		Analyst: **LXM**				**SM 3112 B**	**SM 3112 B**
Mercury	0.22	0.20		µg/L	1	06/03/22 6:30 AM	06/03/22 9:13 AM
INORGANIC METALS		Analyst: **LEB**				**EPA 200.2**	**EPA 200.7 REV 4.4**
Arsenic	< 0.02	0.02		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Barium	0.10	0.01		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Cadmium	0.013	0.002		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Chromium	< 0.01	0.01		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Iron	0.74	0.05		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Lead	0.31	0.02		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Magnesium	10.9	0.1		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Selenium	< 0.02	0.02		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
Silver	< 0.005	0.005		mg/L	1	06/02/22 8:45 AM	06/02/22 9:15 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **HBB**				**EPA 1664A**	**EPA 1664 B**
Oil & Grease	< 5	5		mg/L	1.01	06/02/22 10:06 AM	06/03/22 12:44 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **WGD**					**SM 5310 C-11**
Total Organic Carbon	45.6	1.0		mg/L	1		06/02/22 8:39 PM

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
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Monday, October 31, 2022

Kim Bradford
COVANTA PLYMOUTH RENEWABLE ENERGY
1155 CONSHOHOCKEN ROAD
CONSHOHOCKEN, PA 19428

RE: Stormwater Analysis 2nd SA Order No.: G2210A55

Dear Kim Bradford:

Geochemical Testing received 1 sample(s) on 10/19/2022 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

Leslie A. Nemeth
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *31-Oct-22*

CLIENT: COVANTA PLYMOUTH RENEWABLE
Project: Stormwater Analysis 2nd SA
Lab Order: G2210A55

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Samples were not filtered in the field for dissolved metals by EPA 200.7; samples were lab filtered and then preserved to pH < 2. The field filtering requirements of 40 CFR Part 136 were not met.

Submitted COC documentation incomplete with the following deficiencies: missing relinquishing information. Client made corrections to the COC and did not initial.

Glossary:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Glossary (continued)

1	Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.
B1	Dilution water blank exceeded method criterion.
C1	CCV recovery above the acceptance limits. Results may be biased high.
C2	CCV recovery below the acceptance limits. Results may be biased low.
C3	ICV recovery above the acceptance limits. Results may be biased high.
C4	ICV recovery below the acceptance limits. Results may be biased low.
C5	Positive values verified by second column confirmation.
C6	Confirmation analysis by another detector or chromatographic column was not performed.
D1	The analysis did not meet the minimum DO depletion of at least 2 mg/L.
D2	The analysis did not meet the minimum residual DO of at least 1 mg/L.
D3	Sample required dilution due to a matrix interference.
D4	Sample was diluted in the extraction steps due to marked matrix interferences.
D5	Sample required dilution due to a chloride interference.
D6	Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.
D7	Sample was digested at a dilution due to the formation of a post-digestion precipitate.
D8	Sample was digested at a dilution to achieve method compliant matrix spike recovery.
D9	Sample was digested at a dilution to meet method compliant digestion criteria.
E2	Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.
F1	Fecal sample tested positive for residual chlorine.
H1	Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.
H2	Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.
H3	Sample was re-analyzed outside of hold time due to error during original analysis.
H4	The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.
I1	Internal standard recovery above method acceptance limits. Results are estimated.
I2	Internal standard recovery was below method acceptance limits. Results are estimated.
IP	One of the instrument performance checks ( ) did not meet the acceptance criteria.
L1	LCS above the acceptance limits. Result may be biased high.
L2	LCS below the acceptance limits. Result may be biased low.
L3	Analyte was spiked into the LCS, but was not recovered.
M1	Matrix Spike recovery above the acceptance limits.
M2	Matrix Spike recovery below the acceptance limits.
M4	The matrix spike failed high for the surrogate.
M5	The matrix spike failed low for the surrogate.
M6	The reporting limits were raised due to sample matrix interference.
M7	Recovery for matrix spike could not be quantified due to matrix interference.
M8	Analyte was spiked into the MS, but was not recovered.
M9	Analyte concentration was determined by the method of standard addition (MSA).
N1	The lab does not hold accreditation from PA-DEP for this parameter by this method
N2	PADEP does not accredit labs for this analyte by this method.
N3	The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).
O1	The flashpoint tester cannot detect below 50 degrees F.
O2	Result is temperature of the sample when flame observed. No flash observed. Result qualified.
O3	The reporting limits were raised due to the high concentration of non-target compounds.
O4	Sample was received with headspace.
O5	Sample was received in incorrect container and is not compliant with 40CFR136 Table II.
O6	Insufficient sample volume was received to comply with the method.
P1	The pH of the sample was >2 and is not compliant with 40CFR136 Table II.
P2	Sample contained residual chlorine and is not compliant with 40CFR136 Table II
P3	The pH of the sample was <12 and is not compliant with 40CFR136 Table II.
P4	Field preservation does not meet EPA or method recommendations for this analysis.
P5	Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.
P6	Sample required additional preservative upon receipt.
P7	The sample was received unpreserved.
P8	The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.
R	Relative Percent Difference (RPD) was above the control limit.
R1	RPD above control limits between matrix spike and MS duplicates.
R2	RPD above the control limit between duplicates.
R3	RSD above the control limit between replicates.
R4	RPD above control limits between Inorganic Carbon check and spike.
R5	RPD above control limits between control sample and control sample duplicates.
S2	Surrogate recovery in the blank was below the control limit.
S3	Surrogate recovery in the blank was above the control limit.
S4	Surrogate recovery in the LCS is above the control limit.
S5	Surrogate recovery in the LCS is below the control limit.
SR	Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.
T3	Target analyte found in trip/field blank.
TC	The MS tune check (tailing factor) did not meet the acceptance criteria.

Laboratory Results

Geochemical Testing

Date: *31-Oct-22*

CLIENT:	COVANTA PLYMOUTH RENEWABLE ENERG	**Client Sample ID:**	PLY.SW. 2H2022
Lab Order:	G2210A55		
Project:	Stormwater Analysis 2nd SA	**Sampled By:**	Covanta
Lab ID:	G2210A55-001	**Collection Date:**	10/17/2022 5:00:00 PM
Matrix:	STORM WATER	**Received Date:**	10/19/2022 10:14:58 AM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FIELD PARAMETERS		Analyst:					**FIELD**
pH (Field)	7.0			S.U.			10/17/22 5:00 PM
INORGANIC NON-METALS		Analyst: **AGF**				**SM 2540C**	**SM 2540 C**
Total dissolved solids	< 100	100		mg/L	5	10/20/22 10:20 AM	10/20/22 10:28 AM
PHYSICAL TESTS		Analyst: **AGF**				**SM 2540 D**	**SM 2540 D**
Total suspended solids	38	2		mg/L	1	10/20/22 12:50 PM	10/20/22 12:57 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **MJR**				**HACH 8000**	**HACH 8000**
Chemical Oxygen Demand	93	10		mg/L	1	10/25/22 2:13 PM	10/26/22 10:22 AM
INORGANIC NON-METALS		Analyst: **CML**					**ASTM D7511-12**
Cyanide, total	< 0.020	0.020		mg/L	1		10/26/22 3:34 PM
INORGANIC NON-METALS		Analyst: **DMM**					**EPA 350.1 REV 2.0**
Ammonia Nitrogen	0.53	0.10		mg/L as N	1		10/20/22 10:32 AM
INORGANIC METALS		Analyst: **LEB**				**EPA 200.2**	**EPA 200.7 REV 4.4**
Magnesium, dissolved	4.3	0.1	Q1	mg/L	1	10/20/22 10:20 AM	10/21/22 9:08 AM
INORGANIC METALS		Analyst: **LXM**				**SM 3112 B**	**SM 3112 B**
Mercury	< 0.20	0.20		µg/L	1	10/20/22 7:05 AM	10/21/22 8:37 AM
INORGANIC METALS		Analyst: **LEB**				**EPA 200.2**	**EPA 200.7 REV 4.4**
Cadmium	< 0.002	0.002		mg/L	1	10/20/22 10:20 AM	10/21/22 9:05 AM
Iron	2.27	0.05		mg/L	1	10/20/22 10:20 AM	10/21/22 9:05 AM
Lead	< 0.02	0.02		mg/L	1	10/20/22 10:20 AM	10/21/22 9:05 AM
Magnesium	92.3	0.1		mg/L	1	10/20/22 10:20 AM	10/21/22 9:05 AM
INDICATOR ORGANIC PARAMETERS		Analyst: **HBB**				**EPA 1664A**	**EPA 1664 B**
Oil & Grease	< 5	5		mg/L	1	10/24/22 2:41 PM	10/25/22 1:17 PM

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

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Thursday, June 29, 2023

Kim Bradford
COVANTA PLYMOUTH RENEWABLE ENERGY
1155 CONSHOHOCKEN ROAD
CONSHOHOCKEN, PA 19428

RE: Stormwater Analysis 1st SA Order No.: G2306855

Dear Kim Bradford:

Geochemical Testing received 1 sample(s) on 6/14/2023 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

Leslie A. Nemeth
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *29-Jun-23*

CLIENT: COVANTA PLYMOUTH RENEWABLE
Project: Stormwater Analysis 1st SA
Lab Order: G2306855

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Samples were not filtered in the field for dissolved metals by EPA 200.7; samples were lab filtered and then preserved to pH < 2. The field filtering requirements of 40 CFR Part 136 were not met.

Glossary:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Glossary (continued)

1	Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.
B1	Dilution water blank exceeded method criterion.
C1	CCV recovery above the acceptance limits. Results may be biased high.
C2	CCV recovery below the acceptance limits. Results may be biased low.
C3	ICV recovery above the acceptance limits. Results may be biased high.
C4	ICV recovery below the acceptance limits. Results may be biased low.
C5	Positive values verified by second column confirmation.
C6	Confirmation analysis by another detector or chromatographic column was not performed.
D1	The analysis did not meet the minimum DO depletion of at least 2 mg/L.
D2	The analysis did not meet the minimum residual DO of at least 1 mg/L.
D3	Sample required dilution due to a matrix interference.
D4	Sample was diluted in the extraction steps due to marked matrix interferences.
D5	Sample required dilution due to a chloride interference.
D6	Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.
D7	Sample was digested at a dilution due to the formation of a post-digestion precipitate.
D8	Sample was digested at a dilution to achieve method compliant matrix spike recovery.
D9	Sample was digested at a dilution to meet method compliant digestion criteria.
E2	Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.
F1	Fecal sample tested positive for residual chlorine.
H1	Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.
H2	Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.
H3	Sample was re-analyzed outside of hold time due to error during original analysis.
H4	The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.
I1	Internal standard recovery above method acceptance limits. Results are estimated.
I2	Internal standard recovery was below method acceptance limits. Results are estimated.
IP	One of the instrument performance checks ( ) did not meet the acceptance criteria.
L1	LCS above the acceptance limits. Result may be biased high.
L2	LCS below the acceptance limits. Result may be biased low.
L3	Analyte was spiked into the LCS, but was not recovered.
M1	Matrix Spike recovery above the acceptance limits.
M2	Matrix Spike recovery below the acceptance limits.
M4	The matrix spike failed high for the surrogate.
M5	The matrix spike failed low for the surrogate.
M6	The reporting limits were raised due to sample matrix interference.
M7	Recovery for matrix spike could not be quantified due to matrix interference.
M8	Analyte was spiked into the MS, but was not recovered.
M9	Analyte concentration was determined by the method of standard addition (MSA).
N1	The lab does not hold accreditation from PA-DEP for this parameter by this method
N2	PADEP does not accredit labs for this analyte by this method.
N3	The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).
O1	The flashpoint tester cannot detect below 50 degrees F.
O2	Result is temperature of the sample when flame observed. No flash observed. Result qualified.
O3	The reporting limits were raised due to the high concentration of non-target compounds.
O4	Sample was received with headspace.
O5	Sample was received in incorrect container and is not compliant with 40CFR136 Table II.
O6	Insufficient sample volume was received to comply with the method.
P1	The pH of the sample was >2 and is not compliant with 40CFR136 Table II.
P2	Sample contained residual chlorine and is not compliant with 40CFR136 Table II
P3	The pH of the sample was <10 and is not compliant with 40CFR136 Table II.
P4	Field preservation does not meet EPA or method recommendations for this analysis.
P5	Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.
P6	Sample required additional preservative upon receipt.
P7	The sample was received unpreserved.
P8	The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.
R	Relative Percent Difference (RPD) was above the control limit.
R1	RPD above control limits between matrix spike and MS duplicates.
R2	RPD above the control limit between duplicates.
R3	RSD above the control limit between replicates.
R4	RPD above control limits between Inorganic Carbon check and spike.
R5	RPD above control limits between control sample and control sample duplicates.
S2	Surrogate recovery in the blank was below the control limit.
S3	Surrogate recovery in the blank was above the control limit.
S4	Surrogate recovery in the LCS is above the control limit.
S5	Surrogate recovery in the LCS is below the control limit.
SR	Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.
T3	Target analyte found in trip/field blank.
TC	The MS tune check (tailing factor) did not meet the acceptance criteria.

Laboratory Results

Geochemical Testing

Date: *29-Jun-23*

CLIENT:	COVANTA PLYMOUTH RENEWABLE ENERG	**Client Sample ID:**	PLY.SW.1H202.3
Lab Order:	G2306855		
Project:	Stormwater Analysis 1st SA	**Sampled By:**	Covanta Plymouth Renewable E
Lab ID:	G2306855-001	**Collection Date:**	6/12/2023 3:45:00 PM
Matrix:	STORM WATER	**Received Date:**	6/14/2023 5:10:03 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FIELD PARAMETERS		Analyst:					**FIELD**
pH (Field)	8.0			S.U.			06/12/23 3:45 PM
INORGANIC NON-METALS		Analyst: **AGF**				**SM 2540 C-15**	**SM 2540 C-15**
Total dissolved solids	1520	100		mg/L	5	06/16/23 3:05 PM	06/16/23 3:12 PM
PHYSICAL TESTS		Analyst: **AGF**				**SM 2540 D-15**	**SM 2540 D-15**
Total suspended solids	36	2		mg/L	1	06/15/23 2:50 PM	06/15/23 2:57 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **EMF**				**HACH 8000**	**HACH 8000**
Chemical Oxygen Demand	326	100		mg/L	1	06/23/23 3:52 PM	06/26/23 9:46 AM
INORGANIC NON-METALS		Analyst: **CML**					**ASTM D7511-17**
Cyanide, total	< 0.020	0.020		mg/L	1		06/22/23 2:39 PM
INORGANIC NON-METALS		Analyst: **DMM**					**EPA 350.1 REV 2.0**
Ammonia Nitrogen	1.03	0.10		mg/L as N	1		06/15/23 1:13 PM
INORGANIC NON-METALS		Analyst: **EMF**				**EPA 353.2 REV 2.0**	**EPA 353.2 REV 2.0**
Nitrate - Nitrite	2.24	0.10		mg/L as N	2	06/19/23 1:20 PM	06/20/23 1:26 PM
INORGANIC METALS		Analyst: **LXM**				**EPA 200.2 REV 2.8**	**EPA 200.7 REV 4.4**
Magnesium, dissolved	13.6	0.1	Q1	mg/L	1	06/16/23 9:20 AM	06/19/23 11:57 AM
INORGANIC METALS		Analyst: **LAP**				**SM 3112 B-11**	**SM 3112 B-11**
Mercury	< 0.20	0.20		µg/L	1	06/16/23 11:30 AM	06/19/23 8:39 AM
INORGANIC METALS		Analyst: **LXM**				**EPA 200.2 REV 2.8**	**EPA 200.7 REV 4.4**
Arsenic	< 0.02	0.02		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Barium	0.15	0.01		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Cadmium	0.009	0.002		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Chromium	< 0.01	0.01		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Iron	0.89	0.05		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Lead	0.09	0.02		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Magnesium	14.8	0.1		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Selenium	< 0.02	0.02		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
Silver	< 0.005	0.005		mg/L	1	06/16/23 9:20 AM	06/19/23 11:39 AM
INDICATOR ORGANIC PARAMETERS		Analyst: **HJS**				**EPA 1664A**	**EPA 1664 B**
Oil & Grease	< 5	5		mg/L	1.02	06/19/23 8:05 AM	06/19/23 1:10 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **KJW**					**SM 5310 C-14**
Total Organic Carbon	116	10		mg/L	10		06/21/23 2:43 AM

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Monday, December 4, 2023

Kim Bradford
COVANTA PLYMOUTH RENEWABLE ENERGY
1155 CONSHOHOCKEN ROAD
CONSHOHOCKEN, PA 19428

RE: Stormwater Analysis 2nd SA Order No.: G2311C61

Dear Kim Bradford:

Geochemical Testing received 2 sample(s) on 11/22/2023 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

Leslie A. Nemeth
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *04-Dec-23*

CLIENT: COVANTA PLYMOUTH RENEWABLE
Project: Stormwater Analysis 2nd SA
Lab Order: G2311C61

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Samples were not filtered in the field for dissolved metals by EPA 200.7; samples were lab filtered and then preserved to pH < 2. The field filtering requirements of 40 CFR Part 136 were not met.

Glossary:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

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I.D. 56-00306 PA DEP

Glossary (continued)

1	Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.
B1	Dilution water blank exceeded method criterion.
C1	CCV recovery above the acceptance limits. Results may be biased high.
C2	CCV recovery below the acceptance limits. Results may be biased low.
C3	ICV recovery above the acceptance limits. Results may be biased high.
C4	ICV recovery below the acceptance limits. Results may be biased low.
C5	Positive values verified by second column confirmation.
C6	Confirmation analysis by another detector or chromatographic column was not performed.
D1	The analysis did not meet the minimum DO depletion of at least 2 mg/L.
D2	The analysis did not meet the minimum residual DO of at least 1 mg/L.
D3	Sample required dilution due to a matrix interference.
D4	Sample was diluted in the extraction steps due to marked matrix interferences.
D5	Sample required dilution due to a chloride interference.
D6	Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.
D7	Sample was digested at a dilution due to the formation of a post-digestion precipitate.
D8	Sample was digested at a dilution to achieve method compliant matrix spike recovery.
D9	Sample was digested at a dilution to meet method compliant digestion criteria.
E2	Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.
F1	Fecal sample tested positive for residual chlorine.
H1	Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.
H2	Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.
H3	Sample was re-analyzed outside of hold time due to error during original analysis.
H4	The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.
I1	Internal standard recovery above method acceptance limits. Results are estimated.
I2	Internal standard recovery was below method acceptance limits. Results are estimated.
IP	One of the instrument performance checks ( ) did not meet the acceptance criteria.
L1	LCS above the acceptance limits. Result may be biased high.
L2	LCS below the acceptance limits. Result may be biased low.
L3	Analyte was spiked into the LCS, but was not recovered.
M1	Matrix Spike recovery above the acceptance limits.
M2	Matrix Spike recovery below the acceptance limits.
M4	The matrix spike failed high for the surrogate.
M5	The matrix spike failed low for the surrogate.
M6	The reporting limits were raised due to sample matrix interference.
M7	Recovery for matrix spike could not be quantified due to matrix interference.
M8	Analyte was spiked into the MS, but was not recovered.
M9	Analyte concentration was determined by the method of standard addition (MSA).
N1	The lab does not hold accreditation from PA-DEP for this parameter by this method
N2	PADEP does not accredit labs for this analyte by this method.
N3	The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).
N4	PADEP does not accredit labs for this analyte by this method in drinking water.
O1	The flashpoint tester cannot detect below 50 degrees F.
O2	Result is temperature of the sample when flame observed. No flash observed. Result qualified.
O3	The reporting limits were raised due to the high concentration of non-target compounds.
O4	Sample was received with headspace.
O5	Sample was received in incorrect container and is not compliant with 40CFR136 Table II.
O6	Insufficient sample volume was received to comply with the method.
P1	The pH of the sample was >2 and is not compliant with 40CFR136 Table II.
P2	Sample contained residual chlorine and is not compliant with 40CFR136 Table II
P3	The pH of the sample was <10 and is not compliant with 40CFR136 Table II.
P4	Field preservation does not meet EPA or method recommendations for this analysis.
P5	Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.
P6	Sample required additional preservative upon receipt.
P7	The sample was received unpreserved.
P8	The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.
R	Relative Percent Difference (RPD) was above the control limit.
R1	RPD above control limits between matrix spike and MS duplicates.
R2	RPD above the control limit between duplicates.
R3	RSD above the control limit between replicates.
R4	RPD above control limits between Inorganic Carbon check and spike.
R5	RPD above control limits between control sample and control sample duplicates.
S2	Surrogate recovery in the blank was below the control limit.
S3	Surrogate recovery in the blank was above the control limit.
S4	Surrogate recovery in the LCS is above the control limit.
S5	Surrogate recovery in the LCS is below the control limit.
SR	Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.
T3	Target analyte found in trip/field blank.
TC	The MS tune check (tailing factor) did not meet the acceptance criteria.

Laboratory Results

Geochemical Testing

Date: *04-Dec-23*

CLIENT:	COVANTA PLYMOUTH RENEWABLE ENERG	**Client Sample ID:**	PLY SW 2H2023
Lab Order:	G2311C61		
Project:	Stormwater Analysis 2nd SA	**Sampled By:**	Covanta
Lab ID:	G2311C61-001	**Collection Date:**	11/21/2023 4:00:00 PM
Matrix:	STORM WATER	**Received Date:**	11/22/2023 10:52:04 AM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
INORGANIC NON-METALS		Analyst: **AGF**				**SM 2540 C-15**	**SM 2540 C-15**
Total dissolved solids	380	100		mg/L	5	11/24/23 2:50 PM	11/24/23 2:58 PM
PHYSICAL TESTS		Analyst: **AGF**				**SM 2540 D-15**	**SM 2540 D-15**
Total suspended solids	21	2		mg/L	1	11/27/23 12:20 PM	11/27/23 12:28 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **EMF**				**HACH 8000**	**HACH 8000**
Chemical Oxygen Demand	121	10		mg/L	1	11/28/23 2:32 PM	11/29/23 10:08 AM
INORGANIC NON-METALS		Analyst: **BEH**					**ASTM D7511-17**
Cyanide, total	< 0.020	0.020		mg/L	1		11/24/23 1:33 PM
INORGANIC NON-METALS		Analyst: **DMM**					**EPA 350.1 REV 2.0**
Ammonia Nitrogen	0.52	0.10		mg/L as N	1		11/27/23 10:00 AM
INORGANIC METALS		Analyst: **TMS**				**EPA 200.2 REV 2.8**	**EPA 200.7 REV 4.4**
Magnesium, dissolved	10.8	0.1	Q1	mg/L	1	11/28/23 9:20 AM	11/29/23 1:13 PM
INORGANIC METALS		Analyst: **LXM**				**SM 3112 B-11**	**SM 3112 B-11**
Mercury	< 0.20	0.20		µg/L	1	11/28/23 9:10 AM	11/29/23 8:23 AM
INORGANIC METALS		Analyst: **TMS**				**EPA 200.2 REV 2.8**	**EPA 200.7 REV 4.4**
Cadmium	< 0.002	0.002		mg/L	1	11/28/23 9:20 AM	11/29/23 1:06 PM
Iron	0.29	0.05		mg/L	1	11/28/23 9:20 AM	11/29/23 1:06 PM
Lead	< 0.02	0.02		mg/L	1	11/28/23 9:20 AM	11/29/23 1:06 PM
Magnesium	11.4	0.1		mg/L	1	11/28/23 9:20 AM	11/29/23 1:06 PM
INDICATOR ORGANIC PARAMETERS		Analyst: **HJS**				**EPA 1664A**	**EPA 1664 B**
Oil & Grease	< 5	5		mg/L	1	11/24/23 8:17 AM	11/24/23 3:59 PM

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *04-Dec-23*

CLIENT:	COVANTA PLYMOUTH RENEWABLE ENERG	**Client Sample ID:**	PLY SW 2H2023
Lab Order:	G2311C61		
Project:	Stormwater Analysis 2nd SA	**Sampled By:**	Covanta
Lab ID:	G2311C61-002	**Collection Date:**	11/21/2023 4:00:00 PM
Matrix:	STORM WATER	**Received Date:**	11/22/2023 10:52:04 AM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
INORGANIC NON-METALS		Analyst: **EMF**				**EPA 353.2 REV 2.0**	**EPA 353.2 REV 2.0**
Nitrate - Nitrite	1.40	0.05		mg/L as N	1	11/27/23 4:05 PM	11/29/23 12:49 PM
INORGANIC METALS		Analyst: **TMS**				**EPA 200.2 REV 2.8**	**EPA 200.7 REV 4.4**
Arsenic	< 0.02	0.02		mg/L	1	11/28/23 8:30 AM	11/29/23 11:23 AM
Barium	0.04	0.01		mg/L	1	11/28/23 8:30 AM	11/29/23 11:23 AM
Chromium	< 0.01	0.01		mg/L	1	11/28/23 8:30 AM	11/29/23 11:23 AM
Selenium	< 0.02	0.02		mg/L	1	11/28/23 8:30 AM	11/29/23 11:23 AM
Silver	< 0.005	0.005		mg/L	1	11/28/23 8:30 AM	11/29/23 11:23 AM
INDICATOR ORGANIC PARAMETERS		Analyst: **HKR**					**SM 5310 C-14**
Total Organic Carbon	38.9	1.0		mg/L	1		11/29/23 9:08 AM

SECTION 7

Application Figures

COVANTA

Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

COVANTA
Powering Today. Protecting Tomorrow.

COVANTA PLYMOUTH RENEWABLE ENERGY LLC

MUNICIPAL SOLID WASTE
ENERGY RECOVERY FACILITY

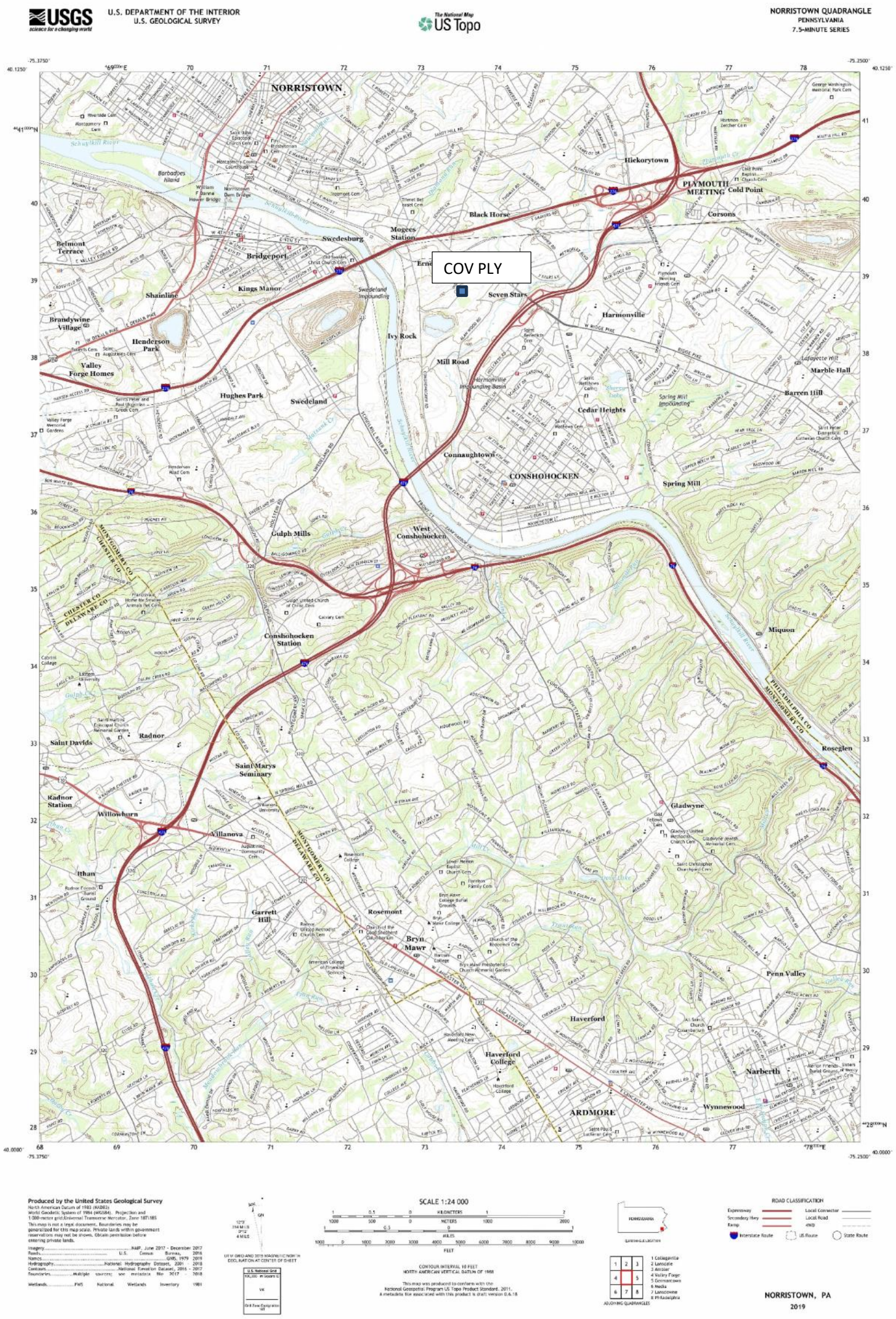
PLYMOUTH TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA

AERIAL SITE OVERVIEW

COVANTA PLYMOUTH RENEWABLE ENERGY LP
1155 Conshohocken Road, Conshohocken, PA 19428

PHOTO IMAGE 6/14/2023 COURTESY OF GOOGLE EARTH

FIGURE 2



USGS
science for a changing world

MAP TAKEN FROM U.S.G.S. 7.5 MINUTE,
NORRISTOWN QUADRANGLE.

COVANTA
Powering Today. Protecting Tomorrow.

COVANTA PLYMOUTH RENEWABLE ENERGY LLC

MUNICIPAL SOLID WASTE
ENERGY RECOVERY FACILITY

PLYMOUTH TOWNSHIP MONTGOMERY COUNTY PENNSYLVANIA

SITE LOCATION & TOPO MAP

COVANTA PLYMOUTH RENEWABLE ENERGY LP 1155 Conshohocken Road, Conshohocken, PA 19428	TOPO

EXTENDED SITE PLAN

SCALE: 1" = 1000'

GENERAL SHEET NOTES

1. THIS SITE PLAN IS FOR PERMITTING PURPOSES ONLY AND IS NOT FOR CONSTRUCTION.
2. DRAWING TOPOGRAPHY IS BASED ON LIDAR DATA AS PREPARED BY THE DCNR PAMAP PROGRAM IN JANUARY 2023.
3. UTILITY DATA IS BASED ON CLIENT-PROVIDED AS-BUILT DRAWING TITLED "COMPOSITE SITE AND UTILITY PLAN," AS PREPARED BY GIBBS & HILL, INC. IN APRIL 1991. BUILDING AND ROAD DATA IS BASED ON CLIENT-PROVIDED DRAWING TITLED "SITE PLAN," AS PREPARED BY BAI GROUP, INC. IN MAY 2013.
4. SOILS DATA IS BASED ON NRCS WEB SOIL SURVEY.
5. PROPERTY BOUNDARIES ARE BASED ON MONTGOMERY COUNTY GIS.

LEGEND:

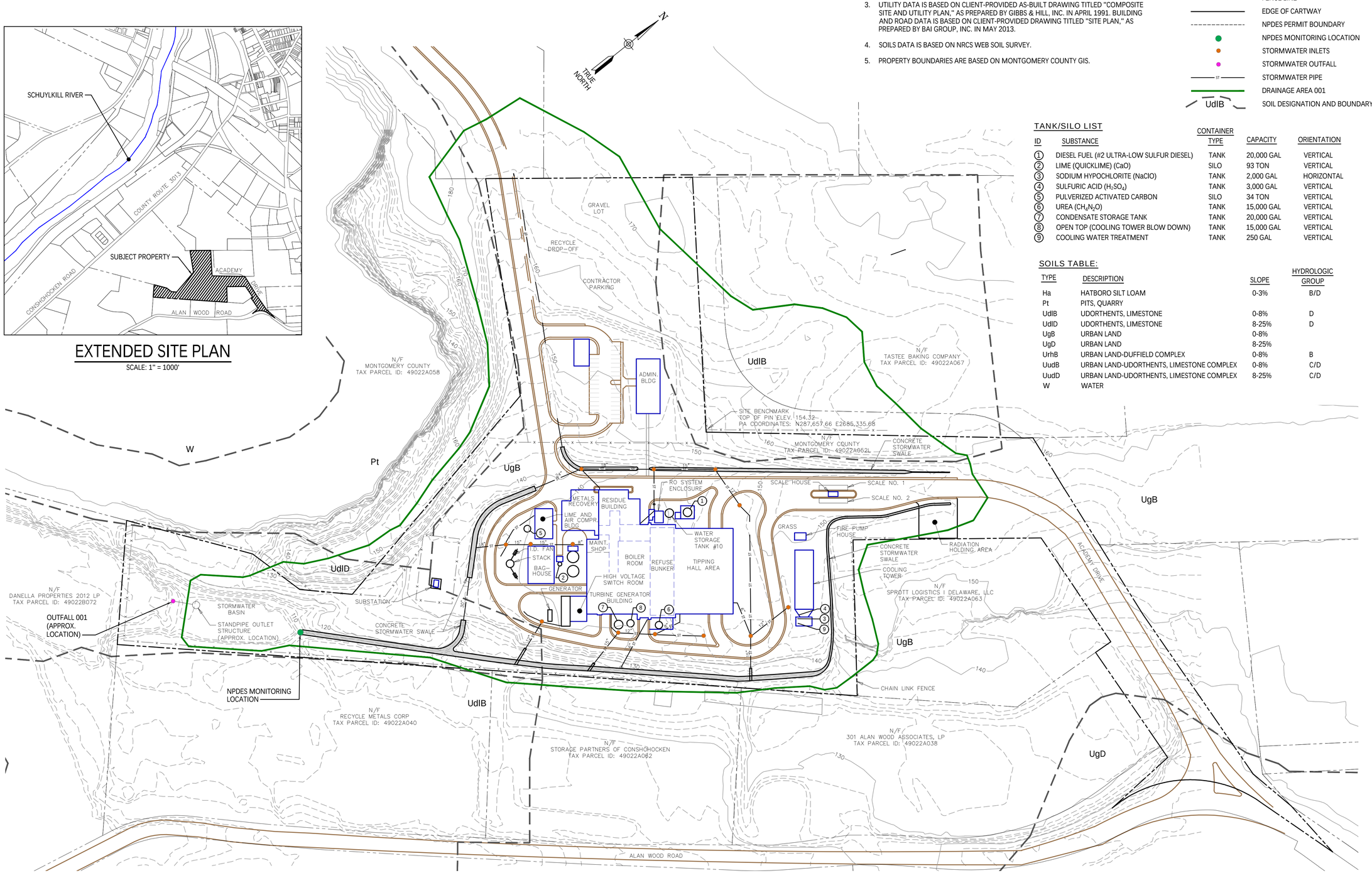
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPERTY LINE
- FENCE LINE
- EDGE OF CARTWAY
- NPDES PERMIT BOUNDARY
- NPDES MONITORING LOCATION
- STORMWATER INLETS
- STORMWATER OUTFALL
- STORMWATER PIPE
- DRAINAGE AREA 001
- SOIL DESIGNATION AND BOUNDARY

TANK/SILO LIST

ID	SUBSTANCE	CONTAINER TYPE	CAPACITY	ORIENTATION
1	DIESEL FUEL (#2 ULTRA-LOW SULFUR DIESEL)	TANK	20,000 GAL	VERTICAL
2	LIME (QUICKLIME) (CaO)	SILO	93 TON	VERTICAL
3	SODIUM HYPOCHLORITE (NaClO)	TANK	2,000 GAL	HORIZONTAL
4	SULFURIC ACID (H_2SO_4)	TANK	3,000 GAL	VERTICAL
5	PULVERIZED ACTIVATED CARBON	SILO	34 TON	VERTICAL
6	UREA (CH_4N_2O)	TANK	15,000 GAL	VERTICAL
7	CONDENSATE STORAGE TANK	TANK	20,000 GAL	VERTICAL
8	OPEN TOP (COOLING TOWER BLOW DOWN)	TANK	15,000 GAL	VERTICAL
9	COOLING WATER TREATMENT	TANK	250 GAL	VERTICAL

SOILS TABLE:

TYPE	DESCRIPTION	SLOPE	HYDROLOGIC GROUP
Ha	HATBORO SILT LOAM	0-3%	B/D
Pt	PITS, QUARRY		
UdlB	UDORTHENTS, LIMESTONE	0-8%	D
UdlD	UDORTHENTS, LIMESTONE	8-25%	D
UgB	URBAN LAND	0-8%	
UgD	URBAN LAND	8-25%	
UrhB	URBAN LAND-DUFFIELD COMPLEX	0-8%	B
UudB	URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX	0-8%	C/D
UudD	URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX	8-25%	C/D
W	WATER		



SITE PLAN

SCALE: 1" = 100'

REVISIONS

COVANTA PLYMOUTH
NPDES PERMIT RENEWAL APPLICATION

EXISTING CONDITIONS SITE PLAN

PLYMOUTH TOWNSHIP
MONTGOMERY COUNTY, NEW YORK

Barton & Loguidice
Engineers, PLLC
3901 Hartzdale Dr, Suite 101
Camp Hill, PA 17011

Date: MARCH 2024
Scale: 1" = 100'
Sheet Number: C100
Project Number: 1999.011.001

Plotted: Apr 01, 2024 - 12:45PM By: bbrien
Z:\BL-Vault\D2\18217A02-1C71-4823-8927-99D5C4D54147\D\3078000-3078999\3078038\L\L\1999.011.001 - Ex. Site Plan (ID 3078038).dwg

In charge of
Designed by
Drawn by BAB
Checked by

SECTION 8

PPC Plan

COVANTA

Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy, LLC.

NPDES Industrial Stormwater Renewal Application

Permit Number PA0052906

April 2024

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
March 11, 2024
DEP USE ONLY
Date Received

FORM L
CONTINGENCY PLAN FOR EMERGENCY PROCEDURES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form L, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: 273.181; 277.181; 279.109; 281.141; 283.110; 288.171; 289.163; 293.109; 295.141; 297.111; 299.216

SECTION A. SITE IDENTIFIER

Applicant/permittee: Covanta Plymouth Renewable Energy

Site Name: Covanta Plymouth Renewable Energy, LLC.

Facility ID (as issued by DEP): 400558

SECTION B. CHECK TYPE OF FACILITY

Municipal Waste Landfill	☐	Residual Waste Disposal Impoundment	☐
Construction/Demolition Waste Landfill	☐	Residual Waste Composting Facility	☐
Composting Facility	☐	Land Application of Residual Wastes	☐
Demonstration Facility	☐	Residual Waste Demonstration Facility	☐
Transfer Facility	☐	Residual Waste Transfer Facility	☐
Incinerator or Resource Recovery Facility	☒	Residual Waste Incinerator	☐
Other Waste Processing Facility	☐	Oil and Gas Wastewater Storage Impoundment	☐
Residual Waste Landfill	☐	Other Residual Waste Processing Facility	☐

SECTION C. CONTINGENCY PLAN

A contingency plan, relating to emergency procedures, must be developed and implemented for the proposed waste management facility. The plan must include a Preparedness, Prevention and Contingency Plan (PPC Plan) that is consistent with the Department's most recent guidelines, #400-2200-001, titled, Development and Implementation of Environmental Emergency Response Plans (http://www.dep.state.pa.us/dep/deputate/airwaste/wm/mrw/forms/master-forms.htm). The format is that of the PPC Plan guidelines. In addition, the contingency plan must contain provisions that require routine drills and equipment tests targeted at preventing hazards at the facility. These additional provisions should appear at various locations in the PPC Plan Guidelines, as follows:

1. In addition to the requirements of Section II-C (Spill Leak Prevention and Response) of the PPC Plan guidelines, describe how the proposed facility will be designed, constructed, maintained, and operated to prevent and minimize potential for fire, explosion or release of solid waste constituents to the air, water or land. As part of this Section, include but do not limit information to site maps, product storage areas, transfer areas, process/handling areas, truck and railcar loading and unloading areas, and waste handling and storage areas. It will also be necessary to address the trucking of leachate, whether permanent or temporary, in this Section of the PPC Plan.
2. For municipal and residual waste landfill, construction/demolition waste landfill, and residual waste disposal impoundment applications:
   a) In addition to the requirements of Section II-D.5 (Emergency Equipment Available for Response) of the PPC Plan guidelines, indicate the available first aid facilities, their location(s) at the facility, and procedures for their proper management and maintenance.
3. For resource recovery facility and other municipal or residual waste processing facility applications:
   a) In addition to the requirements of Section II-C.8 (Employee Training Program) of the PPC Plan Guidelines, describe the development of an Accident Prevention and Safety Plan to protect employees and patrons of the facility. The Accident Prevention and Safety Plan must include:

SECTION C. (Continued)

i) The development of an employee safety handbook, to be issued to each employee

ii) Special operating procedures for potentially dangerous activities, which will be posted in relevant operating areas

iii) A schedule of ongoing safety programs that must be conducted, as required

iv) Emergency telephone numbers and basic procedures for first aid which will be posted throughout the facility

b) In Section II-A.2 (Emergency Response Plans) of the PPC Plan Guidelines, explain State and Federal laws pertaining to occupational safety and their implementation, as well as the implementation of operation, safety and maintenance procedures recommended by the designers or manufacturers of equipment at the facility.

c) In Section II-C.4 (Preventive Maintenance) of the PPC Plan Guidelines, explain how proper ventilation of the facility will be conducted. Further, describe how open burning will be prevented.

4. Provide an up-to-date list of all available emergency equipment. The list must include the location, a physical description, maintenance and testing schedule, and a brief description of the intended use and capabilities of each item on the list. In addition, for each of the types of equipment identified below, check a box to indicate whether it will be available for use during an emergency, and include specific information in the respective section of the PPC Plan. If you check "Available," identify the specific equipment which will be used. If you check "Not Available," explain in detail why such equipment is not necessary to protect public health, safety, public welfare, and the environment during an emergency:

Available	Not Available		
☒	☐	a.	Internal Communication or Alarm System (incorporate into Section II-D.3 (Internal and External Communication and Alarm System) of PPC Plan)
☒	☐	b.	Communication system capable of summoning emergency assistance. (incorporate into Section II-D.3 of PPC Plan)
☒	☐	c.	Portable Fire Extinguishers (incorporate into Section II-D.5 (Emergency Equipment Available for Response) of PPC Plan)
☐	☒	d-1.	Fire Control Equipment for Landfill (incorporate into Section II-D.5 of PPC Plan)
☒	☐	d-2.	Fire Control Equipment for Resource Recovery Facility, Transfer Station, and Composting Facility – describe the facility water supply, and quantity and pressure of water needed to supply equipment. (incorporate into Section II-D.5 of PPC Plan)
☒	☐	e.	Spill Control Equipment (incorporate into Sections II-E (Emergency Control Network); II-C.3 (Inspection and Monitoring Program), II-C.4 (Preventive Maintenance); and II-C.5 (Housekeeping Program); and II-D.5 of PPC Plan)
☒	☐	f.	Decontamination Equipment (incorporate into Section II-D.5 of PPC Plan)
☐	☒	g.	Portable Gas Explosimeters (incorporate into Section II-D.5 of PPC Plan)
☐	☒	h.	Other Gas Monitoring Equipment (incorporate into Section II-D.5 of PPC Plan)

5. In addition to the requirements of Section II-B.3 (Duties and Responsibilities of the Coordinator) of the PPC Plan guidelines, describe how adequate space will be maintained to allow the unobstructed movement of emergency personnel and equipment to any operating area of the facility. Explain what measures will be taken to provide emergency agencies with the specific PPC Plan for the facility, as well as if the facility will continue to operate in the event of an emergency.

SECTION D. IMPLEMENTATION OF THE CONTINGENCY PLAN

The operator of the facility shall immediately implement the applicable provisions of the approved contingency plan in the event of an emergency. The term "emergency" includes a fire, spill or other event that threatens public health, safety, public welfare, or the environment, and personal injury.

In addition to the requirements of Section II-B.3 and Appendix I (Examples of an Emergency Coordinator's Duties and Responsibilities) of the PPC Plan guidelines, explain the duties and responsibilities of the emergency coordinator of the facility, using the following as guidance.

In the event of an emergency, the operator shall:

1. Make an assessment of actual or potential hazards to public health and safety, public welfare and the environment, that are occurring or may occur.

2. Ensure that fires, spills or other hazards do not occur, reoccur or spread to other solid waste at the facility.

3. Immediately phone the local and/or county and the Department's emergency management agency, and report the following:

    a. name and phone number of person reporting the incident;

    b. name, address, and permit number of the facility;

    c. date, time and location of emergency;

    d. description of the nature of the emergency;

    e. type and quantity of solid waste involved;

    f. existence of dangers to public health, safety, public welfare, and the environment;

    g. nature of injuries; and

    h. parts of the contingency plan being implemented to alleviate the emergency.

4. After an emergency, the operator shall:

    a. clean up the affected area;

    b. treat, store or dispose of recovered solid waste, contaminated soil or contaminated waste in a manner approved by the Department. Testing of the affected area may be necessary to assure that spilled contaminants have been removed adequately; and

    c. prevent disposal, processing, storage or treatment of solid waste in the area affected by the emergency until the operator has cleaned up the area, and the Department has inspected and approved the cleanup.

Requested Revision Notes:

- PPC Plan has been updated to reflect staffing changes.
- Narratives of the procedures for emergency chain of command can be found in the following sections:
  - Section C-11 - Contingency Plan
  - Section N (pg. 51 of pdf / N-1) - List of Emergency Coordinators
  - Section O – Duties and Responsibilities of The Emergency Coordinator
  - Section P - Chain of Command
  - Section II – Evacuation Plan for Facility Personnel

COVANTA PLYMOUTH RENEWABLE ENERGY LLC

Preparedness, Prevention, and Contingency Plan

(Pennsylvania PPC Plan)

2024

This plan has been reviewed and deemed appropriate, accurate, and complete for the purpose(s) of addressing all identifiable emergency hazards and control procedures for the Covanta Plymouth Renewable Energy LLC Facility located in Plymouth Township, Montgomery County in the Commonwealth of Pennsylvania.

REVISION 03/2024

COVANTA

Powering Today. Protecting Tomorrow.

Covanta Plymouth Renewable Energy Llc
1155 Conshohocken Road, Conshohocken, PA 19428-1028

Preparedness, Prevention, and Contingency Plan

(Pennsylvania PPC Plan)

This plan has been reviewed and deemed appropriate, accurate, and complete for the purpose(s) of addressing identifiable emergency hazards and control procedures for the Covanta Plymouth Renewable Energy LLC Facility.

If there are questions concerning the most recent revisions to this plan, see refer to the original document on file in the Environmental Compliance office.

Name: Frank Capobianco, Facility Manager

Signature: 

Reviewed/Revised: 03/11/2024

Approved:

PLAN APPROVALS & REVISIONS SUMMARY

REVISION	SECTION(S) REVIEWED	SECTION(S) REVISED	REVIEW & REVISIONS APPROVED
20240311	ALL SECTIONS	All Contact & Title Update	03/11/2024
20230607	ALL SECTIONS	All Contact & Title Update	06/07/2023
20210728	ALL SECTIONS	All Contact & Title Update	07/28/2021
20200901	ALL SECTIONS	All Contact & Title Updates	09/01/2020
20190601	ALL SECTIONS	None	06/01/2019
20180320	ALL SECTIONS	B, C, D, E, N, BB	03/20/2018
20170328	ALL SECTIONS	N, BB	03/28/2017
20150909	ALL SECTIONS	N, BB, APP-VI	09/09/2015
20150317	ALL SECTIONS	A, C, D, N, Q, BB	03/17/2015

TABLE OF CONTENTS

SECTION TITLE	SECTION	PAGE(S)
A. GENERAL DESCRIPTION OF INDUSTRIAL AND COMMERCIAL ACTIVITIES	**A**	**4**
B. DESCRIPTION OF CURRENT EMERGENCY RESPONSE PLANS	**B**	**1**
I. Topics included in this section	B – 1	
II. The Organizations Structure for Emergency Response	B – 2	
1. Facility Manager	B – 2	
2. Operations Manager	B – 2	
3. Shift Supervisor	B – 2	
C. ORGANIZATIONAL STRUCTURE FOR IMPLEMENTATION	**C**	**1**
I. Safety Committee	C – 1	
1. Responsibilities	C – 1	
2. Personnel	C – 1	
3. Safety Administrator	C – 1	
4. Maintenance and Operations Supervisors	C – 2	
5. Hourly Maintenance and Operations Personnel	C – 2	
II. Outside Organizations	C – 2	
III. Contingency Plan	C – 2	
1. Explosions or Fires	C – 2	
2. Spills or Leaks	C – 3	
3. Emergency Procedures	C – 3	
4. Exposure Control Plan (Bloodborne Pathogens)	C – 5	
D. MATERIAL AND WASTE INVENTORY	**D**	**2**
I. Spill Prevention Control and Countermeasures (SPCC)	D – 1	
1. Oils	D – 2	
2. Solvents and Chemicals	D – 2	
II. Spill Prevention Control	D –3	
1. Tanks	D – 3	
2. Drums	D – 3	
III. Spill Cleanup	D –3	
IV. Waste Inventory	D –3	
1. Hazardous Waste Produced by Facility	D – 3	
2. Hazardous Waste Brought Onto Facility	D – 4	
E. SPILL AND LEAK PREVENTION	**E**	**1**
I. Spill and Leak Control	E – 1	
II. Non Liquid Chemicals	E – 1	
III. Emergency Response Equipment	E – 1	
F. MATERIAL COMPATIBILITY	**F**	**1**
I. Chemicals	F – 1	
G. INSPECTION AND MONITORING	**G**	**1**
H. PREVENTIVE MAINTENANCE	**H**	**1**
I. HOUSEKEEPING PROGRAM	**I**	**1**
J. SECURITY	**J**	**4**
PLANT SECURITY PROCEDURES	J – 1	
I. PURPOSE	J – 1	
II. ACCESS	J – 1	
III. III.VEHICLE ENTRY CONTROL	J – 1	
IV. TRANSPORT VEHICLES	J – 1	
V. FACILITY PERSONNEL	J – 2	
VI. VISITORS	J – 2	

TABLE OF CONTENTS

SECTION TITLE	SECTION	PAGE(S)
VII. DELIVERY AND SERVICE VEHICLES	J – 3	
VIII. PRIVATE VEHICLES	J – 3	
IX. EMERGENCY VEHICLES	J – 4	
K. EXTERNAL FACTORS	**K**	**2**
STACK BEACON LIGHTING	K – 2	
I. Scheduled/ Planned outage	K – 2	
II. Unscheduled	K – 2	
L. INTERNAL AND EXTERNAL COMMUNICATIONS (ALARM SYSTEM)	**L**	**1**
M. EMPLOYEE TRAINING PROGRAM (Prior to Facility Start-up)	**M**	**1**
I. Current Employees	M – 1	
N. LIST OF EMERGENCY COORDINATORS	**N**	**2**
O. DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR	**O**	**3**
I. Emergency Steps	O – 1	
1. Notification	O – 1	
2. Scope of Emergency	O – 1	
3. Procedures for Fire and Explosion	O – 1	
4. Procedures for Spills or Release of Materials	O – 2	
5. Emergency Response Personnel	O – 2	
6. Vapors from Spills or Release of Materials	O – 2	
7. Recurrence Prevention	O – 3	
8. Changes to the Contingency Plan	O – 3	
P. CHAIN OF COMMAND	**P**	**1**
Q. AGENCY NOTIFICATION	**Q**	**2**
R. EMERGENCY EQUIPMENT	**R**	**4**
I. Portable Fire Extinguishers	R – 1	
II. Water Supply	R – 1	
III. Yard Hydrant and Fire Protection Water Supply Network	R – 1	
IV. Main Step-up Transformer Fire Protection	R – 1	
V. Automatic Sprinkler Systems	R – 1	
VI. Fire Hose Stations	R – 2	
VII. Portable Foam Firefighting Cart/Charging Deck	R – 2	
VIII. Halon 1301 Fire Protection System	R – 2	
IX. Local Fire Protection and Suppression Control Panels	R – 2	
X. Central Control Room Annunciator Panel	R – 3	
XI. Protecting Clothing and Equipment	R – 3	
XII. Eye Wash and First Aid	R – 4	
XIII. Emergency Equipment	R – 4	
S. EVACUATION PLAN FOR FACILITY PERSONNEL	**S**	**2**
I. Emergency Signal	S – 1	
II. Emergency Coordinator	S – 1	
III. Alarm Conditions / Central Alarm Sounded	S – 1	
1. First Alert	S – 1	
2. Second Alert	S – 2	
IV. All Clear	S – 2	
V. Reports	S – 2	

TABLE OF CONTENTS

SECTION TITLE	SECTION	PAGE(S)
VI. Drills	S – 2	
T. ARRANGEMENTS WITH EMERGENCY RESPONSE CONTRACTORS	**T**	**1**
U. ARRANGEMENTS WITH LOCAL EMERGENCY RESPONSE	**U**	**1**
FIRE		
POLICE		
MEDICAL		
V. POLLUTION INCIDENT HISTORY	**V**	**1**
W. IMPLEMENTATION SCHEDULE	**W**	**1**
X. STORMWATER MANAGEMENT PRACTICES	**X**	**5**
Best Management Practices	X – 1	
Stormwater Sampling / Reporting Methodology	X – 2	
Annual Inspection Form for NPDES General Permit Form 3800-PM-WSFR0083v Rev. 11/2010, Annual Inspection	X – 3	
Y. SEDIMENT AND EROSION PREVENTION	**Y**	**1**
Z. ADDITIONAL REQUIREMENTS FOR EPCRA, SECTION 313 FACILITIES	**Z**	**1**
AA. RADIATION RESPONSE PROCEDURE	**AA**	**1**
BB. CRISIS COMMUNICATION PROCEDURE	**BB**	**1**
FACILITY EMERGENCY CONTACT LIST	BB – 1	
CC. RESERVED	**CC**	**1**

TABLES

NO.	TITLE	SECTION	PAGE	REVISION
C - 1	Emergency Procedures CONTINGENCY PLAN AND EMERGENCY ACTION	C	C – 6	
C - 2	Emergency Procedures – Bloodborne Pathogens Exposure CONTINGENCY PLAN AND EMERGENCY ACTION	C	C – 8	

Diagrams

NO.	TITLE	SECTION	PAGE	REVISION
C - 1	Emergency Procedures Diagram	C	C – 7	

TABLE OF CONTENTS

APPENDICES

APPENDIX #.	TITLE			PAGES	LAST REVISED
APPENDIX I.	**SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN**			**4**	**03/17/2015**
APPENDIX II.	**FIGURES**			**5**	**03/17/2015**
	Site Locations Plan (U.S.G.S.)			FIGURE 1	
	Evacuation Routes			FIGURE 2	
	Emergency Response Organizational Structure			FIGURE 3	
	PPC Organizational Structure			FIGURE 4	
	Scheme – Hazardous Waste and Spills			FIGURE 5	
APPENDIX III.	**EVACUATION ROUTE DIAGRAMS**				**03/17/2015**
1.	Ground Floor	Elevation	142’	APP III - 1	
2.	2nd Floor	Elevation	164’	APP III – 2	
3.	3rd Floor	Elevation	178’	APP III – 3	
4.	4th Floor	Elevation	193’	APP III – 4	
5.	5th Floor	Elevation	204’	APP III – 5	
6.	6th Floor	Elevation	214’	APP III – 6	
7.	7th Floor	Elevation	224’	APP III – 7	
8.	8th Floor	Elevation	235’	APP III – 8	
9.	9th Floor	Elevation	251’	APP III – 9	
10.	Administration Building			APP III – 10	
APPENDIX IV.	**REFERENCES**				**03/28/2017**
I.	Training Course Outline			APP IV – 1	
II.	Systems Training Criteria			APP IV – 1	
III.	Other General Systems			APP IV – 1	
IV.	Utility Plan Blueprint			APP IV – 1	
APPENDIX V.	**SAFETY PROCEDURE NO. 40 – BLOODBORNE PATHOGENS**				**03/17/2015**
APPENDIX VI.	**SAFETY RESPONSE – ELECTRICAL EMERGENCIES**				**03/28/2017**

A. GENERAL DESCRIPTION OF INDUSTRIAL AND COMMERCIAL ACTIVITIES

The Covanta Plymouth Renewable Energy Facility is located in Plymouth Township, Montgomery County, Pennsylvania (Figures 1 and 2. Appendix II). The facility site, exclusive of access roads, encompasses 20.94 acres.

Operating personnel, material delivery trucks, emergency vehicles, and visitors enter the site from Conshohocken Road via the service road. Access to the site for the refuse and residue vehicles is from Alan Wood Road. Only the site gate on Alan Wood Road shall be open during normal delivery hours. Access to the site by authorized vehicles during non-delivery hours and off Conshohocken Road during delivery hours will be controlled by a closed circuit television camera and an automatic gate. The camera shall be located at the personnel access gate with a monitor located in the control room. The automatic gate shall be operated from the control room.

The facility consists of a tipping hall, refuse bunker, charging cranes, furnace/boilers, ash removal system, steam turbine-generator, condensers, cooling tower, boiler feedwater pumps, condensate pumps, feedwater heaters, deaerator, plant makeup water treatment system, chemical feed system, electrical switchgear, transformers, acid gas scrubber's, baghouses, fans, stack, storage tanks and other components required to efficiently receive, store, handle and burn 1200 TPD of Municipal Solid Waste to produce 32MW of electrical energy (Figures 4.13 thru 4.28, Appendix III).

Refuse trucks will enter the facility and be weighed on either of two scales (Figures 4.13 and 4.14, Appendix III) before proceeding to the tipping hall. Space is provided to queue at least ten refuse vehicles prior to the scales (Figure 4.13, Appendix III). In the tipping bays, the entering refuse truck will be directed to one of 12 open tipping bays (Figure 4.18, Appendix III) for discharge of its refuse into the storage pit. Trucks will leave the plant area along the same road as entering trucks.

Trucks normally require no more than 10 minutes on site to discharge their load. Two overhead console-operated bridge cranes in the refuse bunker area will then move the refuse from the bunker receiving area and stockpile it against the furnace side pit wall of the bunker (Figure 4.25, Appendix III). This procedure is used to mix the incoming refuse to assure as constant a fuel heating value as possible. From the stockpiled area of the pit, the cranes transfer the refuse to the furnace feed hoppers as required by the combustion process.

Refuse is fed from the furnace feed hoppers onto the furnace grates by hydraulic ram feeders. The movement of refuse over the grate is controlled by individually varying the movement of any one or all five of the hydraulically operated grate sections. The ash remaining from the combustion process is rejected from the bottom end of the grate area to a water-filled quench hopper. Ash is then removed from the quench hopper by a hydraulic ram-operated ash extractor, where it is dewatered by a combination of gravity and squeezing action; then deposited onto an ash removal conveyor. The ash removal conveyor takes the ash from the ash extractors through the metal recovery system prior to placement into the ash storage pit. Ash from the scrubbers and bag houses is combined with the bottom ash prior to disposal. An ash crane moves the ash to covered ash removal trucks for transport to the landfill area.

Emergency ash storage is provided by moving the movable residue transfer vibratory conveyor to allow ash to fall to a temporary impermeable storage pit; then transferred with a skid steer loader to the primary ash storage pit.

The boilers are constructed of water-cooled walls, steam drum, superheater, evaporator and economizer sections. Steam produced in the boilers is transferred through steam piping to a single 32 MW steam turbine-generator. Steam extraction points from the turbine provide steam for deaeration and feedwater heating and other auxiliary uses. Turbine exhaust steam is condensed in a surface condenser located below the steam turbine-generator.

Two 100-percent plant capacity condensate pumps take suction from the hotwell of the condenser and discharge through a low-pressure feedwater heater and control valves to the deaerator. Three 100-percent plant capacity boiler feedwater pumps take suction from the deaerated feedwater storage tank and provide feedwater to each boiler. A level controlled feedwater drain system takes cascading drains from the feedwater heaters to the condensate storage tank.

To assure that refuse can be burned during periods when the turbine-generator is out-of-service, a steam dump condenser is provided. This condenser is sized to condense the full steam output of two boilers plus de-superheating flow, less the steam required for feedwater de-aeration.

A connection from the main steam header is provided to allow for future export of steam at any required flow (up to maximum steam output), pressure and temperature (up to 600 psig and 750°F).

Cooling for the main and dump condenser cooling water is provided by an induced draft cooling tower. Three 50-percent plant capacity circulating water pumps taking suction from the cooling tower basin; discharge through the main condenser and dump condenser before returning the circulating water to the distribution headers in the cooling tower. The circulating water pumps and system are also designed to provide circulating water to heat exchangers in the auxiliary cooling water system. The auxiliary cooling water system is provided with two 100-percent plant capacity cooling water pumps and used to provide the cooling water requirements to all plant auxiliary equipment.

To startup the boilers, three No. 2 fuel oil-fired burners are provided per boiler. A fuel oil system consisting of a 22,000 gallon fuel oil storage tank and three 100-percent plant capacity fuel oil burner pumps is provided.

To provide condensate for boiler feedwater makeup, as well as surge capacity during operation, a condensate storage tank and condensate transfer pumps (two 100-percent plant capacity) are furnished. The condensate storage tank will also provide storage capacity for draining a boiler for maintenance or repair.

Flue gas is routed from each boiler flue gas outlet through an acid gas dry scrubber/bag house system to an induced draft fan. Each induced draft fan discharges to its own flue contained in a single facility stack.

The facility uses a ferrous and non-ferrous extraction system associated with the ash removal equipment. The metals recovery system will remove metals from the ash and deposit them in bunkers located in the metals recovery building attached to the residue building.

Sprinklers or water sprays are installed where combustible equipment or equipment containing combustibles are present. Hose stations and portable extinguishers are being provided in accordance with NFC 10, to augment the fixed fire suppression systems. The cable void and sealed area are protected by a Halon 1301 system. A hose standpipe system, complete with fire hose is used throughout the plant areas.

The refuse pit is protected by two rail mounted water guns, each covering one half of the pit area and manually operated from the charging deck. Two foam filled portable carts are available to extinguish incipient stage fires in/around the charging hoppers.

Hydrants are installed outdoors in accordance with NFC 24 from the fire loop, fed from the municipal water supply.

A fire detection system, complete with a back-up power supply is provided to detect fires in the facility and to alert the operators of the need for action. The facility is divided into several separate fire detection zones, each of which has the appropriate quantity and type of detector. There is a main fire annunciator panel located in the control room and two remote panels located in the Administration Building and the Maintenance Department. These panels indicate the location of a fire or the actuation of a fire suppression system.

The wastewater management system is designed and engineered in accordance with the local plumbing codes. It is comprised of the sanitary drainage system, the roof drainage system, the oily waste system floor & equipment drainage system, the Reverse Osmosis (RO) System with associated storage tank, and the water treatment area.

An oil/water separator, provision for removing the oil and for pumping the water to the interceptor pit is provided in the compressor house. The waste water treatment system, supplied from the interceptor pit, utilizes screens, pumps, tanks and filters to clean the water before discharge to a waste water buffer tank. The buffer tank feeds the ash quench system. A cooling tower blowdown tank is also connected to the ash quench system.

A chemical drainage system is provided. These drains are directed to a water treatment drainage tank before discharge to the cooling tower basin.

The ventilation system is installed to provide ventilation of the plant areas for the proper operation of the plant and to control odors and possible combustible vapors.

Heating and air conditioning is provided for those areas of the plant in which temperature control is required for human comfort or equipment requirements.

Systems and equipment are provided to treat water for process use, to maintain internal process water chemistry and to pre-treat effluents to a suitable quality for reuse in the facility. The systems provided include makeup reverse osmosis, cooling tower chemical feed, boiler chemical feed, wastewater management, and water quality sampling.

The mailing address for this facility is:

Covanta Plymouth Renewable Energy LLC
1155 Conshohocken Road
Conshohocken, PA 19420

B. DESCRIPTION OF CURRENT EMERGENCY RESPONSE PLANS

The site contingency plan has been developed for the purpose of pollution incident prevention and emergency response preparedness. This contingency plan is formulated according to the guidelines of the Pennsylvania Preparedness, Prevention, and Contingency (PPC) Plan. The Contingency Plan is included in Section C, Part III of this plan.

I. Topics included in this section are:

- Explosions and fires
- Spills and leaks
- Emergency personnel assignment
- Vapors from spills or release of materials
- Recurrence prevention
- Changes to the contingency plan

These topics are also addressed in:

- Section D - Spill Prevention Control and Countermeasure (SPCC)
- Section E - Spill and leak prevention
- Section F- Material compatibility
- Section I - Housekeeping program
- Section S- Evacuation plan for installation personnel

Each plan is developed to minimize the effects of a plant casualty on the environment, surrounding population, plant equipment, and site personnel. These plans are designed to encompass all of the PPC Plan elements.

Annual training is provided to all facility personnel covering (but not limited to) the following subject matter:

- Written guidelines in responding to known emergencies
- Emergency equipment usage
- Communication and alarm systems
- Fire and explosion response procedures
- Site evacuation procedures / shut-down of operations
- Housekeeping and preventive maintenance

Training is conducted in accordance with DEP guidelines publication 400-2200-00I (section C.8) dated August 6, 2005 (the most recent revision available).

II. The Organizational Structure for Emergency Response

1. **Facility Manager:**

   The Facility Manager has overall responsibility for the safe, efficient, and reliable operation of the plant. The Facility Manager plans, directs, and coordinates the PPC Plan through the Management Staff, as delegated.

2. **Operations Manager:**

   The Operations Manager of this facility, reporting to the Facility Manager, is the Emergency Coordinator. The Emergency Coordinator shall have the authority to utilize the resources of the facility should an emergency occur. If an emergency develops, the Operations Manager shall be contacted by the Shift Supervisor. The Operations Manager shall carry a communication device when he/she is off site.

3. **Shift Supervisor:**

   The Shift Supervisor will routinely inspect tanks, valves, dikes and all exposed oil piping for the presence of leakage. Any impairment will be recorded and repaired promptly. Monthly, the Supervisor will perform a recorded inspection of all tanks and areas.

   All reports shall be kept on file and are available for auditing upon request. The Shift Supervisor shall function as an Interim Emergency Coordinator when on site for assigned shift. The Interim Emergency Coordinator has the same authority as the Emergency Coordinator. When the Operations Manager arrives, the Interim Emergency Coordinator will brief him on the current situation. The Operations Manager shall assume the position of Emergency Coordinator, as deemed necessary.

   Parties immediately notified / involved in an emergency event include:

   - Facility Manager
   - Operations Manager
   - Safety Programs Manager
   - Shift Supervisor (on duty)
   - Maintenance Supervisor
   - Other personnel; as deemed necessary by the Emergency Coordinator

Note: The Operations Manager shall use discretion before taking control during an emergency.

The emergency coordinator designation can be 1) the Facility Manager, 2) the Operations Manager, 3) the Shift Supervisor on duty or 4) the Facility Programs Manager; all four of whom are qualified to direct any / all emergency situations that may arise.

Hereafter, in this report, reference to Emergency Coordinator also refers to the Interim Emergency Coordinator.

C. ORGANIZATIONAL STRUCTURE FOR IMPLEMENTATION OF THE PPC PLAN

The organization structure for developing, implementing and maintaining the PPC Plan is found in Figure 4, Appendix II. The organization has the responsibility and authority to develop, implement, and maintain the PPC Plan.

I. Safety Committee

1. **Responsibilities:**

- Meet once a month to conduct safety-related business.
- Implement new procedures and verify compliance with the PPC Plan.
- Review existing reporting procedures and verify compliance with the PPC Plan.
- Review new safety bulletins.
- Identify potential safety related problems.
- Review visual inspection programs.
- Review past safety related incidents and any countermeasures implemented.
- Assure compliance with the Safety Rules and Regulations for the safe operation of the Energy-from-Waste Facility.
- Review and evaluate the PPC Plan.
- Monitor safety training and educational programs for operations, maintenance, and administrative personnel.

2. **Personnel:**

- Facility Safety Programs Manager (Chairperson)
- Maintenance Supervisor (Vice Chairperson)
- An Operations Supervisor (Vice Chairperson)
- Two Hourly Maintenance Personnel
- Two Hourly Operations Personnel
- Representative from the facility “VPP” Committee
- The Facility Manager or Operations Manager

3. **The Safety Coordinator:**

- Attend the monthly meetings and maintain all pertinent records.
- Distribute meeting minutes for bulletin board postings.
- Chair the Committee; forward recommendations to Facility and Regional Management.

- Ensure the facility safety program is conducted in cooperation with local authorities and appropriate government agencies as well as established Company criteria.
- Ensure that all safety related activities are conducted in accordance with the safety manual, Company policy and OSHA guidelines.
- Ensure that no changes or revisions are made to the safety procedures without proper authority/approval.

4. **Maintenance and Operations Supervisors:**

- Attend the monthly safety committee meeting.
- Ensure that all safety related activities are conducted in accordance with the safety manual. Monitor all employees in the use of personal protective equipment.
- Report any potential safety related problems.
- Report the results of the Safety Committee meeting to subordinates.

5. **Hourly Maintenance and Operations Personnel:**

- Attend the monthly safety committee meeting.
- Ensure that all safety related activities are conducted in accordance with the safety manual.
- Report any potential safety related problems.

II. Outside Organizations

Outside organizations, (as listed in sections Q, T & U) will be notified in the event of an emergency by the designated emergency coordinator.

III. Contingency Plan

The decision to implement this Contingency Plan depends upon whether or not an imminent or actual incident could threaten human health or the environment. The purpose of this section is to provide guidance to the Emergency Coordinator in making this decision. The Contingency Plan will be implemented in the following instances:

1. **Explosions or Fires:**

- A fire which may result in the release of toxic fumes.
- A fire which has the potential to spread and possibly ignite materials at other locations on-site or could cause heat-induced explosions.
- A fire which has the potential to spread beyond off-site areas.

- Use of water or water and chemical fire suppressant that could result in contaminated runoff.
- When an imminent danger exists with the potential for an explosion which could cause a safety hazard because of flying fragments or shock waves.
- When an imminent danger exists that an explosion could ignite other chemicals at the facility.
- When an imminent danger exists that an explosion could result in release of toxic material.
- When an explosion has occurred.
- When personnel are exposed to situations that pose health or safety risks.

2. **Spills or Leaks:**

- When a spill could result in the release of flammable liquids or vapors, resulting in a potential fire or gas explosion hazard.
- When a spill has the potential to result in the release of toxic liquids or fumes.
- When a spill can be contained on-site, but the potential exists for groundwater contamination.
- When a spill cannot be contained on-site, resulting in the potential for off-site soil contamination and/or ground or surface water pollution.

3. **Emergency Procedures:**

a. Notification

In an emergency, the Emergency Coordinator will be advised first by the person discovering the problem.

b. Scope of Emergency

The Emergency Coordinator will assess the situation. The alarm will be sounded and the Emergency Coordinator will contact the local, state and federal agencies as required. (See Section Q, T and U)

c. Procedures for Fire and Explosions

The facility is easily accessible to firefighting equipment and vehicles. Emphasis will be placed on preventing a fire from spreading. In an event, the following procedures will be:

- The Emergency Coordinator will be notified.
- All work in the affected area will cease.
- All injured individuals will be removed and medical treatment will be summoned and provided by qualified personnel.
- The area will be cleared of all personnel not immediately involved with the situation. Non-essential personnel will report to the “muster area”.

- If spilled materials are flammable, facility personnel and the Plymouth Township Fire Department will address the emergency, as required.
- Flammable materials will be removed from the affected area where feasible to do so.
- Evacuation may be necessary. All facility personnel will be trained in evacuation from their work areas as part of the overall training program. Personnel not in the affected area will remain in their respective work area. Contract personnel and visitors will be instructed to report to the designated evacuation area.
- When the fire is extinguished and personnel are no longer in danger, the all-clear signal will be given. The Plymouth Township Fire Department will consult with the Emergency Coordinator before giving an "All Clear" signal. All equipment used in the emergency will be cleaned and restored for its intended use before operations are resumed in the affected area.

Note: An all-clear signal refers to radio communication, plant-wide.

d. Procedures for Spills or Release of Materials

In the event of spill or material release (emergency), the following procedures will be utilized for quick, safe control and response of the incident. A spill will be reported immediately to the Emergency Coordinator. The Emergency Coordinator will seek information on the following items:

- Any injuries.
- Location of the spill or release.
- Estimated quantity of release and rate of release.
- Direction of the release.
- Material spilled or released.
- Any fire or explosion hazard.
- Area and materials involved.
- Intensity of fire or explosion.
- Potential for personnel exposure and / or degree of risk.

e. Emergency Response Personnel

Due to the staffing size at the facility a Fire Brigade cannot be effectively established. However, in an emergency, certain functions can be coordinated by the Emergency Coordinator or the Shift Supervisor until help arrives. Also, if necessary, he will contact the outside organizations listed in Sections Q, T and U.

Activities include:

- Insure that all non-essential personnel are removed from the affected area.
- Provide for the shutdown of fans, ventilators and other electrical equipment and effected lighting connections.

- Close any lines, piping or systems that would interfere with firefighting.
- The control room operator shall standby and carry out instructions issued by the Emergency Coordinator and / or the local Fire Chief or Commander.
- Should a spill result in the formation of a vapor cloud, further evacuation will be determined and affected by the Emergency Coordinator, if required. An adequate command area will be staged, up-wind, if volatile materials are released.

f. Recurrence Prevention

Measures to avoid or prevent the recurrence or spread of fires include the stoppage of operation, containing and collecting released materials and the recovery and isolation of containers. Should operations be stopped, the Emergency Coordinator will monitor pipes, valves and other equipment for pressure buildup, ruptures, or leaks. Immediately following an emergency, the Emergency Coordinator will arrange for treatment, storage, or disposal of recovered materials, contaminated soil or surface water and analyze any contaminated material for further disposition.

g. Changes to the Contingency Plan

The scope of the plan will be amended if necessary should the following occur:

- The facility permit is revised and elements of the PPC change.
- The plan fails during an emergency.
- Any facility changes that increase the potential for explosions, fire or release of materials; or changes in the response procedures necessary during an emergency.
- There is a change in emergency coordinators. (Name list will be changed)
- The emergency equipment list is altered.

4. Exposure Control Plan / Bloodborne Pathogens Exposure Control Plan

The Bloodborne Pathogens Exposure Control Plan will be implemented when a potential exposure incident has been reported. Do not take unnecessary risks. Call for assistance and request any personal protective equipment that is desired. Restrict access to the area so that no other employees become exposed. Do what is necessary to save a life, but avoid touching blood or body fluids or performing unprotected mouth-to-mouth resuscitation. Initiate the procedures outlined in the Covanta Energy, Safety Procedure No. 40, Bloodborne Pathogens, Appendix A1 *(see Table C-2).*

The Covanta Energy, Safety Procedure No. 40, Bloodborne Pathogens, Revision No. 7 *(the most recent version)*, has been included in this PPC plan and is located in Appendix V.

Table C - 1. Emergency Procedures

CONTINGENCY PLAN AND EMERGENCY ACTION

FIRE or EXPLOSION
NOTIFY SUPERVISOR
ATTEMPT TO EXTINGUISH THE FIRE

MATERIAL SPILL
NOTIFY SUPERVISOR
ATTEMPT TO CLEANUP THE SPILL

IMPLEMENT THE CONTINGENCY PLAN

WHEN

- A fire may result in the release of toxic fumes.
- A fire has the potential to spread and possibly ignite materials at other locations onsite or could cause heat induced explosions.
- A fire has the potential to spread to offsite areas.
- The use of water or water and chemical fire suppressant which could result in contaminated runoff.
- An imminent danger exists with the potential for an explosion, which could cause a safety hazard because of flying fragments or shock waves.
- An imminent danger exists that an explosion could ignite other at the facility.
- Imminent danger exists that an explosion could result in the release of toxic materials when an explosion has occurred.

WHEN

- A spill could result in the release of flammable liquids or vapors.
- A spill has the potential to result in the release of toxic liquids or fumes.
- A spill can be contained onsite, but the potential exists for groundwater contamination.
- A spill cannot be contained onsite, resulting in the potential for offsite soil contamination and/or ground surface water pollution

NOTIFY THE EMERGENCY COORDINATOR

◊ All work in the affected and surrounding area(s) will be immediately shut down.

◊ All injured personnel will be removed and medical treatment administered.

◊ All personnel will be removed from the affected area(s).

◊ Only the required number of trained personnel, dressed and equipped with the appropriate PPE and emergency response tools may remain (or) enter the affected and surrounding area(s)

INSTITUTE FIRE EMERGENCY ACTION PLAN

- Sound the alarm and direct employees to safety
- Immediately notify the fire department and request assistance.
- Assign one employee to meet the fire department at the gate and direct them to the affected area.

INSTITUTE SPILL CONTROL PLAN

- Obtain information about the material(s) released.
- If a flammable substance is involved, remove all ignition sources and utilize spark proof equipment in containment area.
- Remove all surrounding materials that could be especially reactive with the spilled material(s).
- Ensure released material is contained using sandbags, sand, absorbent pads/floats/pillows or other approved containment equipment.
- Place all materials used to contain and absorb released materials into approved containers, appropriately labeled and marked for disposal.
- Place all recovered wastes and/or contaminated soil in containers for removal to an approved disposal site.

Figure C – 1. Emergency Procedures Diagram

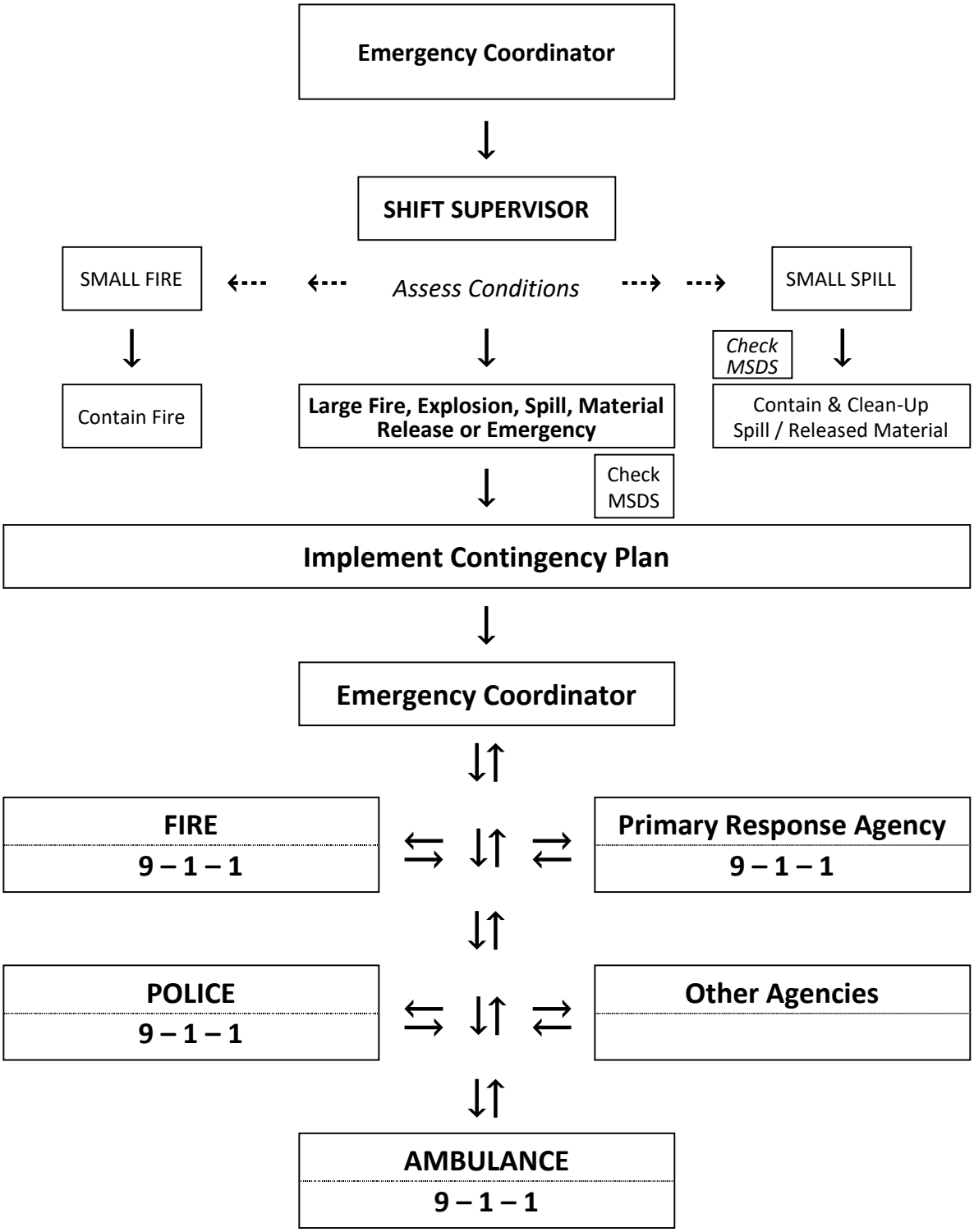


Table C - 2. Emergency Procedures – Bloodborne Pathogens Exposure

Covanta Energy, Inc.

Safety Procedure No. 40
Bloodborne Pathogens

Step-by Step Procedures after an Exposure

The following checklist provides the steps to be taken immediately following an exposure to bloodborne pathogens. Response time is critical. Treatment, if warranted, should begin within two hours of exposure to reduce the likelihood of illness. All actions should be exercised in a confidential manner.

	Step-by-Step Procedures after an Exposure	
1.	Any employee that suspects exposure to a bloodborne pathogen shall report it to the supervisor immediately.	☐
2.	The Supervisor will immediately assess the situation and will report the situation to the Facility Safety Coordinator, Regional Safety Administrator or other appropriate person.	☐
3.	The Supervisor will have the employee thoroughly wash the exposed area with soap and water using friction and provide first aid as required.	☐
4.	The Supervisor will contact the WorkCare physician and will also contact the local LHCP to advise that the worker will be coming in for evaluation.	☐
5.	The employee should be accompanied by one of the persons named in #2 above, if possible, to the LHCP (listed in *Appendix A4* or *S.P. No. 7A, Local Hospitals and Infectious Disease Doctors* Appendix).	☐
6.	If the source of exposure is from a specific needle or object or item, the object should be brought to the LHCP for their evaluation. If the source is another individual's blood, consent should be obtained from the source and the source's blood tested as soon as feasible. If consent is not obtained, document that legally-required consent cannot be obtained	☐
7.	Also provide the LHCP with: • A copy of 29 CFR 1910.1030 from www.osha.gov, if they don't have it • A description of the exposed employee's duties as they related to the exposure incident • Documentation on the route(s) of exposure and circumstances under which exposure occurred • All medical records relevant to the appropriate treatment of the employee including vaccination status	☐
8.	Have employee read Appendix A2	☐
9.	Have employee review and complete Appendix A3	☐
10.	Provide the LHCP with a copy of Appendix A5 so they will be able to coordinate the diagnosis and treatment with WorkCare and so all reports and records can be forwarded to WorkCare	☐
11.	.Provide the LHCP with a copy of Appendix A6 so that WorkCare will receive a report on the specified items.	☐
12.	The initial treating physician (if different than the LHCP) will take a thorough history of the exposure, take samples from the employee to be tested for hepatitis A, B, C and HIV and will prescribe post-exposure prophylactic medications as necessary in accordance with the severity of the exposure, the employee's medical history and agreement of the employee. If the treating physician is not the LHCP (Infectious Disease physician), the treating physician will send all materials to the LHCP as well	☐
13.	If post-exposure prophylactic medications are prescribed: • Have baseline blood work drawn. • Take 1st dose of medications and prescription filled • Report for anonymous HIV testing as soon as possible • Keep all follow-up appointments with medical personnel. • Post-exposure counseling will be provided and will include the employee's family if desired.	☐
14.	If post-exposure prophylactic medications are not prescribed, report to the initial treating physician for follow-up HIV testing at baseline, 6 weeks, 12 weeks and 6 months, a baseline and 6 month hepatitis profile, and a hepatitis B surface antibody if employee has had the hepatitis series and antibody status was not obtained within the last 24 months	☐
15.	Back in the office, prepare Workers Comp paperwork and notify the carrier. • Discuss with Fairfield HS and Risk Management. • If the bloodborne pathogens exposure was not clearly an injury, the determination to make a Report of First Injury may require discussion. • Set-up a tickler file for the 6 week, 12 week and 6 month and perhaps 12 month follow-up requirements. • If, as a result of the employee exam, non-injury related treatment occurs, notify the carrier so that the injury-related portion will be paid for by WC and the non- injury portion by the employee's personal health insurance. • Prepare accident report. • Complete reporting required on OSHA 300 log or Sharps Log.	☐
16.	The LCHP shall provide a report to the employee within 15 days after all of the pertinent medical information is available.	☐

D. MATERIAL AND WASTE INVENTORY

I. Spill Prevention Control and Countermeasures (SPCC)

The following describes the method of containment and cleanup to be employed at the facility to mitigate release of oils, solvents, and chemicals to the environment.

1. **Oils:**

A master list of oils and greases used in the day-to-day operation of the facility is available for reference by facility personnel, as to the current material on-site as found on the SDS sheets. The list will be updated whenever a new product is introduced or a product is deleted from the current inventory; or quantity and/or storage location is changed.

a. Fuel Oil

No. 2 fuel oil stored in a 22,000 gallon above grade storage tank (Figures 4.I3 and 4.I4, Appendix III), is supported on a concrete mat foundation surrounded by a reinforced concrete retaining wall sized to contain the entire tank volume with an allowance for freeboard. Water from rainfall will be pumped to the facility wastewater management system. The impoundment area will be drained on an intermittent basis so as not to overload the wastewater management system.

Drains from the fuel oil pumping and unloading station, located near the storage tank outside the retaining wall, are routed to the wastewater management system.

b. Lubricating Oils

Rotating equipment (i.e., pumps, fans, compressors) require lubricating oils. These oils will be stored in closed drums and cans in controlled areas. Rotating equipment is designed to have drip-lip baseplates or to be located on curbed pads. Any leaking oil and process fluid will be drained from the baseplates or pads or other suitable and upgraded means, to the floor drain system; then to the wastewater management system.

The compressor house drain system for oil containment is connected to an oily waste water system. Drain water from this system shall undergo oil reduction in the oily waste drain system and oil/water separator. The oil will be removed from the drain water separator and periodically disposed of in an approved manner. The water in the separator will be pumped to the wastewater treatment system for process.

c. Transformer Oil

All transformers will be located atop gravel filled, concrete, watertight pits sized to contain all of the oil within the transformer along with the amount of water discharged in I0 minutes from the transformer water spray fire suppression system. Deposition of PCB-free oil into the pit will require removal of this oil and other pit fluid by a portable sump pump for collection, removal and appropriate disposal. The transformer locations are indicated in Figures 4.I3 and 4.I4, Appendix III.

d. Turbine Generator Oil

The turbine generator oil reservoir is a component of the Turbine Generator. The reservoir is a totally enclosed welded steel tank used to provide storage for the Turbine Generator lubrication system. Lubrication oil pumps take suction from this tank and pump oil through strainers and coolers to provide lubrication and cooling to the Turbine Generator bearings and the control oil system.

To minimize the spread of fire, the turbine oil reservoir and the oil conditioning equipment are protected by fire suppression systems. These areas are provided with skid / moats to retain any leak or spillage that may occur during operation.

2. Solvents and Chemicals:

A master list of solvents and chemicals used in the day-to-day operation of the facility is available for reference by facility personnel, as to the current material on site, found in the SDS books. The list will be updated whenever a new product is introduced. SDS sheets are removed and filed when a product is deleted from the inventory.

a. Solvents

Only approved solvents shall be used at the Plymouth Facility. These solvents are stored in a controlled area of the facility, separate from material storage areas, in U/L listed cabinets, restricted to the normal use locations and for use by trained personnel.

b. Chemicals (Figures 4.I3 and 4.I4 / Appendix III)

Chemicals stored on-site will include: dissolved oxygen Scavenger / metal passivators, internal boiler treatment, control agents, corrosion inhibitors deposit regenerants and microbial control agents. Storage devices will include bulk containers, chemical vendor “porta-packs”, approved containers (drums, pails and/or small containers) or other suitable storage components; including bags.

A dike to contain spills and leaks will protect each bulk storage tank. The enclosed areas have been sized to contain the full tank volume. ‘Pigs’ or other absorbent will be used to absorb small leaks. Any major fluid (leaks) will be removed by pumping into storage drums or commercial procedures necessary for clean-up and containment.

Lime, stored as a granular solid in a 150-ton capacity silo, is vented through a bag filter. Drainage from the lime storage area, the lime slurry preparation area and slurry feed tank will be directed to the wastewater management system.

Approved liquid drum containers will be stored in select areas determined by material compatibility, proximity to final use location and aisle way considerations. Drainage from the drum storage area and chemical solution feed tanks is directed to the wastewater management system or other upgraded disposal means; as implemented.

Approved solid / powder chemical containers will be stored in select areas determined by material compatibility, proximity to final use location and aisle way considerations. Solid / powder chemicals delivered in bags will be stored above floor level to preclude potential contamination or discharge from liquids on the floor.

II. Spill Prevention and Control

See also Appendix I – Spill Prevention Control and Countermeasure Plan

1. **Tanks:**

   The facility tanks, which contain oils and chemicals, are monitored by level gauges, high liquid level alarms, and/or automatic shut-off valves to prevent overfilling. Design codes and corrosion protection are sufficient to ensure the tank integrity for the life of the facility. All tanks are located above ground.

2. **Drums:**

   Operators will be trained in appropriate methods of handling drums and the chemicals and solvents in them. Proper equipment (i.e., drum pumps, drum stands, and approved self-closing valves) will be supplied to minimize potential spillage. All oils and chemicals will be stored in approved (closed) containers with approved marking in separate protected areas and cabinets. Hazardous waste will be stored in properly labeled and approved containers in a locked and sheltered area.

III. Spill Cleanup:

Accidental spills of oils, chemicals, or solvents from containers will be cleaned up using methods that avoid spreading the fluid and preventing it from entering the floor drain system. Methods available for cleanup include application of an absorbent material (e.g., dry sand, diatomaceous earth, vermiculite, or 'Pigs') to the spill, followed by dry sweeping, vacuuming, or wet vacuuming. Vacuum motors will be designed for chemical and explosion-proof service; where applicable.

Additionally, floor drains in the vicinity of accidental spills will be plugged or diked by an absorbent material to block fluid entry into the drainage system. Personnel will be trained in the use of these dry cleanup procedures. Appropriate protective clothing shall be worn by personnel while cleaning up spills. All personnel will be trained in the donning and use of protective clothing. The protective clothing shall be made available to personnel at all times.

Administrative procedures will be used to report accidental spills and the mitigation and cleanup methods employed. These procedures will require facility management to be included in the reporting system and that significant events be reported to appropriate regulatory agencies.

IV. Waste Inventory

1. **Hazardous Waste Produced by Facility:**

   There will be no hazardous waste knowingly accepted, processed, or produced by this facility.

2. **Hazardous Waste Brought Onto Facility:**

To meet the requirements of Act 101, section 1502(d), to reduce the potential for hazardous materials entering the facility within the Acceptable Waste stream, Plymouth, in cooperation with Montgomery County will, to the greatest extent practicable, reduce the delivery of potential hazardous materials to the facility. This reduction will be implemented through rules and regulations adopted or that may be adopted by Montgomery County; The Waste System Authority of Eastern Montgomery County and participating Municipalities; provided that rules and regulations adopted shall not be in violation of, inconsistent with or less stringent than the provisions of the Municipal Solid Waste Disposal and Joint Cooperation Ordinance. Other Municipal Waste Flow Ordinances, the County Waste Flow Ordinance, County Plan, the provisions and purposes of Act 97, Act 101 or regulations adopted thereunder or such other laws, regulations or requirements as may be enacted by the United States of America, The Commonwealth of Pennsylvania, The Pennsylvania Department of Environmental Protection or the Pennsylvania Environmental Quality Control Board governing waste planning, collection, storage, transportation, processing or disposal.

Source separation and recycling (curbside and / or collection points) of individual components of Acceptable Waste, such as paper, cans, plastics and other materials, implemented under the rules and regulations noted above, will assist in reducing potential hazardous material entering the facility.

Any incidental hazardous waste brought onto the facility will be separated, removed to a designated area and disposed of in accordance with RCRA regulations.

Personnel will receive training in Hazardous Substance Identification, Handling, and Disposal in incoming material loads.

As a normal part of their assigned duties, facility personnel will periodically observe the waste being discharged into the refuse pit. Typically, the crane operators that will watch for unacceptable materials and items that may contain or be hazardous waste. Additionally, on a routine periodic basis, solid waste trucks will be directed to empty their load on the tipping floor for inspection. County waste inspectors are also present to observe tipped loads. The inspection will be documented on a form provided for that purpose. At a minimum, fifteen (15) random truckloads of waste material per week will be tipped on the floor of the tipping hall, away from the general traffic pattern, spread out and visually inspected by a trained operator, to determine if any regulated materials are present. Should a suspicious item or load be observed, the operator will notify the Shift Supervisor by use of a two-way radio.

After sorting and segregation of non-processable/unacceptable waste (if any) by the front-end loader has been accomplished, the front-end loader will push processable waste into the refuse storage pit. It is not intended that the bagged waste in these loads will be opened and inspected on a routine basis, as bagged waste is generally from households or business offices, although suspicious bags will be set aside for

further inspection. The trucks shall normally be selected on a random basis but will also be selected based on areas of pickup or of various industries being served.

Haulers having a history of delivering hazardous or unacceptable waste will be checked more frequently as necessary. WSA will assist Plymouth in restricting companies (from the facility) that deliver unprocessable or hazardous waste items or loads.

When unacceptable waste, including hazardous material, is discovered in a solid waste truck, the driver will not be permitted to discharge the load and be directed to exit the site. When unacceptable materials are found after the contents are discharged on the tipping floor for inspection; material will be returned to the vehicle, using appropriate personal protective equipment, providing it has been determined that it is not hazardous to do so. The suspected material must be contained; without leaks and is not an immediate threat.

If unacceptable waste is found in the refuse pit, it will be removed with the overhead crane and set aside for proper disposal. In the event the material is determined to be hazardous but not an immediate threat, it will be removed from the pit, lowered through the equipment hatch onto a vehicle for transport to an alternate designated storage area. This area will be adequately isolated from traffic and personnel. Appropriate personal protective equipment will be used during handling. Danger signs and warnings shall be posted in the storage area containing segregated “hazardous materials.”

When the material poses a potential or immediate threat, such as explosives or ruptured drums, the material will be left in place, roped off (if possible) and personnel and traffic evacuated from the area. The appropriate governmental agency or local authority will be contacted immediately. Removal of all hazardous materials from the facility shall be in accordance with state and federal regulations, utilizing only licensed or approved hazardous waste haulers and approved disposal sites.

All storage containers will be labeled to conform to standards outlined in the Montgomery County Hazardous Waste Management Regulations. All containers shall bear a hazardous material label. The hazardous waste inadvertently delivered to the site shall be disposed of within 90 days.

HAZARDOUS MATERIALS LIST / SAFETY DATA SHEETS

3. **PROCESS CHEMICALS**
4. **OILS AND GREASES**
5. **CALIBRATION GASES**
6. **SOLVENTS**
7. **LABORATORY CHEMICALS**
8. **CLEANING SUPPLIES**
9. **EQUIPMENT PARTS**
10. **WELDING MATERIALS**
11. **MISCELLANEOUS (Office Supplies, etc.)**

Label Name:	As shown on SDS. Should correspond to container labeling.
Manufacturer:	As shown on SDS (not supplier)
Form:	Liquid (L), Solid (S), Gas (G), Granules (GRAN.). Aqueous solution (AS), etc. (except Oils and Greases, which are designated O and G respectively)
Quantity:	Is the quantity normally stored in the designated storage area: in Gallons, Pounds, cubic feet, No. of Containers, etc.
Storage Area:	Is the area designated for bulk storage of the material.
SDS:	2-volume sets with complete listing of all SDS required materials can be found in I) administration, 2) maintenance and 3) Shift Supervisor Office.

E. SPILL AND LEAK PREVENTION

I. Spill and Leak Control

All bulk storage tanks and chemical solution feed tanks utilize secondary containment berms to control spills and leaks. All berms are of sufficient height and contain a volume large enough to retain any spill or leak. The berms are sized to contain the full contents of the tank as well as firefighting materials. Level readings will be taken to ensure the tanks do not overflow during filling.

Leakage of wastewater (equipment leak-off drains) will be accommodated by the plant floor drain system or other installed means.

Areas that could experience accidental oil spills or leaks from piping and equipment are serviced by available absorbent material, the oily waste drain system (compressor building) or the wastewater treatment system.

During shift, Operations personnel will routinely inspect tanks, valves, berms and exposed oil piping for the presence of leaks. Any adverse observations shall be reported to the Shift Supervisor and logged in the plant operating log. Problems identified by the inspections shall be repaired promptly. The Shift Supervisor shall submit a written report of mechanical discrepancies to the Chief Engineer. Such corrections and repairs are tracked on the computerized maintenance management system for the facility.

II. Non Liquid Chemicals

Pebble lime, activated carbon and neutralite powder materials are stored in designated silos (neutralite in drums / mezzanine level in the air compressor house) and are identified with labeling.

III. Emergency Response Equipment

Spill containment materials are placed in various areas of the facility in designated yellow containers and other receptacles with proper identification. The facility is dependent upon established emergency response companies when spills or release of hazardous chemicals cannot be contained using incipient stage absorbents.

F. MATERIAL COMPATIBILITY

I. Chemicals

Where applicable, product storage tanks will be marked with the type and the capacity of the material stored. All containers will have a label, stating type of material contained within; to prevent inadvertent mixing with any other / reactive materials.

Chemicals will be evaluated for compatibility through the SDS sheet and stored and / or segregated accordingly.

Bulk chemicals are stored in tanks that are isolated from their surroundings by a berm. This isolation will prevent mixing of stored chemicals. Leaks or spills will be contained inside the berm and draining of the containment area occurs only under controlled conditions. Chemicals stored in approved containers could accidentally mix, if two or more containers of different substances were spilled or leaked at the same time. In the unlikely event this happens, no adverse reactions or other consequences are anticipated; due to segregation and the appropriate storage measures of the chemicals.

G. INSPECTION AND MONITORING

For inspection and monitoring of tanks, contents and piping – refer to section D; Spill Prevention Control and Countermeasure Plan.

For inspection of Fire Protection, piping and equipment – refer to Section R.

A full description of facility inspections will be included in the operating and preventive maintenance procedures (Section H). The descriptions include inspection of pipes, pumps, valves, fittings, tanks, tank supports; observation of spilled materials, housekeeping practices, containers and storage areas.

H. PREVENTIVE MAINTENANCE

The computer-based preventive maintenance program implemented at this facility provides feedback data concerning materials, parts, labor hours and equipment condition, as well as the schedule and tasks to be performed for each piece of equipment. As problems, damage or unusual conditions occur; they are recorded as a function of the preventive maintenance program for each piece of equipment and will, in turn, be retained as part of the permanent equipment history. The history of each piece of equipment also includes design and shop data, installation and startup information, data, corrective maintenance and/or repair records, spare parts requirements and usage and other information and data pertaining to the life of the equipment. In addition, based on engineering and design data obtained from the manufacturers, Plymouth will develop a projection of expected major equipment replacements for the life of the facility. This schedule will be monitored and updated by the facility staff as operating and maintenance experience with the equipment is gained.

The Maintenance Management System is specifically tailored to the Plymouth Energy-from-Waste Facility. Each piece of equipment in the facility is assigned an individual identifier and the system will refer to this unique identifier. The system will schedule Preventive Maintenance (PM) by days, hours of operation or any combination of these and will issue numerical work orders for required tasks.

The scheduled PM's contain detailed requirements for periodic inspection, service and adjustments as required to maintain a specific piece of equipment in a safe and satisfactory operating condition. All work accomplished and any observations for remedial work to be scheduled, is entered in the work order before it is signed for completion. All information is then entered into the computer which records the completion of that PM. The status of that individual item is automatically updated and the next scheduled PM is established for that item. Remedial work required will be performed in the appropriate data entry unscheduled work category.

I. HOUSEKEEPING PROGRAM

In the tipping hall, the entering refuse truck will be directed by the Operating staff, to one (1) of twelve (12) available tipping bays for discharge of refuse either into the refuse storage pit or onto the tipping hall floor. Crane operators and personnel on the tipping floor have the responsibility to look out for bulk items and hazardous materials. This responsibility is met by spot checking truckloads. Bulky waste will be loaded into containers and removed by a contracted hauler to an approved landfill.

The tipping floor is primarily a maneuvering area to allow the incoming refuse trucks to dump into the storage pit.

Truck drivers shall be required to clean up any spills. When a truck is discharged to the floor, material is moved to the pit by a front-end loader. Final cleanup is done by a motorized sweeper, when warranted and plant support personnel assigned to the tipping floor. Water should be used sparingly and only after the floor is cleaned.

Refuse can very easily clog drains and, in addition, contribute to water pollution problems if large quantities of water are used.

During hours of receiving waste, the tipping floor personnel will police and clean / scrape the floor as required. Regular cleaning of the tipping floor helps to minimize odors.

Litter control throughout the site will be routinely conducted. No appreciable dust will be generated by the facility. During the day shift, a mechanical sweeper shall be used to clean the access roads, parking facilities and other paved areas. This is accomplished by contracting with a local vacuum / sweeper truck company. Unpaved areas of the site including fences will be policed on a scheduled basis by assigned personnel. Various areas within the buildings will be policed by the Operations and Maintenance group assigned responsibility for them. Janitorial services in the administrative areas will be provided by private contractor.

J. SECURITY

A security fence is constructed along the perimeter of the Facility. The fence is a seven (7) foot high chain link fabric fence topped by three strands of barbed wire. An access gate and service gate is provided to facilitate access control. Only the site gate on Allan Wood Road is open during normal delivery hours. Access to the site by authorized vehicles during non-delivery hours and from Conshohocken Road during delivery hours will be controlled by a closed-circuit television camera and an automatic gate.

The camera shall be located at the personnel access gate with a monitor located in the control room. The automatic gate shall be operated from the control room or the Administration Building receptionist area, where and when applicable.

PLANT SECURITY PROCEDURES

I. PURPOSE

To ensure the safety and well-being of personnel and the custody of equipment by controlling authorized entry into the plant.

II. ACCESS

Access roads provide controlled entry and exit for transport, plant personnel, agency personnel, delivery service, visitor, and emergency vehicles. Transport vehicle access is gained by the service road at Alan Wood Road. All other vehicle access is from the service road at Conshohocken Road.

In an emergency, the Shift Supervisor will have members of the facility staff direct emergency vehicles into and around the facility.

III. VEHICLE ENTRY CONTROL

Vehicle entry control provides accountability of traffic entering and leaving the facility.

IV. TRANSPORT VEHICLES

The Facility Manager will determine the vehicles authorized to deliver MSW to the facility. The Facility Manager will also determine which vehicles will be authorized to transfer ash / residue from the facility.

A log of all authorized vehicles will be maintained at the scale house, including the vehicle owner and number. The list will be updated periodically. Origin stickers are provided to identify the trucks.

Unauthorized vehicles will not be allowed entry into the facility and will be turned around at the scale house.

MSW transport vehicles will be allowed access to the facility between the hours of 06:00 and 17:00. Monday through Friday and 06:00 to 12:00 Saturday, unless prior approval has been given. All MSW transport vehicles will enter the facility from Alan Wood Road and proceed through the weigh scale.

Transport vehicles for ash will be allowed access to the facility between the hours of 05:00 and 15:00. Monday through Friday and 06:00 and 12:00 Saturday, unless prior approval has been given. Ash vehicles will exit via the weigh scale and Alan Wood Road.

Drivers of transport vehicles are not permitted to enter the operating areas, maintenance areas or office areas of the facility, except for specific work assignments that necessitate doing so.

The scale house operator will keep the delivery and hauling log current by logging all summarized transactions and unusual occurrences or violations on a daily basis.

V. FACILITY PERSONNEL

The Facility Manager will determine access of personal vehicles that are allowed on site.

Personnel will access the facility from Conshohocken Road and enter the facility using a gate keypad or by contacting the control room.

Vehicles entering the facility will park only in designated parking areas and in such manner as to affect the orderly movement in and around such parking areas. Vehicles will not park within 10 feet (10’) of any fire hydrant unless designated as an official parking slot, obstruct any roadway to an emergency vehicle or cause delay in any plant operations.

VI. VISITORS

Authorized visitors will be allowed access to the facility between the hours of 08:00 and 16:00 Monday through Friday unless prior approval has been given.

Visitors will enter the facility via Conshohocken Road, proceed to a designated parking area and report to the Administration Building.

Visitors are not permitted to enter any operating or maintenance area unless specifically authorized by plant personnel.

The visitor will complete the Daily visitor’s logbook maintained in the Facility Office. Visitors, except authorized agency personnel and vendors, will sign a visitor’s release.

Visitors will be advised of the site speed limit and are to adhere to all safety, directional, and traffic signs.

Vehicles entering the facility will park only in designated parking areas and in such manner as to affect the orderly movement in and around such parking areas. Vehicles will not park within 10 feet (10') of any fire hydrant unless designated as an official parking slot, obstruct any roadway to an emergency vehicle, or cause delay in any plant operation.

All visitors' vehicles are subject to search prior to entering and before leaving the facility if deemed necessary by a member of the facility staff.

VII. DELIVERY AND SERVICE VEHICLES

Delivery and service vehicles will be allowed access to the facility between the hours of 08:00 and 17:00 Monday through Friday unless prior approval has been obtained.

Delivery and service vehicles will enter the facility via Conshohocken Road, report to the appropriate area and be allowed on-site, as scheduled, provided they show proper documentation; if and when requested.

The Daily visitors log will be completed unless prior arrangements have been approved.

If the driver knows his/her destination, he/she can proceed into the facility. If the driver does not know where his/her destination is located, he/she will be directed by a member of the plant staff.

Vehicles entering the facility will park only in designated parking areas and in such manner as to affect the orderly movement in and around such parking areas. Vehicles will not park within 10 feet (10') of any fire hydrant unless designated as an official parking slot, obstruct any roadway to an emergency vehicle or cause delay in any plant operation.

VIII. PRIVATE VEHICLES

Residents are allowed access to the public recycling drop-off center during the hours of 08:00 to 16:00 every Saturday except Holidays. Access is controlled by the Shift Supervisor on site who will open, close, and lock the access gates to the recycle center area.

The public will enter from Conshohocken Road and proceed directly to the drop-off area located in the front of the property.

Any vehicle, other than a personal vehicle, will not be allowed access to the drop-off area.

The public is not permitted to enter any operating or maintenance area.

The public will exit the drop-off area immediately after unloading.

All vehicles are subject to residency verification and to a search prior to entering and before leaving the recycle area, as deemed necessary.

IX. EMERGENCY VEHICLES

Emergency vehicles may use either the Allen Wood Road or Conshohocken Road access gates.

A member of the facility staff will meet the emergency vehicle at the facility gate and direct the vehicle to the location of the emergency.

⚠ ***CAUTION: Visitors, delivery and service drivers are to be aware of potentially congested traffic in and around the entrance gates. Every precaution to avoid an accident should be exercised.***

K. EXTERNAL FACTORS

Careful analysis during the design stage assures there is adequate redundancy of the essential elements of the system. Plant and site layout minimize the effects of snowstorms, floods, hurricanes and earthquakes.

A storm drainage system consisting of swales, inlets, and underground pipe shall be used to remove storm water runoff from site operating areas. Runoff will drain to the southwest portion of the site where space has been allocated for storm water management facilities.

All structures and equipment supports, including ducts and scrubber/baghouse, is designed for a basic wind speed of ninety (90) mph.

Seismic loading is included in the design of all structures based on the latest requirements of the Uniform Building Code for quake Zone 1.

The one item that can be identified as having a major impact on availability are the boilers.

To minimize the impact:

Scheduled outages for cleaning, repair, overhaul and inspection will be arranged to coincide with periods of projected low waste flow.

Twenty (20) days have been planned for unscheduled outages caused by such events as motor shorts, boiler tube failures, and disruptions in the materials handling systems.

The refuse storage bunker for the facility is sized to provide storage for five (5) days of Municipal Solid Waste (MSW). When one of the furnaces is down for service, the facility can continue to operate at the rate of 600 tons per day (TPD). Therefore, stockpiling would begin at the rate of 600 TPD. This stockpiling could be sustained at a continuous rate for ten (I0) days before bypass measures would have to be considered.

As the processing system is equipped with a dump condenser capable of condensing all steam produced, both boilers can be operated continuously for solid waste disposal, independent of the status of the steam turbine-generator.

The effects of power outages, external to the facility, will not affect the operation of machinery or other facility areas.

In the event of a work stoppage by Operations personnel or a facility malfunction, lasting in excess of five (5) days, refuse will be disposed of at a state approved landfill site.

Unless the entire facility is shut down due to some external non-process related cause, it would be reasonable to project that a need to by-pass the facility because of a lack of storage capacity would be minimal.

Refer to Sections Q, S, and U of this Plan for related information.

STACK BEACON LIGHTING

The Federal Aviation Administration (FAA) requires the facility to maintain stack lighting sufficient to provide adequate illumination to enhance safety in air navigation. The facility applied for and received permit documentation through FAA airspace planning commission prior to facility commercial operation.

Procedure: Loss of Lighting/ Power Interruption

I. Scheduled/ Planned outage:

Notify the FAA Flight Service Center with the information below. Call as far in advance (up to 24-hours) as possible.

II. Unscheduled

In the event of power loss affecting the beacon light, notify the FAA Flight Service Center within 2 hours, with the information below.

1-877-487-6867

1) Phone call notification should be placed by the designated emergency coordinator or member of the administrative staff. Record the FAA contact person' name in the control room log book with time called.
2) Explain scheduled during period proposed or suspected length of time (unscheduled)

Facility: **NACG#** is **42-001648** registered to:

Covanta Plymouth Energy Resources / Waste-to-Energy Facility
1155 Conshohocken Road
Conshohocken, Pennsylvania 19428
(610) 940-6000 ext. 100

NOTE: (Cell phone numbers are to be provided in the event of total power loss)

Coordinates: Latitude **– 40** degrees / **5** minutes / **46** seconds *(magnetic north)*
Longitude **– 75** degrees /**18** minutes / **39** seconds *(magnetic north)*

Approx. Facility is **2.1** miles Southeast of Norristown City Hall and adjacent to Interstate 476 (Interchange #9)

Landmark: is **3.5** miles Northeast of facility; Wings Airport (runway) (Closest Airport)

Height/Elevation: Facility is **140** feet above sea level
Stack is **305** feet above ground
Overall stack height is **445** feet above sea level

Reference: U.S.G.S. Norristown quadrangle

L. INTERNAL AND EXTERNAL COMMUNICATIONS (ALARM SYSTEM)

Internal and external communications and alarms will be used to provide immediate instructions (voice or signal) to plant personnel and to summon aid in the event of an emergency.

The internal/external communication system is comprised of a telephone network, a two-way radio system and a plant-wide fire evacuation (audible) alarm.

- The telephone system utilizes desk sets, located in the administration building and at strategic locations within the facility capable of station to station calling, general paging and outside line access to ensure 24-hour availability of emergency response.
- The two-way radio system provides sufficient handsets for each operator on duty, as well as key supervisory personnel, used to communicate information and instructions during normal operations.
- The evacuation alarm (audible ring) utilizes the plant fire alarm and has a distinctive continuous ring which indicates evacuation is required.

Instrumentation, designed to monitor the performance of facility systems and equipment, is installed throughout the facility to assure the safe and environmentally acceptable operation of the facility. The installed instrumentation provides local and/or remote indication alarm, and/or control, allowing the operators to maintain facility integrity and decrease the potential for emergency events.

In the event of an alarm system malfunction or on discovery of a fire or chemical spill, the two-way radio will be used as a back-up alarm. When the radio is used as a back-up alarm, all other radio communication will cease, until directed otherwise, by the Emergency Coordinator.

Alarm systems are also described in Sections R and S of this manual.

M. EMPLOYEE TRAINING PROGRAM (Prior to Facility Start-up)

To prepare newly hired personnel to assume positions at the Covanta Plymouth Facility, a comprehensive training program was developed and implemented by Corporate.

Preparedness, Prevention, and Contingency (PPC) Plan training (as an overall part of safety and health training) shall be completed for all personnel within 90-days of employment.

Depending on the exact position, qualifications will include knowledge and previous experience with boiler equipment, in particular, power generating plants and/or general experience with mechanical equipment.

Complete training details are found on the company website in the "health and safety" section of the "portal"

I. Current Employees

The current materials for energy-from-waste operations and maintenance lessons that were developed by Covanta will serve as the basis for the training program. Applicable and specific manufacturers' material will be incorporated into these lessons, where required.

This basic training course will be consolidated by the provision of specific vendor training either on-site or at the factory, as dictated by the training need. The outline for training is shown in Appendix IV.

In addition, the following topics will be integrated into the equipment lessons outlined above:

- Procedures for using, inspecting, repairing and replacing emergency and monitoring equipment.
- Key parameters for automatic cut-off systems.
- Communication and alarm systems.
- Response to fires and explosions.
- Site evacuation and shutdown of operations. Preventive Maintenance.
- Safety and good housekeeping practices will be emphasized throughout the training course.

An ongoing training program for upgrading of personnel and continual improvement of their proficiency, as well as basic courses for new hires, will be an on-going feature of this training program.

All employees will be adequately trained, as required, in the subject matter of Hazard Communication.

N. LIST OF EMERGENCY COORDINATORS

The Organizational Structure for implementation of the PPC Plan is found on the next page in this section.

The Facility or Operations Manager of this facility is the Emergency Coordinator. If an emergency develops, this person should be contacted first by the person discovering the emergency. The Emergency Coordinator will have the authority to utilize the resources of the facility should an emergency occur.

The Shift Supervisor will function as interim Emergency Coordinator when on duty with their respective shifts and when the Operations Manager is off-site on not available. The Supervisors will have the same emergency authority as the Chief Engineer.

Reference to Emergency Coordinator also refers to interim Emergency Coordinator, whoever is on site.

An up-to-date list of names and phone numbers of all persons qualified to act as Emergency Coordinator is provided in Table 1. The list will be updated as changes occur.

The Interim Emergency Coordinator will be trained in each aspect of being an Emergency Coordinator.

FACILITY CONTINGENCY PLAN

EMERGENCY COORDINATORS

Managing Emergency Coordinators			Ext.	Cellular Phone	Home Phone
Main: 610-497-8100					
PADEP Point of Contact	*Environmental Manager*	Kim Bradford	106	(610) 291-3890	Same
Emergency Coordinators	*Facility Manager*	Frank Capobianco	103	(610) 897-1036	Same
	Ops Mgr	Brian Stratton	181	(610) 389-6389	Same
	Day Ops Manager	Tom McCandless	113	(610) 269-4649	Same
Crisis Communications Coordinator	*Facility Safety Coordinator*	Lucas Adams	109	(610) 772-7635	Same

Interim Emergency Coordinators		Ext.	Cellular Phone	Home Phone
Merlin (JR) Dickow	*Shift Supervisor*	113	(717) 579-4473	Same
Antonio Gentilini	*Shift Supervisor*	113	(609) 602-9089	Same
Joshua Hearn	*Shift Supervisor*	113	(813) 486-2988	Same
Wayne Mason	*Shift Supervisor*	113	(619) 813-3008	Same

O. DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

The Emergency Coordinator will implement Section C-3 of the Contingency Plan:

I. Emergency Steps

1. **Notification:**

   In an emergency, the Emergency Coordinator will be advised (first) by the person discovering the problem or the interim Emergency Coordinator.

2. **Scope of Emergency:**

   The Emergency Coordinator will assess the situation. The alarm will be sounded (if evacuation is necessary) and the Emergency Coordinator or PADEP Point of Contact will contact the local, state and federal agencies, as required. See Section Q and T.

3. **Procedures for Fire and Explosion:**

   This facility is easily accessible to firefighting equipment and vehicles. Emphasis will be placed on preventing a fire from spreading. The following procedures will be

   - The Emergency Coordinator will be notified. (He, in tum, will contact all necessary facility personnel; use of the crisis communication call "ladder" may also be deemed necessary)
   - All work in the affected area will be stopped.
   - All injured individuals will be removed and medical treatment will be provided by qualified personnel. (Good Samaritan I staid treatment may be provided until certified medical personnel arrive)
   - The area will be cleared of all personnel not actively involved in the emergency.
   - If spilled materials are flammable, facility personnel and the Plymouth Township Fire Department will address the emergency, as required.
   - Flammable materials will be removed from affected areas when feasible to do so.
   - Evacuation may be necessary. All facility personnel will be trained in evacuation from their work areas as part of the overall training program. All employees, vendors, outside contractors and visitors will report to the designated evacuation area when the alarm is activated.
   - When the fire is extinguished and personnel are no longer in danger, an all-clear signal will be given. The Plymouth Township Fire Department will consult with the Emergency Coordinator before an all-clear is given. All equipment used in the emergency will be cleaned and restored for its intended use before operations are resumed in the affected area.

4. **Procedures for Spills or Release of Materials:**

In the event of a spill or material release emergency, the following procedure will be utilized for quick, safe control and response of the incident. A spill will be reported immediately to the Emergency Coordinator. The Emergency Coordinator will seek information of the following:

- Any injuries.
- Material spilled or released.
- Location of the spill or release.
- Estimated quantity of release and rate of release.
- Direction of the release.
- Any fire or explosion hazard.
- Area and materials involved.
- Intensity of fire or explosion.

5. **Emergency Response Personnel:**

Due to the staffing size of the facility, a response team cannot be effectively established. However, certain functions can be directed by the Emergency Coordinator until professional help arrives by contacting the outside organization(s) listed in Section T. Their functions are:

- Insure that all non-essential personnel are removed from the affected area.
- Utilize protective clothing and gear.
- Remove flammable materials where feasible.
- Remove all surrounding materials that could be reactive with spilled chemicals or material.
- Place all recovered contaminated soil or waste in containers for removal to the designated disposal site.
- Place all cleanup or containment materials in drums for disposal.

6. **Vapors from Spills or Release of Materials:**

Should a spill result in the formation of a vapor cloud, further evacuation will be determined and directed by the Emergency Coordinator, if required. An adequate area will be isolated upwind if volatile materials are released.

7. **Recurrence Prevention:**

Measures to avoid or prevent the recurrence or spread of fires include: the stoppage of operation, containing and collecting released materials and recovering and isolating containers. Should operation be stopped, the Emergency Coordinator will monitor pipes, valves and other equipment for pressure buildup, ruptures, or leaks.

Immediately following an emergency, the Emergency Coordinator will arrange for treatment, storage, or disposal of recovered materials, contaminated soil or surface water and any remaining contaminated material.

An Emergency Event Report will be analyzed to determine if there is a need for operational work rule or administrative change.

8. **Changes to the Contingency Plan:**

The scope of the plan will be amended if necessary, should the following occur:

- The facility operating permits are revised that necessitate change.
- The plan (or any part of the plan) fails during an emergency.
- Any facility changes which increase the potential for explosions, fires or release of materials or changes in the response procedures necessary during an emergency.
- There is a change in emergency coordinators.
- The emergency coverage steps need to be revised.

P. CHAIN OF COMMAND

The chain of command for emergency events is as shown in Appendix II.

A detailed list of key employees, with their telephone numbers, is available in Table l. Section N, page 2. This list will be available to facility personnel for call-out to Emergency Coordinators when the Contingency Plan has been implemented. Misuse of this list will result in disciplinary action

Q. AGENCY NOTIFICATION

REGULATING AUTHORITY AGENCY & DEPARTMENT	CONTACT	PHONE NUMBER	AVAILABILITY
FEDERAL GOVERNMENT			
US EPA Region 3 Four Penn Center 1650 Arch Street Philadelphia, PA 19103	Toxic Substances Coordinator	1-800-424-8802	24 HRS
US Coast Guard (CG 5335) Stop – 7581 2199 Second Street S.W. Washington, DC 20593-0001 HQS-DG-1st – NRCINFO@usgc.mil	National Response Center (NRC)	1-800-424-8802	24 HRS
STATE AND LOCAL GOVERNMENT			
Commonwealth of Pennsylvania **Dept. of Environmental Protection** Southeast Regional Office 2 East Main Street Norristown, PA 19401	Main / Emergency	484 250-5900/ 866-825-0208	24 HRS
⚠ **Registered Storage Tank Spills / Releases** **MUST** be reported to the **PA DEP** within **2 hours** of being **discovered!**		**484 250-5900**	**24 HRS**
	Bureau of Air Quality (BAQ)	484 250-5920	Weekdays 08:00 – 16:00
	Bureau of Waste Management (BWM)	484 250-5960	Weekdays 08:00 – 16:00
	Bureau of Clean Water (BCW) [NPDES & Stormwater]	484 250-5970	Weekdays 08:00 – 16:00
	Bureau of Radiation Protection	484 250-5950	Weekdays 08:00 – 16:00

REGULATING AUTHORITY AGENCY & DEPARTMENT	CONTACT	PHONE NUMBER	AVAILABILITY
STATE AND LOCAL GOVERNMENT (continued)			
PA Emergency Management Agency (PEMA) – Commonwealth Watch and Warning Center 1310 Elmerton Avenue Harrisburg, PA 17110 ** This meets state emergency planning committee notifications and initiates other response activities**		717-651-2001	24 HRS
Pennsylvania Department of Health Public	Health Preparedness	717 346-0640	Business Hours
Local Sewage Treatment Plant **East Norristown- Plymouth Joint Sewer Authority**		610 279-5759	24 HRS
Montgomery County Department of Public Safety 50 Eagleville Road Eagleville, Pennsylvania 19403	Emergency Preparedness	610 631-6500	24 HRS

R. EMERGENCY EQUIPMENT

All emergency and fire protection equipment and systems will be monitored, inspected and tested by local service providers and insurers as required by established practice and regulations of the National Fire Protection Agency (NFPA), to make certain that everything is in a ready and reliable state. Schedules and records required will be established.

I. Portable Fire Extinguishers

Portable fire extinguishers listed are located throughout the buildings in accordance with NFPA Standard No. 10. Based on the particular hazard, dry chemical or carbon dioxide (CO_2) type will be located accordingly.

II. Water Supply

The fire loop takes its' water supply from the water company main through a I2-inch connection. The flow rate required is I500 gpm, I50 psi, based on I000 gpm maximum suppression flow plus 500 gpm hose outlet. A pressure reducing valve, set at I50 psig is located in the water main valve pit; capable of producing a pressure of 65 psig at a rate of 500 gpm at the highest outlet.

III. Yard Hydrant and Fire Protection Water Supply Network

The underground yard fire protection loop is provided in accordance with NFC No. 24 and sized to meet flow requirements. The piping network is connected to yard hydrants and various building fire systems. Hydrants are arranged such that each structure will be protected with two separate hose streams. No hose will exceed 250 feet in length and hydrant separation will not exceed 250 feet. Post indicator sectionalizing valves are provided in this underground fire main and in the supply to building interior fire systems for maintenance purposes. Curb valves are provided for hydrant shut-off.

IV. Main Step-up Transformer Fire Protection

The main step-up transformer is provided with an automatic deluge water spray fire suppression system. The water supply ties directly to the main fire protection loop to provide adequate flow and pressure.

V. Automatic Sprinkler Systems

An automatic wet pipe sprinkler system will be provided in the storage room, instrument shop and maintenance shop, ash dump area, turbine area and metal removal area. A dry pipe system will be provided in the refuse bunker and tipping hall area as per the requirement of NFPA No. I3. The system consists of an alarm and dry valve, fire department connection, thermistor detection or fusible link head. A deluge water spray system is provided for transformer protection. Alarm, dry pipe and deluge valves will have a manual shut-off valve locked open. All alarms will be connected to a local control panel and the main annunciator panel. A Halon system is provided for the cable void and sealed area beneath the control room.

VI. Fire Hose Stations

Interior standpipes and UL listed fire hose stations are provided in the administration, boiler, turbine and ash conveyor areas in accordance with NFPA standard No. I4 for Class III service. Water for each standpipe system will be from the plant underground loop. The number of hose stations will be such as to ensure that all portions of each story of the building are within 30 ft. of a nozzle attached to not more than I00ft. of I ½ in. dacron jacket lightweight neoprene tube fire hose and I ½ in. nozzles, suitable for the hazard protected.

VII. Portable Foam Firefighting Cart/ Charging Deck

The charging deck is equipped with a portable "Ansul" brand mobile cart foam firefighting system to address incipient stage fires at the charging hoppers or refuse pit. Additionally, charging hoppers are equipped with a plumbed deluge system that is manually operated by shut-off valves located at the charging deck access doors of the boiler house 6th floor. Activation of charging hopper systems is by remote switch located inside the control room.

In the event of fire and/or evacuation where possible, visible checks must be performed for system and deluge valve supply readiness; main shut-off valves are located on the ground floor south wall at the boiler feedwater pumps, ground floor east wall at #2 air pre-heater and at the ground floor maintenance shop. The shift supervisor on duty and/or the emergency coordinator should perform a visual check of these valves (for readiness) while evacuating.

VIII. Halon 1301 Fire Protection System

An automatic Halon I30I system is provided for protection of the cable void and sealed area room, in accordance with NFPA standard No. 12A, with all necessary equipment for automatic detection, room evacuation alarm and automatic and manual suppression system discharge. Each room is equipped with two-zone detection ionization type and photoelectric type detectors. In accordance with NFPA Standard 72 E, both zones must detect fire before halon is discharged. The system is provided with visual and audible local panel, fire alarm/trouble indication and monitoring of control devices. All trouble signals are announced on the local panel.

IX. Local Fire Protection and Suppression Control Panels

A local panel is provided for each area being protected with all the electrical operating and alarm functions required for the fire detection/suppression systems with which it is associated.

Each panel is equipped with its own 24-hour battery backup. The panels are designed of module construction with basic alarm and supervisory modules. Additional modules are added to the basic module to perform detection or suppression release functions.

The local panels will provide for remote annunciation of fire detection and suppression status to the control room.

X. Central Control Room Annunciator Panel

The annunciator panel will provide a "Fire Trouble'' and "System Operating" annunciation light for each of the local panels.

XI. Protective Clothing and Equipment

Protective clothing and equipment is utilized to protect personnel during emergency operations. The minimum protective clothing required will be hard- hats, safety glasses and steel-toed boots or shoes. Additional items are as listed:

Clothing:

- Plastic/Vinyl aprons
- Rubber boots
- Gloves (canvas, rubber. kevlar, nitrile, and welders)
- Chemical-Resistant suits
- Polyethylene gloves
- Nomax jackets
- UV Hoods

Equipment:

- Welding shields with proper diffusing lenses
- Face shields (attachable to hardhats)
- Hardhat chin straps for entering confined space
- Protective eye glasses (ANSI approved w/ side shields)
- Respiratory protection (dust mask, half-face and full-face respirators)
- Emergency escape oxygen cylinders (10 minute supply)

This equipment will be located in readily accessible locations, suitable for the material to be handled. The Emergency Coordinator shall control the issuance and maintenance of the protective clothing during an emergency event

XII. Eye Wash and First Aid

Eye-Wash:

Emergency eyewash fountains and showers are located throughout the facility, each with a posted sign. Emergency eyewashes are located at a safe distance from electrical apparatus or power outlets I.A.W. 29 CFR part I9I0. OSHA and Z -358.I I98I emergency eyewash.

First Aid:

Adequate first-aid supplies and portable first aid bags are located throughout the facility.

XIII. Emergency Equipment

Emergency equipment for use in containing or cleaning up spilled hazardous materials will include such items as standard industrial absorbents, shovels, pumps, rakes, hoses and mobile equipment such as a forklift. Absorbents used for hazardous material wastes will be disposed of as hazardous material. The Emergency Coordinator shall be responsible for the issuance and maintenance of emergency equipment.

S. EVACUATION PLAN FOR FACILITY PERSONNEL

Should a major emergency occur, it will be essential to follow an established plan. This facility has a two-way radio system to initially announce evacuation of all areas. Additionally, the phone system will be used to notify key plant and Administrative personnel of the emergency and to recommend a plan and summon appropriate assistance. Evacuation of the facility will be initiated by the Emergency Coordinator.

I. Emergency Signal

To aid in the proper evacuation of personnel, a distinct signal (fire alarm constant ring) is established for evacuation purposes. This signal is substantially different from any other fire zone signal that is used on site and is loud enough to be heard from all areas.

II. Emergency Coordinator

The Shift Supervisor assumes duties as the Interim Emergency Coordinator. He will have overall responsibility for coordinating the evacuation of all personnel until relieved by the Chief Engineer or Safety Coordinator.

III. Alarm Conditions/ Central Alarm Sounded

An emergency plant-wide fire alarm I evacuation alarm is utilized.

- Activated by the Control Room Operator

When the alarm signal is sounded, the following steps shall be taken:

1. **First Alert:**

   All Maintenance, contractor, and vendor activity will cease. All personnel will vacate the plant and assemble in the designated reporting area. (Common area between the maintenance shop, air compressor house, and ash house) All Administrative personnel will be required to report to the same area.

   All non-essential Operations personnel will be required to report to the assembly area. The Control Room Operator and the Shift Supervisor will determine which operating personnel will evacuate.

   The Departmental Supervisors; Administration, Operations and Maintenance personnel will take a head count to determine that all employees, contract personnel, vendors, visitors and service personnel are accounted for. The results will be given to the Emergency Coordinator, for rescue measures, as deemed necessary by the nature of the event.

2. **Second Alert:**

No further entry of visitors, contractors, or vehicles will be allowed.

All non-essential traffic will be stopped to allow safe exit of personnel and movement of emergency equipment. No personnel will re-enter the area except for fire department or designated emergency personnel.

All personnel will standby for instructions from their immediate supervisor.

⚠ ***If the Emergency Coordinator decides evacuation of the facility site is necessary:***

Staff personnel will evacuate the facility through the nearest upwind gate following a marked route directly to a designated evacuation area. The designated evacuation route and evacuation area will be announced.

Staff supervisors, foreman, or lead persons shall account for personnel assigned to their supervision by taking a roll call in the evacuation area and report the findings to the Emergency Coordinator.

IV. All Clear

When the all clear signal is given (by radio communication) the Emergency Coordinator shall declare the situation under control and, if feasible, shall allow all personnel to return to their assigned work areas.

V. Reports

Any emergency utilizing the contingency plan and or crisis communication plan will be reported to the designated crisis communication personnel, (Section BB) and logged in the Control Room Log. Copies of all reports, appertaining to the event will be filed in the Administration Building.

VI. Drills

Periodic drills shall be conducted and evaluated by the Facility Safety Administrator; with due notice given only to Departmental Management.

The results of the drill shall be reported to the Facility Manager and documented for improvements, additional training needs and future reference.

Drills should be conducted once per calendar year, as a minimum, and more frequently as deemed necessary by Facility Management or required by Corporate.

T. ARRANGEMENTS WITH EMERGENCY RESPONSE CONTRACTORS

CONTACTS

EMERGENCY RESPONSE CONTRACTORS		
TECHNICAL ASSISTANCE	**PHONE NUMBER**	**AVAILABILITY**
Chemtrec Washington, DC	(800) 424-9300	24 HRS

HAZARDOUS WASTE CLEAN-UP	**PHONE NUMBER**	**AVAILABILITY**
Veolia ES Technical Solutions 3100 Hedley Street Philadelphia, PA 19137	(800) 688-4005 (215) 537-7330	24 HR Dispatch Bus Hrs
ACV Environmental 2527 Market Street Aston, PA 19014	800-777-4557 610-859-9000	24 HR Dispatch Bus. Hrs
Clean Harbors 2858 Route 322 Bridgeport, NJ 08014	800-645-8265	24 Hr Dispatch Bus. Hrs.

U. ARRANGEMENTS WITH LOCAL EMERGENCY RESPONSE

(AGENCIES AND HOSPITALS)

AMBULANCE FIRE POLICE	CALL ▶	9 · 1 · 1

FIRE – Two (2) Stations Available	**PHONE NUMBER**	**AVAILABILITY**
Plymouth Township Fire Company No. 1 1323 Colwell Lane Plymouth Meeting, PA 19462 Offices: (610) 828-0671 (Business Only)	**9 – 1 – 1** (610) 828-0130	**24 HRS**
Harmonville Fire Company No. 1 2100 Butler Pike Plymouth Meeting, PA I9462 Offices: (610) 828-0836 (Business Only)	**9 – 1 – 1** (610) 828-0130	**24 HRS**

POLICE	**PHONE NUMBER**	**AVAILABILITY**
Plymouth Township Police Department 700 Belvoir Road Norristown, PA 19401	**9 – 1 – 1** (610) 279-1900	**24 HRS**
Pennsylvania State Police (Troop K)	**9 – 1 – 1**	**24 HRS**
Philadelphia Headquarters/Station Skippack Station (Montgomery County)	(215) 452-5216 (610) 584-1250	

MEDICAL (Emergency Medical Care)	**PHONE NUMBER**	**AVAILABILITY**
Mercy Suburban Hospital 2701 DeKalb Street Norristown, PA 19401	**9 – 1 – 1** (610) 278-2000	**24 HRS**
Temple University Hospital **Temple Burn Center** 3401 N Broad Street Philadelphia, PA 19140	**9 – 1 – 1** (215) 707-2876	**24 HRS**

V. POLLUTION INCIDENT HISTORY

Not applicable. (Emergency event records contain zero (0) entries)

THE COVANTA PLYMOUTH RENEWABLE ENERGY LLC FACILITY MAINTAINS AN ENVIRONMENTAL MANAGEMENT SYSTEM (EMS). ALL RECORDS PERTAINING TO POLLUTION AND NON-CONFORMANCES ARE MAINTAINED THROUGH THIS PROGRAM.

W. IMPLEMENTATION SCHEDULE

Missing or incomplete aspects (required in the future) will be implemented as quickly as possible, allowing time for development of the procedures, which will then be forwarded to the Department of Environmental Protection for inclusion in the PPC Plan.

Changes in law; federal, state, local and the like that give cause to addition, deletion or other revisions in this manual will be handled and implemented, as deemed necessary by the Facility Management Staff.

- Between May 1991 and September 1991 (during initial commissioning of this Facility), seven (7) revisions to this plan were realized. This plan was fully operational on October 1, 1991.

X. STORMWATER MANAGEMENT PRACTICES

Traditional stormwater management practices and the use of best management practices (BMP's) are appropriate at the facility to control stormwater runoff and prevent stormwater pollution. The processes as related to BMP's are described in Form P and related attachments. Other BMP's include the following:

- No raw materials to be stockpiled outside
- All loading and unloading take place in the facility operations building so that both spills and the residual materials resulting from cleanup can be discharged to the process wastewater treatment system.
- All transfer trailers entering the site are required to have gasketed and sealed doors to prevent leakage.
- Inspection and monitoring of all valves, piping, controls, joints, welds, tank, drums, roofs, pavements, etc. are conducted monthly to determine if maintenance is needed.
- An erosion and sedimentation plan is maintained
- An emergency spill response and cleanup plan is maintained
- Tanks
    - Overfill protection to avoid overflow/ spillage
    - Are located on an impervious surface
    - Have oil / water separators
    - Have secondary containment for all such vessels
- The 30,000 gallon RAW Water Tank located outside of the building is a closed top tank and contains only potable supply water treated by the Reverse Osmosis (RO) system.
- The RO system is located on an elevated storage pad outside and is covered with a roof to eliminate exposure of the system to precipitation and/or stormwater run-off.
- Cleanup materials are retained on the site for prompt cleaning of all spills. Sorbent materials like spill pads, spill booms or absorbent type materials are effective in containing spills. Absorbent materials, once used, will be disposed of appropriately.
- When necessary, vehicles are washed on the tipping hall floor (inside the building) so water will not enter the stormwater inlets.
- Used oil is collected, inventoried, sampled and is disposed of on-site through the incineration process.
- Dust Control
    - The tipping hall is under a negative pressure system
    - Fabric filter bags are used to control particulate matter emissions

  - Spray water (process water) is collected and reused
  - Perimeter roadways are cleaned weekly by a contracted street sweeper
- Curbing along perimeter roads deters the possibly of spilled materials entering the soil.
- Stormwater inlets located near the ash residue building are purposely barricaded with deflective covers to protect perimeter drains from being contaminated with any uncontrolled discharge of liquids or other materials that may cause an environmental incident.
- A comprehensive site compliance evaluation for non-stormwater discharge will be completed annually. Refer to current "discharge monitoring report" (DMR) and PAG-03 annual inspection form for NPDES general permit for discharges of stormwater associated with industrial activity for certification on non-stormwater discharges.
- A blank PAG-03 form is included; following this section.

STORMWATER SAMPLING / REPORTING METHODOLOGY

The facility NPDES permit requires stormwater sampling. Sampling is accomplished by performing a "grab" sample during the first 30 minutes of measurable (at least 0.1 inch) rain fall but no later than 1 hour of the discharge resulting from a measurable rain fall. Each reported sampling must be a minimum of 72 hours from the last measurable rain event. The facility is required to collect and submit 2 samples, one each half year.

In the event a collection sample is not available due to lack of rain, a waiver must be submitted indicating appropriate information to describe the inability to perform collection. Waivers cannot be used more than once, in any 2-year period.

Stormwater monitoring results shall be summarized on a DMR form and all required attachments. Collection, shipment and analysis results received are to be reported within 28 days of the finished sampling and testing period (6 months).

Annual Inspection Form For NPDES General Permit:

3800-PM-WSFR0083v Rev. 11/2010
Annual Inspection

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

ANNUAL INSPECTION FORM FOR NPDES PERMITS FOR DISCHARGES OF STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES

1. Date of Inspection _____ 3. NPDES Permit # _____	2. Facility Owner/Operator Name and Address: _____ _____ _____ Tel: _____ Fax: _____
4. Facility Address and Location Street _____ Municipality _____ County _____	

VISUAL INSPECTION

Provide the following information for the storm event

5. Duration _____

6. Estimation of rainfall (in inches) † _____

† The annual inspection should be conducted after a storm event that is greater than 0.1 inches in magnitude and that occurred at least 72 hours from the previous 0.1 inch storm event.

7. Estimate the time between the previous rain event _____

8. Estimate the total volume (in gallons) for each outfall and report it in item 9.
Volume = C x I A,
where C is the runoff coefficient (i.e, 0.9 for paved and 0.5 for unpaved)
I is the rainfall amount (in ft), and
A is the area (square feet) drained to the outfall inspected
(convert from cubic feet to gallons by multiplying by 7.481).

9. Estimate the size of the drainage area (in square feet) for each outfall.

Outfall #	Drainage Area	% Paved	% Unpaved	Volume in gallons

- 1 -

3800-PM-WSFR0083v Rev. 11/2010
Annual Inspection

Complete the following information for each outfall inspected (items 10 through 15)

VISUAL INSPECTION OF OUTFALL NUMBER

10. Description of area(s) that drains to outfall. _____

11. Description of stormwater management practices, erosion and sedimentation control practices, and other structural control measures that are in place to control pollutants from running off-site.

12. Is there visible flow from the pipe? ☐ Yes ☐ No (Go to number 14) Pipe Dia. (inches) _____
    a. ODOR: Chemical Musty Sewage Rotten Eggs Other _____
    b. COLOR: Clear Red Yellow Brown Other _____
    c. CLARITY: Clear Cloudy Opaque Suspended Solids Other _____
    d. FLOATABLES: Suds Oily Film Garbage Sewage Other _____
    e. DEPOSITS/STAINS: None Oily Sediment Other _____
    f. VEGETATION: None Normal Excessive Inhibited Other _____

13. Is there standing water present? ☐ Yes ☐ No (Go to number 16)
    a. ODOR: Chemical Musty Sewage Rotten Eggs Other _____
    b. COLOR: Clear Red Yellow Brown Other _____
    c. CLARITY: Clear Cloudy Opaque Suspended Solids Other _____
    d. FLOATABLES: Suds Oily Film Garbage Sewage Other _____
    e. DEPOSITS/STAINS: None Oily Sediment Other _____
    f. VEGETATION: None Normal Excessive Inhibited Other _____

14. Is there any evidence of or potential for any pollutant being discharged at this outfall? ☐ Yes ☐ No
    Describe: _____

    If yes, identify substances present in the sediment (if possible). _____

15. Description of corrective measures taken or planned to remove sediments or debris if found during inspection. Please provide a schedule if actions are planned.

- 2 -

3800-PM-WSFR0083v Rev. 11/2010
Annual Inspection

COMPREHENSIVE SITE COMPLIANCE EVALUATION

16. Do drainage maps reflect current conditions? ☐ Yes ☐ No

If no, provide your comments.

Comments: _____

17. Based on review of PPC Plan (including Housekeeping Measures), are any changes, corrections or updates necessary? ☐ Yes ☐ No

If yes, provide your comments.

Comments: _____

18. Have you inspected all structural stormwater controls used to implement the PPC Plan to determine if they are adequate? ☐ Yes ☐ No

If no, provide your comments.

Comments: _____

19. Have you inspected the entire site to determine if erosion and sedimentation control measures are adequate? ☐ Yes ☐ No

If no, provide your comments.

Comments: _____

20. Summarize corrective actions/measures completed or planned to correct any deficiencies found as a result of the inspection. Please provide a schedule if actions are planned.

_____

_____

_____

21. Signature of Inspector

Name of Inspector: _____

Date Report Prepared: _____

Signature of Inspector: _____

24. Signature of Owner/Operator of Facility

_____ _____ _____

Name/Title Principal Executive Officer Signature Date

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 Pa. C.S. §4904 (relating to unsworn falsification).

- 3 -

Y. SEDIMENT AND EROSION PREVENTION

The facility currently has no areas that have a high potential for significant soil erosion. All surfaces are either paved or correctly vegetated to prevent soil erosion.

Z. ADDITIONAL REQUIREMENTS FOR EPCRA, SECTION 313 FACILITIEs

Not applicable to this facility.

AA. RADIATION RESPONSE PROCEDURE

Covanta Plymouth Renewable Energy LLC maintains radiation monitoring equipment as a part of the Radiation Monitoring Action Plan. This plan was developed and implemented to fulfill the requirements of 25 Pa Code Chapter 283. The purpose of the Radiation Response Procedure is to provide the process for identifying, isolating, and disposing of radioactive materials that have inadvertently been delivered to the Covanta Plymouth Renewable Energy LLC Facility.

I. Radiation Monitoring Portal Alarm

1. Scale House

When the in-bound radiation monitoring portal detects an elevated level of radioactive energy the scale house attendant(s) will:

a. Notify the driver that the system has detected an elevated level of radioactive energy.

b. Ask the driver if he or anyone else in the vehicle has recently had any medical procedures that required the use of medical radioactive isotopes.

i. If the driver's answer is "no":
   a) Log the incident into the Detected Radioactive Material (RAM) Log
   b) Continue to next step.

ii. If the driver's answer is "yes" :
   a) Log the incident into the Detected Radioactive Material (RAM) Log
   b) Check the box in the "Driver RAM" column.
   c) Continue to next step.

c. Direct the driver to pull through the scale, turn around, and pass through the out-bound radiation monitoring portal.

i. If the out-bound radiation monitor detects an elevated level of radioactive energy
   a) Log the response into the Detected Radioactive Material (RAM) Log
   b) Proceed to step **e.**

ii. If the out-bound radiation monitor does not detect elevated radioactive energy:
   a) Log the response into the Detected Radioactive Material (RAM) Log
   b) Continue to next step.

d. Direct the driver to pull through the scale, turn around, and pass through the in-bound radiation monitoring portal.

i. If the in-bound radiation monitor detects an elevated level of radioactive energy:
   a) Log the response into the Detected Radioactive Material (RAM) Log
   b) Proceed to next step.

ii. If the in-bound radiation monitor does not detect elevated radioactive energy:
   a) Log the response into the Detected Radioactive Material (RAM) Log
   b) Designate the incident as a "False Alarm" by checking the column designated "False Alarm."
   c) Manage the load as MSW or NHPW whichever procedure is appropriate.

   [End of Procedure]

e. Inform the driver that the system has detected an elevated level of radioactive energy from the vehicle.

i. Inform the driver that periodically medical isotopes used in the diagnosis and treatment of medical conditions end up in MSW.
ii. Inform the driver that we will need to conduct a Vehicle Radioactive Material Survey.
   a) We will need to ask some questions for our survey.
   b) A qualified person will be conducting a survey of the vehicle to locate, identify, and quantify the radioactive material.
iii. Inform the driver that the vehicle is not allowed to leave the site until the survey has been conducted, the material has been identified, and the disposition of the material has been determined.

f. Start a Detected Radioactive Material Incident Report (DRMIR).

i. Inform the Environmental Specialist that a DRMIR has been initiated.
ii. Complete Sections I, II, and III of the DRMIR Form.
iii. Direct the driver to park in the radiation survey and holding area to await the vehicle survey.
iv. Provide the DRMIR form to the qualified individual who arrives to conduct the vehicle survey.

g. Complete columns 1-11 in the Detected Radioactive Material (RAM) Log.

h. Confirm the driver parks in the radiation survey and holding area and waits.

i. If the driver leaves the facility, with the vehicle, before the qualified person arrives:
   a) Notify management. Start at (i) and if you cannot reach that manager continue down the list. They will direct you to the next step.
      i) Environmental Specialist
      ii) Chief Engineer
      iii) Facility Manager
      iv) Shift Supervisor
      v) Repeat List 1x
      vi) Proceed to b)

b) On the reverse side of the Detected Radioactive Material (RAM) Log record the specifics of the incident.

i) Time the driver left the facility

ii) Direction the vehicle left the facility

iii) Manager(s)/Supervisor(s) your called

iv) Manger/Supervisor you notified

v) Time you notified the manager/supervisor

vi) Any details that may be relevant to this incident

c) If you are unable to notify a manager or supervisor **proceed to Section 2.**

d) If you are directed to by a manager or supervisor **proceed to Section 2.**

2. Qualified Personnel

a. Qualified Personnel

b. Vehicle Survey

i. Equipment and Materials
ii. Preparing the Survey Equipment
iii. Driver Interview
iv. Locating RAM
v. Identifying and Quantifying the RAM

c. Evaluating the RAM

i. Identifying the Nuclide
ii. Evaluating the exposure rate

d. Disposition of the RAM

i. Processing the RAM as Exempt for Disposal
ii. Holding the RAM for future processing as Exempt for Disposal
iii. Rejecting non-exempt RAM
iv. Transfer of RAM to an authorized facility

3. Reporting an Incident

The Environmental Specialist, a manager, a supervisor, or as necessary the Scale House attendant will begin the notification of state and local agencies as required.

a. Reporting a Level II Condition – Unauthorized transportation of Radioactive Material.

i. Call the State Police (610) 279 - 1605

Report that a vehicle with Radioactive Material has left the facility in violation of PA DEP Regulations.

a) Notify the department that in compliance with PA DEP regulations we are directed to notify them that an uncooperative driver of a MSW vehicle has left the facility with waste having detectable radiation levels.

b) If the Action Level is known report the level and the risk.

Level 1 – "MODERATE" : < 2mR/Hr at Cab (and) < 50mR/hr at vehicle side.
Level 2 – "HIGH" : > 2mR/Hr at Cab (or) 50mR/hr at vehicle sides.

c) Report the driver and vehicle information recorded in sections II and III of the DRMIR Form.

ii. Call the Local Police 9 – 1 – 1

Report that a vehicle with Radioactive Material has left the facility in violation of PA DEP Regulations.

a) Notify the department that in compliance with PA DEP regulations we are directed to notify them that an uncooperative driver of a MSW vehicle has left the facility with waste having detectable radiation levels.

b) If the Action Level is known report the level and the risk.

Level 1 – "MODERATE" : < 2mR/Hr at Cab (and) < 50mR/hr at vehicle side.
Level 2 – "HIGH" : > 2mR/Hr at Cab (or) 50mR/hr at vehicle sides.

c) Report the driver and vehicle information recorded in sections II and III of the DRMIR Form.

iii. Call the PA DEP Bureau of Radiation Protection Health Physicist

Weekdays 08:00-to 16:00	(484) 250-5050
Weekends / Evenings (24 Hours)	(484) 250-5900

Report that a vehicle with Radioactive Material has left the facility in violation of PA DEP Regulations.

a) Notify the department that in compliance with PA DEP regulations we are directed to notify them that an uncooperative driver of a MSW vehicle has left the facility with waste having detectable radiation levels.

b) If the Action Level is known report the level.

c) Report the driver and vehicle information recorded in sections II and III of the DRMIR Form.

iv. Proceed as directed by the PA DEP Health Physicist.

b. Reporting a Level II Condition – Measure Exposure Rate Exceeds Limits

i. Call the PA DEP Bureau of Radiation Protection Health Physicist

Weekdays 08:00-to 16:00	(484) 250-5050
Weekends / Evenings (24 Hours)	(484) 250-5900

a) Report that a vehicle with detectable radioactive material arrived at the facility with a measured exposure rate(s) in excess of plan limits.

b) Provide the PA DEP Health Physicist with the survey information.

c) Provide the PA DEP Health Physicist with any additional information as requested.

d) Record any direction, recommendations, and other information provided by the department and attach to the DRMIR.

ii. Proceed as directed by the PA DEP Health Physicist.

Covanta Plymouth Renewable Energy LLC | Radiation Monitoring Program

Detected Radioactive Material Incident Report

This incident report shall be included as part of the daily operations report and the annual operations report.

General Information

1) Operator's Name: _____
2) Date of Alarm: _____
3) Time of Alarm: _____
4) Facility Address: 1155 Conshohocken Rd., Conshohocken, PA 19428

Driver Information

5) Driver's Name: _____
6) Company: _____
7) Address: _____
_____
8) Office Phone: _____

Vehicle Information

9) Truck Number: _____
10) Type: ☐ Front Loader ☐ Trailer ☐ Other: _____
☐ Rear Loader ☐ Roll-Off _____
11) License Plate: _____ _____
12) Make/Model: _____
13) Color: _____
14) Capacity: _____

Incident Details

15) Is this a transfer? ☐ YES ☐ NO Origin: _____
☐ PA DEP EMTA ☐ DOT-SP 11406 Approval _____ - _____ - _____ - _____
16) Portal Alarms (Y/N): ____ Inbound ____ Outbound ____ Inbound ____ Outbound
17) False Alarm (Y/N): _____ [Y] Explain: _____
18) DRMIR NO.: _____
19) Qualified Person: _____
20) Has someone in the vehicle undergone a medical procedure using radioisotopes? ☐ YES ☐ NO

Notes: _____
_____
_____
_____

Covanta Plymouth Renewable Energy LLC — Radiation Monitoring Program

Detected Radioactive Material Incident Report

Vehicle Radioactive Material Survey

DATE: _____ TIME: _____ DRMIR No.: 0 0 0 0 0 0

QP Performing Survey: _____

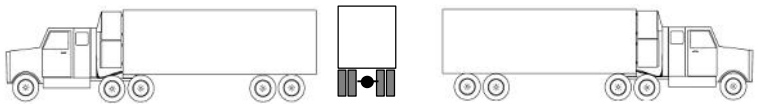
☐ Action Level I

Survey Equipment Used:	☐ Ludlum (GS)	☐ Canberra MCA	☐ _____
SERIAL NUMBER:			
CALIBRATION:			
PROBE(S):	☐ Survey ☐ Pancake	☐ Survey	☐

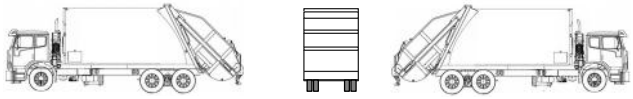
Vehicle Survey

1) Start: _____ End: _____

☐ TRAILER



☐ LOADER



☐ ROLL-OFF

FRONT REAR

Mark the relative position of each area where RAM is detected at the point where the exposure rate is highest. Consecutively number each peak (1,2,3,4…) on the diagram above that best represents the survey area.

Exempt for Disposal Nuclide	(µrem/hr)
Ag-111	335
Au-198	395
Cr-51	330
Cu-64	4300
Cu-67	208
I-123	25
I-131	375
Pd-103	90
Re-186	100
Re-188	330
Sc-47	350
Sm-153	55
Ti-201	60
Yb-167	200
Co-57	115
Ga-67	230
K-40	ALL

2) Measure Exposure Rate: A = Distance from tractor cab where exposure rate is ≥ 2,000 µrem/hr _____ ft

B = Distance from trailer walls where exposure rate is ≥ 50,000 µrem/hr _____ ft

⚠ If distance A or B is greater than 0.0 then ✋ **STOP** ✋! Proceed to **Action Level II**.

3) Smear sample detect RAM? ☐ NO ☐ YES Nuclide _____ µrem/hr _____

LOC#	Time	Nuclide	Vehicle Exposure Rate (µrem/hr)	EXEMPTION CRITERIA Medically Exempt (Y / N)	EXEMPTION CRITERIA Exposure Rate Limit (µrem/hr)	Exempt For Disposal? (Y / N)	Half-Life (min/hrs/days)	Disposition (Process/Hold/Reject)

☐ TRANSFER TO: _____

☐ PA DEP EMTA ☐ DOT-SP 11406 ☐ DOT-SP 10656 _ _ - _ _ - _ _ - _ _ _ _

Covanta Plymouth Renewable Energy LLC — Radiation Monitoring Program

Detected Radioactive Material Incident Report

Vehicle Radioactive Material Survey

DATE: _____ TIME: _____ DRMIR No.: 0 0 0 0 0 0

QP Performing Survey: _____

☐ Action Level II — Identification of an Action Level II condition requires the immediate notification of the PA DEP Area Health Physicist: Further investigation of the radioactive material will continue under the supervision of the PA DEP Health Physicist.

☐ **Driver leaves site with vehicle.**

a. Per PA DEP Regulations we are directed to notify the [agency listed below] that a vehicle transporting municipal waste (trash) has left the facility with detectable levels of radiation without authorization.

b. The radiation exposure rate level is _____. Level I is low to moderate and Level II is high!

c. The vehicle is a _____
Company / Make & Model / Color / License / Registration Info.

☐ PA State Police (King of Prussia) (610 279-1605 — Time: — Contact:

☐ Local Police 9 - 1 - 1 — Time: — Contact:

☐ PADEP Health Physicist (484) 250-5900 (24 Hrs) (484) 250-5950 (Bus.Hrs) — Time: — Contact:

Notes

☐ **Measured Exposure Rate at** ☐ tractor cab ≥ 2,000 µrem/hr ☐ trailer body wall ≥ 50,000 µrem/hr

☐ PADEP Health Physicist (484) 250-5900 (24 Hrs) (484) 250-5950 (Bus.Hrs) — Time: — Contact:

Measured Exposure Rate: A = Distance from tractor cab where exposure rate is ≥ 2,000 µrem/hr _____ ft
B = Distance from trailer walls where exposure rate is ≥ 50,000 µrem/hr _____ ft

☐ ☐ ☐

Initial Survey		Second Survey		Third Survey		Confirmed? (Y/N)
Nuclide	µrem/hr	Nuclide	µrem/hr	Nuclide	µrem/hr	

Notes

BB. CRISIS COMMUNICATION PROCEDURE

FACILITY EMERGENCY CONTACT LIST

Revised: 03/11/24

EMERGENCY CONTACT LIST

Plymouth Township: Police / Fire / Rescue / Ambulance 9 · 1 · 1

Facility Management:

Management Position	Name of Manager	Plant Ext.	Primary Phone Secondary Phone
Facility Manager	Frank Capobianco	103	(610) 897-1036
Facility Safety Coordinator	Lucas Adams	109	(610) 772-7635
Operations Manager	Brian Stratton	181	(610) 389-6389
Environmental Specialist	Kimberly Bradford	106	(610) 297-3890

Covanta East Region Personnel:

Area, Regional Operations Manager
William (Bill) Guill (267) 596 - 0340

Commercial Business Manager – East Region
Dave Sharp (215) 350 - 8004

Regional Safety Administrator
Nazer Ali (862) 360 - 9746

Regional Director, Environmental
George Drew (978) 697 - 6547

Chief Operating Officer, East Region
John Walker (508) 291 - 4470

Cell Phone Home Phone Office Phone Fax

CC. RESERVED

Reserved

APPENDIX I.

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) PLAN

This is a site specific plan and is not required by the US EPA due to the size and operating parameters of the Covanta Plymouth Renewable Energy Facility. Contents of this section, therefore, are not regulated to follow any specific guidelines.

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) PLAN

Purpose

The purpose of this plan is to provide a description of the Covanta Plymouth Facility procedures developed to ensure compliance with all existing water pollution regulations.

Applicability

This plan is applicable to all operations at this Montgomery County Facility.

Procedures

The attached plan contains a description of the physical countermeasures and prevention procedures necessary to avert a discharge of oil or chemicals into waters of the Commonwealth of Pennsylvania.

Responsibilities

It shall be the responsibility of the Emergency Coordinator to ensure all aspects of this plan are carried out. He shall pre-arrange the assistance of third party clean-up contractors, should their services be required.

Additionally, he will ensure that all inspections are performed, documented and kept on file for at least one year and available for auditing upon request.

All Shift Supervisors shall be responsible for the daily and monthly inspections as outlined in the attached plan. All written reports shall be forwarded to the Operations Manager.

Compliance

The Covanta Plymouth facility “Preparedness, Prevention and Contingency (Control) Plan” (P.P.C.), fully complies with all applicable requirements of Section 904, of Act 32 (Notification of Downstream Users and Spill Prevention Response)

All employees shall be instructed in the significance and purpose of the Pollution Prevention Procedure. The Operations Manager/Emergency Coordinator shall present an overview of the Spill Prevention Control and Countermeasure Plan during annual employee training sessions.

APPENDIX I. SPPC PLAN

I. General

The Covanta Plymouth Energy-from-Waste Facility contains stationary bulk storage tanks and various container storage areas.

II. Containment of Oil or Chemicals (in case of casualty)

The bulk storage oil and chemical tanks are diked. The containment areas are sufficiently sized to contain spills, leakage, and average amounts of rain water.

III. Inspections

As part of his daily routine, the Shift Supervisor will, routinely inspect or have inspected; tanks, valves, berms and all exposed oil piping for the presence of leakage. The results of the inspection shall be entered on plant operating logs. Monthly, he will perform a recorded inspection of all tanks and areas. Any discrepancies will be checked / repaired promptly. All reports shall be kept on file and be available for auditing upon request.

IV. Inspections and Records

All logs and records will be kept at this facility. The following records will be kept for at least one year:

1. **Daily Log:**

   A daily log of filling, spills, repairs, and other significant occurrences will be maintained. (Control room log, delivery slips, etc.)

2. **Monthly Inspections:**

   Monthly inspections of the oil storage areas will be made and a report will be completed and signed. In addition, informal daily inspections will be conducted.

V. Training

A copy of the Spill Prevention Control and Countermeasure Plan shall be available in the plant offices. Staff members and Shift Supervisors shall conduct periodic training on topics, determined by the Facility Safety Coordinator, including Spill Prevention Procedures. Particular emphasis shall be placed on the recognition of spills and emergency procedures available to prevent a spill from reaching storm drains and channels that would cause downstream contamination.

VI. Recordkeeping

All training conducted on site is documented and retained in the Facility Safety Coordinators' office.

VII. Implementation

This plan was fully operational prior to plant start-up. All requirements of this plan became effective on the date equipment was turned over (by the general contractor) to the facility operating department for start-up.

APPENDIX II.

FIGURES

FIGURE 1	Site Locations Plan (U.S.G.S.)	App II - 1
FIGURE 2	Vehicle Evacuation Routes	App II - 2
FIGURE 3	Emergency Response Organizational Structure	App II - 3
FIGURE 4	PPC Organizational Structure	App II – 4
FIGURE 5	Scheme – Hazardous Waste and Spills	App II – 5

APPENDIX II. FIGURES

FIGURE 1: SITE LOCATION PLAN (U.S.G.S.)

Facility:
Covanta Plymouth Renewable Energy LLC

Facility ID:
#482359

Address:
1155 Conshohocken Road
Conshohocken, PA 19428

Municipality:
Plymouth Township

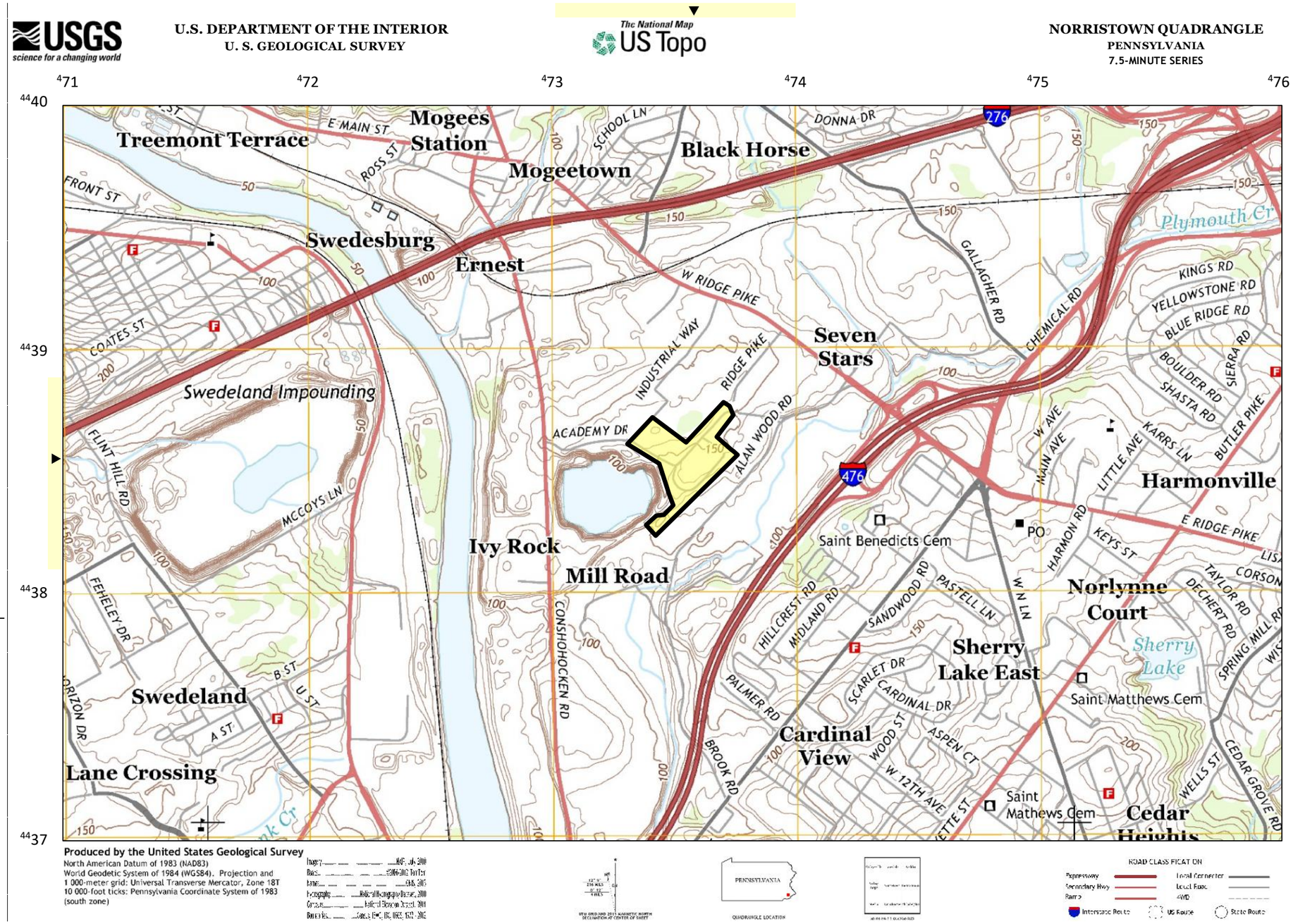
County:
Montgomery

Main Gate (Cross Roads):
Academy Drive *x* Conshohocken Road

Truck Gate (Cross Roads):
Academy Drive *x* Allen Wood Road

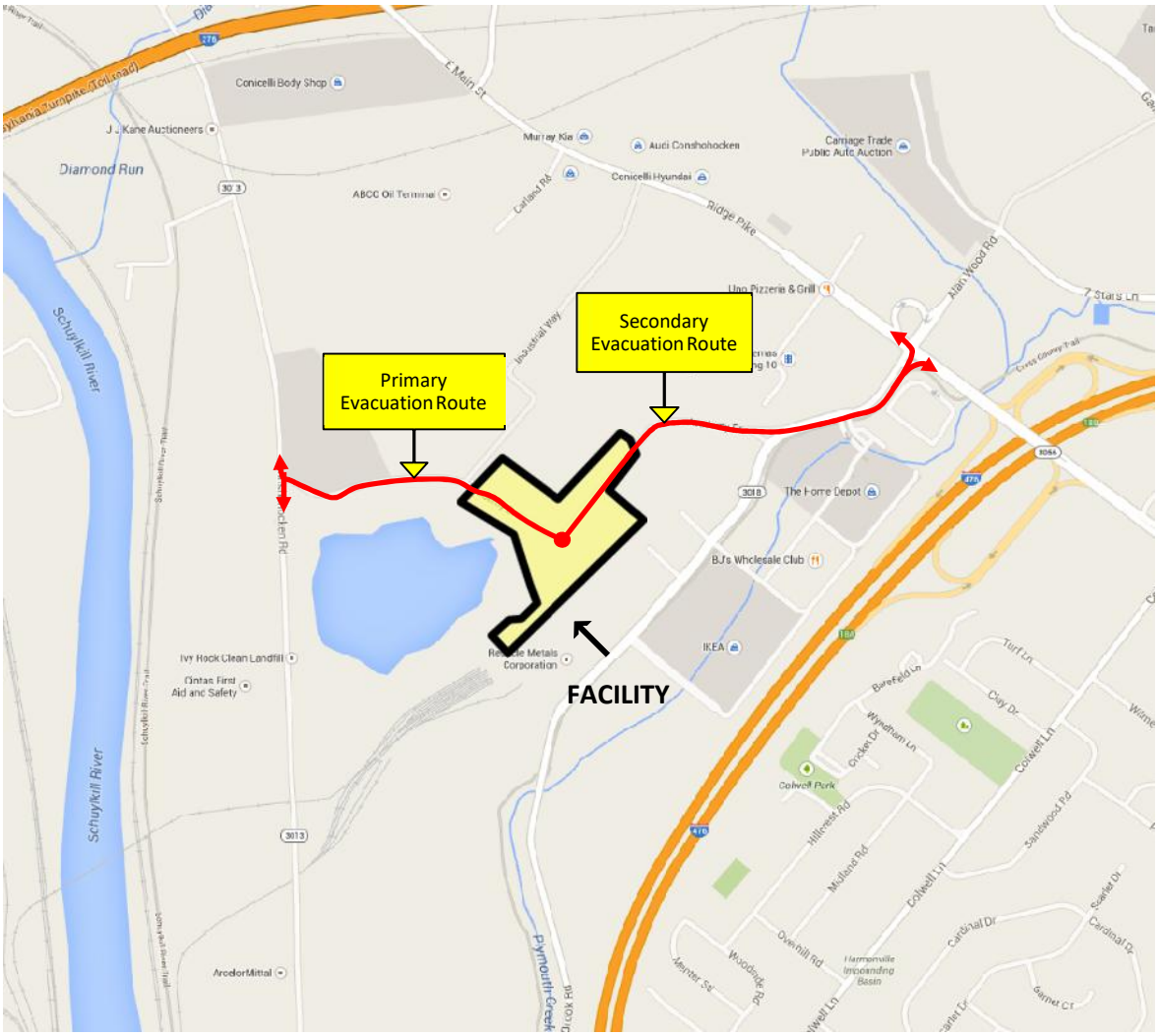
Topographical Map (Source)
U.S. Department of the Interior
U.S. Geological Survey
NORRISTOWN QUADRANGLE
PENNSYLVANIA
7.5 MINUTE SERIES
2013

Contour Interval 10'
North American Vertical Datum of 1988



APPENDIX II. FIGURES

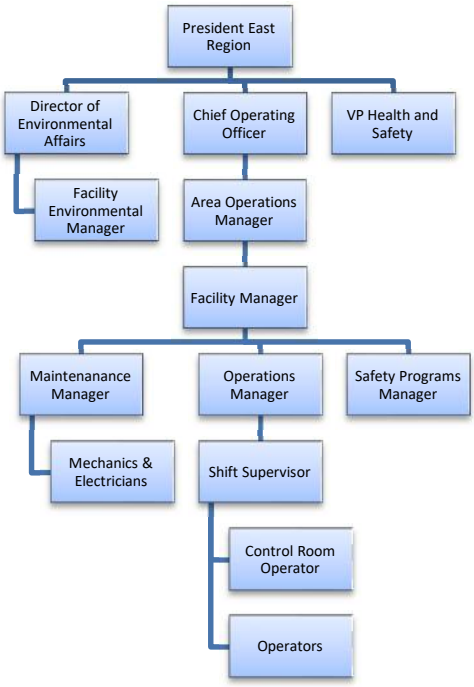
FIGURE 2: EVACUATION ROUTES



COVANTA PLYMOUTH RENEWABLE ENERGY LLC FACILITY
PRIMARY AND SECONDARY EVACUATIONS ROUTES

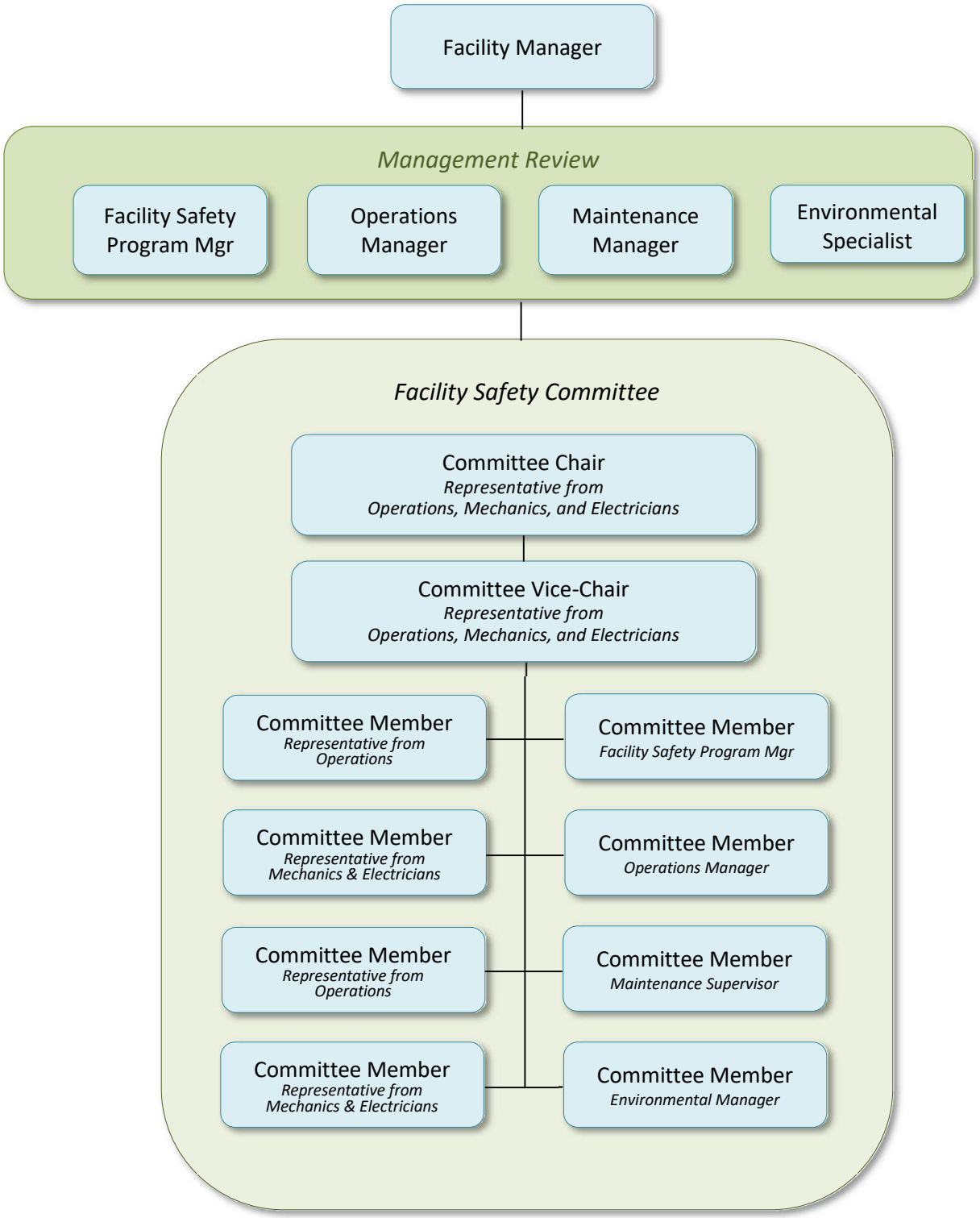
APPENDIX II. FIGURES

FIGURE 3: EMERGENCY RESPONSE ORGANIZATION STRUCTURE



APPENDIX II. FIGURES

FIGURE 4: PPC PLAN MANAGEMENT STRUCTURE



APPENDIX II. FIGURES

FIGURE 5: SCHEME – HAZARDOUS WASTE AND SPILLS

HAZARDOUS WASTE	SPILLS & LEAKS
PREVENTION	
• Waste Approval Process • Tipping Floor Waste Inspections • Residual Waste Inspections	• Use of secondary containment • Use of berms • Level Gauges & Checks • Routine Visual Inspections
MITIGATION	
• Isolate Hazardous Materials • Barrack area to prevent contact	• Stop active spill/leak flow • Cover drains and dike egress routes • Isolate spill utilizing containment materials (pillows, absorbents)
REMEDIATION	
• Contact Hazardous Materials vendor to remove and dispose of materials in accordance with applicable requirements.	• Recover pillow and absorbents • Dispose of materials uses to contain and absorb spilled materials in accordance with applicable requirements.
DOCUMENTATION	
• Tipping Floor Waste Inspection Logs • Daily Environmental Logs • Residual Waste Inspection Log • Residual Waste QA/QC Inspections • Residual Waste Discrepancy Forms • Environmental Incident Reports	• Daily Environmental Logs • Shift Supervisor Logs • Control Room Operators Logs • Tipping Floor Operations Logs • Environmental Incident Reports
PROCESS REVIEW	

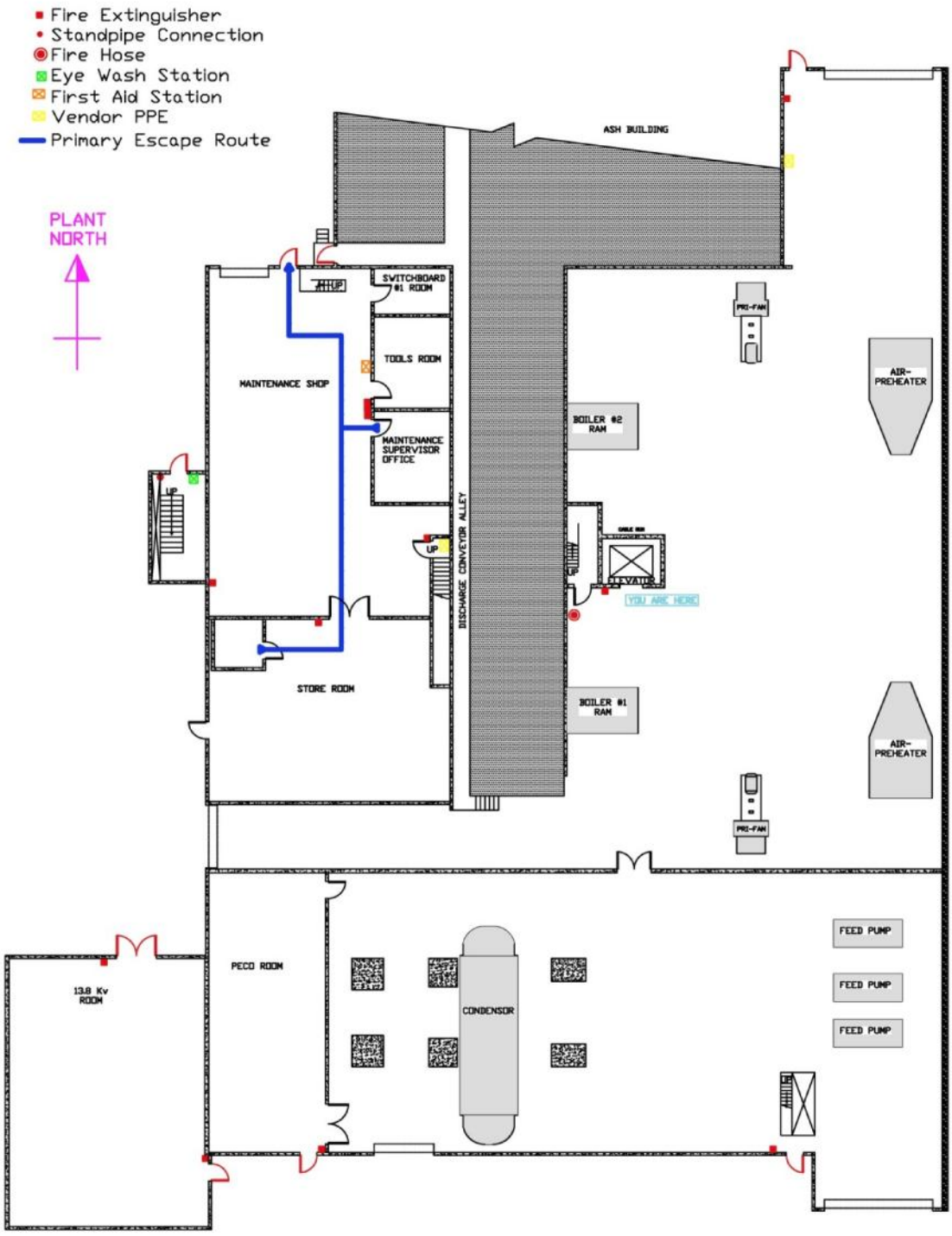
• Facility Safety Committee reviews:
  • Incident report
  • Mitigation activities
  • Remediation activities.
  • Effectiveness of plan and actions taken
 	
• Facility Safety Committee updates plan and procedures as necessary to increase effectiveness.	

APPENDIX III.

FIGURES
Evacuation Route Diagrams

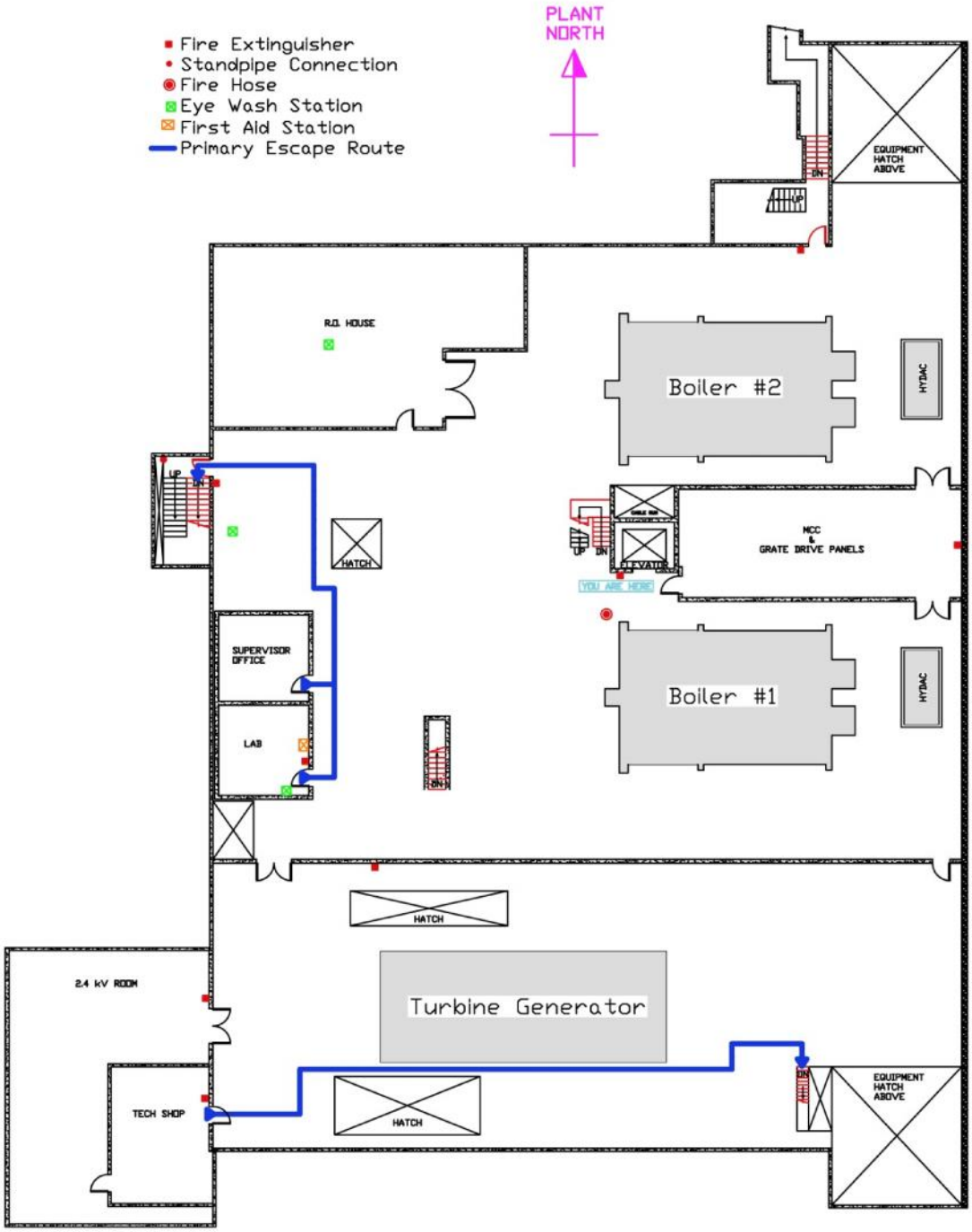
1.	Ground Floor	Elevation	142’	APP III - 1
2.	2nd Floor	Elevation	164’	APP III – 2
3.	3rd Floor	Elevation	178’	APP III – 3
4.	4th Floor	Elevation	193’	APP III – 4
5.	5th Floor	Elevation	204’	APP III – 5
6.	6th Floor	Elevation	214’	APP III – 6
7.	7th Floor	Elevation	224’	APP III – 7
8.	8th Floor	Elevation	235’	APP III – 8
9.	9th Floor	Elevation	251’	APP III – 9
10.	Administration Building			APP III – 10

APPENDIX III. FIGURES – EVACUATION ROUTES



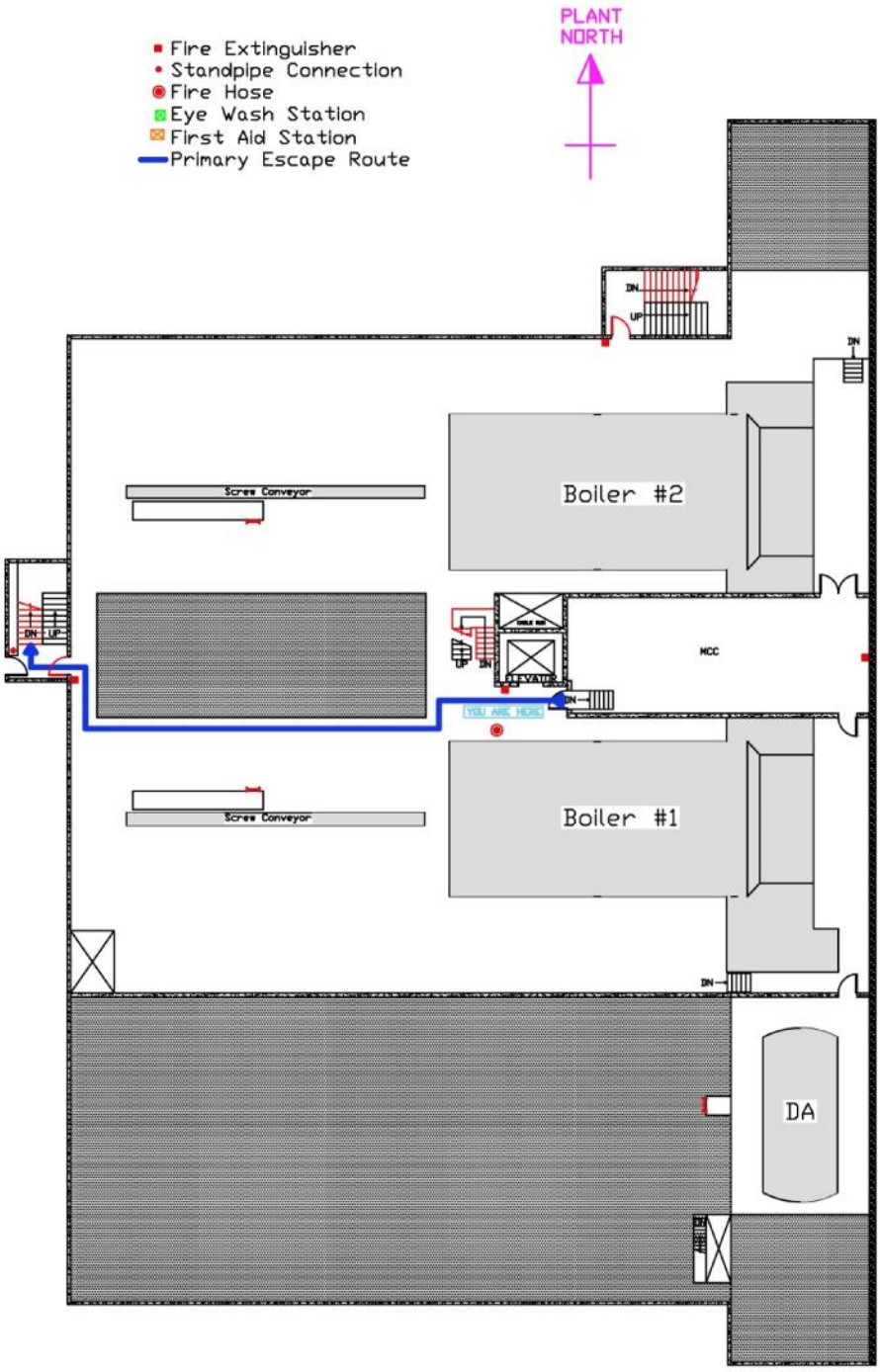
Ground Floor - Elevation 142'
Evacuation Routes

APPENDIX II. FIGURES



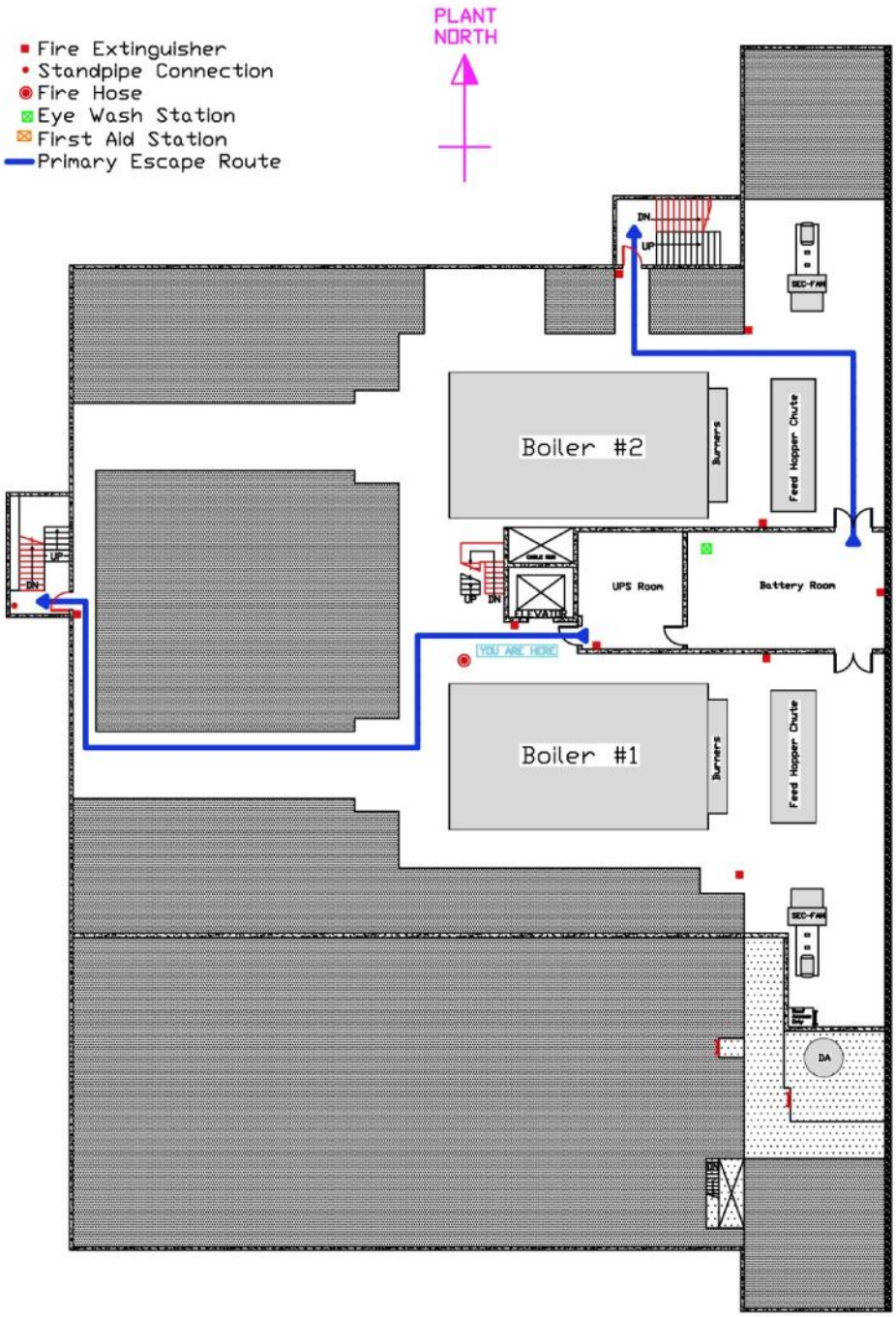
2nd Floor - Elevation 164'
Evacuation Routes

APPENDIX III. FIGURES – EVACUATION ROUTES



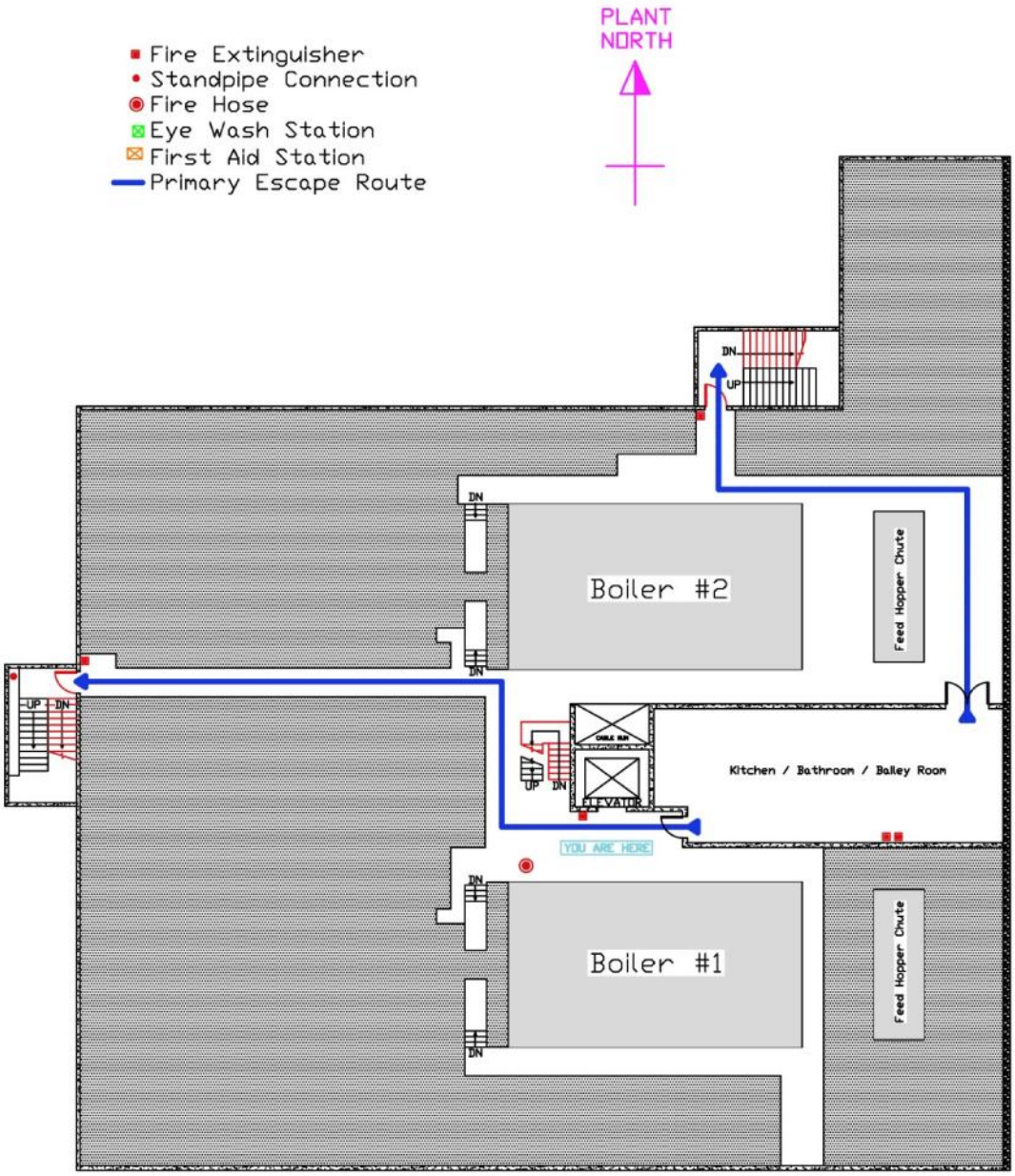
3rd Floor - Elevation 178'
Evacuation Routes

APPENDIX II. FIGURES



4th Floor - Elevation 193'
Evacuation Routes

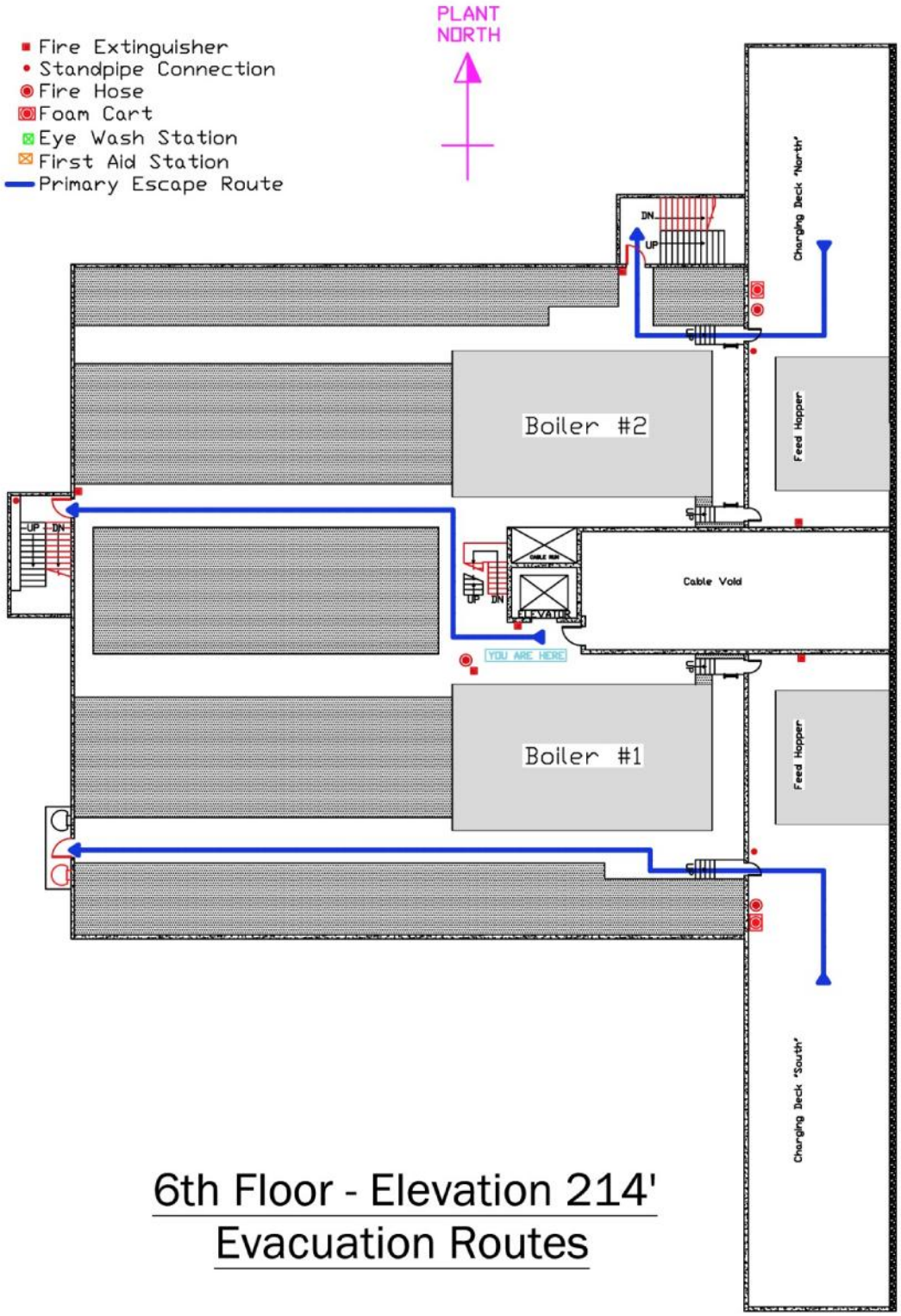
APPENDIX III. FIGURES – EVACUATION ROUTES



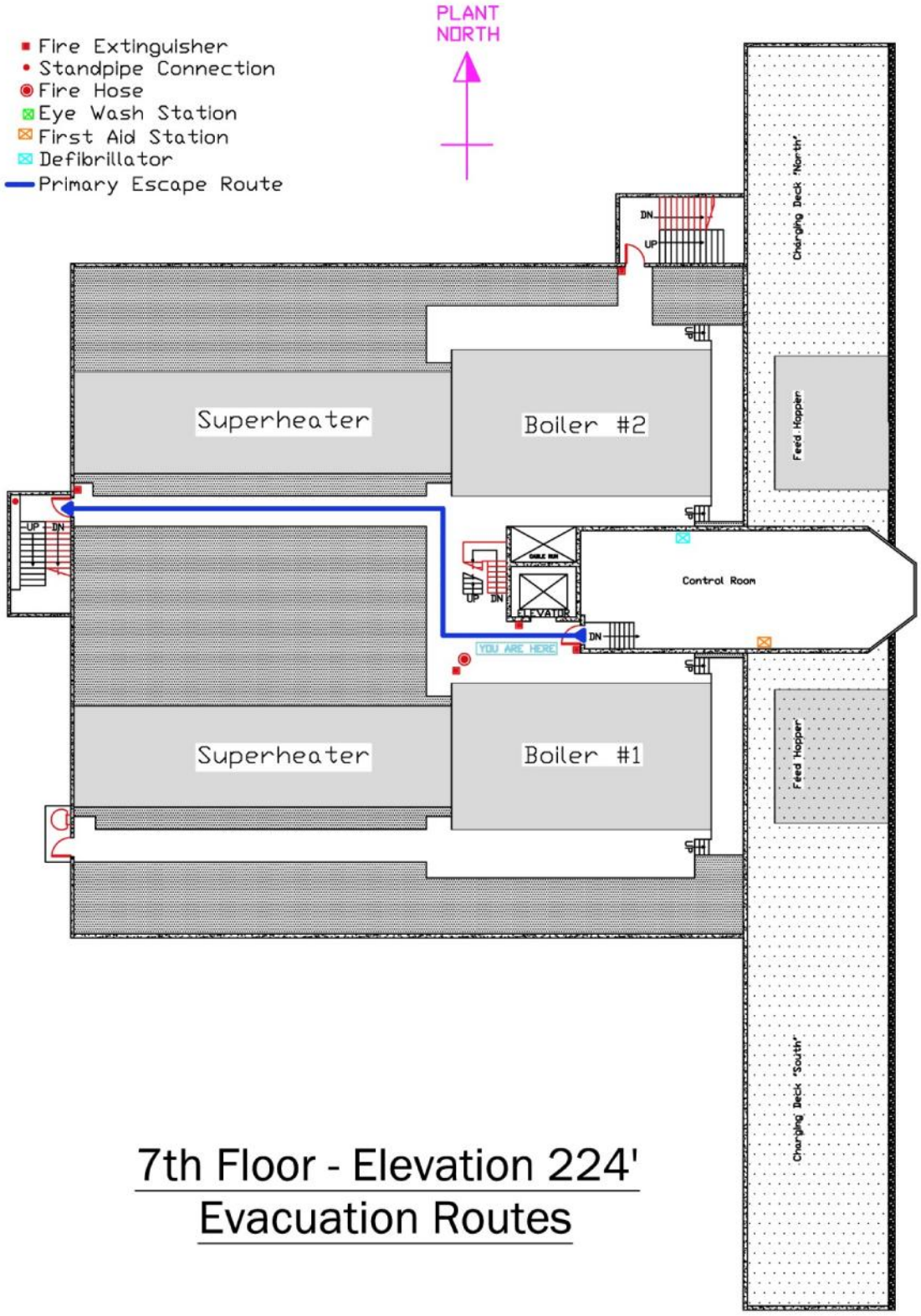
5th Floor - Elevation 204'
Evacuation Routes

Revision: 09/01/2020

APPENDIX II. FIGURES

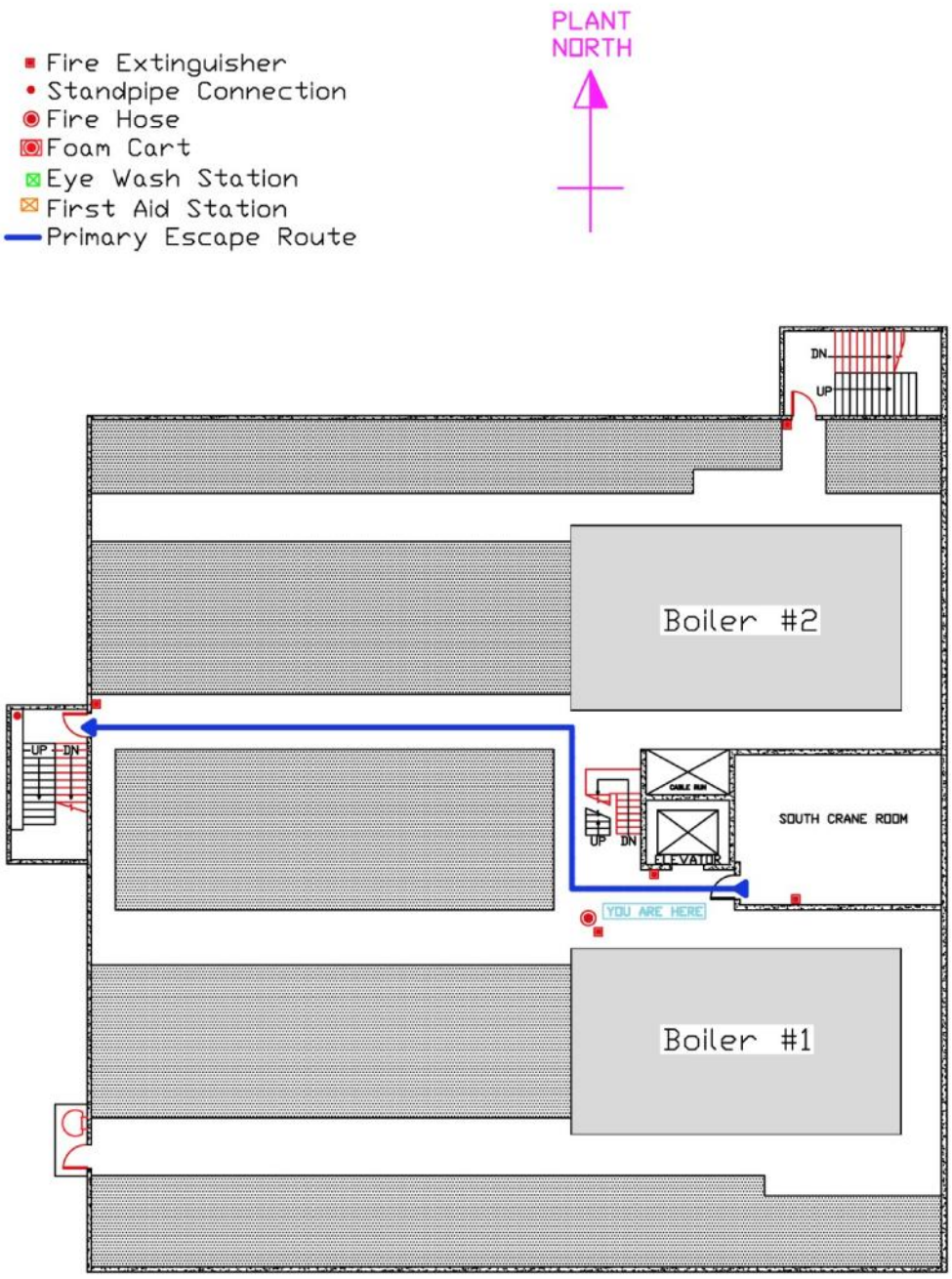


APPENDIX III. FIGURES – EVACUATION ROUTES



7th Floor - Elevation 224'
Evacuation Routes

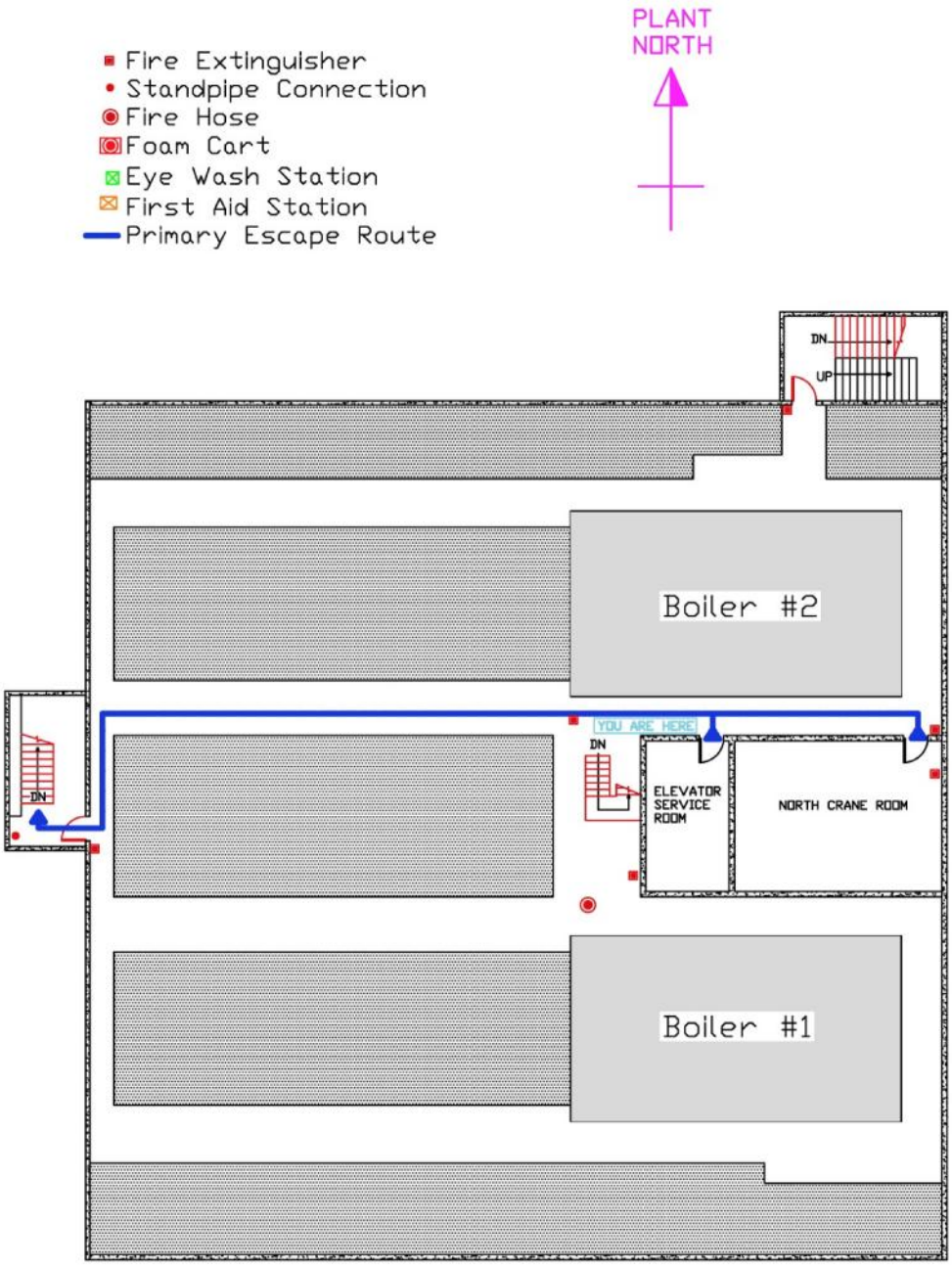
APPENDIX II. FIGURES



8th Floor - Elevation 235'
Evacuation Routes

Revision: 09/01/2020

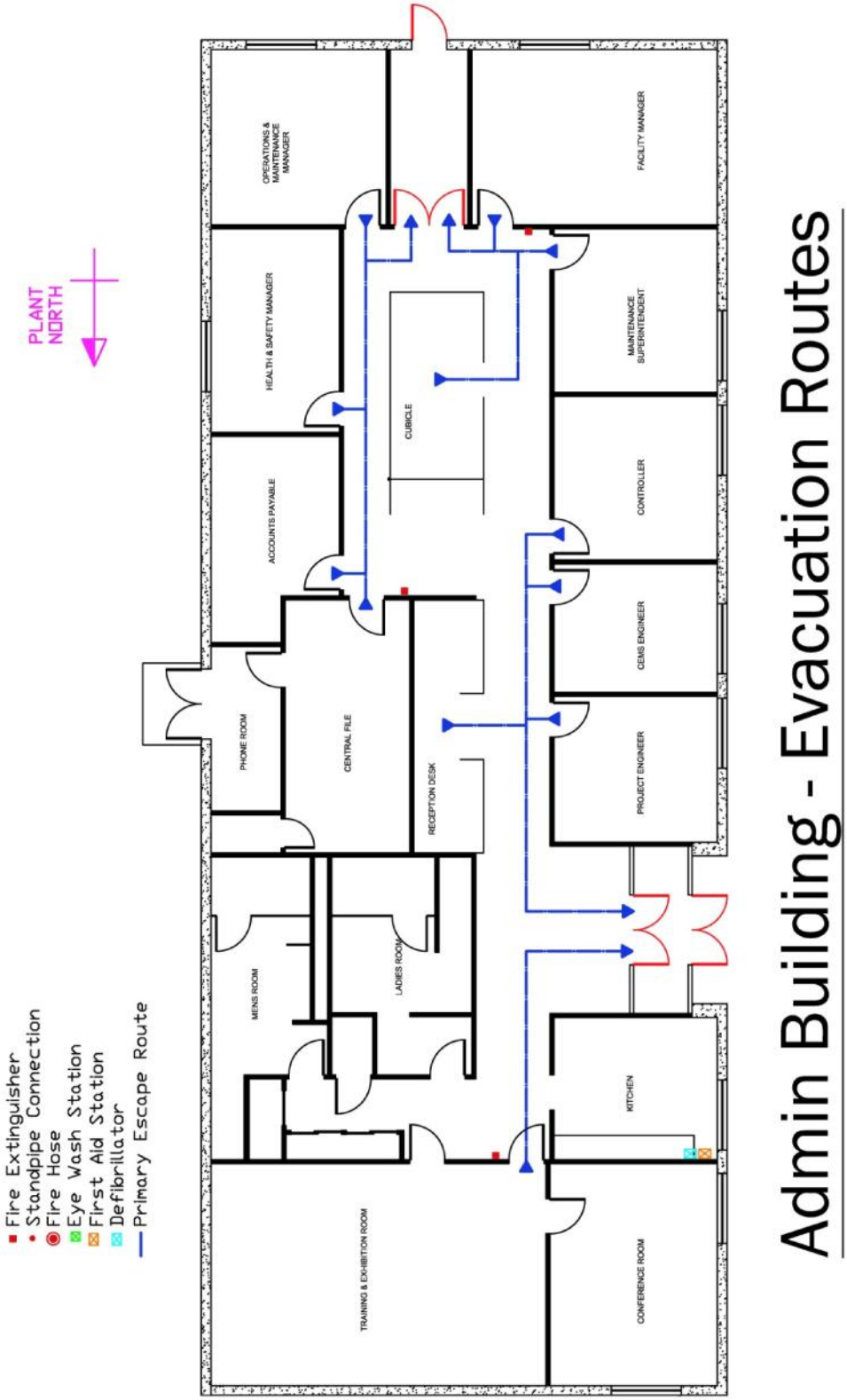
APPENDIX III. FIGURES – EVACUATION ROUTES



9th Floor - Elevation 251'
Evacuation Routes

Revision: 09/01/2020

APPENDIX II. FIGURES



APPENDIX IV.

REFERENCES

I. **Training Course Outline**
II. **Systems Training Criteria**
III. **Other General Systems**
IV. **Utility Plan Blueprint**

REFERENCES

I. Training Course Outline

- Covanta Energy, Inc., Morristown, New Jersey (Corporate Offices) maintains an internet "portal" for receiving and providing training to facility employees on all levels. Monthly required OSHA and US EPA, site specific, and "tailgate" training lessons are prepared and distributed to the facilities. The training materials include videos, presentations, discussion topics, presentation notes, and quizzes. Employee participation is documented on training session sign-in sheets.
- The Covanta Plymouth Renewable Energy LLC Facility maintains a site specific operations manual that provides operational and maintenance guidance for all systems, sub-systems, components, and associated equipment. Manuals are continually updated and referenced as systems and components are repaired, upgraded, replaced, and decommissioned.

II. Systems Training Criteria

III. Other General Systems

- HVAC Systems
- Administration Building (documents, records, archives, permits, etc.)
- Truck Scales / Scalehouse Operations
- Site Stormwater Collection and Retention System
- Site Roads and Parking Allocations
- Site Lighting
  1. Interior
  2. Exterior
- Site Security
  1. Surveillance Camera System
- Site Housekeeping
- Litter Patrols
- Site Landscaping (Outside Contractor)
- Communications Systems
- Radio Communications
  1. Handheld Radios
  2. Radio Base Stations
- Computer Network Systems
- Radiation Monitoring System
- Lime, Carbon, Urea and Other Chemicals used on-site

IV. Utility Plan Blueprint

APPENDIX V.

Safety Procedure No. 40

Bloodborne Pathogens

Revision No. 7

Covanta Energy, Inc.
Covanta Plymouth Renewable Energy LLC Facility
1155 Conshohocken Road, Conshohocken, Pennsylvania

Revision: 09/01/2020

Issued by:

Name	Signature	Date
Chuck Clarke *VP Health and Safety*		12/30/2021

Effective Date: December 31, 2021

This revision of this safety procedure is an administrative format-only update; no changes to procedural requirements have been made. Procedural requirements outlined in this document were approved at the time of previous posting and remain in effect. An image of the approval signature from the previous revision is provided for reference below.

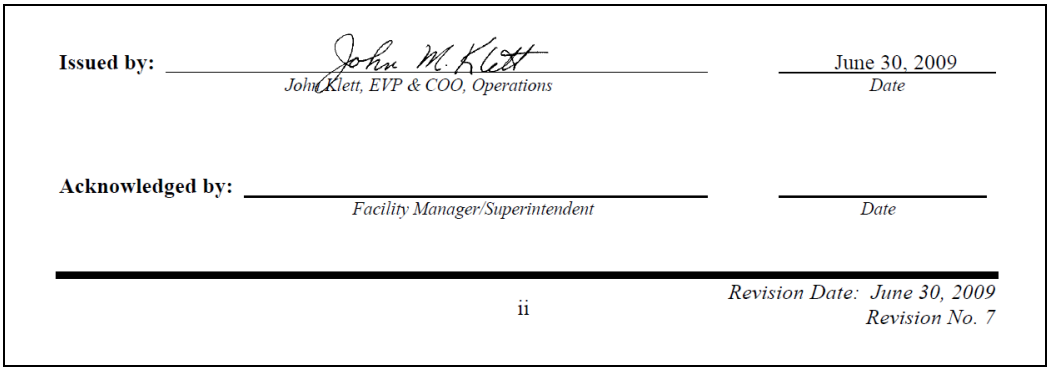


Table of Contents

1.0 Purpose and Scope 1
2.0 Responsibilities 1
3.0 General Program Management 1
4.0 Exposure Determination 2
4.1 Exposure Potential at Covanta Facilities/Sites 2
4.2 Job Classifications 3
4.3 Work Activities Involving Potential Exposure to Bloodborne Pathogens 3
5.0 Methods of Compliance 5
5.1 Universal Precautions 6
5.2 Engineering Controls 6
5.3 Work Practice Controls 6
5.4 Personal Protective Equipment 6
5.5 Housekeeping 7
6.0 Hepatitis Vaccination Program 7
6.1 Vaccination Protocol 8
6.2 Refusal of Vaccination 8
6.3 Recordkeeping 8
7.0 Post-Exposure Evaluation and Follow-Up 9
7.1 Administrative Responses 9
7.2 Medical Evaluation and Treatment 10
8.0 Medical Records 11
8.1 Needlestick and Sharps Injuries 11
9.0 Labels and Signs 11
10.0 Training 12
11.0 Other Communicable Diseases and Infectious Agents 12

Table 1: Work Activities Involving Potential Exposure to Bloodborne Pathogens 5

Appendices

Appendix A Forms
Appendix A1 Step-by-Step Procedures After an Exposure
Appendix A2 Employee Disclosure for Bloodborne Pathogen Exposure Incident
Appendix A3 Exposure Incident Testing Acceptance/Declination
Appendix A4 Local Licensed Health Care Professional (LHCP)
Appendix A5 LHCP Bloodborne Pathogen Incident Reporting Form
Appendix A6 Covanta Occupational Health Consultant
Appendix A7 Sharps Injury Log
Appendix B Overview
Appendix B1 Biohazard Label/Labeling Requirements
Appendix B2 Universal Precautions
Appendix B3 Hepatitis A
Appendix B4 Hepatitis B
Appendix B5 Hepatitis C
Appendix B6 Acquired Immune Deficiency Syndrome (AIDS)
Appendix C Definitions
Appendix D Bloodborne Pathogens Training

1.0 Purpose and Scope

The purpose of this document is to minimize exposure to and protect employees from the health hazards associated with bloodborne pathogens (BBP) by establishing an Exposure Control Plan (ECP). Refer to Appendix C: Definitions, Appendix B3: Hepatitis A, Appendix B4: Hepatitis B, Appendix B5: Hepatitis C, and Appendix B6: Acquired Immune Deficiency Syndrome (AIDS).

This procedure applies to employees of Covanta and its affiliates, hereafter referred to as "Covanta employees" or "employees". Temporary employees must not be employed in positions that may be reasonably anticipated to result in direct contact of the skin, eyes, or mucous membranes with blood or other potentially infectious materials, or exposure to sharps or other materials that could result in a needlestick or other injury. If temporary employees must be employed in any such job, the Exposure Control Plan will apply to them.

2.0 Responsibilities

Refer to S.P. No. 1A – Safety Management System.

Facility/site management includes:

1) Facility/Site Manager or Operations Director/Manager (or equivalent) – hereafter referred to as the "Facility/Site Manager".
2) Facility/Site Safety Coordinator/Program Manager or Representative (or equivalent) – hereafter referred to as the "Facility/Site Safety Representative".
3) Facility/Site employees in management or leadership roles (such as Shift Supervisor, Operations Supervisor, Zone Lead, Lead Operations Person, Operations Manager (or equivalent) – hereafter referred to as the "Facility/Site Supervisor".

Corporate Health and Safety (HS) personnel includes Morristown HS, Regional/Area Safety Managers, and Director of Safety (or equivalent) – hereafter referred to as "Corporate HS".

Facility/site management is responsible for supporting, implementing, and complying with this procedure; and ensuring that appropriate equipment/tools are obtained, site procedures are modified as necessary and affected employees are trained. The Facility/Site Manager may delegate the responsibility for implementation to the facility/site management team. Personnel with additional responsibilities are outlined in this procedure.

The Facility/Site Safety Representative (or designee) is the Exposure Control Officer.

3.0 General Program Management

The Covanta Exposure Control Plan is available to employees at any time. The plan will be reviewed and updated:

1) At least annually.
2) Whenever new or modified tasks and procedures are implemented which affect occupational exposure potential to bloodborne pathogens.
3) When new employee titles are created within a facility/site that may involve exposure to bloodborne pathogens.

4.0 Exposure Determination

Bloodborne pathogens regulations require that an exposure determination contain:

1) Job classifications in which all employees have occupational exposure to bloodborne pathogens.
2) Job classifications in which some employees have occupational exposure to bloodborne pathogens.
3) All tasks and procedures, groups of procedures, or related tasks and procedures in which some or all employees have occupational exposure to bloodborne pathogens.

4.1 Exposure Potential at Covanta Facilities/Sites

Employees at Covanta facilities/sites have different levels of exposure opportunity to bloodborne pathogens. There are four types of facilities/sites with respect to potential exposure to bloodborne pathogens, based on the waste they receive for processing:

1) Type 1 facilities/sites receive municipal waste but no medical waste. There is a possibility that municipal waste might contain hypodermic syringes and sharps that could be contaminated with bloodborne pathogens. It is not anticipated that employees would be exposed to such materials during routine operations.
2) Type 2 facilities/sites process both municipal waste and treated medical waste. Medical waste at these facilities/sites does not represent a biohazard since it is certified to be non-infectious. There is a possibility that municipal waste might contain hypodermic syringes and sharps that could be contaminated with bloodborne pathogens. It is not expected that employees would be exposed to such materials during routine operations.
3) Type 3 facilities/sites process municipal waste and regulated medical waste which is untreated and considered infectious. This medical waste can contain sharps contaminated with blood products as well as other materials and tissues which could be infected with hepatitis A virus (HAV), hepatitis B virus (HBV), hepatitis C virus (HCV), and/or the human immune deficiency virus (HIV). This medical waste is assumed to present a risk of exposure to bloodborne pathogens and is handled as if it is infectious. The medical waste arrives at the facility/site in leak-proof and puncture-proof containers or sealed roll-off containers and therefore, exposure opportunities are minimal. There is a possibility that municipal waste might contain hypodermic syringes and sharps that could be contaminated with bloodborne pathogens. It is not expected that employees would be exposed to such materials during routine operations.
4) Type 4 facilities/sites receive municipal waste but not medical waste and shred the waste prior to combustion. This processed waste is then transported by conveyors to the furnace. There is a possibility that municipal waste might contain hypodermic syringes and sharps that could be contaminated with bloodborne pathogens. It is not anticipated that employees would be exposed to such materials during routine operations, however maintenance and cleaning of the shredder puts employees in close proximity of the waste. Gloves and puncture-resistant work boots are worn during these activities.

4.2 Job Classifications

There are no job classifications at any Covanta facility/site where all employees would be reasonably anticipated to have exposure to bloodborne pathogens from the performance of their duties, except for the rendering of first aid/CPR without using universal precautions.

There are several job classifications where some employees may have the potential of exposure to bloodborne pathogens, as follows:

1) Type 1, Type 2, and Type 3 facilities/sites:
    - Tipping Floor Attendant, Crane Operator, Maintenance Mechanic, Auxiliary Engineer
    - Shift Supervisor
    - Personnel performing work activities described in Section 4.3.
2) Type 4 facilities/sites:
    - Operator, Equipment Operator, Tipping Floor Operator
    - Operations Supervisor, Maintenance Supervisor, Shift Supervisor
    - Lead Mechanic, Maintenance Helper
    - Welder, Laborer, Shift Engineer
    - Lead I & E Technician, I & E Technician
    - Personnel performing work activities described in Section 4.3.

There can be differences between job tasks for each job title even in similar facility/site types.

4.3 Work Activities Involving Potential Exposure to Bloodborne Pathogens

Work activities with potential exposure to bloodborne pathogens, including rendering first aid/CPR without using universal precautions, are summarized in Table 1. If a task/procedure cannot be performed as specified in this procedure (e.g., proper tools and PPE are not available), the employee must stop work and contact their supervisor to determine alternative actions.

1) Task/Procedure: Grates – Riddling Grid Maintenance
   The cleaning of riddling grids at all types of facilities/sites can present an exposure opportunity for select employees in some job classes to have contact with sharps which could theoretically be contaminated with bloodborne pathogens. Riddling grids beneath the grates of furnaces could collect sharps contained in medical wastes, and to a significantly lesser degree municipal waste, which may have fallen through the furnace grate opening prior to complete incineration. There are temperature variations inside the riddling grid area and any fallen sharps cannot be assumed to be sterilized by heat. Maintenance of the riddling grid area requires that some employees remove or dislodge waste buildup on the surface of the grids with a rod or rake. This could result in an inadvertent puncture injury to the employee if their hand comes into direct contact with a sharp. Leather or puncture resistant gloves must be worn for this work and whenever direct contact with waste is possible. Maintenance for the riddling grid area could be performed by shift engineers, auxiliary engineers, shift supervisors and maintenance mechanics. Specific job titles that perform each task at each of the facilities varies since specific job duties for each job title can vary.

2) Task/Procedure: Clearing Jammed Refuse Feed Hopper
The feed hopper can jam and back up materials which could potentially contain sharps contaminated with bloodborne pathogens at all types of facilities, or bloodborne pathogens or sharps contained in containers of regulated medical waste at Type 3 facilities/sites. An exposure potential is present if the employee is required to break up the jam with a rod. This could require the employee to push medical waste containers with a rod at the feed hopper. If a container containing medical waste were to be broken or open, its contents could be released into the work area. An employee working at the feed hopper would be at risk of sustaining a puncture wound. Also, manipulation of municipal solid waste at the feed hopper could result in a puncture wound from a sharp if the waste contained sharps, hypodermic needles or other discarded materials that are potentially infectious. Leather or puncture resistant gloves must be worn for this work and whenever direct contact with waste is possible.
3) Task/Procedure: Feed Table Maintenance
The feed chute and feed table receive the waste material from the feed hopper. A hydraulic ram pushes wastes over the feed table onto grates for incineration. A contaminated sharp could fall into small openings on the surface on the feed table. Though maintenance is performed infrequently on the feed table or feed chute, an employee could sustain a needlestick injury from a sharp that had become lodged in one of these openings. Leather or puncture resistant gloves must be worn for this work and whenever direct contact with waste is possible.
4) Task/Procedure: Medical Waste Container Spill or Damage
Regulated medical waste arrives at Type 3 facilities/sites in secure and labeled containers which helps prevent any employee from having direct contact with bloodborne pathogens while lifting, carrying, or moving the containers. There is a possibility that a container could leak or be damaged during transport and an employee might inadvertently come into direct skin contact with potentially infectious medical waste. For those employees working with the direct feeding of medical waste from roll-offs, there could be exposure to bloodborne pathogens from the conveying/feed systems during unloading or malfunctions. Leather or puncture resistant gloves with disposable nitrile gloves underneath must be worn when handling these containers.
5) Task/Procedure: Equipment Maintenance
Equipment such as the crane grapple, refuse derived fuel (RDF) conveyors, picking stations, pneumatic derived air (PDA), vibrating pan feeder, front-end loader or related heavy equipment, and sweepers are routinely exposed to waste that could contain materials contaminated with bloodborne pathogens. Maintenance of this equipment requires personnel to dislodge waste build-up before repair. Repairs may be performed by maintenance mechanics, maintenance supervisors, or maintenance helpers. The specific job title which performs each task at each of the facilities varies since specific job duties for each job title can vary. Leather or puncture resistant gloves must be worn whenever direct contact with waste is possible.
6) Task/Procedure: Picking Stations and Removing Bulky Items
Certain employees verify that no large, bulky materials, propane tanks or other materials are in the waste stream. "Clam" rakes or picks are normally used to pull the material away from the pile. Employees may be required to place their hands in areas that could result in an inadvertent puncture injury should their hand have direct contact with a sharp. Leather or puncture resistant gloves must be worn whenever direct contact with waste is possible.

Table 1: Work Activities Involving Potential Exposure to Bloodborne Pathogens

Tasks and procedures in Covanta facilities/sites in which human blood and other potentially infectious materials are handled, which may result in exposure to bloodborne pathogens.

Task/Procedure	Job Classification	Facility Type
Grates-Riddling Grid Maintenance	Auxiliary Engineer	1, 2, 3
	Shift Supervisor	1, 2, 3
	Maintenance Mechanic	1, 2, 3
	Any others performing this task	1, 2, 3
Clearing Jammed Feed Hopper	Auxiliary Engineer	1, 2, 3, 4
	Shift Supervisor	1, 2, 3, 4
	Maintenance Mechanic	1, 2, 3, 4
	Any others performing this task	1, 2, 3, 4
Feed Table Maintenance	Auxiliary Engineer	1, 2, 3
	Shift Supervisor	1, 2, 3
	Maintenance Mechanic	1, 2, 3
	Any others performing this task	1, 2, 3
Clearing Waste from Tipping Floor	Auxiliary Engineer	1, 2, 3, 4
	Shift Supervisor	1, 2, 3, 4
	Maintenance Mechanic	1, 2, 3, 4
	Tipping Floor Attendant	1, 2, 3, 4
	Laborer	1, 2, 3, 4
	Any others performing this task	1, 2, 3, 4
Medical Waste Container Spills	Auxiliary Engineer	3
	Shift Supervisor	3
	Maintenance Mechanic	3
	Tipping Floor Attendant	3
	Laborer	3
	Any others performing this task	3
Tipping Floor/Charging Floor/	Equipment Repair	1, 2, 3, 4
Conveyors/Picking Stations/	Maintenance Mechanic	1, 2, 3, 4
Shredders/Trommels/	Tipping Floor Attendant	1, 2, 3, 4
WPF Cleaning, Sweeping,	Equipment Operator	1, 2, 3, 4
Shoveling	Laborer	1, 2, 3, 4
	Any others performing this task	1, 2, 3, 4

5.0 Methods of Compliance

Exposure to bloodborne pathogens at Covanta facilities/sites is eliminated or minimized by:

1) The use of Universal Precautions where appropriate
2) Establishing appropriate engineering controls
3) Implementing appropriate work practice controls
4) Using necessary personal protective equipment; and
5) Implementing appropriate housekeeping procedures

5.1 Universal Precautions

Personnel must practice of Universal Precautions when there is any direct contact that offers exposure opportunity with medical waste or hypodermic syringes and sharps that may be potentially infectious. The handling of medical waste in intact, leak-proof, and puncture-resistant packaging does not require the use of Universal Precautions. Human blood and body fluids should also be considered infectious and necessary precautions must be taken to avoid contact. Refer to Appendix B2: Universal Precautions.

5.2 Engineering Controls

Wherever possible, engineering controls should be used to limit potential exposure to bloodborne pathogens. Covanta only receives medical waste packaged in leak-proof and puncture-resistant containers and sealed roll-off containers, thereby minimizing exposure potential to employees. Air pre-heaters may be used prior to cleaning out the riddling grates. The pre-heated coils heat the air supplied to the under grate and riddling chutes to approximately 250 degrees F (121 degrees Celsius), thus adding some sterilization effect to any sharps of contaminated materials that may fall through the grates. Additionally, employees can reduce their risk of exposure by using poke poles, rakes, and tongs to move materials which may be contaminated.

Engineering controls are not available for all work tasks that could involve potential contact with a bloodborne pathogen, and in these circumstances safe work practices and appropriate personal protective equipment are utilized to minimize the risk of exposure.

5.3 Work Practice Controls

The following Work Practice Controls can eliminate or minimize employee exposure to bloodborne pathogens as part of Covanta's Exposure Control Plan:

1) If a container of medical waste is found to be damaged or leaking, that container is placed within a second leak-proof container for handling and disposal.
2) Following any contact of body areas with blood or any other infectious materials, employees wash their hands and any other exposed skin with soap and water as soon as possible, and flush exposed mucous membranes with water. Hand-washing facilities (or antiseptic hand cleansers and towels or antiseptic towelettes) are readily accessible to employees who have the potential for exposure.
3) Eating, drinking, smoking, and handling contact lenses is prohibited in areas where maintenance and other tasks involving exposure potential are performed.
4) Employees must use appropriate tools instead of their hands to free-up plugged refuse in hoppers, grizzly, conveyor, and other locations where plugs are likely to occur. Use of hands, feet and/or legs instead of appropriate tools can result in contact with the waste, increasing the potential for contact with sharps or needles.
5) Covanta employees are trained in first aid/CPR using universal precautions.

5.4 Personal Protective Equipment

Employees will be provided personal protective equipment (PPE) whenever there is a chance that they could be exposed to bloodborne pathogens. Employees will receive training in the selection,

use and disposal of PPE. PPE always starts with gloves but may also include Tyvek suits, face shields, eye protection, and respirators.

1) Gloves must be worn whenever employees anticipate hand contact with potentially infectious materials or when working near contaminated materials or surfaces. Disposable gloves must not be reused and should be replaced after contamination or if they are torn or damaged. Nitrile disposables should be used. Utility gloves may be decontaminated for reuse unless they are cracked, peeling, or torn, at which time they should be disposed of. Gloves must be removed by rolling the contaminated surface to the inside and employees should wash their hands with a disinfecting soap after their removal.
2) Eye and face protection such as masks, goggles, and face shields protect employees from splashes or sprays which may contain droplets of infectious materials. A pocket mask equipped with a one-way valve should be used when performing CPR or if there is blood present, a mechanical respirating device should be used.
3) Fluid-resistant aprons protect clothing against splashes, sprays, splatters, or droplets of potentially infectious materials.
4) Reusable PPE is cleaned, laundered, and decontaminated as necessary. Single-use PPE or equipment which cannot be decontaminated must be disposed of.

5.5 Housekeeping

Maintaining a clean and sanitary work environment is a part of the Exposure Control Plan.

1) Equipment and surfaces must be cleaned and decontaminated after contact with blood or other potentially infectious materials. Containers that may be contaminated should be inspected and decontaminated as soon as possible if visibly contaminated.
2) Contaminated waste must be discarded directly into the furnace or placed in a closeable, leak-proof container with a biohazard warning label and disposed of as regulated waste.
3) Decontamination must include the use of an appropriate disinfecting solution such as one-part bleach to ten parts of water (10%). Bleach will kill both HIV and HBV. After cleaning, promptly disinfect mops and any other cleaning equipment.
4) Contaminated laundry is to be handled as little as possible. It should be bagged as discussed above, and arrangement should be made with the laundry service for separate cleaning. Any surface that cannot be completely decontaminated must be labeled with a biohazard label indicating which portions of the equipment are contaminated.

6.0 Hepatitis Vaccination Program

Covanta offers hepatitis A and/or B vaccinations at no cost to employees who are reasonably likely to be exposed to bloodborne pathogens. Hepatitis C screens are also offered to employees for their benefit and at their request. Participation in the program is voluntary. The job titles covered by the vaccinations are determined by the Exposure Control Officer at each facility/site in conjunction with facility/site management. The decision to include a job title into the program is based both upon the potential of the job title to engage in operations that could involve potential contact with bloodborne pathogens, and the interest of the employee. There are differences between the types of job tasks that are performed by similar job titles at Covanta facilities/sites and, consequently, the job titles which are provided the

vaccinations at each facility/site are made on an individual basis. Job titles which are potentially covered include:

1) Auxiliary Engineer
2) Shift Supervisor
3) Maintenance mechanic
4) Tipping Floor Attendant
5) Any person performing the tasks described in section 4.3

Each employee will be informed in writing of the offer for hepatitis A/B vaccination because their job may involve potential contact with bloodborne pathogens. The consent/declination form is in S.P. No. 7A – Medical Surveillance Program.

6.1 Vaccination Protocol

Covanta will provide hepatitis A/B vaccinations in accordance with the current regulatory requirements and guidelines. The protocol includes:

1) Hepatitis A/B vaccinations will be performed under the supervision of a LHCP.
2) The LHCP providing the hepatitis A/B vaccination, or an associate health care provider/associate emergency room will be available on a 24-hour basis to respond to any employee concerns regarding adverse vaccine reactions.
3) The employee will be informed of the potential benefits and risks of hepatitis A/ B vaccination by a qualified health care professional.
4) The employee will sign an informed consent form for vaccination after they have been apprised of the benefits and risks of hepatitis A/B vaccination. (Appendices of S.P. No. 7A – Medical Surveillance Program).
5) The employee will receive a three-dose series of an approved hepatitis B vaccine within 10 days of being assigned to a task where exposure is possible, then one month and 6 months after, otherwise at 90 and 120 days and nine months. The two-dose series of an approved hepatitis A vaccine is received at 90 days and nine months.
6) Serum antibody testing or booster vaccinations are not provided by Covanta. Rather, while a "pre-evaluation" to determine existing antibody levels in individuals from prior contact to hepatitis B can be performed, it is not necessary and is not contracted. Likewise, a "post- evaluation" test after the series of three immunizations is complete may be given to measure antibody levels. This will not be done unless an exposure incident warrants the test.

6.2 Refusal of Vaccination

Employees who decline to receive a hepatitis A and/or B vaccination (and hepatitis C screen) will complete a Vaccination Declination Form which must be witnessed (refer to Appendices of S.P. No. 7A – Medical Surveillance Program). The employee will be informed that if they wish to receive a hepatitis A/B vaccination subsequently, it will be provided at no cost to the employee.

6.3 Recordkeeping

The LHCP will provide facility/site management and/or WorkCare with a record of each employee vaccination including the dates of the vaccination and the dose provided.

7.0 Post-Exposure Evaluation and Follow-up

Appendix A1: Step-by-Step Procedures After an Exposure must be followed and completed in the case of an employee's exposure to Bloodborne Pathogens.

7.1 Administrative Responses

Exposure Incident Investigation

Following an exposure incident, the Facility/Site Manager, or their representative in conjunction with the Facility/Site Safety Representative will investigate the incident and will complete an investigation report. This investigation is initiated within 24 hours of the incident and involves gathering the following information:

1) When the incident occurred, including date and time.
2) Where the incident occurred, including location within the facility/site.
3) What potentially infectious materials were involved in the incident, including type of material (medical waste, sharps, etc.). For sharps, the incident must be recorded on either Appendix A7: Sharps Injury Log or the OSHA 300 Log.
4) Route of exposure. Indicate whether it was through the boot or went through the skin, on the skin, in the eyes or mouth, onto an open wound or sore.
5) Circumstances of the incident, including type of work being performed and how the incident was caused (accident or unusual circumstances, such as equipment malfunction, power outage, etc.)
6) PPE being used at the time of the incident.
7) Actions taken as a result of the incident (employee decontamination, cleanup, and notifications made).

A written summary of the incident will be prepared by the Shift Supervisor and recommendations will be made for preventing similar incidents in the future.

Medical Evaluation

The Facility/Site Manager or their representative must immediately inform the exposed employee that they are entitled at no cost to a confidential medical evaluation and that it is important to start the evaluation immediately. The exposed employee must also be provided with a copy of Appendix A2: Employee Disclosure for Bloodborne Pathogen Exposure Incident.

Information to LHCP

Covanta will provide the treating health care professional the following information:

1) 29 CFR1910.1030, Bloodborne Pathogens Standard, or the equivalent.
2) Description of the exposed employee's duties as they relate to the exposure incident.
3) Routes of exposure and circumstances under which the exposure occurred; and
4) Medical records relevant to the appropriate treatment of the employee, including vaccination status.
5) Copy of Appendix A5: LHCP Bloodborne Pathogen Incident Reporting Form and Appendix A6: Covanta Occupational Health Consultant.

Provision of Medical Opinion to Employee

Covanta will provide the employee with a copy of the evaluating health care professional's written opinion within 15 days of the completion of the evaluation.

7.2 Medical Evaluation and Treatment

Following a report of an occupational exposure incident, the exposed employee will be immediately offered a medical evaluation, including treatment and follow-up evaluations if required. Medical evaluations include:

1) Route(s) of exposure and the circumstance(s) under which the exposure occurred.
2) Counseling and information regarding the risk of exposure to bloodborne pathogens and relevant prophylaxis. Employee will be provided a written summary of the potential risks of exposure to bloodborne pathogens.
3) Medical evaluation of exposed employee including collection and testing of blood for HAV, HBV, HCV, and HIV serological status.
    a. The exposed employee's blood must be collected as soon as feasible and tested after consent is obtained.
    b. If an employee declines treatment and blood test, Appendix A3: Exposure Incident Testing Acceptance/Declination should be signed and witnessed.
    c. If employee consents to baseline blood collection but does not give consent at the time for HIV, HAV, HBV and/or HCV serological testing, the sample will be preserved for at least 90 days from the date of the incident. Later, if the employee elects to have a baseline sample test, such testing will be completed as soon as possible.
4) Post-exposure hepatitis A/B prophylaxis, if medically indicated, will be provided in accordance with current guidelines. Employees who have not received or completed a hepatitis A and/or hepatitis B vaccination series will be offered the series of doses or appropriate completion of their vaccination series. Employees who have completed a vaccination series will receive serological testing for hepatitis A/B surface antibody to determine if they have immunity to the hepatitis A/B virus unless recent tests (completed within the last year) have demonstrated evidence of immunity.
5) Employees with diminished antibody levels will be offered a hepatitis A/B booster vaccination. Follow-up serological testing should be offered to determine the immunity status of an individual who receives a single booster injection.
6) The LHCP will provide the employee with appropriate medical treatment required for the exposure incident including but not limited to tetanus immunization, if clinically indicated, wound cleansing, antibiotics, if indicated, and any other reasonable diagnostic or medical treatment.

Follow-up Medical Evaluations

An employee who tests seronegative for hepatitis or HIV must be retested at six weeks, three months, six months, and possibly twelve months after exposure to determine whether transmission has occurred. An employee who initiated a hepatitis A/B vaccine series will be offered necessary additional doses on the correct schedule. The employee will return a completed Appendix A5: LHCP Bloodborne Pathogen Incident Reporting Form to the Facility/Site Safety Representative after the initial visit and subsequent follow up visits, and a copy will be sent to WorkCare.

LHCP Responsibilities

The LHCP will provide a written opinion concerning the employee within seven days of the medical evaluation. The opinion must include:

1) The LHCP's written opinion for hepatitis A/B vaccine will be limited to whether hepatitis A and/or B vaccine is indicated for the employee, and if the employee had received such vaccination in the past.
2) The LCHP's written opinion to Covanta for post-exposure evaluation of follow-up shall be limited to the following information:
    a. The employee has been informed of the results of the evaluation.
    b. The employee has been told about any medical conditions arising from exposure to blood or the potential infectiousness or materials that require further evaluation or treatment.

Findings or diagnosis must remain confidential and not be provided to Covanta.

8.0 Medical Records

WorkCare maintains all medical records on individuals who receive any medical testing in accordance with regulations. Medical records must be kept for the duration of employment plus 30 years. Medical test results will be kept confidential and not released to Covanta or to any parties without written consent of the employee other than for specific provisions of the regulations. Medical records include:

1) Name and social security number.
2) Results of medical tests including LHCP opinions concerning an employee's ability to work at a Covanta facility/site.
3) Dates of hepatitis A/B shots and records of employees' ability to receive hepatitis A/B vaccinations
4) Information provided to the LHCP as described in Information to LHCP.
5) Appendix A5: LHCP Bloodborne Pathogen Incident Reporting Form. The LHCP reporting form does not contain the medical test results.

Refer to S.P. No. 7A – Medical Surveillance Program.

8.1 Needlestick and Sharps Injuries

Any needlestick incident must be recorded on either Appendix A7: Sharps Injury Log or the OSHA 300 Log. If the needlestick or sharps injury was contaminated with another person's blood or other potentially infectious material, all personal information must be kept confidential. Do not enter the person's name on the OSHA 300 Log. Keep a separate, confidential list of the case numbers and employee names, and only provide it to the government upon request.

9.0 Labels and Signs

The biohazard label is used to identify containers, items, or work surfaces that require special precautions. This symbol can be on a fluorescent orange or orange red background and should be firmly attached to the container, item, or work surface. These labels will be present on containers of regulated waste, sharp disposal containers, laundry bags containing potentially infectious clothing, and contaminated equipment. Refer to Appendix B1: Biohazard Label/Labeling Requirements.

10.0 Training

Protecting employees from bloodborne diseases on-the-job requires knowing the facts, practicing good hygiene, and taking a few sensible precautions. All employees who have the potential for exposure to bloodborne pathogens will participate in an annual training program. New employees or employees changing tasks, will be given any additional training their new position requires prior to commencing tasks which may expose them to bloodborne pathogens. Opportunities for questions must be provided during the training session. Bloodborne Pathogens training will include:

1) The Bloodborne Pathogen's Standard, and its application to Covanta facilities/sites.
2) The proportion of cases, symptoms of these diseases and their modes of transmission.
3) A review of the facility/site Exposure Control Plan including recognizing tasks that may involve exposure, the use and limitations engineering controls, work practices and PPE. Employees must also be aware of the location of the Exposure Control Plan.
4) Recognizing biohazard warning labels, signs, and color-coded containers.
5) Information on the hepatitis A/B vaccine available so that employees can make an informed decision before beginning the vaccination series. This should include the efficiency, safety, possible side effects and benefits of the vaccine.
6) Emergency procedures in the event of an incident involving blood or other potentially infectious materials.
7) Procedures to follow if an exposure incident occurs, including accident reporting, post-exposure evaluation and medical consultation.

Refer to Appendix D: Bloodborne Pathogens Training. Training must be documented and must also be tracked using an electronic management system (e.g., GPI Learn +).

11.0 Other Communicable Diseases and Infectious Agents

Biological agents include bacteria, viruses, fungi, other microorganisms, and their associated toxins. They can adversely affect human health in a variety of ways, ranging from relatively mild, allergic reactions to serious medical conditions, even death. These organisms are widespread in the natural environment; they are found in water, soil, plants, and animals (e.g., legionella bacteria, e. coli bacteria and salmonella). Because certain microbes reproduce rapidly and require minimal resources for survival, they are potentially dangerous to us. Some biological agents are communicable (i.e., easily transferrable from person to person). Examples of these communicable diseases include tuberculosis (TB), influenza (the flu), smallpox and the measles. Note that there are periods when certain diseases are not contagious (for example, TB when not sick/coughing, people with the flu may only be contagious from the day before they develop symptoms to 7 days after they get sick, etc.). To keep your body's defenses up, exercise, eat healthy foods and live a healthy lifestyle, as recommended by your physician. Take an active role in protecting yourself and others, by getting a doctor's advice when needed, washing your hands regularly and covering your mouth when coughing (with your arm).

Forms

Appendix A1	Step-by-Step Procedures After an Exposure
Appendix A2	Employee Information Disclosure for Bloodborne Pathogen Exposure Incident
Appendix A3	Exposure Incident Testing Acceptance/Declination
Appendix A4	Local Licensed Health Care Professional (LHCP)
Appendix A5	LHCP Bloodborne Pathogen Incident Reporting Form
Appendix A6	Covanta Occupational Health Consultant
Appendix A7	Sharps Injury Log

Step-by-Step Procedures After an Exposure

Steps to be taken following exposure to bloodborne pathogens. Response time is critical. Treatment, if warranted, should begin within 2 hours of exposure. Actions should be confidential.

1	Any suspected exposure to a bloodborne pathogen must be reported it to a supervisor immediately.	☐
2	Supervisor will immediately assess and report the situation to Facility/Site Safety Representative.	☐
3	Supervisor will have the employee thoroughly wash exposed area with soap and water using friction and provide first aid as required.	☐
4	Supervisor will contact WorkCare and local LHCP to advise worker will be coming for evaluation.	☐
5	Employee should be accompanied by person named in #2 above, if possible, to the LHCP (listed in Appendix S.P. No. 7A, Local Hospitals and Infectious Disease Doctors).	☐
6	If the source of exposure is a specific needle/item, it should be brought to the LHCP for evaluation. If the source is another person's blood, consent should be obtained from the source and tested as soon as feasible. If consent is not given, document that legally-required consent cannot be obtained.	☐
7	Provide the LHCP with bloodborne pathogens standard/regulations, as well as: A description of the exposed employee's duties as they related to the exposure incident. Documentation on the route(s) of exposure and circumstances under which exposure occurred. Medical records relevant to the treatment of the employee, including vaccination status.	☐
8	Have employee read Appendix A2: Employee Disclosure for Bloodborne Pathogen Exposure	☐
9	Have employee read and complete Appendix A3: Exposure Incident Testing	☐
10	Provide LHCP with a copy of Appendix A5:LHCP Bloodborne Pathogen Incident Reporting Form and Appendix A6: Covanta Occupational Health Consultant so they can coordinate diagnosis, treatment and reports with WorkCare.	☐
11	The initial treating physician (if different than the LHCP) will take a history of the exposure, take samples to be tested for hepatitis A, B, C and HIV, and will prescribe post-exposure prophylactic medications as necessary. If the treating physician is not the LHCP (Infectious Disease physician), the treating physician will send all materials to the LHCP.	☐
12	If post-exposure prophylactic medications are prescribed, take 1st does of medications and: Have baseline blood work drawn. Report for anonymous HIV testing as soon as possible Keep all follow-up appointments with medical personnel. Post-exposure counseling will be provided if desired.	☐
13	If post-exposure prophylactic medications are not prescribed, report to the initial treating physician for follow-up HIV testing at baseline, 6 weeks, 12 weeks and 6 months, a baseline and 6 month hepatitis profile, and a hepatitis B surface antibody if employee has had the hepatitis series and antibody status was not obtained within the last 24 months.	☐
14	Prepare Workers Compensation paperwork and notify the carrier. Discuss with Corporate Health and Safety and Risk Management. If the exposure was not clearly an injury, the determination to make a Report of First Injury may require discussion. Set-up the 6 week, 12 week and 6 month (and perhaps 12 month) follow-up requirements. If the exam results in non-injury related treatment, notify the carrier so the injury-related portion will be paid for by WC and the non- injury portion by the employee's personal health insurance. Prepare accident report and reporting required on OSHA 300 Log or Sharps Log.	☐
15	LCHP shall provide a report to the employee within 15 days after medical information is available.	☐

Employee Disclosure for Bloodborne Pathogen Exposure Incident

Your history indicates that you have experienced a potential exposure to bloodborne pathogens (BBP), which should be evaluated by a Licensed Healthcare Professional (LHCP). The following is some general information concerning the risks of transmission of BBP and steps that you should follow to minimize any health risks that you might have from this incident. You should review this information and discuss this with your physician. This information is not a substitute for medical care and is only being provided for your general information.

1) The risk of acquiring an actual infection with HIV after a needlestick injury from a positive HIV source is approximately 1 in 300 or 0.3%. The risk of infection from mucous membrane exposure or a wound splash is much less and is almost 0%. If you have not been vaccinated for hepatitis B (HBV), the risk of infection with HBV after a needlestick injury from a positive HBV source is 7-30%. Hepatitis A and hepatitis C can also be contracted through contact with infected source material.
2) A baseline blood test is recommended to document your current HAV, HBV and HCV status. All test results will be kept strictly confidential.
3) Follow-up blood tests for HAV, HBV and HIV are recommended at 6 weeks, 3 months, 6 months, and possibly 12 months. Follow-up hepatitis tests will be based upon your immunization status.
4) If, during the next 4 to 12 weeks, you should develop any of the following symptoms, please see your doctor and notify the Facility/Site Safety Representative:
    - Fever of 100^{o} F or greater
    - Rash
    - Malaise - unusually tired
    - Unexpected weight loss
    - Swollen glands
    - Jaundice - yellow skin and eyes
5) You should be aware that HIV and HBV are sexually transmitted, and the following precautions should be taken:
    - Condoms should be used for any sexual intercourse.
    - Avoid any situation where your blood may contact another individual's blood. C. Delay pregnancy until final HIV test has come back negative.
6) Delay blood donation for one (1) year.

Upon completion of the medical examination, please provide the LHCP with a copy of the LHCP Bloodborne Pathogen Incident Reporting Form for completion. Your test result information will not be disclosed to Covanta.

If you have any further questions after the examination, please contact your Facility/Site Safety Representative, Regional/Area Safety Manager, or your Facility/Site Manager.

Exposure Incident Testing Acceptance/Declination

I (print name) _____, understand that I may have been exposed to Bloodborne Pathogens, including the human immune deficiency virus (HIV), hepatitis A virus (HAV), hepatitis B virus (HBV), and hepatitis C virus (HCV). I am aware that a baseline blood test will document my health status and that the results of this test are strictly confidential.

Indicate your responses below:

☐ **I agree to the collection and baseline testing of my blood for (check below):**

- ☐ HIV
- ☐ HAV
- ☐ HBV
- ☐ HCV

Or:

☐ **I agree only to the collection and storage of my blood for 90 days. I can elect to have this blood tested for HAV, HBV, HCV, or HIV in the next 90 days by contacting the medical provider.**

Or:

☐ **I decline to have my blood collected**.

Signature: _____ Date: _____

Local Licensed Healthcare Professional or Infectious Disease Doctor

Hospital/facility name: _____

Address: _____

Phone number: _____ Fax number: _____

Name of LHCP or other contact: _____

Upon request, WorkCare will assist in locating a Licensed Healthcare Professional whose scope of practice allows them to independently perform hepatitis B vaccination and post-exposure evaluation and follow-up. This LHCP or infectious disease doctor can be identified and available as a contingency in advance of an exposure incident. A listing of Local Hospitals and Infectious Disease Doctors is provided in S.P. No. 7A – Medical Surveillance.

Licensed Healthcare Professional Bloodborne Pathogen Incident Reporting Form

Dear Licensed Healthcare Professional (LHCP):

Please complete this form for Covanta so that we can assess the health status of our employee and help ensure quality health care is provided with respect to this bloodborne pathogen incident.

Has the employee received baseline medical tests for:

HAV	☐ Yes	☐ No	☐ No (but stored for 90 days)
HBV	☐ Yes	☐ No	☐ No (but stored for 90 days)
HCV	☐ Yes	☐ No	☐ No (but stored for 90 days)
HIV	☐ Yes	☐ No	☐ No (but stored for 90 days)

An evaluation and information have been given regarding any potential medical conditions that could result from exposure to blood or other potentially infectious materials:

☐ Yes ☐ No If No, explain: _____

One dose of vaccination was given for:

HAV ☐ Yes ☐ No If No, explain: _____

HBV ☐ Yes ☐ No If No, explain: _____

A screen was performed for:

HCV ☐ Yes ☐ No If No, explain: _____

HIV ☐ Yes ☐ No If No, explain: _____

Did the employee receive appropriate counseling regarding health risks associated with the blood or body fluid exposure and potential measures which could be taken?

☐ Yes ☐ No If No, explain: _____

Follow-up date: _____

Signature: _____ Date: _____

This completed form should be forwarded to the attention of the Covanta occupational health physician along with any other written reports and results.

Covanta Occupational Health Consultant

To: Licensed Healthcare Professional (LHCP)

Please be advised that the following Covanta occupational health consultant is to be kept informed regarding the diagnosis and treatment of this reported bloodborne pathogens exposure and that all reports are to be copied to their attention, as follows:

c/o WorkCare
300 S. Harbor Blvd., Suite 600
Anaheim, CA 92805
Phone: 800-455-6155
Fax: 714-456-2154

Attention: Dr. Peter Greaney, Medical Director, x114
Cheryl Hopkins, Nurse Case Manager, x 109

Sharps Injury Log

This log is not required if the OSHA 300 Log contains the same information. Do not enter the person's name on this log or on the OSHA 300 Log. Keep a separate, confidential list of case numbers and names.

Date of Incident	Time of Incident	Case Number	Location	Description of Incident/Events	Type of Sharp*	Brand / Manufacturer**

* Types of sharps include: Syringe needle, syringe needle with safety device (e.g., retractable), IV needle, IV needle with safety device (e.g., retractable), scalpel
** If the manufacturer is not known or indicated, write N/A for Not Applicable.

Overview

Appendix B1	Biohazard Label/Labeling Requirements
Appendix B2	Universal Precautions
Appendix B3	Hepatitis A (HAV)
Appendix B4	Hepatitis B (HBV)
Appendix B5	Hepatitis C (HCV)
Appendix B6	Acquired Immune Deficiency Syndrome (AIDS)

Biohazard Label/Labeling Requirements

Biohazard Label

Labeling Requirements

Item	No Label Required	Biohazard Label Required	Red Color-Coded Container Required
• Regulated waste container • Reusable contaminated sharps • Containers used for storage, transport or shipping of blood or other potentially infectious material (OPIM) • Specimens shipped from the primary facility to another facility • Contaminated laundry sent to another facility that does not use Universal Precautions		X (and/or color-coded container)	X (and/or Biohazard label)
• Individual specimen containers of blood or OPIM remaining in a facility	X[1]	X[1] (and/or color-coded container)	X[1] (and/or Biohazard label)
• Refrigerator/freezer holding blood or OPIM		X	
• Contaminated equipment needing servicing or shipping		X[2]	
• Contaminated laundry	X[3]	X[3] (and/or color-coded container)	X[3] (and/or Biohazard label)
• Blood/blood products released for clinical use • Individual containers of blood or OPIM placed in labeled containers during storage, transport, shipment, or disposal	X		

Notes:

1) Labels are not required if Universal Precautions are used in handling all specimens and containers are recognizable as containing specimens.
2) Label must also specify the location of contamination.
3) Alternative label or color code must be used when facility uses Universal Precautions in handling all soiled laundry and employees can recognize containers as requiring the use of Universal Precautions.

Universal Precautions

"Universal precautions" are precautions designed to prevent transmission of human immunodeficiency virus (HIV), hepatitis B virus (HBV), and other bloodborne pathogens when providing first aid or health care. Under universal precautions, all blood and certain body fluids are considered potentially infectious for HIV, HBV and other bloodborne pathogens. Body fluids potentially containing bloodborne pathogens include:

High Risk	Low Risk	Questionable Risk
• Blood • Semen • Vaginal secretions • Spinal fluid • Chest/lung fluid • Heart fluid • Stomach fluid • Amniotic/womb fluid • Joint fluid	• Feces • Nasal secretions • Sputum • Sweat • Tears • Urine • Vomit	• Breast milk • Saliva • Blood mixed

Universal precautions apply to blood, other body fluids containing visible blood, semen, and vaginal secretions. Universal precautions also apply to tissues and to the following fluids: cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids. Universal precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine, and vomitus unless they contain visible blood. Universal precautions do not apply to saliva except when visibly contaminated with blood or in the dental setting where blood contamination of saliva is predictable.

Universal precautions involve the use of protective barriers such as gloves, gowns, aprons, masks, or protective eyewear, which can reduce the risk of exposure of the health care worker's skin or mucous membranes to potentially infective materials. In addition, under universal precautions, it is recommended that all health care workers take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices.

Pregnant workers are not known to be at greater risk of contracting HIV infection than are workers who are not pregnant; however, if a worker develops HIV infection during pregnancy, the infant is at risk of infection resulting from perinatal transmission. Because of this risk, pregnant workers should be especially familiar with, and strictly adhere to, precautions to minimize the risk of HIV transmission.

Universal precautions are discussed in the following documents published by the CDC:

1) Recommendations for prevention of HIV transmission in health-care settings. MMWR 1987;36(suppl no. 2S).
2) Update: Universal precautions for prevention of transmission of human immunodeficiency virus, hepatitis B virus, and other bloodborne pathogens in health-care settings. MMWR 1988;37:377-388.
3) Guidelines for prevention of transmission of human immunodeficiency virus and hepatitis B virus to healthcare and public-safety workers. MMWR 1989;38(S-6):1-36.

These documents may be obtained by calling the AIDS Hotline at 1-800-342-2437 or the National

AIDS Information Clearinghouse at 1-800-458-5231. In addition, the Occupational Safety and Health Administration (OSHA) has published a standard on bloodborne pathogens. For information about this document, call 202-219-7157.

Gloving, Uniforms, Masking, and other Protective Barriers as part of Universal Precautions

Workers should routinely use appropriate protective barriers to prevent skin and mucous membrane exposure during contact with any person's blood or body fluids that require the use of universal precautions.

Gloves should be worn when touching blood and body fluids requiring universal precautions, mucous membranes, or non- intact skin of persons during CPR and other rescue services, and when handling items or surfaces soiled with blood or body fluids to which universal precautions. Gloves should be changed after each contact. Hands and other skin surfaces should be washed immediately or as soon as safety permits if contaminated with blood or body fluids requiring universal precautions. Hands should be washed immediately after gloves are removed.

Masks and protective eyewear or face shields should be worn by workers to prevent exposure of mucous membranes of the mouth, nose, and eyes during procedures that are likely to generate droplets of blood or body fluids requiring universal precautions (rescue services, CPR). Tyvek or aprons should be worn during procedures that are likely to generate splashes of blood or body fluids requiring universal precautions.

Workers should take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments. To prevent needlestick injuries, needles should not be recapped by hand, purposely bent, or broken by hand, removed from disposable syringes, or otherwise manipulated by hand. Needlesticks located in the waste stream should be isolated and removed to avoid worker contact with the needles during work.

Hepatitis A (HAV)

Hepatitis A is a liver disease caused by the hepatitis A virus (HAV). Hepatitis A can affect anyone. In the U.S., hepatitis A can occur in situations ranging from isolated cases of disease to widespread epidemics.

Epidemiology – Groups at Risk

The CDC estimates that 150,000 people in the United States are infected each year by hepatitis A, a low rated compared to the underdeveloped countries. Anyone can be affected by hepatitis A. Most people recover from the hepatitis A virus within six months without any serious health problems. A very small percentage of people, frequently those having pre-existing liver disorders, risk serious complications from hepatitis A. Federal mortality statistics for 1992 listed hepatitis A as the primary cause of death for 82 people in the United States.

Modes of Transmission

Hepatitis A is usually transmitted by drinking water or eating food that has been contaminated with fecal matter containing the virus. Thus, the risk of contracting hepatitis A generally depends on the hygienic and sanitary conditions in an area. Fecal matter from an infected person has a high concentration of the virus. The virus can survive in fecal matter on a person's hand, or other surfaces for three to four hours at normal room temperature. Eating utensils are a frequent source of infection, as are contaminated shellfish and I.V. drug use. Intimate contact of any kind with an infected person can also transmit the virus.

Clinical Symptoms

As is common with the other forms of viral hepatitis, the infected person may not have any symptoms. When symptoms do occur, the symptoms resembling the flu normally appear during the first four weeks of infection. These include fatigue, nausea, vomiting, pain in the liver area, dark urine or light-colored stools and fever.

Laboratory Manifestations – Liver function tests are elevated, with many adults developing jaundice.

Vaccination

Two approved vaccines are available in the U.S. for protection against hepatitis A and B. Vaccinations are given in a two-shot series, six months apart.

Covanta recommends that RDF employees and employees at facilities handling untreated regulated medical waste receive the vaccination. It is available to all employees upon request. Employees declining the vaccination will be asked to complete the declination form in S.P. No. 7A – Medical Surveillance.

Hepatitis B (HBV)

Hepatitis B is an infectious inflammatory disease of the liver. The virus is classified as a bloodborne pathogen.

Epidemiology – Groups at Risk

5-10% of Americans have had hepatitis B and 0.5-1.0% are HBV carriers. Higher rates of infection occur in underdeveloped countries particularly tropical Africa, Southeast Asia, and Oceania. In the U.S. acute hepatitis B is more common in the 15-29 age group, lower socioeconomic groups, percutaneous drug abusers, patients receiving blood products, hemodialysis patients, laboratory personnel working with human serum, some institutionalized populations, male homosexuals, prostitutes, and some health care workers.

The acute and chronic consequences of hepatitis B virus (HBV) infection are major health problems. The reported incidence of acute hepatitis B increased by 37% 1979-1989, and an estimated 200,000 - 300,000 new infections occurred annually between 1980 and 1991. The estimated 1 million-1.25 million persons with chronic HBV infection in the U.S. are potentially infectious to others.

The rates of HBV infection differ significantly among various racial and ethnic groups. For example, the prevalence of infection among adolescents and adults has been shown to be threefold to fourfold greater for blacks than whites and to be associated with serologic evidence of previous infection with syphilis. Studies have shown that from 10-40% of health care workers have had or currently have HBV infection. Of the HBV cases that occur in the United States, 1% are fatal and 90-95% recover; most infected adults have no symptoms. There is a low incidence among the elderly for testing positive for the HBV surface antigen required to be infectious.

Modes of Transmission

HBV is transmitted from person to person only through the exchange of body fluids that contain the virus. In the U.S. the major mode of transmission is sexual. Workers are at risk for HBV to the extent they are exposed to blood or other body fluids known to contain the virus. Those body fluids or "potentially infectious materials" are semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, and any fluid that is visibly contaminated with blood. Despite similarities of transmission, the risk of exposure for health care workers far exceeds the risk of HIV infection. The primary means through which the transmission of the virus occurs are sexual activity, both heterosexual and homosexual; sharing and re-use of infected needles, and needlestick injuries.

Clinical Symptoms

Viral Hepatitis B Virus infection is very similar to other forms of viral hepatitis except that the onset is more likely to be insidious; illness tends to be more severe (approximately 1% of symptomatic cases are fatal); and 10-20% of patients have rash, urticaria, arthralgia, or other manifestations of immune-complex disease. Chronic active hepatitis develops in 25% of carriers and may progress to cirrhosis and death.

- Self-limited HBV Infection – The first laboratory abnormality (as early as 1-2 weeks after exposure) is usually the appearance of HbsAg.
- Persistent HBV Infection – In patients who become carriers, the initial illness tends to be more mild or asymptomatic. Carriers are always anti-HBc positive, HbsAg positive, and anti-HBsAg negative. Carriers remain HbsAg positive for life.

Vaccination

Vaccination must be offered within 10 days of initial assignment to a job where exposure to blood or other potentially infectious materials can be "reasonably anticipated." The hepatitis B vaccination is a non-infectious vaccine given in three injections in the arm. It is prepared from recombinant yeast cultures, rather than human blood or plasma. Thus, there is no risk of contamination from other bloodborne pathogens nor is there any chance of developing HBV from the vaccine. The second injection should be given one month after the first and the third injection six months after the initial dose. More than 90% of those vaccinated will develop immunity to the hepatitis B virus. To ensure immunity, it is important for individuals to receive all three injections. It is unclear how long the immunity lasts; booster shots may be required. The vaccine causes no harm to those who are already immune or to those who may be HBV carriers. Although employees may opt to have their blood tested for antibodies to determine need for the vaccine, employers may not make such screening a condition of receiving vaccination nor are employers required to provide prescreening. Employees should receive counseling from a health care professional when vaccination is offered to determine whether inoculation is necessary.

Workers who decline vaccination must complete a declination form. Employers must keep these forms on file so that they know the vaccination status of everyone who is exposed to blood. At any time after a worker initially declines to receive the vaccine, they may opt to take it. If a worker experiences an exposure incident, such as a needlestick or a blood splash in the eye, they must receive confidential medical evaluation from a licensed health care professional with appropriate follow-up. To the extent possible by law, the employer is to determine the source the individual for HBV as well as human immune deficiency virus (HIV) infectivity. The worker's blood will also be screened if they agree.

The health care professional is to follow regulatory guidelines in providing treatment. The health care professional must give a written opinion on whether vaccination is recommended and whether the employee should receive it. Employee medical records must remain confidential. HIV or HBV status must NOT be reported to the employer.

Housekeeping

Surfaces such as walls and floors are not associated with transmission of infections. However, cleaning and removal of soil should be done routinely. Housekeeping personnel should wear gloves for all routine cleaning and disinfecting. Work surfaces contaminated by bloody spills or potentially infectious materials should be decontaminated. Reusable bins, pails, cans, and similar receptacles which have a potential for becoming contaminated with blood or other potentially infectious materials should be cleaned and disinfected regularly and cleaned and disinfected as soon as possible upon visible contamination. Reusable items contaminated with blood or other potentially infectious materials shall be decontaminated prior to washing or reprocessing. Broken glassware, which may be contaminated shall not be picked up directly with the hands, but instead using mechanical means as brush and dustpan or tongs.

Regulated Waste

Contaminated sharps must be discarded as soon as feasible in containers that are closable, puncture resistant, leak proof and appropriately labeled or color coded (i.e., red). Containers must be easily accessible in the area where sharps are used. Containers will be maintained upright and replaced routinely to avoid overfilling. Containers of contaminated sharps must be closed prior to moving or removal. Other regulated waste must be placed in leak-proof closable containers that are labeled or color-coded. Containers must be closed prior to moving or removal. Regulated waste must be disposed of in accordance with regulatory requirements.

Hepatitis C (HCV)

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV) which is found in the blood of persons who have the disease. It is suspected that there are more than 4.5 million people in the U.S. infected with hepatitis C, and more than 200 million around the world – making it one of the greatest public health threats if this century.

Modes of Transmission

The most significant risk behavior for HCV infection is I.V. drug use, and is responsible for about 30-40% of all identified cases of hepatitis C. As with HIV, the sharing of contaminated needles and other drug paraphernalia increases the chance of infection. Tattooing and body-piercing practices, such as acupuncture and ear-piercing, have contributed significantly to the spread of HCV. Needlestick injuries, contaminated medical equipment, and blood spills in health care settings are also responsible for many cases of HCV. In addition, sexual activity with multiple partners has been identified as a mode of transmission, but the exact risk is unknown. Specialized risks such as manicures, shared toothbrushes, or straight razors in barber shops have been identified.

Many hepatitis C victims contracted the disease through blood transfusions in the 1970's and 1980's. Blood screening for the virus was implemented by 1990, which lowered the rates of post-transfusion hepatitis. In more than 40% of all cases, the infected individuals cannot identify a source of their infection.

Clinical Symptoms

The symptoms of hepatitis C are difficult to recognize, as they are often very mild, at least in the early stages of infection. The most common symptom, commencing sometimes years after initial infection, is fatigue. Other symptoms include mild fever, muscle and joint aches, nausea, vomiting, loss of appetite, vague abdominal pain, and sometimes diarrhea. Many cases go undiagnosed because the symptoms are flu-like, or symptoms are so mild that the patient is unaware of anything unusual. A minority of patients notice dark urine and light-colored stools, followed by jaundice where the skin and whites of the eyes appear yellow. Itching of the skin may be present.

Laboratory Manifestations – Individuals infected with HCV are often identified because they are found to have elevated liver enzymes on a routine blood test or because a hepatitis C antibody is found to be positive at the time of blood donation. In general, elevated liver enzymes and a positive antibody test for HCV means that an individual has chronic hepatitis C.

Low level infection, in which the infected individual is virtually asymptomatic but still highly contagious, may continue for years, even decades, before progressing. However, more than 80% of infected individuals eventually progress to the chronic stage of the disease, which seems to eventually result in cirrhosis (scarring of the liver tissue) and end-stage liver disease, taking about 20 years to develop. At this point, the symptoms are commensurate with liver disease or liver failure, including jaundice and abdominal swelling (due to fluid retention), depending on the severity of the liver disease and whether cirrhosis has developed. Same patients with cirrhosis do well over time, while others die in 10 and sometimes 5 years. Disorders of the thyroid, intestine, eyes, joints, blood, spleen, kidneys, and skin may occur in about 20% of patients. Primary liver cancer can also develop from hepatitis C, a late risk factor which seems to be present 30 years or so after infection.

Vaccination

No vaccination exists for hepatitis C.

Acquired Immune Deficiency Syndrome (AIDS)

Acquired immune deficiency syndrome (AIDS) is a disease most often associated with a disturbance in the body's ability to fight infections (i.e., the body's immune system). This is classified as a bloodborne disease.

Epidemiology

In 1981, physicians in the United States began identifying significantly unusual occurrences of pneumocystis carinii pneumonia and Kaposi's sarcoma (cancer) in previously healthy heterosexual men. Medical observers suggested that only an acquired immune problem could account for this happening. The Joint United Nations Program on HIV/AIDS (UNAIDS) estimates that there are now over 34 million people living with HIV or AIDS worldwide. Most of them do not know they carry HIV and may be spreading the virus to others. In the U.S., nearly one million people have HIV infection or AIDS. At least 40,000 Americans become infected with HIV each year, and it is estimated that half of all people with HIV in the U.S. have not been tested and do not know they are carrying the virus.

The number of cases reported per 100,000 population was higher for men, blacks, Hispanics, persons 30-39 and 40-49 years of age, and persons in the US territories (primarily reflecting rates in Puerto Rico) and the Northeast region than for persons in other demographic groups or geographic areas. Women accounted for 11.5% of reported AIDS cases among adolescents and adults. A history of IV-drug use was reported by 47.6% of women with AIDS. Heterosexual contact with a man infected with HIV or at high risk for HIV infection accounted for 33.9% cases among women; 64.1% of these male sex partners were IV-drug users.

Groups at Risk

Based on CDC Statistics:

- Gay and bisexual men (73%)
- IV drug users (17%)
- Hemophiliacs (1%)
- Transfusion recipients (2%)

Occupational Exposure in Health Care Settings:

- Percutaneous exposure: injury by a needle or other sharp object contaminated with HIV.
- Mucous membrane splash: exposure of mouth, nose, or conjunctiva to body fluids containing HIV.
- Open wound exposure: contamination of open incisions, abrasions, or lacerations by body fluids containing HIV.

The death rate for AIDS patients two years after diagnosis is 80%. As the disease progresses, the death rate has been shown to exceed 92%. No vaccine or drugs have been developed to cure this disease. AIDS has become a global epidemic.

Modes of Transmission

1) Body fluids – The AIDS virus is transmitted from person to person only through the exchange of body fluids that contain the virus. Blood and semen are the most common body fluids for viral transmission. These body fluids must leave one person's body and enter another person's bloodstream to pass the infection.

2) Sex – Transmission of the virus can occur during sexual activity that includes oral, anal, and vaginal sex. The AIDS virus can be spread through sexual intercourse whether you are male or female, heterosexual, bisexual, or homosexual.
3) Blood and blood products – Transmission from blood exposure occurs when sharing contaminated hypodermic equipment, receiving contaminated blood, injecting contaminated blood products, and occupational exposure to sharp, contaminated instruments.

The primary means through which this transfer occurs are sexual activity, sharing or re-using infected needles and syringes, receiving blood transfusions or organ transplants from an individual infected with the AIDS virus, infected mothers who pass the virus to the fetus during pregnancy or pass the virus to the infant during breast feeding

HIV is not an easy virus to pass from one person to another. It is not transmitted through food or air (for instance, by coughing or sneezing). There has never been a case where a person was infected by a household member, relative, co-worker, or friend through casual or everyday contact such as sharing eating utensils and bathroom facilities or hugging and kissing. Most scientists agree that while HIV transmission through deep or prolonged "French" kissing may be possible, it would be extremely unlikely. In the U.S., screening the blood supply for HIV has virtually eliminated the risk of infection through blood transfusions. You cannot get HIV from giving blood at a blood bank or other established blood collection center. Sweat, tears, vomit, feces, and urine do contain HIV, but have not been reported to transmit the disease (apart from two cases involving transmission from fecal matter via cut skin). Mosquitoes, fleas, and other insects do not transmit HIV.

Survival of HIV in the Environment

The most extensive study on the survival of HIV after drying involved greatly concentrated HIV samples (i.e., 10 million tissue-culture infectious doses per milliliter). This concentration is at least 1,000,000 times greater than that typically found in the blood or serum of patients with HIV infection. HIV was detectable by tissue-culture techniques 1-3 days after drying, but the rate of inactivation was rapid. Studies performed at CDC have also shown that drying HIV causes a rapid reduction in HIV concentration. When considering in the context of environmental conditions in health care facilities, these results do not require any changes in currently recommended sterilization, disinfection, or housekeeping strategies. When medical devices are contaminated with blood or other body fluids, exiting recommendations include the cleaning of these instruments, followed by disinfection or sterilization, depending on the type of medical device. These protocols assume “worst-case” conditions of extreme virologic and microbiologic contaminations, and whether viruses have been inactivated after drying plays no role in formulating these strategies.

Resource List

The following is a partial list of resources that can be consulted for additional information on bloodborne pathogens, particularly HIV:

1) Department of Health and Human Services
   Public Health Service Centers for Disease Control Atlanta, GA 30333
2) American Red Cross AIDS Education Office
   1730 D Street NW Washington, DC 20006
3) AIDS Action Council
   729 Eighth Street SE, #200 Washington, DC 20003
4) Service Employees International Union Occupational Health and Safety Department
   1313 L Street NW Washington, DC 20005

Definitions

Blood: Human blood, human blood components and products made from human blood.

Bloodborne Pathogens: Microorganisms in human blood that can cause disease in humans including hepatitis B Virus (HBV) and human immunodeficiency virus (HIV).

Contaminated Sharps: Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposure ends of dental wires.

Exposure Control Officer: The Facility/Site Safety Representative or another designee by the Facility/Site Manager will determine (per the ECP) the job titles, based on potential for potential contact with bloodborne pathogens that will participate in the ECP.

Exposure Control Plan (ECP): The Plan that reflects the bloodborne pathogen exposure potential and job classifications plus tasks or groups of procedures in which some or all employees have potential occupational exposure. The Plan also includes procedures for evaluation of exposure incidents.

Exposure Incident: A specific eye, mouth, mucous membrane, non-intact skin or parenteral (piercing mucous membrane or skin) contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Licensed Healthcare Professional (LHCP): A person whose scope of practice allows them to independently perform Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up. LHCPs will be infectious disease doctors at clinics or hospitals within reasonable distance to the Covanta facilities/sites. WorkCare will set-up the arrangements for service with these LHCPs.

Other Potentially Infectious Materials: (1) human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) any unfixed tissue or organ (other than intact skin) from a human (living or dead); (3) HIV or HBV containing culture, tissues or other solutions.

Percutaneous: Passing-through the skin, as in a needlestick, cut or laceration.

Source Material: Any potentially infectious materials that may be a source of occupational exposure to the employee.

Bloodborne Pathogens Training

This training outline is intended to familiarize workers to the work practices and procedures involving bloodborne pathogens. Supporting material for training should include the Bloodborne Pathogens Exposure Control Plan, Safety Procedure No. 40.

1.0 Health Hazards

The most common diseases associated with bloodborne pathogens are hepatitis and human immunodeficiency virus. These viruses are carried in blood and other body fluids. They are not spread through the air. Most workplace exposures occur from contact with contaminated blood. At Covanta facilities/sites contact might occur while providing first aid/CPR or contact with a contaminated sharp or source material in the municipal waste stream. Pathogens can enter your system through an open cut, scratch, skin abrasion, even dermatitis or acne. They can also enter through the mucous membranes of the mouth, eyes, and nose. You can also be infected if your skin is punctured by a piece of blood-stained glass, metal, or other sharps.

The symptoms of each of these viruses are flu-like, and may include a fever, night sweats, loss of appetite or weight loss, and enlarged lymph nodes. Appendices B3 – B6 overview the hazards of these viruses.

2.0 Exposure Control Plan

The Exposure Control Plan (Safety Procedure No. 40) specifies the steps that are being taken to eliminate or minimize employee exposure to bloodborne pathogens.

2.1 Universal Precautions

Universal Precautions that employees treat all blood and body fluids as potentially infectious. Transmission may come from blood, vaginal secretions, semen, and tissues or organs. Workplace exposure can occur through:

1) Accidentally cutting yourself with a sharp object that is contaminated.
2) Getting infected blood, body fluids, or other source material on your skin.
3) Getting blood or body fluids in the mucous membranes of your eyes, nose, or mouth.

2.2 Exposure Determination

One of the keys in minimizing these hazards are identifying exposure situations employees may encounter. The Exposure Control Plan lists job tasks in which employees may come into contact with human blood or other potentially infectious materials.

2.3 Work Practices

Equipment such as poke poles, rakes, and tongs can minimize or eliminate exposure to bloodborne pathogens. If contact with blood or other infectious materials should occur, employees should wash their hands and exposed skin with soap and water as soon as possible. Antiseptic hand cleansers should be readily available. If exposure is in the eyes, nose, or mouth, flush the mucous membranes with water. Avoid eating, drinking, smoking, and handling contact lenses in areas where there is exposure potential.

2.4 Personal Protective Equipment

Employees will be provided personal protective equipment (PPE) whenever they could be exposed to bloodborne pathogens. Employees will receive training in the selection, use and disposal of PPE. PPE starts with gloves but may also include Tyvek, face shields, eye protection and respirators.

1) Gloves must be worn whenever employees anticipate hand contact with potentially infectious materials or when working near contaminated materials or surfaces. Disposable gloves are never to be reused and should be replaced after contamination or if they are torn or damaged. Utility gloves may be decontaminated for reuse unless they are cracked, peeling, to torn, at which time they should be disposed of. Gloves must be removed by rolling the contaminated surface to the inside and employees should wash their hands with a disinfecting soap after their removal.
2) Eye and face protection such as masks, goggles, and face shields protect employees from splashes or sprays which may contain droplets of infectious materials. A pocket mask equipped with a one-way valve, should be used when performing cardiopulmonary resuscitation (CPR).
3) Fluid-resistant aprons protect clothing against splashes, sprays, splatters, or droplets of potentially infectious materials.

Reusable PPE is cleaned, laundered, and decontaminated as necessary. Single-use PPE or equipment which cannot be decontaminated is disposed of.

2.5 Housekeeping

Maintaining a clean and sanitary work environment is an important part of the Exposure Control Program. Equipment and surfaces are to be cleaned and decontaminated after contact with blood or other potentially infectious materials. Containers which may contain these materials should be inspected and decontaminated as soon as possible if visibly contaminated. Contaminated waste must be discarded directly into the furnace, or placed in containers that are closeable, leak-proof, and labeled with the biohazard warning label. This waste should be disposed of as regulated waste.

Decontamination must include the use of an appropriate disinfecting solution such as one part bleach to ten parts of water. Bleach will kill both HIV and HBV. After cleaning, disinfect mops and any other cleaning equipment. Contaminated laundry is to be handled as little as possible, should be bagged as discussed above, and arrangements should be made with the laundry service for separate cleaning. Any surface that cannot be completely decontaminated must be labeled with a biohazard label indicating which portions of the equipment are contaminated.

3.0 Emergency Procedures

In the event of a potential exposure incident such as an employee injury, do not take unnecessary risks. Call for assistance and request any PPE that is desired. Shut off any machinery involved and restrict access to the area so that no other employees become exposed. Do what is necessary to save a life but avoid touching blood or body fluids or performing unprotected mouth-to-mouth resuscitation. When responding to a medical emergency, remember: Protect yourself FIRST. Treat the victim second. Initiate the procedures outlined in Appendix A1.

Areas and equipment must be cleaned and disinfected. Wear gloves and a leak-proof apron. Disposable towels should be used to soak up any contaminated material. Bloodborne pathogen clean-up kits may include a gel or powder which absorbs this material. Contaminated material must be disposed of in sealed bags which are labeled with the biohazard label or they should be placed directly in the feed chute hopper. Disinfect the area and all equipment with a water and 10% bleach solution. Contaminated laundry must not be taken home. It must be placed in a sealed biohazard bag and arrangements will be made for washing.

3.1 Reporting Bloodborne Pathogen exposure

All potential bloodborne pathogen exposures are to be reported to the Shift Supervisor immediately and WorkCare is to be contacted for instructions and follow-up. When treatment can be started within two hours of the exposure, the potential for transmission of bloodborne pathogen virus decreases significantly. Medical consultation and treatment will be provided if required and every effort will be made to protect the privacy of the workers involved immediately.

3.2 Incident Investigation

All incidents where possible exposure may have occurred will be investigated within 24 hours. An accident investigation report will be completed by the shift supervisor.

4.0 Hepatitis A Vaccination

There are two approved vaccines available in the U.S. for protection against hepatitis A. Two doses of the vaccine, given at least six months apart are needed for lasting protection. Hepatitis A vaccine may be given at the same time as other vaccinations. Getting a hepatitis A vaccine is much safer than getting the disease. But a vaccine, like any medicine, can cause problems, such as allergic reactions. The risk of hepatitis A vaccine causing serious harm, or death, is extremely small. Mild problems, if they occur, will appear 3-5 days after vaccination and will last for 1-2 days. The symptoms may include:

1) Soreness where the shot was given (about 1 out of 2 adults)
2) Headache (about 1 out of 6 adults)
3) Loss of appetite (mostly in children)
4) Tiredness (about 1 out of 14 adults)

Unusual conditions, such as a high fever or behavior change, signs of serious allergic reaction (difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, fast heartbeat, or dizziness) should be talked over with a doctor right away, either the doctor at the Covanta local clinic, or a WorkCare physician. You can call the Vaccine Adverse Event Reporting System (VAERS) at 1-800-822-7967 for more information. You can also contact the Centers for Disease Prevention (CDC) at 1-800-232-2522.

5.0 Hepatitis B Vaccination

A vaccine against hepatitis B has been available since 1982. It is prepared from yeast cultures and is free of any blood products. The immunization consists of three doses over a period of six months. The testing of the serum indicates that the vaccine is 91-99 percent effective in preventing HBV. The duration of this protection is not yet known but health professionals believe this immunization may last a lifetime.

Risks, Side Effects and Symptoms of Hepatitis B Vaccination		
Risks/Side Effects	Body Symptoms	Other Symptoms Reported:
The vaccination is well tolerated with no serious adverse reactions.	Fatigue	Chills
In 17 percent of the cases the injection site reactions were:	Headache	Flushing
Soreness	Fever (100)	Sweating
Swelling	Nausea	Achiness
Warmth	Diarrhea	
Nodule formation	Stomach pains and cramps	

You will need to consider the risks and benefits of participating in the HAV/HBV vaccination program. Depending on your decision, you will be asked to sign either a consent form or a refusal form. If you decline the vaccination(s) at this time and change your mind later, the series of hepatitis vaccinations will still be provided free of charge.

6.0 Hepatitis C Screen

Hepatitis C is quickly becoming a significant public health threat. According to the Centers for Disease Control (CDC), four million Americans have been infected with hepatitis C. Some estimate worldwide numbers top 200 million. Even though hepatitis C is detected by an easy blood test, many people have the disease and don't know it. That's because 80 percent of people with the virus do not have any signs or symptoms. At the current time there is no vaccine for hepatitis C. Covanta offers the blood test to you at no charge, upon your request.

7.0 Human Immunodeficiency Virus (HIV)

HIV is the human immunodeficiency virus that causes AIDS. A member of a group of viruses called retroviruses, HIV infects human cells and uses the energy and nutrients provided by those cells to grow and reproduce. AIDS (acquired immunodeficiency syndrome) is a disease in which the body's immune system breaks down and is unable to fight off certain infections, known as "opportunistic infections," and other illnesses that take advantage of a weakened immune system. When a person is infected with HIV, the virus enters the body and lives and multiplies primarily in the white blood cells. These are the immune cells that normally protect us from disease. The hallmark of HIV infection is the progressive loss of a specific type of immune cell called T-helper or CD4 cells. As the virus grows, it damages or kills these and other cells, weakening the immune system and leaving the individual vulnerable to various opportunistic infections and other illnesses, ranging from pneumonia to cancer.

There is no immunization against HIV. For many years, there were no effective treatments for AIDS. Today, people in the United States and other developed countries can use several drugs to treat HIV infection and AIDS. Some of these are designed to treat the opportunistic infections and illnesses that affect people with HIV/AIDS. In addition, several types of drugs seek to prevent HIV itself from reproducing and destroying the body's immune system. Many HIV patients are taking several of these drugs in combination. When successful, such combination or "cocktail" therapy can reduce the level of HIV in the bloodstream to very low, even undetectable, levels**.**

8.0 Questions and Answers

APPENDIX VI.

Safety Response

Electrical Emergencies

Covanta Energy, Inc.
Covanta Plymouth Renewable Energy LLC Facility
1155 Conshohocken Road, Conshohocken, Pennsylvania

Revision: 09/01/2020

APPENDIX VI. ELECTRICAL EMERGENCIES

Electrical Emergency Events

Electrical emergency events can be caused by conditions such as switching surges, faults or lightning strikes. Electrical emergency events can also be caused by unsafe acts, such as when a worker does not observe minimum approach boundaries for electrical equipment, does not follow proper procedures or wear the proper personal protective equipment for a task and/or makes contact with energized parts. Electrical Emergency events include electrical injury (burns, shock, falls and electrocution) and electrical fire.

Electrical Injury

- Burns: Electrical burns are the most common shock-related, nonfatal injury. They occur when a worker contacts energized electrical wiring or equipment. Although electrical burns can occur anywhere on the body, they most often occur on the hands and feet.
- Shock: Electric shock is a reflex response possibly involving trauma which occurs when electrical current passes over or through a worker's body. It usually involves burns and abnormal heart rhythm and unconsciousness.
- Falls: Electric shock may cause muscles to contract causing a worker to lose his or her balance and fall. An explosion from an electrical incident can also cause a fall.
- Electrocution: occurs when electrical current passes over or through a worker's body resulting in a fatality.
- If you see someone lying unconscious or "frozen on the circuit" the first thing to do is shut off the power by opening the appropriate disconnect switch or circuit breaker. If someone touches another person being shocked, there may be enough voltage across the body of the victim to shock the would-be rescuer. If the power disconnect switch is not known or cannot be located quickly enough, it may be possible to release the victim from the circuit by prying them or hitting them away with an insulated rescue hook, a dry wooden board or piece of nonmetallic conduit.
- Once the victim has been safely disconnected from the source of electric power, the immediate medical concerns for the victim should be breathing and circulation (pulse). If the rescuer is trained in CPR, they should follow the appropriate steps of checking for breathing and pulse, then applying CPR as necessary until you are relieved by qualified personnel.
- If the victim is conscious, have them lie still until qualified emergency response personnel arrive. Keep the victim as warm and comfortable as possible. Shock victims may suffer heart trouble up to several hours after being shocked.

Different emergencies will require different responses; it is important to remember that one emergency event may result in more than one type of injury.

Electrical Fire

If an electrical fire occurs, try to disconnect the electrical power source, if possible. If the fire is small, you are not in immediate danger, and you have been trained in fighting fires, use any type of fire extinguisher except water to extinguish the fire.

PLAN REVISIONS

Revision History (Descending Order)					
Revision Date	Approvals Management	Sect.	Page(s)	Revision:	Previous:
03/11/2024		All	As Nec	Updated emergency contacts to reflect personnel changes	Removed, Brent Halenda, Tom (Mike) McClandless from Shift Supervisor to Day Operations, Brian Stratton from Shift Supervisor to Operations Manager. Added the following Shift Supervisors: Merlin Dickow, Josh Hearn, and Wayne Mason
06/19/2023		All	As Nec	Updates to New Regional Structure and Facility Personal	
07/28/2021		All	As Nec	Change Ops Manager to K. McLauglin & Cell	M. O'Brien
07/28/2021		All	As Nec	Change Shift Supervisor Office Number to 113	150
07/28/2021		All	As Nec	Added Dan Davila as Day Ops Manager & Cell	None. New Position
07/28/2021		All	As Nec	Added V. Christiana as Shift Supervisor & Cell	Removed Tim Benway
09/01/2020		Sig Pg	0	Frank Capobianco, Facility Manager	Herman Love, Facility Manager
09/01/2020		All	As Nec	Operations Manager	Chief Engineer
09/01/2020		All	B-2	Safety Programs Manager	Facility Safety Coordinator
09/01/2020		K	K-1	Covanta Plymouth Renewable Energy	Drago Energy Resources
09/01/2020		N	BB	Change facility Emergency Coordinators	Previous CPRE Staff that no longer work at facility
03/28/2017		BB	BB-1	[Removed]	Operations Supervisor
03/28/2017		N	N-2	[Removed]	Operations Supervisor
03/28/2017		N	N-2	Plant Engineer	Maintenance Manager
03/28/2017		N	N-2	[Removed]	Operations Supervisor
03/10/2017		N	N-2	Christopher Hauser	Position Vacant
03/10/2017		N	N-2	(215) 834-6242	
03/10/2017		N	N-2	Use Cellular	
03/10/2017		N	N-2	James DeMeo	Tom McCandless
03/10/2017		N	N-2	(631) 219-9282	(484) 269-4649
03/10/2017		N	N-2	(215) 855-1694	(610) 449-3804
03/10/2017		N	N-2	Frank McArdle	Vince Christiana
03/10/2017		N	N-2	(610) 948-4806	(484) 432-1353
03/10/2017		N	N-2	(610) 653-8575	(610) 325-0836
03/10/2017		N	N-2	Brian Stratton	Dan Walsh
03/10/2017		N	N-2	(610) 924-0450	
03/10/2017		N	N-2	(610) 389-6389	(610) 932-7819
03/10/2017		N	N-2	Dan Walsh	Francis McArdle
03/10/2017		N	N-2		(610) 653-8575
03/10/2017		N	N-2	(610) 932-7819	(610) 948-4806
03/10/2017		BB	BB-1	Christopher Hauser	Position Vacant
03/10/2017		BB	BB-1	(215) 834-6242	
03/10/2017		BB	BB-1	Facility Engineer	Maintenance Supervisor
03/10/2017		BB	BB-1	Maintenance Supervisor	Operations Supverisor

PLAN REVISIONS

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03/10/2017		BB	BB-1	Tim Gregan	Glenn Madelmayer
03/10/2017		BB	BB-1	(610) 357-9825	(571) 216 - 8246
03/10/2017		BB	BB-1	Tim Gregan	Glenn Madelmayer
03/10/2017		BB	BB-1	(610) 357-9825	(571) 216 - 8246
03/10/2017		BB	BB-1	Jeremy R. Drehmer	Scott Fulton
03/10/2017		BB	BB-1	(443) 761-4408	(610) 906 - 4670
09/09/2015		N	N-2	Position Vacant	Francesco Dimiceli
09/09/2015		N	N-2	Position Vacant	Keith Vickers
09/09/2015		BB	BB-1	Position Vacant	Francesco Dimiceli
09/09/2015		BB	BB-1	Position Vacant	Keith Vickers
09/09/2015		App-VI	ALL	Appendix VI added to plan	N/A

PLAN REVISIONS

Revision History (Descending Order)					
Revision Date	Approvals Management	Sect.	Page(s)	Revision:	Previous: