



Covanta Delaware Valley, L.P.

10 Highland Avenue

Chester, PA 19013

Tel: 610.497.8100

Fax: 610.497.8042

SUBMITTED VIA ONBASE

March 24, 2023

Mr. Shawn Mountain, Regional Environmental Program Manager
Solid Waste Management
Southeast Regional Office
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

Subject: Covanta Delaware Valley, L.P.
Delaware Valley Resource Recovery Facility (DVRRF)
Solid Waste Permit 400593
Minor Permit Modification – SNCR Installation
Application Submittal

Dear Mr. Mountain:

In accordance with 25 Pa Code Chapter 271.22, Covanta Delaware Valley, LP (Covanta) is submitting a Solid Waste Minor Permit Modification Application for the installation of the Selective Non-Catalytic Reduction (SNCR) air pollution control device (APCD). The permitting and installation of this APCD is required for Covanta to comply with 25 Pa Code Chapter 129 (Additional RACT Requirements for Major Sources of NOx and VOCs for the 2015 Ozone NAAQS, or RACT III) that went into effect on January 1, 2023. Additional permitting approvals are also being sought from PADEP Air Quality Management and Storage Tank Division as well.

If you have any questions regarding the information provided, please contact me at lsmith2@covanta.com or Kim Bradford at kbradford@covanta.com.

Sincerely,

Larry A. Smith

cc:

File- Delaware Valley Air Quality eFiles

Permit #400593

Minor Permit Modification

Prepared for

Covanta Delaware Valley, L.P.

10 Highland Avenue
Delaware County, Pennsylvania

March 2023

Minor Permit Modification
Covanta Delaware Valley, L.P., Delaware County, PA

Permit #400593

March 2023

Prepared for
Covanta Delaware Valley, L.P.
10 Highland Avenue
Chester, Pennsylvania 19013

Prepared by
Barton & Loguidice, DPC
3901 Hartzdale Drive
Camp Hill, Pennsylvania 17011

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Application Checklist



CHECKLIST – MINOR MODIFICATION TO A MUNICIPAL OR RESIDUAL WASTE INCINERATOR OR OTHER PROCESSING FACILITY PERMIT

This checklist is to assist the Department and the Applicant in assuring that all the forms, notices, documentation and fees required for an application for a minor modification to a municipal or residual waste incinerator or other processing facility permit have been addressed. This checklist should be signed by the Applicant and submitted to the Department as part of the application package. Failure to do so may cause the application to be administratively incomplete and ineligible for Permit Decision Guarantee (PDG).¹

This checklist will be utilized by the Department and Applicant during the pre-application meeting to indicate the forms and other information which must be included in the application and public notifications that are needed. The Department will check the appropriate box in the first two columns to indicate the forms and information required ("Req") or not applicable ("N/A"). The Applicant will then ensure the required forms and information are included in the application by checking the corresponding box in the third column.

In cases where no pre-application meeting is held, the Applicant will indicate what forms are included in the application by checking the appropriate boxes in the third column.

The most current version of the forms found on the Department's online eLibrary should be utilized.

Name of Applicant or Permittee Covanta Delaware Valley, LP Permit No. (if applicable) 400593

Links to the Department Website for All Permit Application Forms:

Municipal Waste	http://www.portal.state.pa.us/portal/server.pt?open=514&objID=589662&mode=2
Residual Waste	http://www.portal.state.pa.us/portal/server.pt?open=514&objID=589687&mode=2

Standard Permit Forms

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GIF - General Information Form	1300-PM-BIT0001	1300-PM-BIT0001
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form A - Application	2540-PM-BWM0357	2540-PM-BWM0357
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form B - Professional Certification	2540-PM-BWM0358	2540-PM-BWM0358
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form B1 - Application for Certification	2540-PM-BWM0359	2540-PM-BWM0359

¹DISCLAIMER: The process and procedures outlined in this Checklist are intended to supplement existing requirements. Nothing in the Checklist shall affect regulatory requirements.

The process, procedures and interpretations herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the rules in this Checklist that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

DEP reserves the right to supplement the list of forms and information included on this Checklist at any time during the permit review process. This Checklist should not be construed as an exhaustive list of forms and information to be submitted by the Applicant.

Standard Permit Forms (cont.)

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form C1 - Compliance History Certification ²	2540-PM-BWM0351	2540-PM-BWM0351
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form HW-C - Compliance History ²	2540-FM-BWM0058	2540-FM-BWM0058

²Either Form C1 OR Form HW-C should be submitted depending on the modification requested.

Additional Forms Required Based on the Modification Requested

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form G (A) - Air Resource Protection	2540-FM-BWM0391a	2540-FM-BWM0391a
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form I - Soil Erosion and Sedimentation Control	2540-PM-BWM0390	2540-PM-BWM0390
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form L - Contingency Plan	2540-PM-BWM0384	2540-PM-BWM0384
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form P - Incinerator and Other Processing Facilities	2540-PM-BWM0380	2540-PM-BWM0380
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form R - Waste Analyses/Classification	2540-PM-BWM0396	2540-PM-BWM0396
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form R1 - Waste Analysis and Classification	2540-PM-BWM0001	2540-PM-BWM0001
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form X - Radiation Protection Action Plan	2500-FM-BWM0430	2500-FM-BWM0430
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 5 - Map Requirements	2540-PM-BWM0154	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 5R - Map Requirements		2540-PM-BWM0363
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 8 - Baseline Groundwater Analysis, Phase I	2540-PM-BWM0178	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 8R - Baseline Groundwater Analysis		2540-PM-BWM0367
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 12R - Operation Plan		2540-PM-BWM0081
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 14 - Operation Plan	2540-PM-BWM0011	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 23R - Control Plans		2540-PM-BWM0392
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 25R - Source Reduction Strategy		2540-PM-BWM0349
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form 54 - Background Meteorological Monitoring	2540-PM-BWM0503	

Bonding Worksheets

Req.	N/A	√	Name	Form No. (Municipal)	Form No. (Residual)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bonding Worksheet Instructions	2540-FM-BWM0580	2540-FM-BWM0580
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Incinerators	2540-FM-BWM0582	2540-FM-BWM0582
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Processing Facilities	2540-FM-BWM0586	2540-FM-BWM0586

Confidential Information under 25 Pa. Code Chapters 271.5 and 287.5, and the Bureau of Waste Management's "Procedures for Handling Confidential Information Requests" document.

Req.	N/A	√	Description
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If proposed by the applicant, a demonstration that application information satisfies the regulatory requirements for confidentiality.

Registration with Pennsylvania Department of State

Req.	√	Name	Form No.
<input type="checkbox"/>	<input type="checkbox"/>	Pennsylvania Enterprise Registration	PA-100

Application Fee

Required	√	Authorization Type	Amount
	<input checked="" type="checkbox"/>	Minor Modification	\$300

Additional Application Copies

Req.	N/A	√	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	One original and 0 additional copies of the application

Notes/Additional Comments

Form MRW-C may be used instead of Form HW-C. To get a copy use the link below:

<http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=43122>

DEP is now accepting permit and authorization applications electronically through the OnBase Electronic Forms Upload tool. Please use the link below to submit permit and authorization application documents.

<https://www.dep.pa.gov/DataandTools/Pages/Application-Form-Upload.aspx>

Also, copies to the Township and County may be sent directly with receipts as proof of the submission.

Signature of Applicant or Authorized Representative: _____ Date: October 13, 2022

Printed Name: Joe Walsh Title: Regional Director

Form GIF
General Information Form



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 form is used by the Department of Environmental Protection (DEP) to inform our programs regarding what other DEP permits or authorizations may be needed for the proposed project or activity. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the DEP.

Related ID#s (If Known) Client ID# 94120 APS ID# _____ Site ID# 456217 Auth ID# _____ Facility ID# 521177		DEP USE ONLY Date Received & General Notes
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CLIENT INFORMATION

DEP Client ID# 94120	Client Type / Code LLP	Dun & Bradstreet ID# 129835265	
Legal Organization Name or Registered Fictitious Name Covanta Delaware Valley, L.P.		Employer ID# (EIN) 76-0531017	Is the EIN a SSN? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NO
State of Incorporation or Registration of Fictitious Name Pennsylvania		<input type="checkbox"/> Corporation <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> LLP <input checked="" type="checkbox"/> LP <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Association/Organization <input type="checkbox"/> Estate/Trust <input type="checkbox"/> Other	
Individual Last Name	First Name	MI	Suffix
Additional Individual Last Name	First Name	MI	Suffix
Mailing Address Line 1 10 Highland Avenue		Mailing Address Line 2	
Address Last Line – City Chester	State PA	ZIP+4 19013	Country USA
Client Contact Last Name Smith	First Name Larry	MI	Suffix
Client Contact Title Facility Manager	Phone 610-497-8116	Ext	Cell Phone
Email Address lsmith2@covanta.com	FAX		

SITE INFORMATION

DEP Site ID# 456217	Site Name Delaware Valley Resource Recovery Facility		
EPA ID# PAD987388881	Estimated Number of Employees to be Present at Site		107
Description of Site Energy-from-Waste facility that processes municipal and approved residual waste to generate electricity and recover metals.			
Tax Parcel ID(s): 49110131100, 49110131093, 49110131090, 49110131095, 49110131097			
County Name(s)	Municipality(ies)	City	Boro
Delaware	Chester	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
Site Location Line 1 10 Highland Avenue	Site Location Line 2		
Site Location Last Line – City Chester	State PA	ZIP+4 19013	
Detailed Written Directions to Site			

Take Route 13 North from the Delaware/Pennsylvania State line through the boroughs of Marcus Hook and Trainer to Price Street. Turn Right on Price Street and follow to Route 291. Proceed north on Route 291 into the City of Chester and turn right into the facility entrance opposite Harwick Street.

Site Contact Last Name Smith	First Name Larry	MI	Suffix
Site Contact Title Facility Manager		Site Contact Firm Covanta Delaware Valley LP	
Mailing Address Line 1 10 Highland Avenue		Mailing Address Line 2	
Mailing Address Last Line – City Chester		State PA	ZIP+4 19013
Phone 610-497-8116	Ext	FAX	Email Address lsmith2@covanta.com
NAICS Codes (Two- & Three-Digit Codes – List All That Apply) 56			6-Digit Code (Optional) 562213
Client to Site Relationship OWNOP			

FACILITY INFORMATION

Modification of Existing Facility	Yes	No
1. Will this project modify an existing facility, system, or activity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Will this project involve an addition to an existing facility, system, or activity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If "Yes", check all relevant facility types and provide DEP facility identification numbers below.		

Facility Type	DEP Fac ID#	Facility Type	DEP Fac ID#
<input type="checkbox"/> Air Emission Plant		<input type="checkbox"/> Industrial Minerals Mining Operation	
<input type="checkbox"/> Beneficial Use (water)		<input type="checkbox"/> Laboratory Location	
<input type="checkbox"/> Blasting Operation		<input type="checkbox"/> Land Recycling Cleanup Location	
<input type="checkbox"/> Captive Hazardous Waste Operation		<input type="checkbox"/> Mine Drainage Treatment / Land Recycling Project Location	
<input type="checkbox"/> Coal Ash Beneficial Use Operation		<input checked="" type="checkbox"/> Municipal Waste Operation	521177
<input type="checkbox"/> Coal Mining Operation		<input type="checkbox"/> Oil & Gas Encroachment Location	
<input type="checkbox"/> Coal Pillar Location		<input type="checkbox"/> Oil & Gas Location	
<input type="checkbox"/> Commercial Hazardous Waste Operation		<input type="checkbox"/> Oil & Gas Water Poll Control Facility	
<input type="checkbox"/> Dam Location		<input type="checkbox"/> Public Water Supply System	
<input type="checkbox"/> Deep Mine Safety Operation -Anthracite		<input type="checkbox"/> Radiation Facility	
<input type="checkbox"/> Deep Mine Safety Operation -Bituminous		<input type="checkbox"/> Residual Waste Operation	
<input type="checkbox"/> Deep Mine Safety Operation -Ind Minerals		<input type="checkbox"/> Storage Tank Location	
<input type="checkbox"/> Encroachment Location (water, wetland)		<input type="checkbox"/> Water Pollution Control Facility	
<input type="checkbox"/> Erosion & Sediment Control Facility		<input type="checkbox"/> Water Resource	
<input type="checkbox"/> Explosive Storage Location		<input type="checkbox"/> Other:	

Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
Center of Tipping Floor Building	39	49	36	75	23	16
Horizontal Accuracy Measure	Feet --or-- Meters					
Horizontal Reference Datum Code	<input type="checkbox"/> North American Datum of 1927 <input checked="" type="checkbox"/> North American Datum of 1983 <input type="checkbox"/> World Geodetic System of 1984					
Horizontal Collection Method Code						
Reference Point Code						
Altitude	Feet --or-- Meters					
Altitude Datum Name	<input type="checkbox"/> The National Geodetic Vertical Datum of 1929 <input type="checkbox"/> The North American Vertical Datum of 1988 (NAVD88)					
Altitude (Vertical) Location Datum Collection Method Code						
Geometric Type Code						
Data Collection Date						
Source Map Scale Number	Inch(es)			= Feet		

--or--

Centimeter(s)

=

Meters

PROJECT INFORMATION

Project Name

Minor Permit Modification for Permit #400593

Project Description

Installation of an aboveground storage tank within the solid waste permit boundary, as part of the SNCR addition at the facility to improve air emissions.

Project Consultant Last Name

Dobak

First Name

Ashley

MI

N

Suffix

P.E.

Project Consultant Title

Managing Engineer

Consulting Firm

Barton & Loguidice, D.P.C.

Mailing Address Line 1

3901 Hartzdale Drive

Mailing Address Line 2

Suite 101

Address Last Line – City

Camp Hill

State

PA

ZIP+4

17011

Phone

717-737-8326

Ext

2317

FAX

Email Address

adobak@bartonandloguidice.com

Time Schedules

2023/2024

Project Milestone (Optional)

Installation of tank

Q4 2025+

Startup and commissioning

1. Is the project located in or within a 0.5-mile radius of an Environmental Justice community as defined by DEP?



Yes



No

To determine if the project is located in or within a 0.5-mile radius of an environmental justice community, please use the online [Environmental Justice Areas Viewer](#).

2. Have you informed the surrounding community prior to submitting the application to the Department?



Yes



No

Method of notification: Act 14 Notification Letters

3. Have you addressed community concerns that were identified?



Yes



No



N/A

If no, please briefly describe the community concerns that have been expressed and not addressed.

4. 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: _____

5. 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 5, the application is not subject to the Land Use Policy.

If "Yes" to Question 5, 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 should 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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.	Is there a county stormwater management plan?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.	Is there an adopted municipal or multi-municipal comprehensive plan?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.	Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
<p>Note: If the Applicant answers "No" to either Questions 1, 3 or 4, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 5 and 6 below. If the Applicant answers "Yes" to questions 1, 3 and 4, the Applicant should respond to questions 5 and 6 below.</p>					
5.	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.	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.	Have you attached Municipal and County Land Use Letters for the project?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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 utilizing the [Project Review 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.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.4	For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.6	Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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 <i>Project Description</i> .	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.3	Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0	Will the project involve a construction activity that results in earth disturbance? If "Yes", specify the total disturbed acreage.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0.1	Total Disturbed Acreage <5,000 sf				
4.0.2	Will the project discharge or drain to a special protection water (EV or HQ) or an EV wetland?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
4.0.3	Will the project involve a construction activity that results in earth disturbance in the area of the earth disturbance that are contaminated at levels exceeding residential or non-residential medium-specific concentrations (MSCs) in 25 Pa. Code Chapter 250 at residential or non-residential construction sites, respectively?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
5.0	Does the project involve any of the following: water obstruction and/or encroachment, wetland impacts, or floodplain project by the Commonwealth/political subdivision or public utility? If "Yes", respond to 5.1-5.7. If "No", skip to Question 6.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.4	Is your project an interstate transmission natural gas pipeline?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

5.5	Does your project consist of linear construction activities which result in earth disturbance in two or more DEP regions AND three or more counties?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.6	Does your project utilize Floodplain Restoration as a best management practice for Post Construction Stormwater Management?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.7	Does your project utilize Class V Gravity / Injection Wells as a best management practice for Post Construction Stormwater Management?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.0	Will the project involve discharge of construction related stormwater to a dry swale, surface water, ground water or separate storm water system?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.1	Will the project involve discharge of industrial waste stormwater or wastewater from an industrial activity or sewage to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
7.0	Will the project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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 <i>Project Description</i> , where applicable.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
8.0.1 Estimated Proposed Flow (gal/day)					
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?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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.	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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).	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
10.0.1	Gallons Per Year (residential septage)				
10.0.2	Dry Tons Per Year (biosolids)				
11.0	Does the project involve construction, modification or removal of a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
11.0.1	Dam Name				
12.0	Will the project interfere with the flow from, or otherwise impact, a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
12.0.1	Dam Name				
13.0	Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
13.0.1	If "Yes", is the operation subject to the agricultural exemption in 35 P.S. § 4004.1?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
13.0.2	If the answer to 13.0.1 is "No", identify each type of emission followed by the estimated amount of that emission. Enter all types & amounts of emissions; separate each set with semicolons.				

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.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.5	Sub-Fac: Water Treatment Plant	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.6	Sub-Fac: Source	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.7	Sub-Fac: Pump Station	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.8	Sub Fac: Transmission Main	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.9	Sub-Fac: Storage Facility	<input type="checkbox"/>	Yes	<input type="checkbox"/>	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?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	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.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
16.0.1	Supplier's Name				
16.0.2	Letter of Approval from Supplier is Attached	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
17.0	Will this project be served by on-lot drinking water wells?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
18.0	Will this project involve a new or increased drinking water withdrawal from a river, stream, spring, lake, well or other water bod(ies)? If "Yes", reference Safe Drinking Water Program.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
18.0.1	Source Name				
19.0	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.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
19.0.1	Type & Amount MSW (>1M TPY), Residual (<50,000 TPY)				
20.0	Will your project involve the removal of coal, minerals, contaminated media, or solid waste as part of any earth disturbance activities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
21.0	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.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
21.0.1	Enter all substances & capacity of each; separate each set with semicolons.				
22.0	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.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
22.0.1	Enter all substances & capacity of each; separate each set with semicolons.	Ammonia, 35,000 gallons			
23.0	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.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
23.0.1	Enter all substances & capacity of each; separate each set with semicolons.	Ammonia, 35,000 gallons			

24.0 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. ☐ Yes ☒ No

24.0.1 Enter all substances & capacity of each; separate each set with semicolons.

NOTE: If the project includes the installation of a regulated storage tank system, including diesel emergency generator systems, the project may require the use of a Department Certified Tank Handler. For a full list of regulated storage tanks and substances, please go to www.dep.pa.gov search term storage tanks

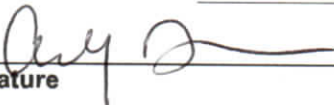
25.0 Will the intended activity involve the use of a radiation source? ☐ Yes ☒ No

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.

For applicants supplying an EIN number: I am applying for a permit or authorization from the Pennsylvania Department of Environmental Protection (DEP). As part of this application, I will provide DEP with an accurate EIN number for the applicant entity. By filing this application with DEP, I hereby authorize DEP to confirm the accuracy of the EIN number provided with the Pennsylvania Department of Revenue. As applicant, I further consent to the Department of Revenue discussing the same with DEP prior to issuance of the Commonwealth permit or authorization.

Type or Print Name Ashley N. Dobak, P.E.

Signature 

Managing Engineer

Title

3/17/2023
Date

Public Notification

SENT VIA UPS

February 20, 2023

Mr. James Warner
Interim CEO, Delaware County Solid Waste Authority
Rose Tree Park – Hunt Club
1521 North Providence Road
Media, PA 19063

Subject: Covanta Delaware Valley, L.P.
Delaware Valley Resource Recovery Facility (DVRRF)
Storage Tank ID 23-44947
Storage Tank Site Specific Installation Permit (SSIP) Application Submittal
Notification of Application Submittal

Dear Mr. Schuster:

Covanta Delaware Valley, L.P. (Covanta) is providing this Municipal Notification, pursuant to 25 PA Code Chapter 245 Subchapter C, to inform you that Covanta is submitting a Storage Tank Site Specific Installation Permit (SSIP) for the installation of a 35,000-gallon storage tank that will contain ammonia at a 19% concentration. The storage tank is required for the Selective Non-Catalytic Reduction (SNCR) air pollution control technology that will be utilized to reduce Nitrogen Oxide (NOX) emissions at the DVRRF by approximately 18% each year. Implementation of this project will have a significant positive environmental impact on the surrounding community and region. The construction and installation of SNCR are being undertaken pursuant to 25 PA Code Chapter 129 (Additional RACT Requirements for Major Sources of NOx and VOCs for the 2015 Ozone NAAQs, or RACT III).

SNCR will be installed on all six (6) combustor units at the DVRRF located at 10 Highland Avenue, Chester, Delaware County. The units currently operate under Title V Operating Permit No. 23-00004, Solid Waste Disposal and Processing Facility Permit No. 400593, and Division of Storage Tank Identification Number 24-44947, all issued by the PA Department of Environmental Protection (DEP).

The City of Chester and the County of Delaware may make comments to the DEP within thirty (30) days of receipt of this notification. The application will be submitted to the DEP by March 15, 2023. The DEP will accept comments from the public on the application. Comments may be submitted to:

Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401
Attention:
Mr. Michael Powers, Environmental Protection Specialist
Division of Storage Tanks

In addition to the written comment period, Covanta will hold a public meeting in the first quarter of 2023 to solicit comments and feedback. If you have any questions regarding this matter, please contact me or Kim Bradford at (610) 291-3890.

Sincerely,

Larry A. Smith
Facility Manager

cc: Michael Powers, PADEP Southeast Office
File – Delaware Valley - Title V

Justin Surrat (Central PADEP)

Proof of Delivery

Dear Customer,

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

Tracking Number

1Z1VX7782998507666

Weight

1.00 LBS

Service

UPS Next Day Air Saver®
with UPS Carbon Neutral 

Shipped / Billed On

02/21/2023

Additional Information

Signature Required

Delivered On

02/22/2023 9:39 A.M.

Delivered To

MEDIA, PA, US

Received By

FERZETTI

Left At

Office

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

Sincerely,

UPS

Tracking results provided by UPS: 02/23/2023 8:45 A.M. EST

SENT VIA UPS

February 20, 2023

Dr. Monica Taylor
Chair, Delaware County Council
201 West Front Street
Media, PA 19063

Subject: Covanta Delaware Valley, L.P.
Delaware Valley Resource Recovery Facility (DVRRF)
Storage Tank ID 23-44947
Storage Tank Site Specific Installation Permit (SSIP) Application Submittal
Notification of Application Submittal

Dear Mr. Schuster:

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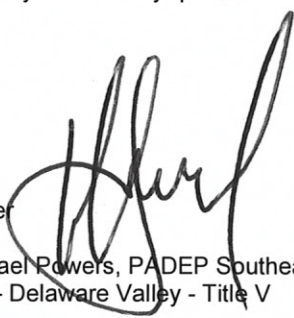
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Southeast Regional Office
2 East Main Street
Norristown, PA 19401
Attention:
Mr. Michael Powers, Environmental Protection Specialist
Division of Storage Tanks

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Sincerely,

Larry A. Smith
Facility Manager



cc: Michael Powers, PADEP Southeast Office
File - Delaware Valley - Title V

Justin Surrat (Central PADEP)

Proof of Delivery

Dear Customer,

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


Tracking Number

1Z1VX7782995875676

Weight

1.00 LBS

Service

UPS Next Day Air Saver®
with UPS Carbon Neutral 

Shipped / Billed On

02/21/2023

Additional Information

Signature Required

Delivered On

02/22/2023 10:03 A.M.

Delivered To

MEDIA, PA, US

Received By

DCCH

Left At

Inside Delivery

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

Sincerely,

UPS

Tracking results provided by UPS: 02/23/2023 8:47 A.M. EST

SENT VIA UPS

February 20, 2023

Ms. Gina Burritt
Director, Delaware County Planning Department
1055 E. Baltimore Pike
Media, PA 19063

Subject: Covanta Delaware Valley, L.P.
Delaware Valley Resource Recovery Facility (DVRRF)
Storage Tank ID 23-44947
Storage Tank Site Specific Installation Permit (SSIP) Application Submittal
Notification of Application Submittal

Dear Mr. Schuster:

Covanta Delaware Valley, L.P. (Covanta) is providing this Municipal Notification, pursuant to 25 PA Code Chapter 245 Subchapter C, to inform you that Covanta is submitting a Storage Tank Site Specific Installation Permit (SSIP) for the installation of a 35,000-gallon storage tank that will contain ammonia at a 19% concentration. The storage tank is required for the Selective Non-Catalytic Reduction (SNCR) air pollution control technology that will be utilized to reduce Nitrogen Oxide (NOX) emissions at the DVRRF by approximately 18% each year. Implementation of this project will have a significant positive environmental impact on the surrounding community and region. The construction and installation of SNCR are being undertaken pursuant to 25 PA Code Chapter 129 (Additional RACT Requirements for Major Sources of NOx and VOCs for the 2015 Ozone NAAQs, or RACT III).

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Sincerely,

Larry A. Smith
Facility Manager

cc: Michael Powers, PADEP Southeast Office
File - Delaware Valley - Title V

Justin Surrat (Central PADEP)

Proof of Delivery

Dear Customer,

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


Tracking Number

1Z1VX7782996533284

Weight

1.00 LBS

Service

UPS Next Day Air Saver®
with UPS Carbon Neutral 

Shipped / Billed On

02/21/2023

Additional Information

Signature Required

Delivered On

02/22/2023 2:19 P.M.

Delivered To

MEDIA, PA, US

Received By

SIGNORA

Left At

Office

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

Sincerely,

UPS

Tracking results provided by UPS: 02/23/2023 8:48 A.M. EST

SENT VIA UPS

February 20, 2023

Mr. Kenneth R. Schuster
Solicitor, City of Chester
Chester City Hall
1 Fourth Street
Chester, PA 19013-4400

Subject: Covanta Delaware Valley, L.P.
Delaware Valley Resource Recovery Facility (DVRRF)
Storage Tank ID 23-44947
Storage Tank Site Specific Installation Permit (SSIP) Application Submittal
Notification of Application Submittal

Dear Mr. Schuster:

Covanta Delaware Valley, L.P. (Covanta) is providing this Municipal Notification, pursuant to 25 PA Code Chapter 245 Subchapter C, to inform you that Covanta is submitting a Storage Tank Site Specific Installation Permit (SSIP) for the installation of a 35,000-gallon storage tank that will contain ammonia at a 19% concentration. The storage tank is required for the Selective Non-Catalytic Reduction (SNCR) air pollution control technology that will be utilized to reduce Nitrogen Oxide (NOX) emissions at the DVRRF by approximately 18% each year. Implementation of this project will have a significant positive environmental impact on the surrounding community and region. The construction and installation of SNCR are being undertaken pursuant to 25 PA Code Chapter 129 (Additional RACT Requirements for Major Sources of NOx and VOCs for the 2015 Ozone NAAQs, or RACT III).

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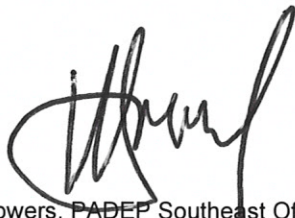
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Southeast Regional Office
2 East Main Street
Norristown, PA 19401
Attention:
Mr. Michael Powers, Environmental Protection Specialist
Division of Storage Tanks

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Sincerely,

Larry A. Smith
Facility Manager



cc: Michael Powers, PADEP Southeast Office
File – Delaware Valley – Title V

Justin Surrat (Central PADEP)

Proof of Delivery

Dear Customer,

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


Tracking Number

1Z1VX7782998496491

Weight

1.00 LBS

Service

UPS Next Day Air Saver®
with UPS Carbon Neutral 

Shipped / Billed On

02/21/2023

Additional Information

Signature Required

Delivered On

02/22/2023 12:46 P.M.

Delivered To

CHESTER, PA, US

Received By

DUKE

Left At

Inside Delivery

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

Sincerely,

UPS

Tracking results provided by UPS: 02/23/2023 8:49 A.M. EST

PHILADELPHIA GROUP

AFFIDAVIT OF PUBLICATION
390 Eagleview Boulevard • Exton, PA 19341

COVANTA DELAWARE VALLEY, LP
10 HIGHLAND AVENUE
CHESTER, PA 19013
Attention:

STATE OF PENNSYLVANIA,

The undersigned Shelley G. Menan, being duly sworn the he/she is the principal clerk of Delaware County Daily Times, Daily & Sunday Times Digital, published in Delaware County for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

COVANTA DELAWARE VALLEY, LP**Published in the following edition(s):**

Delaware County Daily Times, Daily & Sunday Times Digital
02/28/23, 03/01/23, 03/02/23, 03/03/23, 03/04/23, 03/05/23, 03/06/23

**PUBLIC NOTICE OF MINOR PERMIT MODIFICATION
AND SSIP SUBMISSION BY COVANTA DELAWARE VALLEY, L.P.**

Notice is hereby given, in accordance with 25 PA Code 271.141, that on or about March 15, 2023, Covanta Delaware Valley, L.P. will file with the Southeast Regional Office of the Pennsylvania Department of Environmental Protection (PADEP) an application for a minor permit modification to the existing Delaware Valley Resource Recovery Facility Solid Waste Permit No. 400593 and a Site Specific Installation Permit (SSIP) with the Storage Tank Division of the same PADEP regional office for the installation of a storage tank on site. The Delaware Valley Resource Recovery Facility is an existing municipal waste resource recovery facility located at 10 Highland Avenue, Chester, PA 19013 in the City of Chester, Delaware County.

Copies of the minor permit modification and SSIP applications will be available for review and copying at the PADEP Southeast Regional Office, 2 East Main Street, Norristown, PA between the hours of 9:00 AM and 4:00 PM. An appointment must be made with the Southeast Regional Office to review the application. A fee for copying may be charged by PADEP. Copies of the application will also be submitted by PADEP to the City of Chester and Delaware County. The City of Chester and Delaware County may submit recommendations for permit conditions, revisions, permit approval or disapproval, and other comments to PADEP within 60 days of their receipt of the application.

PADEP will also accept and consider comments from the public during the permit review period. Comments should be sent to the attention of the Waste Management Program Manager, PADEP Southeast Regional Office, 2 East Main Street, Norristown, PA 19401.

DCT: Feb. 28. Mar. 1, 2, 3, 4, 5, 6. a-1

Sworn to the subscribed before me this 3/6/23.

Maureen Schmid

Notary Public, State of Pennsylvania
Acting in County of Montgomery

Commonwealth of Pennsylvania - Notary Seal
MAUREEN SCHMID, Notary Public
Montgomery County
My Commission Expires March 31, 2025
Commission Number 1248132

Advertisement Information**Client Id:** 999139**Ad Id:** 2440917**PO:** SSIP Notification**Sales Person:** 063308

Ad ID: 2440917

Cost: \$1,605.91

Start: 02/28/23

Stop: 03/06/23

Class: 1201, Legal Notices

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DCT: Feb. 28. Mar. 1, 2, 3, 4, 5, 6. a-1

Form A
Application



FORM A APPLICATION FOR MUNICIPAL OR RESIDUAL WASTE PERMIT

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided herein. Replacement/substitution of or attachment to this form is prohibited. Improperly completed forms may be rejected by the Department, may be considered to be violations of the Department's Rules and Regulations, and may result in assessment of fines and penalties.

SECTION A. APPLICANT IDENTIFIER (Check one of the boxes and identify both)

<input checked="" type="checkbox"/> Owner	Name: Covanta Delaware Valley, L.P.	Phone #: (610) 497-8100
	Address: 10 Highland Avenue, Chester, PA 19013	Email:
<input checked="" type="checkbox"/> Operator	Name: Covanta Delaware Valley, L.P.	Phone #: (610) 497-8100
	Address: 10 Highland Avenue, Chester, PA 19013	Email:

SECTION B. TYPE OF FACILITY

Municipal Waste Landfill <input type="checkbox"/> Construction/Demolition Waste Landfill <input type="checkbox"/> Municipal Waste Composting Facility <input type="checkbox"/> Municipal Waste Incinerator or Resource Recovery Facility... <input checked="" type="checkbox"/> Municipal Waste Demonstration Facility <input type="checkbox"/> Municipal Waste Transfer Facility <input type="checkbox"/> Municipal Waste Processing Facility <input type="checkbox"/> Other, Specify <input type="checkbox"/>	Residual Waste Landfill <input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Residual Waste Disposal Impoundment Class I <input type="checkbox"/> Class II <input type="checkbox"/> Residual Waste Composting Facility <input type="checkbox"/> Residual Waste Demonstration Facility <input type="checkbox"/> Residual Waste Transfer Facility <input type="checkbox"/> Residual Waste Incinerator or Other Processing Facility <input type="checkbox"/> Residual Waste Agricultural Utilization <input type="checkbox"/> Residual Waste Land Reclamation <input type="checkbox"/> Oil and Gas Wastewater Storage Impoundment <input type="checkbox"/> Other, Specify <input type="checkbox"/>
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SECTION C. MAP LOCATION

U.S.G.S. Map Location of Facility (attach the map and identify location on the USGS map)

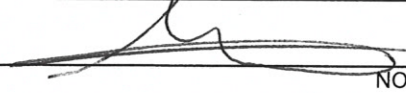
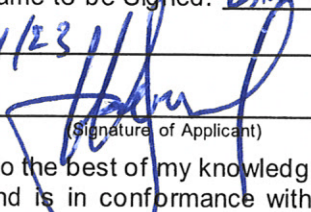
7.5" Map Name Marcus Hook

Center of Facility:

Latitude 39 ° 49 ' 34 " Longitude 75 ° 23 ' 21 "

SECTION D. GENERAL INFORMATION

Number of New Acres Proposed for Permit (Issued) <u>0 • 0</u>	Number of Acres Proposed for Permit (New) <u>0 • 0</u>
Total Acres of the Property <u>39 • 8</u>	
Number of Previously Permitted Acres <u>41 • 2</u>	Current Permit ID Number(s) <u>400593</u>

SECTION E. AFFIDAVITCOMMONWEALTH/STATE OF New JerseyCOUNTY OF Camden SS: _____Sworn and subscribed to before me this 14th day of March 2023 Griselle Rivera
NOTARY PUBLICMy Commission Expires
November 8th, 2023Print or type name to be Signed: LIBBY ASHBY JR. Date 3/14/23Date: 3/14/23I,  do hereby certify pursuant to the penalties of 18 Pa. C.S.A.
(Signature of Applicant)

Section 4904 to the best of my knowledge, information, and belief that the information contained in this application is true and correct and is in conformance with 25 PA. Code Chapters 271 or 287, whichever is applicable, of the rules and regulations of the Department of Environmental Protection.

SECTION F. APPLICATION FEE**A. Municipal Facilities****i. Application for new permit, or repermitting. (ref. 271.128)**

- | | | | |
|--------------------------|----------|---|--|
| <input type="checkbox"/> | \$18,500 | - | Municipal Waste Landfill |
| <input type="checkbox"/> | \$19,250 | - | Construction/Demolition Waste Landfill |
| <input type="checkbox"/> | \$4,400 | - | Transfer Facility |
| <input type="checkbox"/> | \$1,900 | - | Incinerator or Resource Recovery Facility |
| <input type="checkbox"/> | \$4,000 | - | Other Municipal Waste Processing Facility, including Composting Facility |
| <input type="checkbox"/> | \$17,300 | - | Demonstration Facility |

ii. Application for a major permit modification.

- | | | | |
|--------------------------|---------|---|--|
| <input type="checkbox"/> | \$300 | - | Addition of types of waste not approved in the permit |
| <input type="checkbox"/> | \$7,800 | - | Municipal Waste Landfill and Construction/Demolition Waste Landfill |
| <input type="checkbox"/> | \$700 | - | Transfer Facility |
| <input type="checkbox"/> | \$1,500 | - | Incinerator or Resource Recovery Facility |
| <input type="checkbox"/> | \$700 | - | Other Municipal Waste Processing Facility, including Composting Facility |
| <input type="checkbox"/> | \$6,700 | - | Demonstration Facility |

iii. ☐ \$300 - Permit Reissuance**iv. ☐ \$300 - Permit Renewal****v. ☒ \$300 - Minor Permit Modification**

SECTION F. APPLICATION FEE (Continued)**A. Residual Facilities****i. Application for new permit, or repermitting. (ref. 287.141)**

- ☐ \$25,900 – Residual Waste Landfill
- ☐ \$8,500 – Residual Waste Disposal Impoundment
- ☐ \$5,200 – Residual Waste Transfer Facility
- ☐ \$8,300 – Residual Waste Noncaptive Incinerator
- ☐ \$2,200 – Residual Waste Captive Incinerator
- ☐ \$5,200 – Other Waste Processing Facility, including Composting Facility
- ☐ \$8,500 – Residual Waste Demonstration Facility
- ☐ \$5,100 – Residual Waste Land Reclamation
- ☐ \$5,100 – Residual Waste Agricultural Utilization
- ☐ \$8,500 – Oil and Gas Wastewater Storage Impoundment

ii. Application for a major permit modification.

- ☐ \$600 – Addition of types of waste not approved in the permit
- ☐ \$7,800 – Residual Waste Landfill
- ☐ \$600 – Residual Waste Agricultural Utilization
- ☐ \$1,900 – Residual Waste Land Reclamation
- ☐ \$1,500 – Residual Waste Incinerator Facility
- ☐ \$700 – Residual Waste Transfer or Other Processing Facility, including Composting Facility
- ☐ \$5,800 – Residual Waste Demonstration Facility
- ☐ \$4,600 – Residual Waste Disposal Impoundment
- ☐ \$4,600 – Oil and Gas Wastewater Storage Impoundment

iii. ☐ \$400 – Residual Waste Permit Reissuance**iv. ☐ \$300 – Residual Waste Permit Renewal****v. ☐ \$300 – Residual Waste Minor Permit Modification****SECTION G. PUBLIC NOTICE - SECTION 271.141 (MUNICIPAL), 287.151 (RESIDUAL)**

For a new permit, major permit modification, permit renewal, permit reissuance, and submission of a closure plan, attach the proof of public notice for each of the following:

1. Newspaper - Attach the name of the newspaper, circulation location, copies of the notice, and dates of publication.
2. Municipality - Attach copies of the written notices sent to the host township and host county, and copies of the returned certified mail signature cards.
3. Contiguous Landowners - Attach copies of the written notice(s) sent to each landowner and copies of the returned certified mail signature cards.

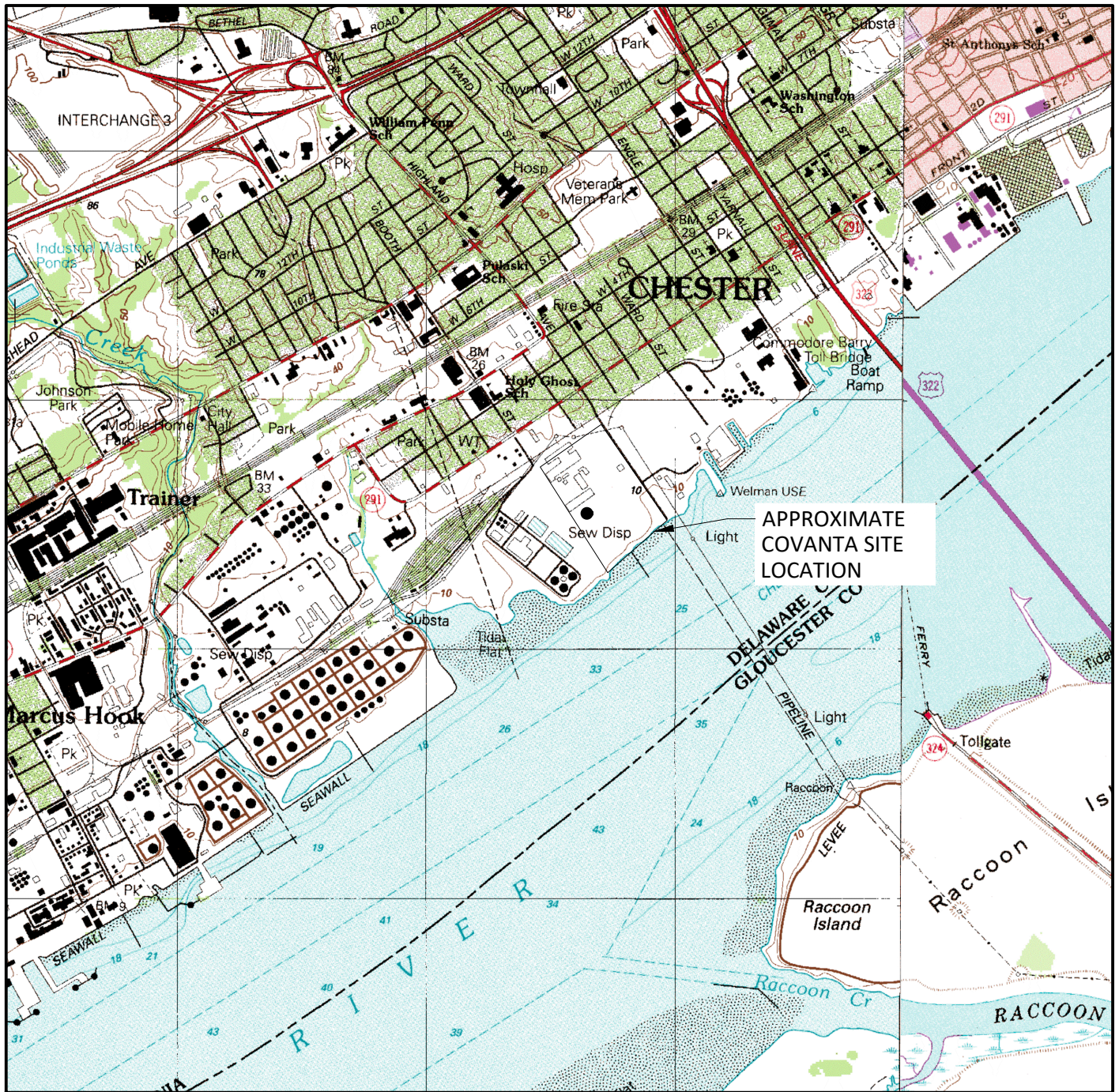
SECTION H. MUNICIPAL WASTE MANAGEMENT PLANS AND PERMITS

For a new permit, major permit modification, permit renewal, or permit reissuance of a municipal waste landfill or resource recovery facility permit, is the proposed facility located in a county that has an approved municipal waste management plan that complies with Section 513 of Act 101? Yes ☐ No ☐

If the above answer is "yes", the applicant must complete form 46 - Relationship between Municipal Waste Management Plans and Permits.

NOTE: For each permit application, please submit the original (mark as such) and additional copies as requested by the Department's regional office.

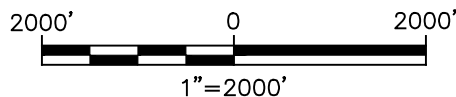
Plotted: Feb 07, 2023 - 4:22PM
Z: \\BL-Vault\ID2\18217AD2-1C71-4823-8927-99D5C4054147\0\2817000-2817999\2817881\1\1\1999.008.001_Permit Renewal_USGS - Minor Modification (ID 2817881).dwg
SYR By: rreohr



SOURCE: MARCUS HOOK, PENNSYLVANIA U.S.G.S. QUADRANGLE MAP
DATED 1993
BRIDGEPORT, NEW JERSEY U.S.G.S. QUADRANGLE MAP
REVISED 1994



QUADRANGLE LOCATION



TRUE OR CALLED
NORTH

**Barton
& Loguidice**

Date
FEBRUARY, 2023

Scale
AS SHOWN

COVANTA ENERGY SYSTEMS
DELAWARE VALLEY RESOURCE RECOVERY FACILITY
MINOR MODIFICATION

SITE LOCATION MAP

CITY OF CHESTER

DELAWARE COUNTY, PENNSYLVANIA

Figure Number
1

Project Number
1999.008.001

Form B
Professional Certification



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
12/2022

DEP USE ONLY

Date Received

FORM B PROFESSIONAL CERTIFICATION

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 B, 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: Section 271.122, 287.122

SECTION A. SITE IDENTIFIER

Applicant/permittee: Covanta Delaware Valley, L.P.

Site Name: Covanta Delaware Valley Resource Recovery Facility

Facility ID (as issued by DEP): 521177

SECTION B. REGISTERED PROFESSIONAL ENGINEER

I, Ashley N. Dobak, P.E.

(Engineer's Name – Print or Type)

being a Registered Professional Engineer in accordance with the Pennsylvania Professional Engineer's Registration Law, do hereby certify to the best of my knowledge, information, and belief that the information contained in the accompanying application, plans, specifications, and reports has been prepared in accordance with accepted practice of engineering, are true and correct, and are in accordance with the Rules and Regulations of the Department of Environmental Protection. I also certify that those individuals indicated in the following paragraphs prepared this application under my supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature

Date

3/17/2023

License Number PE086416

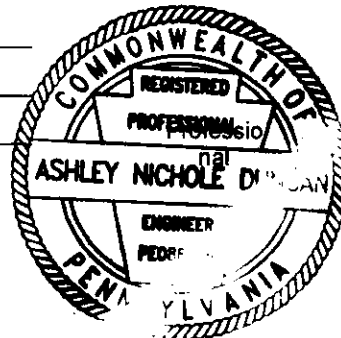
Expiration Date 09/30/2023

Address 3901 Hartzdale Drive

Suite 101

Camp Hill, PA 17011

Telephone No. (717) 737-8326



SECTION C. SOIL SCIENTIST PROVIDING SOILS INFORMATION

I, NA _____ do hereby certify
 (Soil Scientists Name – Print or Type)

to the best of my knowledge, information, and belief that the soils information contained in this application has been prepared in accordance with accepted practices of soil science and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature _____ Date _____

Address _____

Telephone No. (____) _____

SECTION D. REGISTERED PROFESSIONAL GEOLOGIST

I, NA _____ being a
 (Hydrogeologist's Name – Print or Type)

Registered Professional Geologist in accordance with the Pennsylvania Professional Geologists Registration Law, do hereby certify to the best of my knowledge, information, and belief that the hydrogeology information contained in this application has been prepared in accordance with the accepted practices of hydrogeology and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature _____ Date _____

License Number _____ Expiration Date _____

Address _____

Telephone No. (____) _____

Professio
 nal

Form B1
Application for Certification



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
12/2022

DEP USE ONLY

Date Received

FORM B1 APPLICATION FORM CERTIFICATION

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 B1, 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.

SECTION A. SITE IDENTIFIER

Applicant/permittee: Covanta Delaware Valley, L.P.

Site Name: Covanta Delaware Valley Resource Recovery Facility

Facility ID (as issued by DEP): 521177

SECTION B. CERTIFICATION

Professional Engineer

I, Ashley N. Dobak, P.E.

(Engineer's Name -Print or Type)

being a Registered Professional Engineer in accordance with the Pennsylvania Professional Engineer's Registration Law, do hereby certify that the forms used in the accompanying application have been reproduced under my supervision and have the same exact content and the same format as the forms prepared by the Department. I am aware that there are significant penalties for altering the content of the Department's forms, including the possibility of fines and imprisonment.

Signature

Date 3/17/2023

License Number PE086416

Expiration Date 09/30/2023

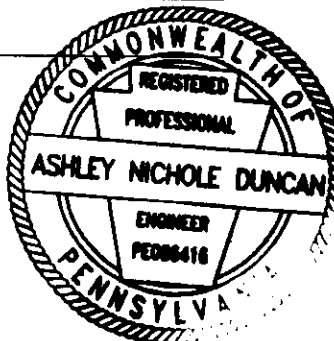
Address 3901 Hartzdale Drive

Suite 101

Camp Hill, PA 17011

Telephone No. (717) 737-7326

Professional
Seal



Form HW-C
Compliance History



FORM HW-C COMPLIANCE HISTORY

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Type of Form HW-C Submittal (check all that apply):

☐ Original Filing ☒ Amended Filing Date of Last Filing 06/2022

Type of Permit or License Submittal:

☐ New Application ☐ Renewal ☐ Annual Update ☒ Other minor modification
(specify)

A. General Applicant Information:

1. NAME OF PERMIT OR LICENSE APPLICANT/PERMITTEE/LICENSEE ("applicant")
(non-corporations attach documentation of legal name):

Covanta Delaware Valley, L.P.

ADDRESS: 10 Highland Avenue

Chester, PA

19013

TELEPHONE NUMBER: 610-497-8150

TAXPAYER ID#: 76-0531017

PERMIT, LICENSE OR APPLICATION ID#: 400593

2. Identify the form of management under which the applicant conducts its business (check appropriate box) and describe the type(s) of business activities performed:

<input type="checkbox"/> Individual	<input type="checkbox"/> Fictitious Name
<input type="checkbox"/> Municipality	<input type="checkbox"/> Partnership
<input type="checkbox"/> Proprietorship	<input checked="" type="checkbox"/> Limited Partnership
<input type="checkbox"/> Public Corporation	<input type="checkbox"/> Government Agency
<input type="checkbox"/> Private Corporation	<input type="checkbox"/> Joint Venture
<input type="checkbox"/> Syndicate	<input type="checkbox"/> Association
<input type="checkbox"/> Municipal Authority	<input type="checkbox"/> Other Type of Business _____

(specify)

3. Type of permit, license or application (check all that apply):

☐ Hazardous Waste Permit
☐ Hazardous Waste Transporter License
☒ Municipal Waste Permit
☐ Regulated Medical, Chemotherapeutic Waste Transporter License
☐ Residual Waste Permit
☐ Other _____
(specify)

FORM HW-C

B. General Information Regarding "Related Parties"

1. **Applicants which are a corporation or a division of a corporation**, provide the following information:
 - a. The principal shareholders or stockholders who own, hold, or control stock of five percent (5%) or more of a publicly held corporation or ten percent (10%) or more of a privately held corporation.
 - b. State the names, principal places of business and taxpayer ID numbers of all domestic and foreign parent corporations (including ultimate parent corporations), and all domestic and foreign subsidiary corporations of the applicant, as well as the subsidiary corporations of the ultimate parent corporation. Include unincorporated divisions and private corporations. A diagram of corporate structure may be provided to illustrate corporate relationships.
 - c. List all principals of the corporation that have also been principals of other corporations which have committed any violation of the Environmental Protection Acts. (See Instructions, Items 2 and 6.)
2. Provide the names and addresses of all principals, corporate officers, general and limited partners, directors, other persons performing a function similar to a director, and other persons or related parties of the applicant (see Instructions, Items 4 and 5). The relationship to the applicant must be clearly described.
3. Provide the names and addresses, or IRS tax identification numbers¹ and affiliation of other persons or related parties having or exercising control over any aspect of the proposed facility or activity that is regulated by the Department, including but not limited to, associates, agents, contractors, subcontractors, and property owners.
4. Provide the names and addresses of all owners of record of surface and subsurface areas within and contiguous to the proposed permit area. (Not applicable to transporter license applicants.)
5. Provide the names and addresses of all holders of record to a leasehold interest of surface and subsurface areas within and contiguous to the proposed permit area.
6. If the applicant, or other related party to the applicant, has a beneficial interest in, or otherwise manages or controls any other person, municipality or other related party (as described in Sections A and B) engaged in the business of solid waste collection, transportation, storage, processing, treatment, or disposal, provide the following information:
 - a. The name, address and tax identification number or employer identification number of the corporation, other person, municipality, or other entity, in which the applicant or other related party has a beneficial interest, manages, or controls as described above.

Please see Section 5 - Corporate Structure & Leadership

- b. The nature of the relationship or participation with the corporation, other person, municipality, or other related party.

Please see Section 5 - Corporate Structure & Leadership

¹ Failure to provide all applicable numbers may delay processing of the application.

FORM HW-C

C. Specific information Regarding the Applicant and Its Related Parties

1. List the name and location of all of the **applicant's** and **related party's places of business and terminals** where municipal, residual and/or hazardous waste activities are conducted. Such activities include, but are not limited to generation, processing, collection, transportation and storage, treatment or disposal of solid waste, except that locations that generate only municipal waste need not be listed.

Please see Section 6 - Corporate Permit Matrix Update

2. List all **permits or licenses issued** by the Department or any other state or federal agency under the Environmental Protection Acts to the applicant or any other persons or related parties identified in Sections A or B, that are currently in effect or have been in effect at any time in the ten years previous to the date on which this form is notarized. This list is to include the type of permit or license, permit or license number, location, address, issuance date and expiration date.

Please see Section 6 - Corporate Permit Matrix Update

3. List all **permit or license denials** issued by the Department or any other state or federal agency under the Environmental Protection Acts to the applicant or any other person or related party identified in Section A or B, within ten years previous to the date on which this form is notarized. Include the type of permit or license, permit or license number, location, denial date and reason for denial.

Please see Section 6 - Corporate Permit Matrix Update

4. List all persons or related parties identified in Sections A or B which have filed for or been discharged from **bankruptcy** within 10 years previous to the date on which this form is notarized. Specify the circumstances of bankruptcy including those for which the debtor sought to abandon property or to be discharged from any environmental liability subject to the Environmental Protection Acts. Include the name of the bankruptcy court, docket number and description and location of any property involved.

Not Applicable

D. Compliance Background:

(Note: Copies of specific documents must be made available to the Department upon its request)

FORM HW-C

Compliance History:

List all "**Enforcement Actions**" issued by the Department or any other state or federal or county agency to the applicant or those persons or related parties identified anywhere in response to Sections A, B or C using the following format grouped by state and location in chronological order.

Date	Location	Permit/ License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
------	----------	---------------------------------	-------------------	----------------------	------------------------	-------------	--------------------------------

Enforcement actions include but are not limited to:

All **notices of violation (NOVs)**, issued by any regulatory agency to the applicant or those persons or related parties identified anywhere in Sections A, B or C concerning the Environmental Protection Acts, or any other environmental statute, regulation or ordinance.

All **administrative orders, civil penalties, permit or license suspensions/revocations, bond forfeiture actions, and civil penalty** actions adjudicated by any judicial body against the applicant or those persons or related parties identified anywhere in Sections A, B or C concerning the Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

All **consent orders, consent adjudications, consent decrees or monetary settlements (settlement agreements, letter agreements, settlement letters or consent assessments)** between the applicant or those persons or related parties identified anywhere in Sections A, B or C and any state, federal or county agency regarding the Environmental Protection Acts, or any other environmental statute, regulations or ordinance.

All **court proceedings** in which those persons or related parties identified anywhere in Sections A, B or C have been involved in relation to the Environmental Protection Acts.

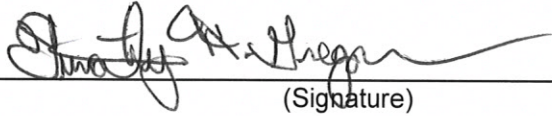
All **summary, misdemeanor, or felony convictions, or pleas of guilty or no contest** that have been obtained against the applicant or those persons or related parties identified anywhere in Sections A, B or C, pursuant to the Environmental Protection Acts, or for any acts involving the generation, storage, treatment, transportation, processing, or disposal of municipal, residual or hazardous waste.

For all persons and municipalities identified in Section A, B or C, indicate all violations committed and any subsequent enforcement actions taken regarding the facility or activity not previously listed in this section, concerning the Environmental Protection Acts.

State the reasons for suspension, revocation, or denial of any permit/permit application or license/license application filed by the applicant or any related party concerning the Environmental Protection Acts. Provide the date, location and nature of the violations, type of action, issuing agency, dollar amount of any monetary penalty associated with the action and permit, license, EPA ID# or other identifying number if applicable.

FORM HW-C

I hereby certify that I have the authority to respond to the above questions on behalf of the applicant, and that the information provided herein is true and correct to the best of my knowledge, information and belief.


(Signature)

Name: Tim Gregan
(Print or Type Name)

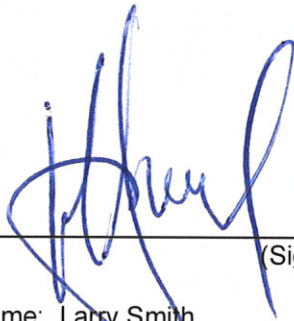
Title: Vice President Regional Operations Region 2
(Print or Type Title)

Sworn to and subscribed before me this

14 day of March,

2023.


Notary Public
Griselle Rivera


(Signature)


Name: Larry Smith
(Print or Type Name)

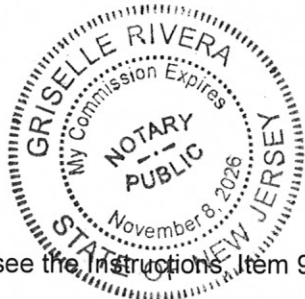
Title: Facility Manager
(Print or Type Title)

Sworn to and subscribed before me this

14 day of March,

2023.


Notary Public

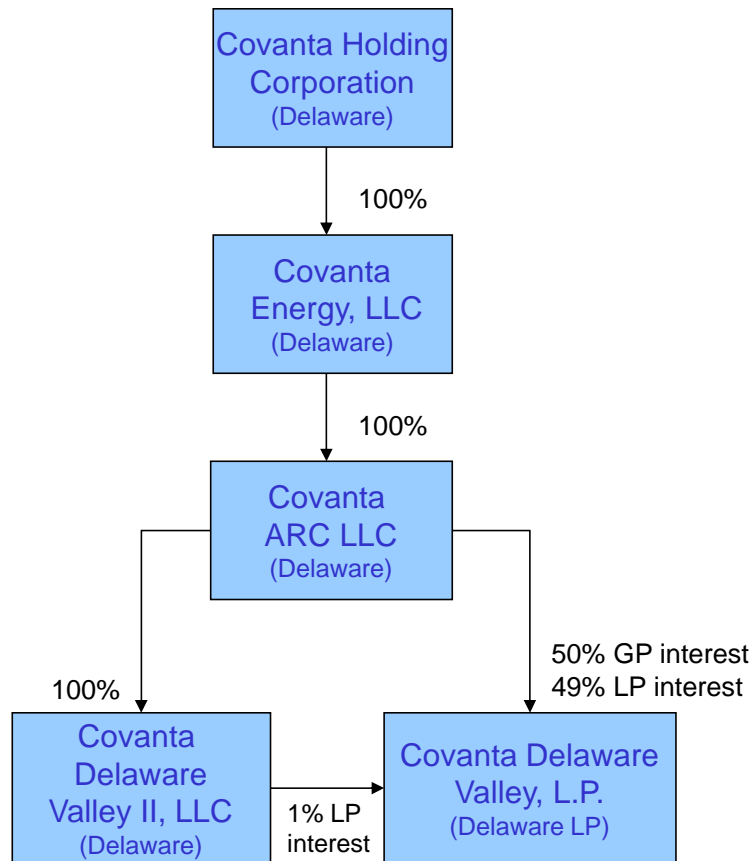


Attach copy
of Articles of Incorporation

(For Corporations, see the Instructions, Item 9, regarding signatures and submission of Articles of Incorporation.)

Organizational Chart

COVANTA DELWARE VALLEY, L.P. CORPORATE STRUCTURE



Permit Information

COVANTA FACILITY PERMIT STATUS MAR 2023

Pennsylvania				
		(Air, Water, Solid Waste, Other)		Date
Covanta Delaware Valley 10 Highland Ave. Chester, PA 19013 (Tax ID: 76-0531017-1)	23-340-002/OP-23-0004	Plan Approval/Air Operating Permit	9/23/1988	7/8/2001 (replaced by Title V Permit)
	23-00004	Title V	6/6/2011	9/2/2021 (renewal pending)
	23-44947	Storage Tank Permit	--	2/4/24
	400593	Solid Waste	9/7/2009	12/6/29
	PAR900004	NPDES General (Industrial)	9/1/2010	automatic renewal
	1DE-01-3	Wastewater	11/1/2018	2/28/27
	Docket 2011-003 CP-2	DRBC Comprehensive Plan	3/10/2021	3/10/31
Covanta Harrisburg 1670 South 19th Street Harrisburg, PA 17104 (Tax ID: 23-6006036-4)	122017-9	IUP	12/21/2012	12/20/2022 (Renewal Pending)
	22-05007B	Plan Approval Extension	N/A	No longer in effect due to Title V Permit
	22-05007	Title V	7/31/2012	12/31/2022 (Renewal Pending)
	PAR503508	NPDES Stormwater (industrial) GP	6/1/2009	No longer in effect due to individual permit
	PAS503501	NPDES Stormwater (industrial) Individual	7/1/2012	12/31/2024
	19880201	Consumptive Water Use	12/12/2002	9/30/2029
	100758	SW	7/10/2012	12/31/24
Covanta Lancaster 1911 River Road Bainbridge, PA 17502 (Tax ID: 23-6006036-3)	36-340-001/36-02013	Plan Approval/Air Operating Permit	2/22/1989	10/01/1999 (replaced by Title V Permit)
	36-05013	Title V	12/13/2021	1/31/27
	3688532	Potable Water Supply	11/5/1991	N/A
	0083496	NPDES	6/1/1999	N/A
	3688402	Water Quality Management	2/22/1989	N/A
	19880901	Consumptive Water Use	10/1/2018	9/30/33
	36-62776	Storage Tank Permit	--	6/4/23
	400592	Solid Waste	1/7/2019	3/20/29
Covanta Plymouth 1155 Conshohocken Road Conshohocken, PA 19428 (Tax ID: 65-0314688-1)	65-0314688-1	Title V	5/15/2012	11/21/2022 (renewal pending)
	400558	Solid Waste Disposal	3/24/2014	3/24/24
	IW PA0052906	Wastewater Discharge	10/1/2019	9/30/2024
	46-45090	Storage Tank Registration	2/4/2014	2/4/2024
Covanta York 2651 Blackbridge Road York, PA 17406 (Tax ID: 23-1920928-1)	67-05006	Title V	1/12/2022	1/31/27
	400561	Solid Waste Disposal	9/7/2012	5/5/23
	CYP-0059	Wastewater Discharge	10/1/2018	9/30/2024
	67-60690	Storage Tank Registration	--	6/4/2023
	M6-86-12	Consumptive Water Use	9/11/1986	N/A
Covanta Metals Marketing 500 Middle Drive Fairless Hills, PA 19030 (Tax ID: 46-1738743-1)	PAG030027	NPDES Stormwater GP	9/24/2016	9/24/2021 (admin extended)
	WMGM020SE005	Solid Waste GP	7/22/2015	1/29/23
	Plan Approval	09-0236	5/17/2016	09/11/2022 (extended)
TransRiver Philadelphia 2209 South 58th Street Philadelphia, PA 19143 (Tax ID: 26-4461501)	101477	SW	10/24/2014	10/24/24
	WMGR021D024	Beneficial Use Residual Waste General Permit	4/21/2014	4/21/24

Compliance History

Form HW-C Compliance History-58th Street Transfer Station
2209 South 58th Street Philadelphia, PA 19143

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
7/22/13	58th Street Transfer Station	Solid Waste- 101477	PADEP	NOV	Odor outside property lines	Closed	\$300.00
9/14/15	58th Street Transfer Station	Solid Waste- 101477	Philadelphia Health Department	NOV	Complaint from community of a garbage odor	Open	-
8/23/2016 9/2/16	58th Street Transfer Station	Solid Waste- 101478	Philadelphia Health Department	NOV	City of Philadelphia Health Dept. received off-site odor complaints. They did not visit or contact the site. NOVs were received in the mail.	Contacted inspector and agreed that he would contact the site regarding any odor complaints and would be given the opportunity to investigate/respond.	\$300.00
6/18/2019	58th Street Transfer Station	Solid Waste- 101478	Philadelphia Health Department	NOV	Inspector observed mild and steady odor in surrounding residential area. Deodorizing mist spraying the MSW was in use at the time.	Closed	-

Form HW-C Compliance History-Babylon
125 Gleam St West Babylon, NY 11704

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
5/4/2014	Babylon	Solid Waste- # 1-4720/00777/00001	NYSDEC	NOV	Fuel Oil Spill	Closed	-
11/17/2016	Babylon		NYSDEC	NOV	Failure to label used oil tank with tank capacity. Failure to label used bulbs with accumulation start date	Conditions corrected during inspection----no penalty	-

Form HW-C Compliance History-Alexandria
5301 Eisenhower Ave Alexandria, VA 22304

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
------	----------	-----------------------------	----------------	----------------	---------------------	-------------	-----------------------------

No enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility 2013-2023.

Form HW-C Compliance History-Bristol
170 Enterprise Drive Bristol, CT 06010

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
3/11/2015	Bristol	Discharge Permit	CT DEP	NOV	Failure to report low pH non-contact cooling waste water discharge event within 2 hours of knowing, failure to maintain all required monitoring equipment and/or notify the department of a failure or malfunction of such monitoring equipment	Closed	-
7/31/2015	Bristol	Discharge Permit	CT DEP	NOV	Daily flow rate limit was exceeded	Open	-
9/22/2015	Bristol	Discharge Permit	CT DEP	NOV	Missing SMR reports and/or lack of facility documentation that no discharge occurred; open dumpsters; pollutant materials near catch basins; catch basins filled with debris	Closed	-
3/18/2019	Bristol	Title V Air Permit 026-0055-TV	CT DEP	NOV	Failure to include exceedances on Semi Annual Monitoring Report submission	Closed	-
4/8/2021	Bristol	Title V Air Permit 026-0055-TV	CT DEP	NOV	Air excursions during August and October 2020	Closed	-

Form HW-C Compliance History-Camden County
600 Morgan Blvd. Camden, NJ 08104

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
1/23/2013	Camden County	Title V BOP130002	NJDEP	NOV/Settlement Agreement	Air emissions exceedances 1Q 2013.	Settlement Agreement received and paid	\$150
3/15/2013	Camden County	Title V BOP130003	NJDEP	NOV/Settlement Agreement	2013 Boiler A Stack Test Failure/Ammonia	Settlement Agreement received and paid	\$2,800
12/25/2013	Camden County	Title V BOP130002	NJDEP	NOV/Settlement Agreement	Air emissions exceedances 2Q 2013.	Settlement Agreement received and paid	\$600
12/25/2013	Camden County	Title V BOP130002	NJDEP	NOV/Settlement Agreement	Air emissions exceedances 4Q 2013.	Settlement Agreement received and paid	\$600
3/3/2014	Camden County	Title V BOP130002	NJDEP	NOV	Opacity Event in Q1 2014 for Boiler A; EA ID#: PEA140002 - 51614	Settlement Agreement received and paid	\$150
7/9/14	Camden County		NJDEP	NOV	Cooling tower overflowed into the facility stormwater collection system	Closed	-
10/1/14	Camden County	Title V BOP130002	NJDEP	NOV	Opacity events in Q2 for Boilers A, B and C. EA ID#: PEA 140003 - 51614	Settlement Agreement received and paid	\$1,800
12/17/2014	Camden County	Title V BOP130002	NJDEP	NOV	Opacity events in Q3 for Boilers B and C. EA ID#: PEA140004 - 51614	Settlement Agreement received and paid	\$1,200
2/1/2017	Camden County	Title V BOP130002	NJDEP	NOV/Settlement Agreement	Air emissions exceedances 1Q 2017.	Settlement Agreement received and paid, closed	\$3,000
8/15/2017	Camden County	Title V BOP130002	NJDEP	NOV/Settlement Agreement	Air emissions exceedances 4Q 2014 - 4Q 2016.	Penalty paid, closed	\$22,050
9/22/2017	Camden County	Title V BOP130002	NJDEP	Settlement Agreement	Air emission exceedances 2Q 2017	Settlement Agreement received and paid, closed	\$300
8/17/2018	Camden County	Title V BOP130002	NJDEP	Settlement Agreement	Air emission exceedances 4Q 2017, Q1 2018	Settlement Agreement received and paid, closed	\$6,300
2/5/2019	Camden County	Title V BOP130002	NJDEP	Settlement Agreement	Air emission exceedances 2Q and 3Q 2018	Settlement Agreement received and paid, closed	\$300

9/5/2019	Camden County	Title V BOP130002	NJDEP	Settlement Agreement	Air emission exceedances 4Q 2018, Q1 2019	Settlement Agreement received and paid, closed	\$1,650
6/11/2020	Camden County	Industrial Discharge 4953-CA-1	CCMUA	Settlement Agreement	Exceedance of Lead Effluent Limit	Settlement Agreement received and paid, closed	\$1,000
8/13/2020	Camden County	Title V BOP130002	NJDEP	Settlement Agreement	2019 Boiler C Stack Test Failure/Steam Rate Exceedance	Re-test Boiler C and results in compliance with permit limit	\$10,080
11/6/2020	Camden County	Industrial Discharge 4953-CA-1	CCMUA	NOV	September 2020 Monthly Cadmium sample permit Exceedance	Closed	-
4/21/2022	Camden County	Title V BOP130002	NJDEP	NOV/Settlement Agreement	Air emission exceedances 2020	Settlement Agreement received and paid, closed	\$7,020

Form HW-C Compliance History-Dade
6990 NW 97th Ave Doral, FL 33178

Enforcement Action Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
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No enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility 2013-2023.

Form HW-C Compliance History-Delaware Valley
10 Highland Ave Chester, PA 19013

Enforcement Actions

Including: NOV's; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
9/30/2013	Delco	TV- 23-00004	PADEP	CACP	CEMs availability and excess emissions 2010, 2012, and 2013	Paid	\$ 2,800.00
5/30/2014	Delco	TV- 23-00004	PADEP	CACP	Excess emissions on 7-13-13 & 8-29-13	Paid	\$ 400.00
8/26/2014	Delco	TV- 23-00004	PADEP	CACP	Excess emissions	Paid	\$ 1,300.00
12/28/2015	Delco	TV- 23-00004	PADEP	NOV	Improper record keeping for make-up water conductivity and circulating water conductivity	Closed	-
8/31/2017	Delco	TV- 23-00004	PADEP	CACP	Excess emissions on 2Q14 - 2Q16	Paid	\$ 31,267.00
1/30/2019	Delco	TV- 23-00004	PADEP	CACP	Excess Emissions 3Q2019 & 1Q2017	Paid	\$ 1,250.00
6/17/2020	Delco	TV- 23-00004	PADEP	NOV	Black Plant June 4& 5	NOV is closed out with the CACP received on 2/11/2021 where monetary penalty associated with the June 4 & 5, 2020 black plant was included.	0 - included in 2/11/21 CACP
2/11/2021	Delco	TV- 23-00004	PADEP	CACP	Operating Permit and 3rd Quarter 2017 through 2nd Quarter 2020 CEMS Violations and June 4 & 5th Black Plant Trip Event.	Paid and Closed	\$ 73,311.00
11/22/2021	Delco	TV- 23-00004	PADEP	CACP	Excess Emissions 3Q20-1Q21	Paid and Closed	\$ 3,146.00
11/28/2022	Delco	Solid Waste - 400593	PADEP	NOV	Facility accepted trucks that did not possess current Act 90 authorization stickers and failed	Open - Pending CACP	Pending
2/1/2023	Delco	TV- 23-00004	PADEP	NOV	Black Plant January 25	Open - Pending CACP	Pending

Form HW-C Compliance History-Essex
183 Raymond Blvd Newark NJ 07105

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
11/4/2013	Essex	Title V- BOP120001	NJDEP	NOV	For air exceedances which occurred in 2012	Closed	-
11/4/2013	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Settlement for NOV dated 11-4-2013	Paid and CLOSED	\$27,350
12/2/2013	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Cems exceedances	Paid and CLOSED	\$200
3/17/2014	Essex	Title V- BOP120001	NJDEP	RN	NOV PEA140001 issued for late submission of the 2012 stack test report to NJDEP		-
7/10/2014	Essex	Title V- BOP120001	NJDEP	NOV	Air exceedances in 2013 which were granted affirmative defense	Closed	-
7/28/2014	Essex		NJDEP	NOV	Phosphoric acid and ammonia piping not labeled properly as per DPCC inspection	Issues addressed	-
9/15/2014	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Air exceedances in 2013 which were denied affirmative defense	Paid and closed	\$36,350
2/2/2015	Essex		NJDEP	NOV	Failure to report a broken shutter on a radioactive level gauge within 24 hours of occurrence; failure to cease operation of the device after the incident	Closed	-
6/8/2015	Essex	Title V- BOP120001	NJDEP	NOV	Emission exceedances in 2014 which were granted affirmative defense	Closed	-
7/28/2015	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Air exceedances in 2014 were either not granted AD or were R events for which AD was not requested	Paid and closed	\$6,900
8/17/2015	Essex		NJDEP	NOV	UST overfill alarm not working properly		\$2,500
8/22/2016	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Settlement Agreement for air violations 2015 through 1Q 2016.	Paid and CLOSED	\$19,460
2/15/2017	Essex	Title V- BOP120001	NJDEP	NOV	Air emission Exceedances Q2-Q4 2016 Granted AD	Closed	-
5/15/2017	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Air emission Exceedances Q2-Q4 2016 Granted AD	Paid and CLOSED	\$19,025
7/21/2017	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Air emission Exceedances Q1 2017 Granted AD	Paid	\$600
2/15/2018	Essex	Title V- BOP120001	NJDEP	NOV	Pressure drop for metal recovery dust collector out of greater than permit limit	Closed	-
3/1/2019	Essex	Title V- BOP120001	NJDEP	NOV	Failure to test Nov 2018 ash sample	Closed	-
4/10/2019	Essex	Title V- BOP120001	NJDEP	NOV	Failure to submit updated UST registration to reflect renewed Operator training certification information	Closed	-

Form HW-C Compliance History-Essex
183 Raymond Blvd Newark NJ 07105

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

6/18/2019	Essex	Title V- BOP120001	NJDEP	Settlement Agreement	Air emission Exceedances Q2 2017-Q1 2019 AD not applied for.	Paid and CLOSED	\$23,400
6/18/2019	Essex	Title V- BOP120001	NJDEP	NOV	Air emission Exceedances Q2 2017-Q1 2019 AD granted	Closed	-
8/19/2019	Essex	Title V- BOP120001	NJDEP	AONOCAPA	Failure to comply with Title V condition requiring all particulate emissions be exhausted through dust collectors. Efforts were made to fix dust collector and no release to the environment occurred.	Paid and CLOSED	\$65,600
3/19/2020	Essex	Solid Waste- RRF120002	NJDEP	NOV	Housekeeping issues in metals recovery area.	Closed	-
4/27/2020	Essex	DCPP PLAN- DIFF 071402277002	NJDEP	Settlement Agreement	Findings to DPCC Plan review and records during inspection	Closed	\$1,125

Form HW-C Compliance History-Essex
183 Raymond Blvd Newark NJ 07105

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

9/22/2020	Essex	Title V- BOP120001	NJDEP	NOV	Carbon system hopper fill cycle failed to display on CITECT screen in control room during Title V inspection. Permit requires continuous monitoring of the hopper fill cycle rate on each boiler.	Closed - WO generated to correct issue	-
9/22/2020	Essex	Title V- BOP120001	NJDEP	NOV	Failure to comply with Title V condition requiring all particulate emissions be exhausted through dust collector during Title V inspection due to failed bag.	Closed - failed bag replaced	-
10/9/2020	Essex	Title V- BOP120001	NJDEP	ACO	ACO EA ID# NEA 200001-07736 2019 and 2020 opacity violations due to purple plumes from iodinated waste	Open - ACO still in effect. Fine has been paid.	\$24,400
6/10/2021	Essex	EA ID #: PEA210001	NJDEP	NOV	Used baghouse filterbags were accidentally removed from the site and disposed first at a transfer station and then taken to a landfill. 40 CFR 262.11(a-d), requires that a person who generates a solid waste, as defined in 40 CFR 261.2, must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations.	Closed	-
4/6/2022	Essex		NJDEP	Settlement Agreement	Late tesing of UST components	Closed	\$5,000
6/8/2022	Essex	EA ID #: NEA220001	NJDEP	ACO/SEP	ACO and Supplemental Environmental Project (SEP) issued for 6/10/21 filterbag disposal NOV	Closed	\$4,000

Form HW-C Compliance History-Fairfax
9898 Furnace Road Lorton, VA 22079

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
8/27/2020	Fairfax		VADEQ	Warning Letter	Warning for exceeding the 30 day rolling limit for waste	Response submitted and closed	-
2/4/2021	Fairfax		VADEQ	NOV	NOV Wastewater Hg Exceedance 2nd Half 2020	Response submitted and closed	-
3/11/2021	Fairfax		VADEQ	Warning Letter	Warning Letter PCB PMP Plan March 11 2021	Response submitted and closed	-

Form HW-C Compliance History- Fairless Hills**Enforcement Actions**

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
7/8/2015	Fairless Hills		PADEP	NOV/CACP	Construction/operation without a Solid Waste Permit approval.	CACP executed 7/21/2015	\$100,000
10/9/2018	Fairless Hills	Solid Waste	PADEP	NOV/CACP	Improper storage of materials	Paid and closed	\$5,250

Form HW-C Compliance History- Girard Point Transfer Station
3600 South 26th Street Philadelphia, PA 19145

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Since acquisition of the Transfer Station by TransRiver Philadelphia, LLC in 2009, no enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
9/24/2018	Girard Point TS		City of Philadelphia	NOV	Late Pier I inspection report	NOV closed	-

**Form HW-C Compliance History - Harrisburg
1670 South 19th Street Harrisburg, PA 17104**

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
11/27/2013	Harrisburg	Title V- 22-05007	PADEP	Consent Order	-	Response letter submitted	\$37,457
4/10/2014	Harrisburg	Title V- 22-05007	PADEP	CACP	-	Closed	\$39,636
12/10/2015	Harrisburg	Title V- 22-05007	PADEP	CACP	Violations in 2nd and 4th quarter of 2014 and 1st quarter in 2015	Closed	\$5,400
11/28/2019	Harrisburg	Title V- 22-05007	PADEP	CACP	Excess emissions in 2Q 2015-1Q 2017	Paid and Closed	\$42,130
2/22/2022	Harrisburg	Title V- 22-05007	PADEP	CACP	Excess emissions in 2Q 2017-1Q 2019	Paid and Closed	\$35,097

Form HW-C Compliance History-Haverhill
100 Recovery Way Haverhill, MA 01835

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

No enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility 2013-2023.

Form HW-C Compliance History-Hempstead
600 Merchants Concourse Westbury, NY 11590

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
2/6/2015	Hempstead	NYS Department of Health Radioactive Materials License Number C2918	New York State Depratment of Health	RN	Violation of Condition 10 C of the Radioactive Materials License (devices were installed, removed and/or reinstalled by individuals other than the technicians authorized to do so)	Closed	-
10/24/2016	Hempstead		NYSDEC	NOV	1. Failure to make a hazardous waste determination for used oil and coolant. 2. Failure to submit a notification for claiming a hazardous scrap metal exemption. 3. Failure to properly manage universal waste (used bulbs)	Closed	None
2/3/2023	Hempstead		Nassau County DOH	NOV	Unregistered tanks located on site during inspection	Open	

Form HW-C Compliance History-Hillsborough
350 N. Falkenberg Road Tampa, FL 33619

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
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No enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility 2013-2023.

Form HW-C Compliance History- Holliston Transfer Station
115 Washington Street Holliston, MA 01746

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License / EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
5/9/2014	Holliston Transfer Station	Solid Waste-X238132	MADEP	NONC	Failure to remove clean gypsum wallboard from incoming C&D loads	Response submitted on 5/2/2014. Showed that operators have been trained on the removal of wallboard from incoming waste loads.	-

Form HW-C Compliance History-Honolulu
91-174 Hanua St. Kapolei, HI 96707

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
6/10/2013	Honolulu	Title V- 0255-01-C	HDOH	Warning Letter	No documentation could be found for the approval of maintenance and inspection procedures for the mass burn boiler and associated APC.	Facility compliance and emissions checklist was submitted on June 3rd 2013	-
3/3/2014	Honolulu	NPDES-R70B771	Safe Drinking Water Branch	NOV	Wells 1 and 3 were misidentified and deepened by a contractor.	The wells have been tagged with permanant identification. Closed	-
3/21/2017	Honolulu	Title V- 0255-01-C	HDOH	Informal NOV	Failure to operate APC system and comply with CO limit during warm-up. Warning letter regarding the lack of controls with the burners and the lack of Air Pollution Control (IGR fan)	Steps implemented to avoid further events. Closed.	-
4/6/2017	Honolulu	Title V- 0255-01-C	Clean Air Branch	Warning Letter	Stack Test failure November 2016	Concerns were addressed. Closed	-
4/2/2018	Honolulu	Title V- 0255-01-C	Clean Air Branch	NOV	Total Dissolved Solids exceedances from Cooling Tower	Facility passed on re-test. Closed	\$125,000
12/30/2019	Honolulu	Title V- 0255-01-C	Clean Air Branch	NOV		Facility evaluating corrective action/mitigation efforts. Open	\$19,700

Form HW-C Compliance History-Huntington
99 Town Line Road East Northport, NY 11731

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
10/24/2016	Huntington NY		NYSDEC	NOV	Alleged violations included: 1 - Used fluorescent lamp (Universal Waste) storage and labeling; 2 - Not submitting a C7 form for processed scrap metal that is recycled.	Responded to alleged violations on December 2, 2016. Closed	-
10/8/2021	Huntington NY		NYSDEC	NOV	NOV issued for violations of the chemical bulk storage (CBS) tank regulations	Closed	-

Form HW-C Compliance History-Huntsville
5251 Triana Blvd Huntsville, AL 35805

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
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No enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility 2013-2023.

Form HW-C Compliance History-Indy
2320 South Harding Street Indianapolis, IN 46221

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
8/9/2016	Covanta Indianapolis, Inc.	Title V 097-32931-00123	Indiana Department of Environmental Management - Office of Air Quality	NOV	Reportable CO exceedances from 2014.	Facility communicating with IDEM, actions to prevent future events.	-
11/28/2016	Covanta Indianapolis, Inc.	Title V 097-32931-00123	Indiana Department of Environmental Management - Office of Air Quality	NOV	Failure to report Quarterly Operating hours for the not- constructed Advanced Recycling Facility.	Start reporting Quarterly Operating hours for the not- constructed Advanced Recycling Facility.	
8/25/2017	Covanta Indianapolis, Inc.	Title V 097-32931-00123	Indiana Department of Environmental Management - Office of Air Quality	NOV	Late submission of Semi-Annual Compliance Report		-

IPP Enforcement History

Year of Enforcement Action	Facility	Permit / License	Action/Issued Date	Allegation/Nature of Action	Fine Paid	Date Resolved/Date Paid
2013	Mendota- 400 Guillen Parkway Mendota, CA 93640	-	SJVAPCD	Gasoline tank not painted properly.	-	Closed
2013	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVAPCD	Loader operation exceeded 20% opacity emitted to the atmosphere	-	-
2013	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVAPCD	Permitted unit not to specification.	-	Open
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	Operating Diesel emergency generator in excess of 20 hours	\$7,986	Closed
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	Failure to submit an ATC within 6 months of the renewal date to install equipmnt to control PM-10	-	Open
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	Failure to submit deviation report for a fugitive dust event	\$600	Closed
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	NOV for a detached plume	-	Open
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	Failure to have a foam dust supression system as required by permit conditions	-	Open
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	Issues during Title V inspection such as fuel system baghouse doors being open	-	Open
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	Inspector noticed 3 gauges that were not readable on baghouse silos	-	Open
2014	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216	-	SJVUAPCD	Detached plume	-	Open
2014	Mendota- 400 Guillen Parkway Mendota, CA 93640		California Department of Public Health Radiology Health Branch	Gauges not leaked check as per permit	-	Closed

IPP Enforcement History

Year of Enforcement Action	Facility	Permit / License	Action/Issued Date	Allegation/Nature of Action	Fine Paid	Date Resolved/Date Paid
2014	Mendota- 400 Guillen Parkway Mendota, CA 93640		SJVAPCD	Failure to submit Title V minor mods for a temporary generator and a gas tank	\$600	Closed
2015	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216		SJVUAPCD	Failure to submit a follow-up deviation report for breakdown	\$20,000	Open
2015	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93216		SJVUAPCD	NOV was for failing to submit a report with 10 days	\$1,200	Open
2015	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93217		SJVUAPCD	NOV was a result of an opacity plume from U1 & U2	\$20,000	Open
2015	Delano- 31500 pond Road P.O. Box 550 Delano, CA 93218		SJVUAPCD	U1 SO2 lbs/hr EE and late reporting	\$6,600	Open

Form HW-C Compliance History-Kent
950 Market Ave Grand Rapids, MI 49503

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date Issued	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
1/25/2017	Kent Facility	MDEQ NPDES MISI110495	City of Grand Rapids	NOV	Exceedance of the discharge limit for mercury	Closed	-

No longer operating as of February 1, 2023

Form HW-C Compliance History-Lake
3830 Rogers Industrial Park Rd Okahumpka, FL 34762

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
3/19/2021	Lake County Resource Recovery Facility	Title V 0690046-021-AV	Florida Department Of Environmental Protection - Central District	Warning Letter	Facility unknowingly burned unauthorized hazardous waste. Preventive actions include re- assessing material screening method to verify materials being received and ensuring that unauthorized materials are not accepted and incinerated	Closed	-
11/5/2021	Lake County Resource Recovery Facility	Title V 0690046-021-AV	Florida Department Of Environmental Protection - Central District	Consent Order	Consent order for unauthorized hazardous waste event (see 3/19/21 warning letter) was received.	Closed	\$12,955

Form HW-C Compliance History - Lancaster County RRF
1911 River Road Bainbridge, PA 17502

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
4/5/2018	Lancaster County RRF, Bainbridge, PA	Title V- 36-05013	PaDEP	CACP	1Q2010-1Q2017 Excess Emissions, CEMS availability	Closed	\$42,196.00
6/23/2021	Lancaster County RRF, Bainbridge, PA	Title V- 36-05013	PaDEP	CACP	CACP for 2Q17-1Q19 emission exceedances	Closed	\$8,700.00
11/15/2021	Lancaster County RRF, Bainbridge, PA	Title V- 36-05013	PaDEP	CACP	CACP for 2Q19-4Q20 emission exceedances	Closed	\$2,050.00
11/16/2021	Lancaster County RRF, Bainbridge, PA		PaDEP	NOV	Missed Residual Chlorine Sampling Event	Closed	-

Form HW-C Compliance History-Lee
10500 Buckingham Road Fort Myers, FL 33905

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
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No enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility 2013-2023.

Form HW-C Compliance History- Long Beach
118 Pier South Ave Long Beach CA 90802

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
11/17/2017	Long Beach		California Regional Water Quality Board, LA Region	Warning Letter	Incomplete Stormwater Pollution Prevention Plan	SWPPP updated. Closed	0
12/19/2018	Long Beach	Title V Permit	CARB	NOV	Residue building and tipping hall doors were open during operation.	Repairs made. No fines. Closed	0
5/20/2022	Long Beach		California Regional Water Quality Board, LA Region	NOV	Agency states that facility failed to sample/report stormwater discharges for the 2020/2021 reporting period.	Closed	-

Form HW-C Compliance History-Lynn
247 A Commercial Street Lynn MA 01905

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
9/11/2016	Lynn T.S.		MADPH Radiation Control	NOV	Failure to report August detections of radioactive material in waste loads	Return to Compliance letter issued by Agency 9/23/16. Closed	-
10/3/2016	Lynn T.S.		City of Lynn	NOV	Inspection	Hearing Request	

Form HW-C Compliance History-MacArthur
4001 Veterans Memorial Highway, Ronkonkoma, New York 11779

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
3/31/2016	MacArthur	Solid Waste	NYSDEC	NOV	Failure to achieve a tipping floor clean hour.	Closed	-

Form HW-C Compliance History-Marion
4850 Brooklake Road Brooks, OR 97305

Enforcement Actions

Including: NOV's; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
1/28/2022	Marion	Air	ODEQ	Notice of Civil Penalty Assessment and Order	Exceeded non- emergency operating for the emergency fire pump and CO excess emission event.	Penalty paid	\$ 15,722.00

Form HW-C Compliance History-Covanta Montgomery and Montgomery Transfer Station**Montgomery- 21204 Martinsburg Road Dickerson, MD 20842****Montgomery TS- 16101 Frederick Road Derwood, MD 20855****Enforcement Actions**

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
7/14/2014	Montgomery	-	MDE	NOV	Excess emission event on 1/2/14 caused by a tube leak	Plan submitted outlining how future tube leaks would be prevented	-
12/1/2014	Montgomery	-	MDE	NOV	Air exceedance caused by a tube leak	Response submitted	-
8/31/2015	Montgomery T.S.	-	MDE	NOV	Violation identified in MDE Solid Waste Inspection Report	Closed	-
12/30/2016	Montgomery	Refuse Disposal Permit and Solid Waste regulations	MDE	Site Complaint	Violation of regulations related to the Tipping Floor/Pit Fire incident.	Response Submitted	-
2/2/2017	Montgomery T.S.		Montgomery Co DEP	NOV	Inspector identified an oil sheen in the oil water separator.	Corrective action completed.	-
3/11/2020	Montgomery	Title V	MDE	NOV	Excess emission events in October 2019	Response Submitted	-

Form HW-C Compliance History-Mount Kisco Transfer Station
10 Lincoln Place Mount Kisco, NY 10549

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
10/21/2013	Mt. Kisco	Solid Waste- 3- 5556- 00004/00002	Westchester Counter DOH	NOV	Solid waste trucks at the facility were not properly permitted.	Personnel at the station have been retrained to look for DOH stickers and customers were notified as well.	-

Form HW-C Compliance History- Niagara
100 Energy Blvd at 56th Street Niagara Falls, NY 14304

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
8/1/2013	Niagara	Title V- 9-2911- 00113/00039	NYDEC	NOV	Commencement of construction and installation of a new gas fired boiler without a permit.	Paid and Closed	\$67,500
2/24/2014	Niagara	Solid Waste 9- 2911- 00113/00023	NYDEC	NOV	Did not report to the agency that there was oil in the area of a fire which occurred at the facility.	Response submitted	-
9/19/2014	Niagara	Solid Waste 9- 2911- 00113/00023	NYDEC	NOV	Radiation detector audible alarm was shut off and never turned back on. 14 loads passed over the cales without being monitored.	Response submitted	\$3,000
8/18/2015	Niagara	Solid Waste 9- 2911- 00113/00023	NYDEC	NOV	Petroleum Bulk Storage and Chemical Bulk Storage audit performed by DEC on August 12.	All open items completed. Awaiting concurrence from the DEC.	-
3/1/2017	Niagara	Title V- 9-2911- 00113/00039	NYDEC	NOV	air emissions events on 1/23 and 2/10-11 2017	Response letter submitted 3/21/2017	-
6/2/2017	Niagara	Title V- 9-2911- 00113/00039, Ren 2	NYDEC	NOV	Air emissions exceedances on 4/27/17	Response letter submitted. Closed	-
9/18/2017	Niagara	Title V- 9-2911- 00113/00039, Ren 2	NYDEC	Consent Order	Opacity and SO2 exceedances	Response letter submitted. Closed	\$65,000
6/19/2018	Niagara	Title V- 9-2911- 00113/00039, Ren 2	NYDEC	Consent Order and NOVs	Opacity and CO exceedances	Closed	\$20,000
10/3/2019	Niagara	Title V- 9-2911- 00113/00039, Ren 2	NYDEC	Warning Letter	SO2 and CO Exceedances	Closed	-
7/18/2022	Niagara	Solid Waste 9- 2911- 00113/00023	NYDEC	NOV	Chemical Bulk Storage audit performed	C;psed	-

Form HW-C Compliance History- Onondaga
5801 Rock Cut Road Jamesville, NY 13078

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
3/26/2018	Onondaga, NY	CBS/PBS Registration	NYSDEC	NOV	Chemical storage tank violation	All findings were addressed in a timely manner. Item is closed.	-

Form HW-C Compliance History-Pasco
14230 Hays Road Spring Hill, FL 34610

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
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No enforcement actions, notices of violations or similar non-compliance actions have been incurred or received by the facility 2013-2023.

Form HW-C Compliance History-Plymouth
1155 Conshohocken Road Conshohocken, PA 19428

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
2/25/2013	Plymouth	Title V- 65-0314688-1	PADEP	NOV	PADEP inspection conducted on 2/5/13 which noted a spill on 2/3/13. NOV issued.	Closed	-
7/1/2014	Plymouth	Title V- 65-0314688-1	PADEP	NOV	Late submittal of Semi-annual air report	Closed	-
7/3/2014	Plymouth	Title V- 65-0314688-1	PADEP	NOV	QR #2 Spill	Closed	-
7/24/2014	Plymouth	Title V- 65-0314688-1	PADEP	NOV	Furnance temperature violations on 6/28/14	Closed	-
12/9/2014	Plymouth	Title V- 65-0314688-1	PADEP	CACP	Refer to NOV dated 7/24/14	Paid and closed	\$1,600
3/6/2015	Plymouth	Title V- 65-0314688-1	PADEP	CACP	CACP and CEMS violation from 2011, Quarters 1 and 4, and 2014, Quarter 4	Fines were reduced to \$1000. CACP Executed on 3.27.15. Paid and closed	\$6,800
6/21/2016	Plymouth	-	PADEP	NOV	May 2015 VOC annual test was determined to be invalid by PADEP due to errors by consultant.	Abatement Plan submitted to PADEP. Closed out as part of a CACP issued in October (see below).	-
7/13/2016	Plymouth	-	PADEP	NOV	Unauthorized releases of: cooling water discharge; oil release; and an inspection identifying a leaking hydrant.	Response report with event details and remedial actions was submitted to PADEP 8/2/16. No further action required.	-
10/18/2016	Plymouth	-	PADEP	CACP	CEMS exceedances for 4Q10, 3Q12 through 2Q14, 3Q15 thru 2Q16 and non-compliance for 2015 VOC stack test	CACP executed and penalty paid. Closed	\$14,024
6/21/2017	Plymouth	-	PADEP	NOV	Failure to maintain records for silo pressure drop.	Closed	-
6/22/2017	Plymouth	-	PADEP	CACP	CEMS violation for 3Q16 and 1Q17	Closed	\$2,812
9/8/2017	Plymouth	-	PADEP	NOV	Late Submittal of EPA Semi-Annual AQ Report	Closed	-
12/7/2017	Plymouth	-	PADEP	CACP	Late Submittal of CEMS EDR for 2Q17	Closed	\$2,556
5/14/2018	Plymouth	-	PADEP	CACP	CEMS violation for 4Q2016 and 3Q-4Q2017	Paid and closed	\$10,607
8/29/2018	Plymouth	-	PADEP	CACP	CEMS violation for 1Q2018	Closed	\$27,883
4/30/2019	Plymouth	-	PADEP	CACP	CEMS violation 2Q, 3Q and 4Q 2018	Closed	\$17,514
10/11/2019	Plymouth		PADEP	NOV	Excess emissions events 1Q, 2Q 2019 and CEMS violations	Closed	\$2,142
10/17/2019	Plymouth		PADEP	NOV	Emissions caused due to Plant trip	Closed	-
10/24/2019	Plymouth		PADEP	NOV	Odor complaint	Closed	-
12/23/2019	Plymouth		PADEP	NOV	Odor complaint	Closed	-
6/24/2020	Plymouth		PADEP	NOV	Emissions caused due to Plant trip	Closed	-
9/4/2020	Plymouth		PADEP	CACP	CEMS violations, Emission events, and Black Plant event	Closed	\$218,393
9/22/2020	Plymouth		PADEP	NOV	Odor complaint	Closed	-

11/17/2021	Plymouth		PADEP	CACP	CEMS violation 4Q20, 1Q21	Closed	\$1,240
2/22/2023	Plymouth		PADEP	NOV	Emissions caused due to Plant trip	Open	Pending

Form HW-C Compliance History- Recycling Industries Transfer Station
306 Fayette Ave Mamaroneck, NY 10543

Enforcement Actions Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
11/7/13	Recycling Industries Xfer Station	Solid Waste- 3- 5532- 00104/00005	NYDEC	NOV	MSW trailers staged near scale house untarped and attracting lots	Held meeting with operating supervisor.	-

Form HW-C Compliance History-SECONN
132 Military Highway Preston, CT 06365

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
				NOV			
11/24/2021	Seconn	TV- 150-0008	CTDEP		CO deviations in 2Q 2021	Response submitted No further action required. CLOSED	None

Form HW-C Compliance History-SEMASS and Braintree Transfer Station
SEMASS RRF- 141 Cranberry Highway West Wareham, MA 02576
Braintree Transfer Station-

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
12/5/2013	Braintree X-fer Station	Solid Waste- 4V95055	MADEP	NONC	Transferring excessive wood to landfills violating waste ban requirements.	Actions taken to prevent another occurrence.	-
8/30/2015	SEMass - CMW		MADEP	RN	On 8/16/15, CMW Landfill Operations discovered a spill from the leachate collection system	The dislodged air line was corrected and proper pump function was restored	-
1/17/2015	SEMass - RRF	Title V- 4V95055	MADEP	NONC	Errors in stack testing reports in the period of 2010-2014	Covanta submitted a response within 7 days of 1/16/15 listing affected reporting submittals and a timeline to correct those submittals. CLOSED	-
10/15/2015	SEMass - RRF	Solid Waste-W205474, W205475, W205476	MADEP	NONC	Offsite nuisance odors were detected downwind of and originating from the SEMASS waste to energy facility	Submitted a description of actions taken to correct the violations as well as a status report of any corrective actions planned or being taken. CLOSED	-
1/12/2022	SEMass - RRF		MADEP	NONC	Notice of Noncompliance for PFAS in the drinking water exceeding the MA Maximum Contaminant Limit (MCL) per new testing requirement	Facility has submitted short and long term plans for review and approval by MADEP. Open	-

Form HW-C Compliance History-Stanislaus
4040 Fink Road Crows Landing, CA 95313

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
12/2/2016	Stanislaus County - Crows Landing, CA		SJVAPCD	NOV/Settlement Agreement	Stack testing contractor completed the 2016 RATA using an expired calibration gas.	Facility was required to complete another RATA using the proper gases. Settlement Agreement was issued by agency. Paid and Closed	\$3,000
9/27/2019	Stanislaus County - Crows Landing, CA		DTSC	SOV	Summary of Violation (SOV) issued for ash laden metal to be shipped to recycler.	Pilot ash testing ongoing. No penalties issued.Open	-
5/21/2020	Stanislaus County - Crows Landing, CA	Title V-N-2073-0-2	SJVAPCD	NOV	NOV for excess emissions due to malfunction	Open	-
9/23/2020	Stanislaus County - Crows Landing, CA	Title V-N-2073-0-2	SJVAPCD	NOV	NOV for excess emissions due to malfunction	Open	-
1/19/2022	Stanislaus County - Crows Landing, CA	Title V-N-2073-0-2	SJVAPCD	NOV	NOV for violations during 6/4/2020 startup. NOV issued late due to it getting lost in the SJVAPCD system	Paid and Closed	5555
9/7/2022	Stanislaus County - Crows Landing, CA	ATC Permit N- 2073-1-17	SJVAPCD	NOV	Failure to submit ATC application for reduction of SOX and PM10 limits in ATC N-2073-1-17 as required by revised Rule 4352.	Application submitted. Closed	-
11/3/2022	Stanislaus County - Crows Landing, CA		SJVAPCD	NOV	Failure to include specific exempt data in a Report of Required Monitoring regulatory report	Open	-
11/28/2022	Stanislaus County - Crows Landing, CA		SJVAPCD	NOV	Contractor failure to follow EPA method for THC Compliance Testing	Open	-

Form HW-C Compliance History-Tulsa
2122 South Yukon Ave Tulsa, OK 74107

Enforcement Actions

Including: NOV's; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
2/6/2014	Tulsa,OK	99-018-TV 84-023T-O (M-2) 86-002T-O (M-2)	City of Tulsa	NOV	Failure to report self monitoring in a timely manner. Sample taken needed to be collected and submitted the following month.	Report was submitted and EMIS tasks updated to reflect the change in permit requirement. Closed	-
5/29/2014	Tulsa,OK	99-018-TV 84-023T-O (M-2) 86-002T-O (M-2)	ODEQ	Other	Unresolved issues with the ODEQ Air Quality	Compliance report is due 30 days from receipt of Alternative Enforcement Case #7375. Closed	-
10/2/2015	Tulsa,OK	99-018-TV 84-023T-O (M-2) 86-002T-O (M-2)	ODEQ	Other	Report resulting from the Full Compliance Evaluation (FCE) conducted by Rhonda Jeffries of ODEQ 6/25/15	Closed	-
9/12/2017	Tulsa,OK	99-018-TV 84-023T-O (M-2) 86-002T-O (M-2)	ODEQ	Other	Continuation of previous FCE conducted by Rhonda Jeffries (ODEQ 6/25/16) regarding CEMS reporting violations for reporting years 2013 and 2014. Final Consent order was issued 2/2/2021 and revised Title V permit issued Dec 20, 2019.	Closed	\$12,000

Form HW-C Compliance History-Union
1499 Route 1 North Rahway, NJ 07065

Enforcement Actions

Including: NOV's; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
3/18/2013	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Affirmative defense granted for CO exceedances Dec 11, 2012	Closed	-
4/8/2013	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Received for CO exceedances which occurred on September 4-5, 2012.	Closed	\$3,600
6/4/2013	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Received for opacity events on Feb 6-7 and March 8th and 9th.	Closed	\$5,900
6/25/2013	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Affirmative defense granted for CO exceedances on Feb 8, 14, and 15 2013	Closed	-
10/15/2013	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Affirmative defense granted for CO exceedance on April 23, 2013	Closed	-
12/13/2013	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Not documenting sulfur content of fuel deliveries	Immediately recording sulfur content of all fuel deliveries. Closed	-
12/16/2013	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Settlement agreement received	No follow up actions required. Closed	\$300
12/23/2013	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Affirmative defense granted for Co exceedances on August 1st and 3rd 2013	No follow up actions required. Closed	-
3/10/2014	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Affirmative defense granted for Co, NOX, and So2 exceedances on October 1st 2013 due to a sudden tube rupture.	No follow up actions required. Closed	-
3/28/2014	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Received for opacity exceedances on oct 20th 2013 and failure to meet required carbon bin counts on July 23rd 2013	Closed	\$1,550
5/23/2014	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Affirmative defense granted for emission events on Jan 7th 2014	Closed	-
6/5/2014	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Emission events in the first quarter of 2014.	Closed	\$16,200
6/27/2014	Union County New Jersey	Solid Waste - RRF060002	NJDEP	NOV	Complaint filed with NJDEP regarding hauler wait times at the facility	Closed	-
8/21/2014	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Air exceedances granted affirmative defense for exceedance of permitted limit for CO on units 1, 2 and 3 on June 22 due to a plant trip caused by the failure of a protective relay	Closed	-
12/19/2014	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Received an NOV with affirmative defense granted for excess emissions events on units 1, 2 and 3 on September 8, 2014.	No further action required. CLOSED	-
3/26/2015	Union County New Jersey	Solid Waste - RRF060002	NJDEP	NOV	Received NOV from solid waste for acceptance of nicotine patches for disposal after they were deemed a hazardous waste	CLOSED	\$27,000
12/3/2015	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	NOV with affirmative defense granted for exceedance of permitted limit for CO	CLOSED	-
12/24/2015	Union County New Jersey		NJDEP	Consent Order	Improper personnel removed radiation source	CLOSED	-
12/19/2016	Union County New Jersey		NJDEP	Settlement Agreement	Settlement Agreement for July 2016 violations	CLOSED	\$15,300
2/15/2017	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Outstanding air exceedance	Closed	\$600
7/25/2017	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Air Emissions Exceedances occurring on 2/13/17	Closed	-
10/20/2017	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Air Emissions Exceedances occurring on 5/28-29/2017	Closed	\$4,800
7/2/2018	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	Air Emission Exceedances on September 8, 2017	Closed	-
7/10/2018	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Air Emission Exceedances occurring on September 24, 2017 and October 2, 2017	Closed	\$1,800
11/5/2018	Union County New Jersey	NJAC	Union County Office of Environmental Health	NOV	Noise Exceedance on 10/30-31/2018	Closed	-

Form HW-C Compliance History-Union
1499 Route 1 North Rahway, NJ 07065

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
5/30/2019	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	CO exceedance on 8/27/2018	Closed	\$1,800
10/15/2019	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	CO exceedances on 10/12/18, 3/9,17, 20 and 21/2019. AD granted	Closed	-
10/21/2019	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	CO and NOx eceedances on 5/26, 27 and 6/24/2019	Closed	\$13,200
1/28/2020	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	CO Exceedance on 12/19/2019. AD granted	Closed	-
8/19/2020	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	Opacity Exceedance on 6/3/20	Closed	\$150
11/23/2020	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	CO Exceedance on 9/20/20. AD granted	Closed	-
12/7/2020	Union County New Jersey	Title V-BOP090002	NJDEP	Settlement Agreement	SO2 Exceedance on 8/11/20	Closed	7500
2/17/2021	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	CO Exceedances on 10/2/20, 10/8 and 11/20. AD granted	Closed	-
9/21/2021	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	CO Exceedance on 4/28/21. AD granted	Closed	-
7/6/2022	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	CO Exceedance on July 6-7, 2021. AD granted	Closed	-
7/6/2022	Union County New Jersey	Title V-BOP090002	NJDEP	NOV	CO Exceedance on October 16-17, 2021. AD granted	Closed	-

Form HW-C Compliance History-York
2651 Balckbridge Road York, PA 17406

Enforcement Actions

Including: NOVs; administrative orders; civil penalties; permit or license suspensions; bond forfeiture actions; consent orders, adjudications or decrees; monetary settlements; court proceedings; or convictions concerning Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

Date	Location	Permit/License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
9/6/2013	York	-	PADEP	NOV	-	Prevent incident from occurring again. Closed	-
1/17/2018	York	Title V-67-05006	PADEP	CACP	CEMS penalties for 4Q09 and 1Q16	CACP executed and penalty paid.	\$9,148
12/5/2019	York	Title V-67-05006	PADEP	CACP	CEMS penalties for 2Q2017 - 1Q2018	Paid and closed	\$9,561
12/16/2019	York	Title V-67-05006	PADEP	CACP	CEMS penalties for 2Q2016 - 1Q2017	Paid and closed	\$8,396
3/10/2022	York	Title V-67-05006	PADEP	CACP	CEMS penalties for 2Q 2018-1Q 2021 and HCI 2018 Exceedance Event	CACP executed and penalty paid.	\$21,890.50

Form L
Contingency Plan

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 Delaware Valley, L.P.

Site Name: Covanta Delaware Valley Resource Recovery Facility

Facility ID (as issued by DEP): 521177

SECTION B. CHECK TYPE OF FACILITY

Municipal Waste Landfill.....	<input type="checkbox"/>	Residual Waste Disposal Impoundment.....	<input type="checkbox"/>
Construction/Demolition Waste Landfill	<input type="checkbox"/>	Residual Waste Composting Facility.....	<input type="checkbox"/>
Composting Facility	<input type="checkbox"/>	Land Application of Residual Wastes.....	<input type="checkbox"/>
Demonstration Facility	<input type="checkbox"/>	Residual Waste Demonstration Facility	<input type="checkbox"/>
Transfer Facility	<input type="checkbox"/>	Residual Waste Transfer Facility	<input type="checkbox"/>
Incinerator or Resource Recovery Facility	<input checked="" type="checkbox"/>	Residual Waste Incinerator	<input type="checkbox"/>
Other Waste Processing Facility	<input type="checkbox"/>	Oil and Gas Wastewater Storage Impoundment	<input type="checkbox"/>
Residual Waste Landfill.....	<input type="checkbox"/>	Other Residual Waste Processing Facility	<input type="checkbox"/>

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:

- 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.
- For municipal and residual waste landfill, construction/demolition waste landfill, and residual waste disposal impoundment applications:
 - 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.
- For resource recovery facility and other municipal or residual waste processing facility applications:
 - 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 | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a. Internal Communication or Alarm System
(incorporate into <u>Section II-D.3</u> (Internal and External Communication and Alarm System) of PPC Plan) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b. Communication system capable of summoning emergency assistance.
(incorporate into <u>Section II-D.3</u> of PPC Plan) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | c. Portable Fire Extinguishers
(incorporate into <u>Section II-D.5</u> (Emergency Equipment Available for Response) of PPC Plan) |
| <input type="checkbox"/> | <input type="checkbox"/> | d-1. Fire Control Equipment for Landfill
(incorporate into <u>Section II-D.5</u> of PPC Plan) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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 <u>Section II-D.5</u> of PPC Plan) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | e. Spill Control Equipment
(incorporate into <u>Sections II-E</u> (Emergency Control Network); <u>II-C.3</u> (Inspection and Monitoring Program), <u>II-C.4</u> (Preventive Maintenance); and <u>II-C.5</u> (Housekeeping Program); and <u>II-D.5</u> of PPC Plan) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | f. Decontamination Equipment
(incorporate into <u>Section II-D.5</u> of PPC Plan) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | g. Portable Gas Explosimeters
(incorporate into <u>Section II-D.5</u> of PPC Plan) |
| <input type="checkbox"/> | <input type="checkbox"/> | h. Other Gas Monitoring Equipment
(incorporate into <u>Section II-D.5</u> 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.



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Environmental Emergency Response Plan (EERP)

**Covanta Delaware Valley
Resource Recovery Facility**

1999.005.001

Prepared for

Covanta Delaware Valley, LP

10 Highland Avenue
Chester, Pennsylvania

Revision 2
March 2023

Covanta Delaware Valley Resource Recovery Facility
Covanta Delaware Valley, LP
Delaware County, Pennsylvania

Environmental Emergency Response Plan (EERP)

March 2023

Prepared for
Covanta Delaware Valley, LP
10 Highland Avenue
Chester, Pennsylvania

Prepared by
Barton & Loguidice, DPC
3901 Hartzdale Drive
Camp Hill, Pennsylvania 17011

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- Appendix 12: Secondary Containment Calculations for Diked Storage Areas
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- Appendix 14: Drainage Discharge Report Form
- Appendix 15: Emergency Response Checklist

EXECUTIVE SUMMARY

This Environmental Emergency Response Plan (EERP) has been prepared in accordance with 40 CFR 112 and the Pennsylvania Department of Environmental Protection's (DEP's) Guidelines for the Development and Implementation of Environmental Emergency Response Plans (Document No. 400-2200-001/April 2001, last updated August 2005), and is designed for response to discharges of petroleum products and/or hazardous materials at the Delaware Valley Resource Recovery Facility (DVRRF).

The Plan objectives are to:

- a) Provide employee orientation and education;
- b) Prevent discharges and unplanned spills of hazardous substances covered by this Plan;
- c) Provide information about permanent facilities that have been installed to prevent and/or contain a discharge;
- d) Identify equipment failures that can result in a discharge;
- e) Predict the movement and amount of a major discharge;
- f) Identify the supplies and equipment on-site to control, contain, and remove a substance discharge including available communication equipment;
- g) Identify the responsibilities of the Emergency Response Coordinator;
- h) Provide the names, addresses, and telephone numbers of the Facility operator and other key personnel; and
- i) Provide information on the spill history of the facility.

1.0 DESCRIPTION OF FACILITY

The Covanta Delaware Valley Resource Recovery Facility (DVERRF) (herein referred to as the “site” or “Facility”) is located at 10 Highland Avenue in the City of Chester, Delaware County, Pennsylvania (see **Figure 1**). The DVERRF is located on approximately 40-acres and is bordered to the north by an office building, to the south by the DELCORA regional wastewater treatment plant, to the west by the City of Chester, and to the east by the Delaware River. The facility is located in an area that is generally characterized as industrial. **Figure 2** shows the Facility’s property boundary extents, entrance/exit points, the overall site layout, and areas occupied by commercial activities.

1.1 Description of Primary Activities

The DVERRF is an Energy-from-Waste (EfW) facility that operates six rotary combustors, a 90-megawatt capacity turbine-generator, along with ancillary equipment. The facility converts municipal solid waste into electricity that is used for in-plant needs and sale to outside utilities. The DVERRF employs approximately 105 people and operates 24 hours per day, 7 days per week, 52 weeks per year.

The Facility consists of a tipping hall, six identical combustor trains, cooling tower, boiler water reverse osmosis (RO) system, DELCORA wastewater reuse building (reuse building), chemical storage, residue handling building, and electrical substation. Each combustor train has air pollution control equipment to remove acid gases and particulate from the flue gas. In addition to burning municipal solid waste (MSW), the DVERRF processes DEP-approved residual waste streams. MSW is stored indoors at the Facility in the tipping hall prior to combustion. Ash that is generated from the combustion process is a combination of bottom ash and fly ash. Ash is stored in the residue building until it is transported, by tarped trucks, to offsite landfills permitted by the Pennsylvania Department of Environmental Protection (PADEP).

The Facility is a Very Small Quantity Generator (VSQG), but maintains the Environmental Protection Agency generator identification number of PAD987388881. Most of the wastes generated at the DVERRF are solid in nature (e.g. ash, scrap metal, and sludge). However, the facility also generates waste solvent/paint and waste oil from the maintenance of equipment. Waste oil is typically collected in a 500-gallon double walled tank located within the loader shop. On-site petroleum and hazardous chemical inventories are presented in **Table 1-1** and **Table 1-2** with storage locations identified on **Figure 3**. Because the majority of materials are stored indoors, and the remainder are under roof and/or contained, there are no high-risk areas in which spills or leaks can enter storm drains or surface waters.

1.2 Wastewater Discharges

Most of the water used for process operations (boiler feedwater, fire protection, wash down, and slaking water) is supplied by the Chester Water Authority. Cooling tower make-up water is supplied by DELCORA and processed through the ultrafiltration/reverse osmosis systems in the reuse building. The DVERRF supplements the process water supply with vehicle wash water and storm water captured in a closed wastewater sump located to the north of the loader shop. The

closed wastewater system allows for the collection of stormwater and/or minor spills that occur within the maintenance shop, boiler building, turbine building and condenser room, cooling tower chemical storage room, and pump-out from transformer dikes. Wastewaters generated on-site (other than sanitary wastewater) are collected for use in the process, where appropriate, in order to reuse water on site. In the event that there is too much water, or the water appears to be contaminated, the closed stormwater system is pumped and transported to a licensed facility for disposal.

Other storm water runoff from the site is collected through a series of inlets and is conveyed by culverts to Outfall No. 1, which is discharged to a concrete box culvert that eventually discharges to the Delaware River at a point immediately south of the site.

1.3 Description of Existing Emergency Response Plans

The DVRRF had maintained a separate Preparedness, Prevention and Contingency Plan (PPC Plan) and a Spill Prevention Contingency and Countermeasures Plan (SPCC Plan) for the facility. These two existing plans have been consolidated into this Environmental Emergency Response Plan (EERP), which serves as a single resource for DVRRF.

A copy of this EERP is retained at the Facility and is available onsite for review by the USEPA or PADEP during normal working hours.

1.4 Material & Waste Inventory

The DVRRF has developed this EERP to implement provisions from both Federal and State (PPC/Spill Prevention Response (SPR)) programs. For this reason, this Plan addresses the storage of both petroleum products in quantities greater than 55 gallons [40 CFR 112.7(a)(3)(i), 112.8(c)(11), and 112.8(d)] and significant quantities of hazardous substances (40 CFR 60 Part 302). This plan also addresses oil-filled operational equipment [40 CFR 112.7(a)(3)(i) and 112.7(k)]. The DVRRF uses various petroleum products and chemicals throughout daily operations, including heating oil, automotive motor oil, hydraulic oil, transformer oil, and water treatment chemicals including acids and caustics.

Storage capacities, containers, and locations are outlined in **Tables 1-1 and 1-2**. The locations where these materials are stored and handled are shown on **Figure 3**. Descriptions of engineering controls, management practices, and employee response obligations relative to the storage of petroleum products, hazardous substances, hazardous wastes and associated operations are outlined in Section 3.1 - Pre-Release Planning. Safety Data Sheets (SDSs) for the materials stored and handled on-site are stored on site, kept electronically on Covanta's internal intranet which is referenced in **Appendix 1** of this plan. For completeness, a list of gases stored at the facility has also been included in **Table 1-3**.

Table 1-1: Petroleum Product Storage Summary

Location	Material/ Product	RQ	Storage Type	Storage Size (Gallon)	Max. Qty.	Max. Volume (Gallon)	Secondary Containment
1. Boiler Building	Lubricating Oil DTE 25	5 ^[1]	Tank	300	1	300	Double-Wall Tank & Concrete Dike
1. Boiler Building	Grease & Oils	5 ^[1]	Drums	55	15	825	Rack & Spill Pan
1. Boiler Building	Misc. Oils	5 ^[1]	Drums	55	20	1,100	Containment Skid
1. Boiler Building	Greases + Mixed Bed Resins	5 ^[1]	Tank	120	2	240	Building
2. Boiler Building	Oil	5 ^[1]	In Equip. ^[2]	55	4	220	Concrete Dike
5. Ash Hall - Emergency Generator	Diesel Fuel	5 ^[1]	Tank	175	1	175	Double-Wall Tank & Concrete Dike
6. Tipping Hall	Mineral Oil	-	PC-8 Transformer ^[2]	154	1	154	Concrete Dike
7. Fire Pump House	Diesel Fuel Oil	5 ^[1]	Tank	275	1	275	Concrete Curb & Building
8. Switch Yard	Wecosol	5 ^[1]	Step-Up Transformer ^[2,3]	4,196	1	4,196	Underground Vault
8. Switch Yard	Wecosol	5 ^[1]	Start-up Transformer ^[2,3]	8,573	1	8,573	Underground Vault
8. Switch Yard	Wecosol	5 ^[1]	Plant Servc. Transformer ^[2,3]	2,386	1	2,386	Underground Vault
10. Cooling Tower	Mineral Oil	-	Transformer 8 ^[2]	221	1	221	Concrete Dike
10. Cooling Tower	Mineral Oil	-	Transformer 9 ^[2]	221	1	221	Concrete Dike
12. Loader Maint. Bldg.	Waste Oil	5 ^[1]	Parts Washer	N/A	1	< 5	Trench Drain
12. Loader Maint. Bldg.	Waste Oil	5 ^[1]	Tank	500	1	500	Double Wall Tank & Trench Drain
12. Loader Maint. Bldg.	Diesel Fuel	5 ^[1]	Tank	4,000	1	4,000	Concrete Dike
12. Loader Maint. Bldg.	Engine Oil	5 ^[1]	Tank	500	1	500	Concrete Dike
12. Loader Maint. Bldg.	Transmission Oil	5 ^[1]	Tank	500	1	500	Concrete Dike
12. Loader Maint. Bldg.	Hydraulic Oil	5 ^[1]	Tank	500	1	500	Concrete Dike
12. Loader Maint. Bldg.	Engine Oil	5 ^[1]	Tank	275	1	275	Concrete Dike
12. Loader Maint. Bldg.	Grease	5 ^[1]	Drums	55	1	55	Concrete Dike
13. Outside Tipping Hall	Hydraulic Oil	5 ^[1]	Split Tank	175	1	175	Double Wall Tank
15. Lime Storage Tank	Mineral Oil	-	Transformer 6 ^[2]	156	1	156	APC Pad (4/5/6)
16. Lime Storage Tank	Mineral Oil	-	Transformer 7 ^[2]	156	1	156	APC Pad (1/2/3)
17. Turbine Building	Waste Oil	5 ^[1]	Drums	55	3	165	Concrete Curb
18. Condenser Room	Waste Oil	5 ^[1]	Totes	300	2	600	Building
18. Condenser Room	Waste Oil	5 ^[1]	Drums	55	3	165	Building
18. Electrical Room #1	Mineral Oil	-	PC-1 Transformer ^[2]	156	1	156	Building
19. Boiler Building (1 st Floor)	Hydraulic Oil	5 ^[1]	Feed Ram-Paul Monroe Skids ^[2]	500	6	3,000	Concrete Curb
19. Boiler Building (1 st Floor)	Hydraulic Oil	5 ^[1]	Ash Extractor Hydraulic Skid ^[2]	400	1	400	Metal Dike
19. Boiler Building (1 st Floor)	DTE Light Oil	5 ^[1]	Electric Boiler Feed Pump ^[2]	60	1	60	Building
19. Boiler Building (1 st Floor)	DTE Light Oil	5 ^[1]	Steam Boiler Feed Pump ^[2]	100	2	200	Building
19. Boiler Building (1 st Floor)	DTE Light Oil	5 ^[1]	Instrument Air Compressors ^[2]	110	2	220	Spill Pan & Building
20. Electrical Room #2	Mineral Oil	-	PC-2 Transformer ^[2]	272	1	272	Building
20. Electrical Room #2	Mineral Oil	-	PC-3 Transformer ^[2]	272	1	272	Building

Location	Material/ Product	RQ	Storage Type	Storage Size (Gallon)	Max. Qty.	Max. Volume (Gallon)	Secondary Containment
21. Maintenance Shop	Gasoline	135	Consumer Size Container(s)	10	3	30	Flammable Cabinet
22. Mobile Service Truck	Diesel Fuel	5 ^[1]	Tank	300	1	300	None
22. Mobile Service Truck	Oil	5 ^[1]	Tank	40	1	40	None/Truck Bed
22. Mobile Service Truck	Hydraulic Oil	5 ^[1]	Tank	40	1	40	None/Truck Bed
22. Mobile Service Truck	Waste Oil	5 ^[1]	Tank	80	1	80	None/Truck Bed
23. Truck Queuing Area	Off-Road Diesel Fuel	5 ^[1]	Tank	2,500	1	2,500	Double Wall Tank & Concrete Dike
25. Reuse Building (Ext.)	Mineral Oil	-	Transformer 10 ^[2]	450	1	450	Concrete Dike
Maximum On-Site Petroleum Product Storage						34,653 gallons	

Table 1-2: Hazardous Substance Storage Summary

Location	Material/ Product	RQ	Storage Type	Storage Size (Gallon)	Max. Qty.	Max Volume (Gallon)	Secondary Containment
2. Boiler Building	ChemTreat BL1756 (Sodium Hydroxide)	2,227	Tank	2,000	1	2,000	Concrete Dike
2. Boiler Building	Assorted Products ^[4]	-	Drums	55	6	330	Concrete Curb
3. Reuse Building	ChemTreat CL3000		Totes	300	2	600	Building
3. Reuse Building	ChemTreat P8281L	1,000	Totes	250	2	500	Building
3. Reuse Building	ChemTreat RL0124	5,000	Totes	400	1	400	Building
3. Reuse Building	ChemTreat RL9007		Totes	250	1	250	Building
3. Reuse Building	Assorted Products ^[4]	-	Drums	55	15	825	Building
4. Near Cooling Tower	Sodium Hypochlorite 12.5% Sol. (UN1791)	75	Tank	5,200 ^[5]	1	5,200	Concrete Dike
4. Near Cooling Tower	Sulfuric Acid 93% Sol.	70	Tank	4,200	1	4,200	Concrete Dike
9. Cooling Tower Bldg.	ChemTreat CL1497 ^[6]		Tank	550	1	550	Concrete Dike
9. Cooling Tower Bldg.	ChemTreat CL1497		Totes	500	2	1,000	Building
12. Loader Maint. Bldg.	Antifreeze	-	Totes	200	1	200	Concrete Dike
12. Loader Maint. Bldg.	Diesel Exhaust Fluid	-	Totes	200	1	200	Concrete Dike
13. Outside Tipping Hall	Antifreeze	-	Split Tank	75	1	75	Double Wall Tank
14. Baghouse Area	Lime Silo (Calcium Oxide)	None	Silo	220 tons	1	220 tons	APC Trench Drains
18. Condenser Room	Sodium Hypochlorite 12.5% Sol. (UN1791)	75	Tank	200	1	200	Plastic Tank in Building
18. Condenser Room	ChemTreat RL0124	5,000	Totes	400	1	400	Building
18. Condenser Room	Deicer	-	Totes	300	1	300	Building
18. Condenser Room	Assorted Products ^[4]	-	Drums	55	7	385	Building
21. Boiler Building (1 st Floor)	Paints and Thinners	135	Consumer Size	-	-	75	Flammable Cabinet
24. Reuse Building (Ext.)	Sulfuric Acid 93% Sol.	70	Tank	1,050	1	1,050	Double Wall Tank & Concrete Pad
24. Reuse Building (Ext.)	Sodium Hypochlorite 12.5% Sol. (UN1791)	75	Tank	1,050	1	1,050	Double Wall Tank & Concrete Pad
24. Reuse Building (Ext.)	Sodium Bisulfite ChemTreat RL0124	5,000	Tank	1,000	1	1,000	Double Wall Tank & Concrete Pad
24. Reuse Building (Ext.)	Ferric Chloride ChemTreat P8281L	1,000	Tank	1,000	1	1,000	Double Wall Tank & Concrete Pad
25. Near Ash Building	Aqueous Ammonia 19% Solution (UN2672) Tank ⁷	100 lb (~13 gallons) /24 hrs	Tank	35,000	1	35,000	Double Wall Tank and Concrete Pad
Maximum On-Site Hazardous Chemical Storage						56,790 gallons	

Table 1-3: Other Material Storage Summary

Location	Material/ Product	RQ	Storage Type	Storage Size (Gallon)	Max. Qty.	Max. Volume (Gallon)	Secondary Containment
5. Ash Building	Asst. Flammable Gasses	-	Cylinders	350 cf	30	10,500 cf	Chained & Roof
11. Outside Turbine Hall	Liquid Nitrogen	1,000	Tank	3,000	1	3,000	None
14. Baghouse Area	Lime Slurry (Calcium Hydroxide)	None	Tank	7,000	1	7,000	Concrete Pad
14. Baghouse Area	Asst. Non-Flammable Gasses	-	Cylinders	350 cf	60	21,000 cf	Chained & Roof

Table Notes:

RQ = Reportable Quantity

Reportable Quantities based on values listed in 40 CFR 117, Table 117.3.

[1] Reportable quantities are 5 gallons or more or any quantity causing sheen or discoloration on a stream (even if under 5 gallons).

[2] Material storage is within the equipment.

[3] Transformer is located above-grade with an underground vault for secondary storage of a potential release.

[4] Chemical products stored in 55-gallon drums at the facility may include, but are not limited to: ChemTreat CL1417, CT907, CL1497, RL1700, CL6033, RL9700, CL260, RL2016, BL1301, and/or RL5000.

[5] Tank requires routine service inspection by certified inspector as storage capacity exceeds 5,000 gallons.

[6] Material is not a regulated substance per PADEP Regulated Substances List.

[7] Storage tank to be installed once all PADEP environmental permits are obtained.

For the purposes of calculating the threshold storage capacity, only containers of oil with a storage capacity of 55 gallons or greater are counted toward the aggregate aboveground storage capacity. The threshold applies to storage capacity contained in operating equipment as well as the storage capacity contained in containers. In accordance with Federal regulations, oil means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish or marine mammal in origin; vegetable oils, including oils from seeds, nuts, fruits or kernels; and other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes (other than dredged spoil).

The aggregate aboveground petroleum storage capacity at the facility that is subject to spill prevention, control, and countermeasures (SPCC) planning is 34,653 gallons. The capacity calculations are based on the volumes of oil storage containers and in-equipment petroleum inventoried in **Table 1-1**. The aggregate oil storage capacity represents a typical maximum capacity expected. Actual quantities of oil will vary based on actual number of containers present.

1.5 Pollution Incident History

As a component of examining the potential for future discharges, a listing of previous reportable discharges (both EPA and PADEP) are noted on the Pollution Incident History Log in **Appendix 2**. This appendix summarizes releases that have occurred at the Facility within the past five years.

1.6 Implementation Schedule for Plan Elements

Controls and procedures to prevent and contain pollution and respond to emergency situations have already been implemented at the facility. This EERP is designed to be a complete plan

detailing how these controls and procedures will be maintained and enforced. This EERP replaces the previously amended SPCC Plan and PPC Plan.

1.7 Regulatory Requirements

This EERP was prepared by Barton & Loguidice, D.P.C. (B&L) for Covanta Delaware Valley, LP to meet the following regulatory requirements:

- Preparedness, Prevention and Contingency (PPC) Plan 25 PA Code 91.34, 283.251-253, and 297.251-253;
- Spill Prevention Control and Countermeasures (SPCC) 40 CFR 112;
- Operating Requirements of Municipal Waste and Residual Waste Resource Facilities; and
- National Pollutant Discharge Elimination System (NPDES); Pennsylvania Department of Environmental Protection (PADEP) Guidelines for the Development and Implementation of Environmental Emergency Response Plans (EERP);

1.7.1 PPC Plan Requirements

The EERP specifies measures that will be taken to prevent polluting substances on-site from reaching nearby surface waters, groundwater or soil, as applicable. It follows the guidance document for Environmental Emergency Response Plans published by the PADEP, which was produced for the specific purpose of meeting the PPC Plan requirements. This EERP also meets the general requirement for pollution prevention related to waters of the Commonwealth by addressing the stipulations for such plans in the Water Resources section of the regulations in 25 PA Code 91.34.

1.7.2 SPCC Plan Requirements

The EERP is designed to comply with the requirements of 40 CFR 112 for development of Spill Prevention Control and Countermeasures (SPCC) Plans. The Facility is subject to this requirement because it handles and/or stores quantities of oil in excess of 1,320 gallons. The EERP includes all applicable provisions to meet the SPCC requirements; however, this plan does not follow the exact order of 40 CFR Part 112. A cross-reference table is included in **Appendix 3** of the EERP that specifies the sections of the EERP that comply with the specific SPCC requirements.

The Facility is in conformance with all of the general requirements of 112.7, and the specific requirements of 112.8. Alternate means of environmental protection have not been provided, since the Facility conforms to the requirements specified in the regulation. Note that 40 CFR sections 112.9 through 112.15 are not applicable to this facility.

The Facility does not meet the Criteria for Substantial Harm as defined by 40 CFR 112.20. The Certification of the Applicability to Substantial Harm Criteria is provided in **Appendix 4** of this plan.

1.7.3 Operating Requirements

The EERP also meets the requirements of 25 PA Code 283.251-253 and 297.251-253 Operating Requirements of Municipal Waste Resource Recovery Facilities and Operating Requirements of Residual Waste Processing Facilities, respectively. This EERP provides the emergency and contingency procedures for implementing responses to emergencies that may occur during operation of the Facility. This includes chemical or petroleum spills, unacceptable waste, fires, explosion or other emergency.

1.7.4 NPDES Requirements

The EERP is also developed to achieve compliance with United States Environmental Protection Agency (USEPA) regulations governing industrial wastewater discharges subject to 40 CFR Subchapter N, Effluent Guidelines and Standards, Part 403.8, General Pretreatment Regulations for Existing and New Sources of Pollution. The DVRRF NPDES General Permit PAG-03 Discharges of Stormwater Associated with Industrial Activities permit number is PAR900004.

2.0 ORGANIZATIONAL STRUCTURE

The following Section details the Organizational Structure at the DVRRF.

2.1 EERP Implementation Committee

The EERP Implementation Committee (Committee) will be responsible for implementing and maintaining the EERP. The Committee is comprised of individuals that are responsible for day-to-day operations, production planning, new construction, process changes, and employee supervision and training at the Facility. The Facility personnel responsible for overseeing the implementation of this EERP are listed in **Table 2-1**. This list must be modified as necessary to maintain up-to-date personnel contact names, titles, and plan roles.

Table 2-1: EERP Implementation Committee

Name	Title	Plan Role
Allie Jozwik	Environmental Compliance Specialist	Emergency Response Coordinator
Larry Smith	Facility Manager	Alternate Emergency Coordinator
Lee Wolfe	Operations Manager	
Brian Donahoe	Tipping Floor Superintendent	
Dave Berman	Maintenance Manager	
Vacant	Safety Manager	

The committee will internally review the EERP on an annual basis (40 CFR 112.7(f)(3)), or sooner if a Committee member requests the plan be reviewed, and whenever:

- a. The applicable regulations are significantly revised;
- b. The EERP fails to be effective in an emergency situation;
- c. The Facility significantly changes in design, operation, maintenance, construction, or in other instances, such as a change in hazardous substance usage and/or storage locations that increase the potential for fire, explosion, or release of hazardous materials to the environment, such as;
 - i. commission or decommission of containers;
 - ii. replacement, reconstruction, or movement of containers;
 - iii. reconstruction, replacement, or installation of piping systems; or
 - iv. construction or demolition that may alter secondary containment structures;
- d. The emergency coordinator(s) changes;
- e. The inventory of emergency equipment significantly changes; or
- f. As otherwise required by PADEP.

Committee members shall monitor daily operations and review new construction and process changes (including new hazardous substances and wastes as defined by the Superfund Amendment and Reauthorization Act [SARA] and Resource Conservation and Recovery Act [RCRA], respectively) to identify hazardous materials, potential sources of spills, and other potential hazards. The Committee will review incidents and “near misses”, including spills, and

determine what additional employee training, equipment, or other controls may be required to prevent future occurrences.

In accordance with 40 CFR Part 112.5(b), a thorough review and evaluation of this EERP and Engineer's recertification is required at least once every five years. As a result of this evaluation, if necessary, the EERP will be amended within six months of the review to include more effective prevention and control technology. A copy of the engineer's certification is included in Section 7.0. An EERP review and amendment log is included in **Appendix 5**.

Facility changes requiring administrative (non-technical) amendments to the Plan do not require certification by a Professional Engineer. Examples of changes that are considered non-technical amendments include, but are not limited to, the following:

- a. Change in facility name;
- b. Change in Emergency Contact information or Emergency Coordinators;
- c. Change in Emergency Spill Contractors.

2.2 Emergency Response Coordinator (ERC)

The ERC is responsible for coordinating emergency response measures in the event of an emergency and also has overall responsibility for discharge prevention [40 CFR 112.7(f)(2)]. The primary and alternate ERCs for the DVRRF are provided in **Table 2-1**. The ERCs are available either on-site or on-call to respond to an emergency.

Employees are instructed to notify the ERC if an emergency exists or is imminent and if a spill, controlled or not, occurs. In the event that the ERC cannot be reached, the alternate ERC is to be contacted. The ERCs, both primary and alternate, have the authority for committing the necessary resources to implement the EERP.

2.3 Duties and Responsibilities of the Emergency Response Coordinator

The ERC is responsible for coordinating emergency response measures whenever an emergency exists (or is imminent) that can threaten human health or the environment. Specific emergency events that will, or can, cause the EERP to be implemented are:

- fires;
- leakage or spills of hazardous materials;
- explosions;
- severe weather;
- terrorist threat; and/or
- as directed by the local emergency responders (i.e. PEMA, Chester Fire Department, etc.)

The EERP describes a series of coordinated actions to be taken during an emergency, which are discussed in more detail in Section 4.1.1 – Spill Response.

2.4 Chain of Command

Table 2-2 presents a list of key employees, including ERCs, who must be notified in the event of an emergency situation. If an employee becomes aware that an emergency situation exists or is imminent, they are to attempt to notify the first individual on the list. If the employee is unsuccessful, they shall attempt to notify the second individual on the list and so on until one individual has been successfully contacted. The contacted individual shall be responsible for contacting the remaining individuals on the list and act as the ERC until a more senior ERC is available. The following table also presents the facility name, location, and operational information [40 CFR 112.7(a)(3)].

Table 2-2: DVRRF EERP Emergency Notification List

Name	Title	Cell Phone	Office Phone
Operations			
Larry Smith	Facility Manager	856-371-1152	610-497-8116
Lee Wolfe	Operations Manager	732-713-7414	610-497-8059
Brian Donahoe	Tipping Floor Superintendent	301-873-7998	610-497-8111
Dave Berman	Maintenance Manager	484-716-7794	610-497-8110
Vacant	Safety Manager	-	-
Nearby Utilities			
DELCORA	8:30-16:30	610-876-5523	Ext. 213
	24 hours	610-876-5523	Ext. 214
Agencies			
National Response Center (NRC)*			800-424-8802
PADEP Southeastern Regional Office Spill Hotline			484-250-5900
(Regional Emergency Response Coordinator)			800-541-2050
Delaware County Emergency Management Agency			610-565-8700
			911
Pennsylvania Emergency Management Agency			717-651-2001
City of Chester Fire Department			610-447-7765
Fire Department, Ambulance, Police			911

*Note: *This notification is only necessary for the release of a Reportable Quantity (RQ) or any Extremely Hazardous Substance or CERCLA Hazardous Substance which results in exposure to persons OUTSIDE the site boundaries.*

Note: USE 911 FOR ALL FIRE AND MEDICAL EMERGENCIES

Facility Information

Name: Delaware Valley Resource Recovery Facility (DVRRF)
 Address: 10 Highland Avenue, Chester, PA 19013
 County: Delaware
 Phone: (610) 497-8100
 Latitude: 39°49'34"
 Longitude: 75°23'21"
 Operation: Municipal Waste Combustion
 Owner: Covanta Delaware Valley, LP
 Operator: Covanta Delaware Valley, LP
 Maximum Oil Storage Capacity: 34,653 gallons

Maximum Hazardous Materials Storage Capacity:

56,790 gallons

3.0 SPILL LEAK PREVENTION AND RESPONSE

IF YOU ARE ACTIVELY DEALING WITH A SPILL, SEE APPENDIX 15.

3.1 Pre-Release Planning

As described in Sections 1.1 – Description of Primary Activities and 1.4 – Material and Waste Inventory, the Facility consists of several areas where petroleum products, hazardous substances, and wastes are stored and handled. Activities in these areas create a potential for spills, leaks, fires, and other emergencies. The Facility has implemented several incident prevention policies (below) in the emergency response procedures, including general response actions addressing releases of petroleum products and/or hazardous substances/materials. Specifically, the response procedure plan:

- Identifies the locations of potential releases of petroleum products and/or hazardous materials;
- Identifies a general protocol for personnel actions to releases of petroleum products and/or hazardous materials based on the individual employee's prior training;
- Designates the requirements for Personal Protective Equipment and spill control equipment; and
- Ensures good housekeeping procedures are followed as part of routine maintenance operations.

Generally, prompt clean-up of spills will occur and released materials will be promptly removed, contained, recycled, or otherwise disposed as appropriate. Care must be taken to avoid damaging a container to prevent spills during off-loading or handling, or when materials are moved by forklift or hand truck. When materials are delivered from pumping trucks, a small plastic pan is positioned beneath the fill ports to contain any small incidental leaks or drips from the hose attachment point. Routine sweeping of impervious areas is used to minimize material tracking. The facility does not generate any leachate that requires offsite transportation.

Spill Kits are located throughout the Facility as identified in **Figure 3**, and listed in **Table 3-1**.

Table 3-1: Spill Kit Locations

Kit Location
Adjacent to APC Area near ID fans/Lime Silo – Ground level
SDA Area – 6 th Floor
Outside Tipping Hall Exit
Inside Cooling Tower Building
Outside Cooling Tower Building
Entrance to Reuse Building
Ash Load-Out Hall
On-Board Mobile Fueling Truck
Aqueous Ammonia Storage Tank

The following sections describe the hazard prevention planning for each of the areas where petroleum products and hazardous materials are stored or handled. The locations of the areas are shown on **Figure 3**. A summary of the material storage areas, quantities of material stored, and secondary containment/prevention practices are included in **Table 1-1** and **Table 1-2**.

3.1.1 Tipping Floor

Solid waste is delivered to an enclosed tipping floor via tarped or covered vehicles to minimize the potential for the release of solid waste to air, water, and soil at or near the Facility. The Facility implements a quality control process on the tipping floor to ensure that no small gas tanks that are found in municipal waste streams from time to time enter the units. Fuels handling staff inspect waste from 5% of the vehicles that enter the tipping floor. Loader operators are vigilant for potentially explosive gases and other hazardous materials as they load the incline conveyors. Control room operators utilize monitors to observe waste fed onto the incline conveyors and to observe waste as it enters each unit's feed hoppers.

The tipping floor equipment contains tanks with fuel oil and hydraulic oil. There is no secondary containment present for the equipment tanks other than the building floor and walls. A release will accumulate on the concrete floor and can potentially make its way to the doorways leading outside to storm drains, but most spills will spread out on the surrounding floor to await removal. A spill reaching the storm drains will be contained at the storm drains using soil dams or hay bales. A spill kit is present at the Tipping Floor to contain spills.

3.1.2 Loader Maintenance Shop

Multiple petroleum tanks are located within the loader maintenance shop (see Areas #12 and #13 on **Figure 3** and **Tables 1-1 and 1-2**). Most of the tanks rest on supports on a concrete pad and are completely surrounded by an impervious two-foot tall concrete dike. The tanks are filled via a fill connection located within the containment area. A local level gauge is provided for each tank and operators oversee tank filling to guard against overfilling and spillage. The tank trucks delivering petroleum products are parked west of the tank in the maintenance bay. Any spillage at the tank during hose connection or at the tanker will drain to the containment area.

In the case of the diesel fuel tank, valves and piping from the tank to the metering pumps are within the containment area. The fuel is dispensed into the front-end loaders via a standard fuel metering pump located on a cement slab adjacent to the diesel tank and containment area. The fuel dispenser is normally locked to ensure only appropriate personnel dispense fuel. Any fuel spillage that occurs while re-fueling the front-end loaders or filling the diesel tank will flow from the slab toward the diesel tank containment area. The diesel tank's diked area drains to a sump in the corner of the

diked area. Material from this containment area is pumped to the MSW sump under the conveyors on the tipping hall floor. This material is then eventually pumped to the wastewater storage tanks in the boiler building for reuse. To minimize the potential for a spill, front end loader operators are instructed not to overfill their equipment.

The containment area is inspected weekly by the tipping floor supervisors and during the weekly environmental walk downs. If DVRRF staff discover large quantities of petroleum product in the containment area, an outside contractor will be called to remove the diesel fuel by vacuum truck and properly dispose of it. The same spill containment supplies and methods will be used to clean-up minor spills.

Drums of grease and antifreeze may be staged in the loader maintenance building. The only spill potential for these drums is due to their transport from these buildings through the parking lot. The forklift operators are trained in proper drum handling and transport procedures to prevent spillage. If leakage occurs during transport, drain covers and spill supplies are located in the cooling tower building along the transport route.

The closest stormwater drains are approximately 10 feet to the south and 170 feet to the northeast of the loader maintenance shop. The drain to the south is outside the containment area and therefore the potential for stormwater contamination is minimal.

3.1.3 Truck Queuing Lot/Warehouse Diesel Tank

A 2,500-gallon diesel tank is located between the warehouse and scale house (see Area #23 on **Figure 3**) and is used to load mobile equipment. The tank is double-walled in construction and has a curbed area surrounding the tank to contain any spills and/or drips during refueling operations. The closest storm drain is south of the tank.

3.1.4 Boiler Building, Turbine Building, and Condenser Room

There are multiple chemical storage tanks (see Areas #2 and #18 on **Figure 3**), totes, and drums located inside the boiler, turbine, and condenser buildings (see **Table 1-1 and Table 1-2**). These storage containers contain chemicals for treating the boiler water systems. Piping and valving associated with the tanks is either indoors or in the case of the diesel generator, within a concrete curbed containment area. The tank filling connection for the ChemTreat BL-1756 tank is on the exterior wall of the building.

There is also diesel and lubricating oil stored in process equipment tanks, and other oils stored in 55-gallon drums within the boiler building, in the general vicinity of the RO area. Boiler chemicals are also located in the area of the RO/demineralizer area. Totes, drums, or smaller containers are unloaded onto forklift pallets for delivery inside the reverse osmosis (RO)/demineralizer area and then taken to their respective storage locations within the buildings. The only area in which a spill during handling can reach

the environment is outside of the RO/demineralizer area where the materials are received.

There is a storm drain located 90 feet down gradient of the receiving door. The area immediately surrounding receiving is paved. If a spill occurs, a release will be prevented by covering the down gradient storm drain with a cover stored in the cooling tower building, and sorbent and booms will be used as appropriate to contain and clean up the spill. Any spill cleanup residues will be collected, containerized, and disposed of at the Facility. To minimize the chance for spills, forklift operators are trained in safe handling of materials.

An operator oversees all chemical and oil offloads or deliveries in accordance with standard operating procedures. If minor spillage occurs during hose connection, sorbent or absorbent pads are used to collect the spilled materials. The pads or sorbent will be containerized for off-site disposal. If leakage occurs at the tank truck, booming stored in the area and suitable for acid or caustic service will be placed around the area. Materials collected within containment or boomed areas will be vacuumed out, the area washed down, and the wash down water collected with the product for neutralization as needed and discharge to the plant's closed wastewater system.

The equipment used on the first floor of the boiler room contains both hydraulic oil and DTE light oil. The majority of this oil is contained within the six Paul-Monroe skids that are placed within concrete curbing to prevent spills from entering the general building. The ash extractor skid (metal dike) and instrument air compressor (spill pan) also have direct containment measures. Spills from the electric and steam boiler feed pumps, along with the aforementioned equipment, will also be contained by the building itself.

3.1.5 Cooling Tower

There are multiple chemical storage tanks that hold sodium hypochlorite and sulfuric acid (see Areas #4 and #9, **Figure 3**) used for treatment of the cooling water system. Each area has concrete containment diking sufficient to hold 110% of the entire tank volume of respective tanks. Piping and valving associated with the tanks is either within the tank containment areas or within the adjacent building. The tank filling connections for the CL-1497 tank is within the adjacent building. The tank filling connections for the sulfuric acid and sodium hypochlorite tanks are within their respective containment areas. Tank trucks delivering materials to these tanks park outside the contained area. Thus, the only potential for release during handling of these materials is during hose disconnection, from the filling lines off the tank truck, or from the tank truck itself.

The closest stormwater drain is located 60 feet from the offloading area. An operator oversees bulk chemical and drum deliveries to allow quick identification of a spill. A drain seal is available in the cooling tower building in the event of a large spill. If minor

spillage occurs during hose disconnection, sorbent or sorbent pads will be used to collect the spilled materials. The pads or sorbent will be disposed of on the tipping floor. If leakage occurs at the tank truck, the boomed area will be vacuumed out, the area washed down, and the wash-down water collected with the product for neutralization as needed and discharged to the plant's closed wastewater system, or transported offsite as necessary.

3.1.6 Transformers

The plant has a total of twelve non-PCB transformers that contain Wecosol or mineral oils. Three of these transformers are located within the facility. There is one transformer inside electric room #1 (see Area# 18, **Figure 3**) and two transformers in electric room #2 (see Area# 20, **Figure 3**). Any spills from these transformers will flow onto the concrete floors and be contained within the building.

The remaining nine transformers are located outdoors. The three largest transformers (see Area# 8, **Figure 3**) are located outside in the 230 kVA electrical yard (switchyard). The switchyard area is fenced, with the gate locked at all times. The switchyard transformers are built within concrete containment impoundments that can contain the fluid stored, in addition to normal rainfall. The last six transformers (see Areas# 6, 10, 15, 16, & 25, **Figure 3**) are at various locations throughout the remainder of the site. These exterior transformers are provided with concrete containment that will contain any potential spills. Any spilled oil will flow to a sump in the corner of each containment area and will be cleaned up by vacuuming out the fluid. The oil will be placed in the plant's waste oil tank. The outdoor sumps are inspected after rain events and the rainwater removed as needed. If there is no visual evidence of oil in the rain water, it is discharged to a storm drain. If it shows evidence of oil, it will be directed to the plant's closed wastewater system. To prevent an explosion if lightning strikes transformers located at the facility, transmission line towers have lightning arrestors and are connected to a grounding grid.

3.1.7 Fire Pump House

There is a diesel storage tank located in the fire pump house (see Area# 7, **Figure 3**). The tank sits on a stand in a 5' X 8' area with a 16-inch concrete dike. The containment dike is adequate to hold the full tank volume. The fill connection for the tank is at the exterior wall of the building. Any spillage from the tanker or hose connections at the tanker will be either adsorbed (if minor) with sorbents or contained with oil-resistant booms stored in the area. Tank level is determined (to prevent overfilling) via a gauge on top of the tank. Piping and valving associated with the tank are within the fire station pump house; thus, no spills to the environment are possible from the piping. The closest down gradient storm drain is located 80 feet from the pump house door.

3.1.8 Lime Silo

Lime is unloaded pneumatically from trucks into the lime silo. Filling is stopped when an alarm indicates that the silo is full. The tank is also equipped with a level indicator. From the lime silo, the lime is slaked in the lime slurry tank situated beneath the silo. The only potential for dust generation in this process is through loose fittings or connections in the ductwork through which the lime is conveyed. The closest storm drain is located 80 feet southwest of the lime unloading system. If spillage occurs, it will be swept up by personnel wearing proper protective clothing and respiratory protection to prevent lime burns. The lime will be containerized and conveyed to the residue building for off-site disposal. Brooms and shovels for cleanup are located nearby.

3.1.9 DELCORA Wastewater Reuse Building (Interior)

Ultrafiltration (UF) and reverse osmosis (RO) systems for the treatment of DELCORA secondary effluent for use as make-up water in the cooling tower are housed in a metal building located south of the cooling tower. Various RO chemicals (see **Table 1-1** and **Table 1-2**) are stored within totes and drums within the building. The building was designed to slope to the center of the building to contain leaks and/or spills.

3.1.10 DELCORA Wastewater Reuse Building (Exterior)

Multiple chemical storage tanks containing water treatment chemicals (see **Table 1-2**) are located on a pair of concrete pads along the northern exterior wall of the Reuse Building. There are two translucent tanks located on one pad and immediately east is a second concrete pad with two insulated tanks. The four tanks contain level indicators to prevent overfilling with all valving/piping located at the top of the tank. Materials within the tanks are extracted via overhead piping connected directly through the northern wall of the reuse building. The tanks are filled on site via quick-connection hoses connected to the top of the tank.

The gravel area is located approximately 100 feet from a nearby storm drain. In the unlikely event that a spill were to occur, staff can utilize the nearby spill kit to block the drain and add sorbents to the area as needed.

3.1.11 Ash Load-out Hall

Ash is stockpiled in an enclosed area and trucks that are loaded with ash are tarped to prevent airborne emissions. The floor of the load-out area is concrete and the areas surrounding the entrance and exit of the building are swept regularly to prevent ash track out.

Spill potential in this area consists of leakage or a catastrophic rupture of 50 gallon saddle tanks associated with vehicles transporting ash from the Facility. A release in this area may flow out of the building into the storm water drainage system. Most spills will likely remain within the building and can be absorbed using the ash. In the event of a

release, absorbents will be placed at the stormwater outfall. A spill kit is present in the area.

3.1.12 Gasses and Gas Storage

There are preventive measures in place at the Facility to prevent the possibility of an explosion occurring. Hydrogen in the generator is maintained above the upper explosive limit for hydrogen and the Facility maintains a positive hydrogen pressure of 15 psi to further minimize the potential for an explosion.

Gas cylinders are stored behind chains and under the cover of a lean-two structure. DVRRF stores flammable gas cylinders separate from non-flammable gas cylinders. In the event of a leak, gases will vent to the atmosphere. All cylinders are handled by staff that are familiar with safe handling practices.

3.1.13 Aqueous Ammonia Storage Tank

The aqueous ammonia tank is to be located near the ash building (see Area# 25, **Figure 3**). The tank sits on a concrete pad with a 5-foot 6-inch concrete dike surrounding the entirety of the tank which serves as secondary containment. The containment dike is designed to hold the full tank volume (4680 cf) and an additional 1100 cf of rainfall. The fill connection for the tank is located on a service platform where aqueous ammonia pumps will extract the material from tanker trucks and fill the aqueous ammonia storage tank through a system of piping located within the secondary containment system. The fill connection itself will be located outside of the secondary containment. If a leak occurs, it will be controlled by trained personnel wearing proper protective clothing and respiratory protection to prevent aqueous ammonia exposure. Any leaks from the tanker or hose connections at the tanker will be either adsorbed (if minor) with sorbents or contained within the diking system and neutralized. Tank level is determined (to prevent overfilling) via a truck fill panel with audio and visual alarms that indicate high and high/high levels in the tank. The closest down gradient storm drain is located approximately 80 feet from the aqueous ammonia tank. During truck deliveries of aqueous ammonia, a spill mat will be placed over the nearby storm drain prior to filling. In the event of a release, absorbents will be placed at the stormwater outfall. A spill kit is present in the area.

The aqueous ammonia storage tank has concrete containment that will contain any potential spills. A sump is located in the corner of the containment area and is used to remove liquids such as precipitation or, if needed, a spilled product via a third party contractor. The aqueous ammonia will be handled for disposal or reuse as required. The containment area will be evacuated/pumped down after each rainfall event once the pH of the liquid in the secondary containment area has been verified to ensure that aqueous ammonia is not present. If there is no evidence of non-stormwater discharges in the rain water, it is discharged to a storm drain. If there is evidence of non-

stormwater, it will be vacuumed out of the secondary containment structure and managed for proper handling and disposal.

3.2 Material Compatibility

Materials used at the Facility are stored in tanks, totes, or drums made of material compatible with their contents (40 CFR 112.8(c)(1)). Incompatible materials (such as acids and bases) are stored in separate areas and/or separate containment structures to prevent inadvertent mixing during a fire or explosion. Mixing, pumping, and materials handling equipment are cleaned before handling an incompatible material. Aboveground piping located at the Facility is compatible with the products stored and dispensed and is protected from vehicular impact.

3.3 Inspection and Monitoring Program

As part of their daily work duties, Facility employees regularly inspect working areas and equipment for leaks, damage, or other conditions that can lead to spills. These routine inspections and monitoring of equipment include drums, totes, storage tanks, and associated piping, containers, hydraulic units, and other equipment used daily.

Environmental staff shall inspect each area identified in **Tables 1-1 and 1-2** on a weekly basis. These inspections include: pipes, pumps, valves, and fittings for leaks; tanks and containers for corrosion; tank supports and foundations for deterioration, effectiveness of housekeeping practices, and damage to shipping containers, where applicable. All deficiencies observed during inspections are documented, corrected and, if the deficiency results in a spill, leak, or discharge to the environment, then spill notifications and release reports are completed, as necessary. Records of tank inspections are maintained and repairs documented. Based on the results of these or other inspections, this EERP shall be revised as necessary. The revision will provide for the implementation of any changes to the EERP in a timely manner. Inspection requirements shall include input from the facility owner, staff identified in Section 2.1 – EERP Implementation Committee, and a licensed engineer, when needed.

3.3.1 Annual Stormwater Inspection

The Facility has identified the following personnel to conduct site compliance evaluations for storm water discharge associated with industrial activity:

- a) Environmental Engineer / Compliance Specialist
- b) Operations Shift Supervisor on Duty

A comprehensive site compliance inspection for storm water discharges shall be conducted, at a minimum, on an annual basis. Inspection report forms developed to complete the inspection and are included in **Appendix 6**. The inspection report forms identify areas to be inspected for evidence of, or the potential for, pollutants to enter the storm water drainage system. Structural control measures and equipment applicable to storm water pollution prevention are also identified on the reporting forms.

3.3.2 Integrity Testing

Most of the storage tanks at the DVRRF are small and/ or fabricated/ lined with plastic/ fiberglass reinforced plastic (FRP). Of the remaining tanks (transformers, diesel and aqueous ammonia tanks), none of these tanks have a base that is in direct contact with the ground/diked surface. Most of these tanks are visually observed during each shift, and all are observed during weekly environmental walk downs of the DVRRF.

Integrity testing is required for bulk storage containers any time that major repairs are made (removal or replacing annular plate ring, jacking the container shell, installation of a 12" or larger nozzle, etc.). Bulk storage tanks that are not subject to major repairs shall be randomly UT tested every 5 years. Note that electrical, operating, and manufacturing equipment (such as transformers, turbine hydraulic oil reservoirs, stoker hydraulic oil reservoirs, etc.) are not bulk storage containers, and as such are not subject to integrity test requirements. However, visual inspection of these types of equipment will be conducted at least monthly.

There are no field constructed tanks at the Facility that store oil or hazardous materials, therefore Brittle Fracture Evaluations are not required [40 CFR 112.7(i)].

3.3.3 Facility Specific Monthly Inspections

The Facility is required to perform monthly visual inspections of all aboveground tanks and aboveground piping identified in this EERP. Monthly inspection forms are provided in **Appendix 6**. Monthly inspections are conducted in accordance with the requirements of 40 CFR 112(c)(6), and 40 CFR 112.8(d) and typically involve a visual inspection to identify any oil staining, spills or leaks, corrosion of tanks and associated piping, visible damage, discoloration and proper labeling. Adjustments and repairs are performed as necessary and recorded with inspection records. Inspections of leak detection equipment and spill response kits must also be conducted monthly. Inspections for drums may consist of a general visual observation of drums storage area; an inventory of each individual drum is not necessary. Drums that exhibit signs of corrosion or deterioration during the monthly inspections are replaced immediately. Piping inspections include observation of the condition of items such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. Monthly inspection records are required to be maintained for a minimum of three (3) years. A facility inspection summary is included in **Table 3-2**.

Inspection reports must include the following information at a minimum:

- a) Facility registration number (if applicable);
- b) Identification number of tank(s) inspected;
- c) Date of inspection;
- d) Results of inspection including items requiring repair;

- e) Certification from inspector that the inspection has been performed in a manner consistent with industry standards, applicable requirements and/or regulations;
- f) Name, address and phone number of inspector; and
- g) Inspector's signature.

Table 3-2: Summary of Inspections/Testing

Inspection Item	Inspection Method	Inspection Schedule
Mobile refueling tanks	Visual Inspection	Monthly and whenever material repairs are made
Aboveground bulk storage containers	Visual inspection	Monthly and whenever material repairs are made
Container supports and foundations	Visual inspection	Monthly and whenever material repairs are made
Liquid level sensing devices	Test for proper operation	Monthly
Diked containment areas, double wall tank interstices, secondary containment basins, and transfer areas	Visual inspection of container integrity and signs of release or accumulation of non-stormwater inside diked areas	Monthly
Liquid accumulated within containment areas	Visual inspection of liquid for presence of oil or sheen or testing, as needed	Monthly and prior to draining stormwater
Lowermost drain and all outlets of tank truck	Visual inspection	Prior to and following all transfer events
Aboveground valves, piping, hoses, dispensers and appurtenances	Visually inspect the condition of items such as flange joints, expansion joints, valve glands and bodies, spill buckets, pipeline supports, locking of valves, and metal surfaces	Monthly
Overall Facility compliance and in-depth aboveground bulk storage container	Visual inspection (Appendix 6)	Annual

Note: Monthly, Annual, and 5-year inspections are documented for recordkeeping.

3.4 Preventive Maintenance

Apart from pumps and valves associated with the tank storage of chemicals, the Facility inspects the remaining storage equipment as a preventive maintenance measure. When problems are observed, necessary repairs are made and the repair history for the piece of equipment is maintained at the Facility. As part of routine maintenance, one unit rolling outage may be scheduled annually. During this time period, inspection and repair of equipment is performed as needed. Any other, more frequent, preventive maintenance is performed in accordance with manufacturers' specifications for the equipment.

Routine inspections identified in this EERP have been amended to include the following:

- a) Inspection of storm water inlets, culverts, manholes, headwalls, end walls, and Outfall No. 1 shall be conducted to ensure that storm water controls are operating properly

(i.e., no clogging or sediment accumulation at outlets). Inspections of the above items shall be conducted on a routine basis, as well as during and/or after significant storm events as appropriate.

- b) Routine inspections shall be performed by Facility personnel who receive training in storm water best management practices. Inspection forms similar to the form provided in **Appendix 6** may be used for conducting inspections. Routine inspection records shall be maintained with the environmental files on site.

Each of the Facility's combustor/boiler units are equipped with forced draft fans and induced draft fans. Proper ventilation is maintained by pulling air from the Facility's tipping floor via the forced draft fan inlets and supplying each of the combustor/boiler units with oxygen as necessary. By pulling air from the tipping floor, the Facility is able to maintain a negative draft on the tipping floor. The induced draft fans draw flue gas through each unit's boiler section, through the air pollution control equipment dedicated to each unit and up through the stack.

3.5 Housekeeping

DVRRF sets forth the housekeeping procedures which each employee shall follow to maintain a safe and clean work place. Employees are reminded of the importance of good housekeeping practices relative to the storage of hazardous substances/materials. This includes the following:

- Each work place must be kept clean, orderly and safe;
- Each worker must ensure that:
 - All waste materials are removed from the work area as soon as practical or at the end of each day;
 - Any materials brought to the workstation or area for a particular use must be returned to the appropriate storage location as soon as practical after their use;
 - No materials, products or wastes are to be left at a workstation or area in an unprotected or unsafe manner. All containers are to be closed and secured when not in use; and
 - Ensure proper handling of materials to minimize exposure to storm water, such as interior material storage, the use of containment diking and curbing, and tank alarm systems;
- All small accidental releases or spills of hazardous products or wastes must be reported to the supervisor in charge of the area and must be cleaned up; and,
- Each employee shall identify to the employee in charge of the workstation or the supervisor any housekeeping issue observed at the Facility so that it can be addressed.

Covanta also implements a formal safety program. This program employs a team system where the Facility area is divided and assigned to safety teams. Each team consists of one front line supervisor and several technicians. Housekeeping audits are performed on a monthly basis by each team. Deficiencies are corrected where possible or work orders are generated and incorporated into maintenance work orders. As part of this effort, department managers

routinely audit the different teams for completed Individual Safety Contacts and Safety Activity Records. Plant tours are normally conducted as part of the audit.

3.6 Security

The following section discusses measures installed at the Facility to address site security in order to minimize the potential for accidental or deliberate release. 40 CFR Part 112.7(g) requires site security as necessary to: secure and control access to the oil handling, processing, and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil releases. The Facility owner is responsible for determining that the security is adequate to prevent acts of vandalism. The Facility provides the following means of security to restrict access to the site and to limit the potential of an oil release through acts of vandalism.

3.6.1 Traffic Pattern

The Facility is enclosed with an eight foot-high chain link security fence with three strand barbed wire and supporting arms slanted outward.

- a) Vehicles enter the Facility via the Harwick Street entrance. The Highland Avenue entrance is normally locked except in emergency situations.
- b) All vehicles will enter/exit alongside the security shack and be checked in/out.
- c) Vehicles will travel around the plant to the right to the main parking area.

Please note that facility traffic patterns may change as site improvements are made.

3.6.2 Access to Facility

The Facility maintains the following access controls:

- a) All personnel seeking access will be required to identify themselves prior to entry into the Facility, this includes all contractors and consultants which show their affiliation.
- b) Security personnel will have a list of contacts for all contractors and visitors. Security will call the contact to let them know that a contractor or visitor is here. Once the contact has been notified and authorized entry, the contractor may proceed to the meeting place designated by the contact.
- c) The following areas are to remain locked so as not to impede emergency exit. Keys will be made available to those with a need to access these areas. These areas are:
 - Highland Avenue gate
 - CEMS Rooms
 - Electrical Rooms
- d) In the event that security coverage is not available or off-post, the fence gate will be locked, and the control room will have to be contacted for entry/exit. Facility personnel will have a key or lock combination to allow entry/exit as needed.

3.6.3 Security Manning Plan

- a) Covanta will contract with a security service or hire employees for security coverage. The point of contact for security personnel will be a designated operations supervisor.
- b) Security personnel will be located on-site during waste receipt hours. During outages, the Facility typically has security personnel on-site 24 hours per day.
- c) Gates are locked at night and are controlled by the control room. Employees have access through an employee gate that is activated with a card system.

3.6.4 Locked Flow Valves and Starter Controls

All major boiler, cooling tower, fire protection, air pollution control (APC), and water/wastewater treatment equipment is electronically controlled by the DVRRF control room operator. Although the systems also allow for manual activation, such efforts are only undertaken by qualified/authorized individuals [40 CFR 112.7(g)(2) and 40 CFR 112.7(g)(3)].

3.6.5 Secure Capping of Loading/Unloading Connections

Tank drain/fill valves are not routinely locked, but are monitored during shift walk downs. All loading/unloading piping is either capped or has valves in the closed position when not in use [40 CFR 112.7(g)(4)].

3.6.6 Adequate Lighting

Adequate lighting, required to detect discharges is provided in all areas of the plant [40 CFR 112.7(g)(5)].

3.7 External Factor Planning

PPC, SPCC, and SPR plans require the discussion of the impact of external events (e.g. power outages, lightning strikes, floods, snowstorms, etc.) on causing or responding to chemical spills and releases. The DVRRF, due to its ability to generate electric power, is generally not impacted by loss of power from the local utility. However, in the event of a turbine trip and total loss of plant power, the system is designed with numerous safety lockouts and overrides to allow safe and environmentally sound shutdown of all systems.

Natural disasters such as floods, lightning strikes, hurricanes, tornados, snowstorms, etc. are monitored on local weather channels and/or the internet to properly prepare equipment and personnel as necessary (evacuation/reduced load/plant shutdown, etc.). The Facility is not in the flood plain of the Delaware River, so flooding is not a concern. Snowstorms will not significantly affect Facility operations, because most operations are under roof. In the event of prolonged winter conditions where the Facility may run low on waste inventory, the Facility may consider taking one or more combustor units off-line.

3.8 Employee Training Program

Per 40 CFR 112.7(f)(1), all plant employees receive general safety, hazardous communication, blood borne pathogen, and plant emergency evacuation training. General safety training includes lockout / tag out; emergency identification and notification procedures; alarms; plant communication methods; housekeeping; and applicable maintenance, inspection, and monitoring procedures.

Covanta Delaware Valley has a company- wide safety manual that applies to all of its facilities. These manuals are issued to all facility managers and all facility employees have access to these manuals. Safety is discussed on a daily basis at morning shift turnover meetings and tailgate meetings. Each individual employee utilizes an electronic app to input safety observations, concerns, or issues that need to be addressed. These records are reviewed on a periodic basis by facility supervisors. Selected facility personnel receive training to fight incipient fires and self-contained breathing apparatus (SCBA) training.

Facility supervisors and managers familiarize employees in their department with Facility equipment and systems operations so that employees will be capable of recognizing potential problems before they develop into a spill incident or other emergencies. Employee safety/contingency training records are maintained on-site by the Safety Program Manager, or designee.

Covanta will train designated employees at various levels of responsibility in the storm water pollution prevention strategy and goals of the EERP. Training shall address such topics as spill response, housekeeping, and material management practices as they relate to storm water pollution prevention. Additionally, Facility employees will receive EERP training, based on revisions and/or updates to this Plan.

In addition, all personnel will receive instruction on this Plan and its procedures as part of annual Environmental Compliance Operation Manual (ECOM) training. A record of this instruction will be kept in the facility training records file (will include date of training and means used to verify employee understood training). An annual employee training log is also included in **Appendix 7**.

3.8.1 Introduction

At a minimum, the training program is designed to instruct Facility personnel on how to recognize and respond to emergencies by minimizing the potential for a condition to occur and correct a condition that might threaten human health or the environment. The program focuses on safety provisions of the Facility, hazardous characteristics of materials identified in the EERP, and elements of this EERP, response to spills or other emergencies, preventative maintenance, good housekeeping and material management practices. This program is afforded to both management and employees. Employees to be incorporated in the training program include all personnel who regularly handle or

have the potential of handling any petroleum product, hazardous materials, or any other material that when released can pose a threat to the environment. The degree of training provided to Facility personnel depends on the individual's job duties and the extent of involvement with hazardous material handling activities. Records of employee training will be maintained in personnel files.

3.8.2 Emergency Response Personnel Training

This Facility does not employ an internal emergency response team. If an environmental emergency occurs on site that cannot be controlled on site, an outside emergency response contractor will be contacted.

At a minimum, annual training in the requirements of this EERP will be held with all plant personnel. This training will be coordinated by the ERC and has several objectives, including:

- Overview of the EERP;
- Organizational Structure;
- Spill, Leak Prevention & Response;
- Material Compatibility;
- Inspection & Monitoring;
- Countermeasures;
- Emergency Spill Control Network; and
- Storm Water Management.

3.8.3 On-the-Job Training

On-the-job training is provided as needed for employees to complete their daily job responsibilities. During the training period, each new employee or employee learning a new job responsibility will perform their job responsibilities under a supervisor or trained employee. This training is given by the appropriate supervisor. On-the-job training topics include the following:

- Review of all job-specific hazards including a review of hazardous materials to be handled and their handling procedures and compatibility with other substances;
- Detailed review of the employee's job responsibilities and training to be provided by the DVRRF;
- Review of the location, use, and disposal of temporary containment materials and absorbent products;
- Review of proper facility and equipment maintenance and housekeeping procedures;
- Review of pollution control laws, rules, and regulations, as applied to this EERP and the employee's job description; and,

- Detailed review of pertinent portions of this EERP including emergency discharge protocols, evacuation procedures, location of emergency and safety equipment and alarm systems, internal and external communication procedures, and chain of command and employee responsibilities.

Access to this EERP will be made available to each employee.

3.8.4 Training Records

After the completion of employee training, the employee trainer shall complete a training form indicating the training performed and attending personnel. An example training record form can be found as an attachment to this document (**Appendix 3**). The completed forms (or equivalent documentation) are maintained in the employees' personnel files. Periodic review will be conducted of each employee's training record.

3.9 Implementation and Description of Security Measures

All visitors and contractors are required to follow the requirements of the DVRRF, at a minimum. Additionally, all visitors to the Facility are escorted by a DVRRF employee when working in restricted areas. Contractors doing work within the Facility shall undergo a safety orientation and be informed of the location of hazardous products within the area they are working. Contractors shall be instructed as to the warning signals for evacuation and the evacuation meeting places. Contractors engaged in work that requires the handling of petroleum products and/or hazardous materials/substances shall be required to review and adhere to this EERP. All hot work performed in hazardous material storage and use areas will require the implementation of the Facility Hot Work Permit procedures. The contractor/visitor will register at the Facility reception area or at the facility control room, including signatures acknowledging receipt of the above information.

4.0 COUNTERMEASURES

Spill prevention and control structures, such as containment structures, are present in oil and hazardous substance storage areas at the Facility to contain most discharges that can occur. The likelihood of a release is minimized by routine inspections, preventive operating practices such as good maintenance, standard operating procedures, security measures, and personnel training. However, should a release occur, a protocol has been established to notify appropriate plant management and regulatory agencies, and to respond to such spills. Reporting and response procedures are outlined in the sections that follow.

4.1 Countermeasures to be Undertaken by Facility

Upon discovery or occurrence of any petroleum and/or hazardous material spill or release, employees must notify the Emergency Response Coordinator (ERC) or Alternate ERC immediately. Obtain the product's SDS sheet from MSDS online via the Covanta Health and Safety SharePoint website (<https://chemmanagement.ehs.com/9/4fa284d3-3ba7-4f99-ad65-232d2404ae82/ebinder>) (**Appendix 1**) if the source of the spill is known. Employees observing a spill or release shall be prepared to report the following to the ERC (see **Appendix 8** for a Spill Notification Form):

- a) Name, address, and telephone number of the individual filing the report
- b) Name, address, and telephone number of the installation
- c) Date, time, and location of the incident
- d) A brief description of the circumstances causing the incident
- e) Description and estimated quantity by weight or volume of materials or wastes involved
- f) An assessment of any contamination of land, water, or air that has occurred due to the incident
- g) Estimated quantity and disposition of recovered materials or wastes that resulted from the incident, and
- h) A description of what actions the installation intends to take to prevent a similar occurrence in the future.

4.1.1 Spill Response

In the event of a spill, the ERC is responsible for determining the priority and sequence of the following actions:

1. assessing the situation;
2. making notifications/emergency telephone calls;
3. deploying required response forces;
4. containing/isolating the emergency;
5. eliminating the hazard;
6. disposing of contaminated materials;
7. restoring emergency equipment;
8. reporting the incident; and
9. analyzing the incident.

Assessing the Situation - The ERC will assess the situation and determine whether a release of hazardous materials has occurred or is imminent. The ERC will determine the real or potential threat to human health and the environment and the need to take appropriate actions (such as sounding an alarm). If the severity of the incident warrants, operations in the affected area will be shut down. DVRRF personnel shall be notified of the potential dangers. If the ERC determines it is necessary to evacuate the Facility, the ERC will execute an evacuation in accordance with Section 4.4 – Evacuation Plan.

Making Notifications/Emergency Telephone Calls - After assessing the situation, the ERC will determine if the nature of the emergency requires the evacuation of the area surrounding the site or if the assistance of additional external response agencies/contractors is needed. The ERC will take the necessary notification countermeasures as outlined in Section 5.2– Notification List. The ERC will provide assistance to external response agencies/contractors in determining which areas surrounding the Facility may require evacuation and provide the external response agencies/contractors with information regarding the situation. If there is a release to navigable waters, including hazardous and non-hazardous materials that may cause potential problems for downstream users, the ERC will notify the downstream notification list (Appendix 10) of the incident.

Deploying Required Response Forces - Depending on the nature of the incident, it may not be necessary for the ERC to notify external response agencies. If the incident can be controlled by DVRRF personnel or contractors, the ERC will assemble the required personnel into an emergency response force. The ERC will brief each person on the emergency conditions and make appropriate assignments based on available personnel, available protective equipment, the person's training, and the situation including the threat of escalation. Each of the emergency response force members will be properly trained in accordance with Section 3.8 – Employee Training Program to perform the requested assignment.

Containing/Isolating the Emergency - The first response step is to contain and/or isolate the emergency condition to minimize the potential spread and subsequent effects of the hazard. This action may involve shutting off equipment, closing valves, deploying containment/diversion devices (e.g., absorbent materials, temporary berms, etc.), using hand-held fire extinguishers to put out small (incipient level) fires, or removing any hazardous materials away from the affected area. The ERC will direct and determine the priority of efforts of the response forces in these activities.

Eliminating the Hazard - After the emergency is contained, the next step is to eliminate the immediate hazard to human health and the environment. Depending on the nature of the incident, this work may take place simultaneously with the contain/isolate step. (For example, if the incident involves a fire or explosion, this step will consist of

extinguishing the fire. If the incident were a spill of a hazardous substance, this step will involve controlling the spill). The ERC will determine what actions to take to eliminate the hazard and the required personnel and equipment needed to carry out these actions. The ERC will organize the response force needed to eliminate the hazard and direct the response force's efforts.

After the immediate hazard has been eliminated, the ERC shall determine if temporary barricades or other site controls are required to restrict access to the area to prevent the spread of contaminants or minimize the danger to the health of employees or the public. If the incident required evacuating or shutting down any areas or operations, the ERC or designee will notify federal, state, and county/municipal officials (see **Table 2-2**) that the area has been secured prior to the restoration of operations.

Disposing of Contaminated Materials - The ERC is responsible for overseeing the clean-up and disposal of contaminated or damaged materials as detailed in Section 4.1.2 – Clean-Up. The ERC is also responsible for coordinating the characterization and disposal of any residue from the incident, including contaminated soils or clean-up material from a spill, in accordance with federal, state, and local regulations.

Restoring Emergency Equipment - After clean up, the ERC is responsible for overseeing the decontamination, repairing, inspecting and returning of all emergency equipment to the proper location. The ERC is responsible for verifying the replenishment of disposable emergency supplies, such as absorbents and fire extinguishing media. The ERC may train members of the emergency response force to undertake these activities.

Reporting the Incident - If a Reportable Quantity (RQ) of material is released onto the land or into the waters (including surface and subsurface) of Pennsylvania, the PADEP Regional Office, Pennsylvania Emergency Management Agency (PEMA), and/or EPA will be notified in accordance with Section 4.1.4 – Incident Reporting of this plan.

Analyzing the Incident - After the Facility has returned to operation, the ERC will coordinate a meeting with the EERP Implementation Committee to review/critique the incident. The ERC may involve other personnel, including employees, contractors and external response agencies (e.g., Police Department, Fire Company, etc.) in the review process. The focus of the meeting will be to assess the effectiveness of the EERP in preparing the Facility for the emergency. The meeting may result in recommendations for physical changes to the Facility, purchase of new or different equipment, and/or changes to the EERP and response procedures. The ERC will coordinate the keeping and distributing of meeting notes and making any required plan updates as outlined in Section 2.1 – EERP Implementation Committee.

4.1.2 Clean-Up

Minor spills will be removed using a general absorbent and placing spent materials into a properly labeled 55-gallon drum or other suitable container. If the incident involves a leak from a container, any remaining liquid will be transferred to a new container (or tank if appropriate). All leaks, small or large, shall be documented and reported to the ERC. If the incident involves a leak from a drum or other container, the material is to be removed. An inspection of the drum or container will be performed. If it is determined that the leak is due to localized degradation or damage, the drum/unit will be adequately repaired. If, during the inspection, the drum/unit appears to be a result of a more general degradation and repair is impractical, the drum or unit will be taken out of service and replaced.

If the incident involves a leaking bulk container at the unloading or loading areas, the operator is to immediately notify the ERC. Attempts to reduce the leakage rate will be made by applying patches, shutting valves or using plugs. This shall be performed by an outside response contractor. Spill containment using buckets, drums, or absorbents will be used to collect leaking material. Arrangements will be made to transfer the fluids to an empty tote or tanker. If necessary, a third party contractor will be used to create temporary berms or other diversions. The ERC has the authority to summon outside contractors (Section 4.1.3 – Emergency Spill Contractors) and emergency response agencies to assist in the containment and the clean-up operation of a large spill. If there is a potential for the spill to spread onto nearby properties, notifications will be made to the appropriate parties listed in **Table 4-1**.

If the incident involves a leak from a tank, the tank may need to be emptied and any sludge in the tank removed. An inspection of the tank will be performed. If it is determined that the tank leak is due to a localized degradation or damage to the tank, the tank will be adequately repaired. If, during the inspection, the tank appears to be a result of a more general degradation of the tank and repair of the tank is impractical, the tank will be decommissioned.

Materials collected during clean-up operations are initially handled as hazardous materials/waste until characterized otherwise. These materials can include:

- Spilled liquids accumulated in the secondary (or tertiary) containment systems;
- Saturated absorbent material;
- Personal Protection Equipment/decontamination materials; and,
- Soil or water contaminated with the product.

Wastes generated as a result of discharge response and cleanup will be containerized in impervious bags, drums, or buckets as appropriate [40 CFR 112.7(a)(3)(v)]. The waste materials will be characterized for appropriate disposal. The ERC will consult SDS sheets and ensure that all oil contaminated wastes are disposed of as required by local, state,

and federal regulations. Emergency spill contractors are available to assist in waste disposal as necessary.

4.1.3 Emergency Spill Contractors

In the event of a chemical or petroleum release requiring additional resources beyond the capabilities of the Facility spill response, a listing of emergency spill response and remediation contractors that are available to assist are provided in **Table 4-1** [40 CFR 112.7(a)(3)(v)]. It shall be noted that this list is provided for reference purposes and does not represent a complete list of available contractors. Emergency spill contractors may supply emergency spill response (if necessary), control and containment assistance, and cleanup and disposal of petroleum and petroleum contaminated media.

4.1.4 Incident Reporting

Whenever there is an incident that involves an emission or discharge, fire or explosion, the ERC must immediately identify the character, exact source, and amount of emitted or discharged materials. Concurrently, the ERC must assess possible hazards to human health or the environment that may result from the incident. If the ERC determines that the incident will threaten human health or the environment, then notifications must be made in accordance with Section 5.2 – Notification List.

A release to the environment, as applicable to this EERP, includes any reportable release into uncovered soil or navigable waters via direct flow, discharge from a storm drain, or discharge into the sewage system. In the event of a release of a reportable quantity of petroleum product or hazardous substance (summarized in **Tables 1-1 and 1-2**), several local and outside agencies must be contacted immediately upon confirmation of a reportable release.

PADEP: A quantity of regulated substance released to or posing an immediate threat to surface water, groundwater, bedrock, soil, or sediment is considered a “reportable release” and must be reported to the DEP unless:

- a. the release is limited to the interstitial space of a double-walled aboveground or underground storage tank.
- b. the release of petroleum to an aboveground surface that is less than 5 gallons and did not result in an oily sheen.
- c. the release of a hazardous substance to an aboveground surface was less than its reportable quantity under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C.A. §§ 9601-9675) and 40 CFR Part 302 (relating to designation, reportable quantities, and notification) as summarized in **Table 1-1 and 1-2**.
- d. if the owner or operator has control over the release, the release is completely contained, **and** the total volume of the release is recovered or removed in the corrective action within 24 hours of the release.

In the event of a PADEP Reportable Release (as defined above), the regional office must be notified within 24 hours a spill or discovery of a spill and in written form within 15-days on the form included in **Appendix 7**. Contact information for the regional PADEP office is included in **Table 4-1**.

EPA: For the purposes of reporting to the EPA National Response Center, a reportable discharge is defined as:

- a. a release of oil that causes a sheen or discoloration of the surface of a body of water;
- b. a release of oil that violates any applicable water quality standards; or
- c. a release of oil that causes a sludge or emulsion to be deposited beneath the surface of the water or on adjoining shorelines.

In the event of an EPA Reportable Discharge (as defined above), the USEPA National Response Center must be notified immediately but not longer than 15 minutes upon discovery of the spill. Contact information for the USEPA National Response Center is included in **Table 4-1**.

Per SPCC regulations, if more than 1,000 gallons of oil is discharged in a single event, or in quantities of 42 gallons or more in two discharge events occurring within any 12-month period, the EPA must be notified in writing of the discharge event or events within 60 days of the triggering incident. The written notification is to be prepared by the ERC or a designated person and must include, at a minimum, the following pieces of information as outlined in 40 CFR Part 112.4(a):

- a. Name of the facility;
- b. Name of the owner or operator of the facility;
- c. Location of the facility;
- d. Maximum storage or handling capacity of the facility and normal daily throughput;
- e. Corrective action and countermeasures enacted, including a description of equipment repairs and replacements;
- f. An adequate description of the facility, including maps, flow diagrams and topographical maps, as necessary;
- g. The cause of such discharge as described in 40 CFR 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred; and
- h. Additional preventive measures taken or contemplated to minimize the possibility of recurrence.
- i. Such other information as EPA may reasonably require pertinent to the Plan or discharge.

Prior to submission to EPA, the written notification must be reviewed and signed by the ERC. The EPA Regional Administrator may require the Facility to amend this EERP upon

evaluating the spill notification. Within 30 days of EPA notice to amend the EERP, the PE certified amendment must be forwarded to the EPA.

Table 4-1: Notification List

Agency	Telephone Number
Federal Agencies	
National Response Center	
US Coast Guard Headquarters, Room 2611	800-424-8802
2100 2nd Street, SW	
Washington DC, 20593	
EPA Regional Administrator	
US EPA Region 3	215-814-5122
1650 Arch Street	
Philadelphia, PA 19103	
State Agencies	
PADEP Emergency Notification	800-541-2050
PADEP Southeastern Regional Office	
2 East Main Street	484-250-5900
Norristown, PA 19401	
PA Emergency Management Agency (PEMA)	
1310 Elmerton Avenue	717-651-2001
Harrisburg, PA 17110	
PA Fish and Boat Commission	
PO Box 6700	717-657-4518
Harrisburg, PA 17106	
County Agencies	
Delaware County Emergency Management Agency	
260 N. Middletown Road	610-565-8700
Lima, PA 19063	
Delaware River Basin Commission	
25 Cosey Road	609-883-9500
P.O. Box 7360	
West Trenton, NJ 08628-0360	
Local First Responders	
Chester Police Department	911 (emergency)
160 E. 7 th Street	610-447-7931
Chester, PA 19013	
Chester Fire Station 81	911 (emergency)
1501 West 3 rd Street	610-447-7844
Chester, PA 19013	
Chester Fire Station 82	911 (emergency)
320 East 14 th Street	610-447-7842
Chester, PA 19013	
Local Hospital	

Agency		Telephone Number
Crozer Chester Medical Center 1 Medical Centre Blvd. Upland, PA 19013		610-447-2000
Waterworks		
Delaware County Regional Water Quality Control Authority, DELCORA 100 E. 5th Street Chester, PA 19013		610-876-5523 Ext. 213 (days) 610-876-5523 Ext. 214 (24-hr)
Spill Clean-Up and Disposal Contractors		
Clean Harbors Environmental Services		631-539-6633
Safety Kleen		610-430-0096
Coastal Technical Sales		215-266-3533
Covanta Personnel	Cell Phone	Work Phone
Tim Gregan VP Regional Operations Manager	610-357-9825	610-497-8109
Kim Bradford Environmental Manager	610-291-3890	610-940-6000 ext 106
George Drew Regional Environmental Director – East Region	978-697-6547	978-241-3025
Jeremy Drehmer Regional Safety Manager	443-761-4408	-

4.1.5 Record Keeping

In addition to the information documented through the notification requirements stated above, the Facility shall prepare and maintain records of all spill or discharge incidents occurring at the Facility. Upon completion of all activities, the Spill Response Coordinator will complete an Environmental Incident Report Form (**Appendix 9**) and prepare a summary of the incident for entry into the Pollution Incident History Log in **Appendix 2**. Records of spills must be maintained for at least 5 years. All records must include the following minimum information:

- date,
- material(s) released,
- quantity released,
- discharge location,
- cause,
- corrective actions taken, and
- preventative measures implemented.

4.2 Countermeasures to be Undertaken by Contractors

In the event that a spill, release, or other emergency takes place, the DVRRF has agreements in place with contractors that can provide 24-hour emergency response. Response time is usually

within 2 hours. These contractors provide all spill, cleanup and remediation services including additional personnel, vacuum trucks, backhoes, dump trucks, waste disposal, and demolition. These contractors are included on the emergency notification list in **Table 4-1**.

4.3 Internal and External Communications and Alarm Systems

The Facility has several means of in-plant communication. Contact of internal emergency personnel and response teams shall be made via telephone or radio using the following procedures:

- a. Plant Telephones: Both internal and external calls can be made via the plant telephones.
 - To reach an in-plant number, dial the 3-digit extension (control room extension 257).
 - To get a local outside line, dial 8, then the phone number.
 - To dial long distance, dial 8, 1, the area code, then the phone number.
 - The local emergency number is 911. To dial 911, dial 8, and then dial 911.
- b. Plant Radios: Plant personnel are issued radios for daily use. In case of emergency, the person reporting the emergency shall select channel 1 and, while depressing the button on the microphone, begin speaking.

There are also plant-wide fire and emergency alarms, to alert personnel to emergency situations and to signify the end of an emergency situation. Certain tanks are provided with high-level alarms for safe operations.

4.4 Evacuation Plan

In the event that the Facility needs to be evacuated, all personnel will be given instructions to proceed along the evacuation route to the designated on-site gathering places. Evacuation routes are identified on fire evacuation maps which are posted throughout the site. The selected gathering place shall be located upwind of the emergency. The ERC is responsible for selecting the gathering place and notifying employees based on the facility ERP/EAP and nature of the release. In most cases, the evacuation gathering location will be the Administration parking lot.

Evacuation drills involving all Facility personnel are held periodically and documented. The ERC or designee shall be responsible for counting employees at the gathering place and notifying emergency personnel if people are still located within the Facility. This action shall include visitors and contractors on site during an alarm. A sign-in log of visitors and contractors is kept in the control room and in the Administration Office.

In the event the surrounding areas need to be evacuated, the Police and Fire Departments will be in charge of the evacuation. The ERC will provide these agencies with the assistance they require including facility diagrams, hazardous materials information, unaccounted personnel, operations expertise, etc.

It is the DVRRF's policy that all employees be familiar with the evacuation routes and emergency exits in his or her particular working area. These designated routes shall be inspected monthly and documented. The evacuation signal is initiated by the ERC through the use of the fire alarm and verbal communications. This procedure will be implemented in the event of an emergency.

4.5 Emergency Equipment Available for Response

Emergency equipment is maintained on-site to respond to fires, spills, or minor medical emergencies. Adequate space is maintained inside and outside the plant to allow the movement of personnel and equipment to operating areas of the Facility in the event of an emergency. The Safety Program Manager will ensure that an adequate inventory of emergency response equipment and personal protective equipment is maintained on site and in working order at all times. The following equipment and systems are available for use during an emergency.

4.5.1 Fire Fighting Equipment

Fire extinguishers are located throughout the plant, and portable gas monitors are located in the control room. Gas monitors are used to monitor for CO and SO₂ in situations where a confined space entry is planned.

The Facility has a 300,000-gallon tank for water storage for fighting fires. The Facility also has a wet fire suppression system in the boiler house and a dry suppression system on the tipping floor and in the ash house. The Facility has an electric pump that provides water to the suppression systems at 135 psi and a diesel fire pump to provide additional water to the suppression systems if necessary. Facility water is provided by the Chester Water Authority.

4.5.2 Spill Control Equipment

The DVRRF maintains an inventory of spill control equipment. Spill control supplies for specific materials handled in a given area are located in lockers in that particular area. Backup supplies and personal protective equipment used by spill responders are stored in those lockers. Spill kits (identified in **Table 3-1**) and spill response material inventory must be inspected monthly by Facility staff to ensure that the minimum inventory is present and ready for future use. Spill kit material must be available and compatible for each potential spill material. Equipment shall be readily available and identified with proper signage.

The following spill control equipment is maintained at the Facility for use in emergency situations:

- rags;
- squeegees;
- shovels;
- empty buckets;

- emergency repair materials (or various tools, ropes, patches, tape, etc. for repair of drums and equipment);
- front end loader;
- fork lift;
- absorbents;
- empty drums;
- bobcat loader;
- dingo walk behind loader;
- sweeper;
- spill kits – containing absorbents (socks, pads, granular); and
- acid spill kit – Turbine Building (containing absorbents, neutralizer, disposal bags, gloves)

4.5.3 Personal Protective, Safety, and Decontamination Equipment

The DVRRF maintains an inventory of personal protection, safety, and decontamination equipment that is used during emergency response as well as during normal operations.

The following equipment is available at the Facility:

- eye protection;
- hand coverings;
- head protection;
- full body coverings;
- eye wash and safety showers;
- respiratory equipment; and
- hearing protection

4.5.4 First Aid Equipment

The DVRRF maintains general purpose and enhanced first aid kits at the Facility. There is also an Automated Emergency Defibrillator located outside the control room. This equipment is inventoried and maintained by the DVRRF in each building on a monthly basis.

4.5.5 Testing and Maintenance of Emergency Equipment

All emergency equipment at the Facility is inspected, tested, and maintained at a minimum of once a month to ensure that the equipment is in stock, available, and in working order for use in the event of an emergency.

5.0 EMERGENCY SPILL CONTROL NETWORK

5.1 Arrangements with Local Emergency Response Agencies

The DVRRF has contacted the following local authorities that can provide assistance during major emergencies:

- Chester Police;
- Chester Fire Stations 81 and 82;
- Pennsylvania State Police;
- Crozer Chester Medical Center (Hospital);
- Delaware County Emergency Management Agency; and
- Pennsylvania Emergency Management Agency.

Phone numbers for these, and all additional applicable agencies/contractors, are found in **Table 4-1**.

These communications were intended to familiarize the outside agencies with the characteristics of the Facility. This includes property layout, response plans in place, and the nature of potential emergencies. The Chester Fire Department and Delaware County EMA will be made aware (annually) of on-site hazardous substances exceeding their respective Threshold Planning Quantities in accordance with 40CFR Part 311 and 312.

5.2 Notification List

Tables 2-2 and 4-1 present the Facility and Emergency notification lists, respectively. The DVRRF employees are to notify the ERC of emergency situations, and the ERC or designee is to contact the proper authorities if conditions require as discussed below.

The following information will be reported to the local emergency response groups during the notification of an emergency:

- name and telephone number of the person reporting;
- name and address of the Facility;
- time and type of incident (fire, explosion, spill);
- list of the material involved in the incident;
- brief description of incident and quantity of the materials involved, including the USDOT shipping name, hazard classification, and U.N. Number;
- description of the extent of injuries, if any;
- description of the possible hazard to human health or environment;
- summary of the actions already taken or proposed to be taken; and
- list of assistance required.

If a fire exists or an explosion resulting in a fire has occurred, the situation will be immediately reported to the Fire Department and the Police Department through the 911 system. If any injuries have occurred, the Police Department will be notified in order to dispatch appropriate

ambulance services. The hospital emergency room will be notified as to the number injured and the extent of injuries.

If an incident will threaten human health or the environment, the ERC will ensure that the incident is reported to the PADEP Emergency Notification System (See **Table 4-1**).

If a spill, release or other situation can impact neighboring businesses, the Fire or Police Departments shall contact them to warn of the potential problem.

5.3 Downstream Notification Requirements for Storage Tanks

DEP's Guidelines for the Development and Implementation of Environmental Emergency Response Plans (Document No. 400-2200-001/September 2001) requires that any facility with an aggregate aboveground storage capacity greater than 21,000 gallons develop a downstream notification list. The Downstream Notification List is included in **Appendix 10**.

The Downstream Notification List includes municipalities and surface water users within 20 downstream miles of the Facility. Surface water users include drinking water companies and industries that utilize surface water intakes; municipalities include each county, township, city and borough located within this downstream corridor. This list was developed using publicly available GIS databases that contain data on counties, municipalities and surface water intakes, as maintained by PADEP, New Jersey Department of Environmental Protection (NJDEP) and the Delaware Department of Natural Resource and Environmental Control (DNREC). The lists were cross-referenced with the downstream notification information obtained from the Delaware River Basin Commission (DRBC) in an e-mail transmitted on November 5, 2012.

Written notification will be given to the downstream water users and municipalities on the Notification List. This written notification will include an inventory of the type and quantity of material in storage at the Facility. The notification list will be reviewed each year to reflect any changes in contacts, users, or telephone numbers needed for emergency downstream notification.

In the event that a release from an aboveground storage tank located at the DVRRF enters a water supply or threatens the water supply of a downstream user, the ERC will notify all downstream facilities with intakes and downstream municipalities within 20 miles of the DVRRF within 2 hours after the release. A listing of all municipal water users, water companies, and industrial users for 20 miles downstream of the DVRRF is included **Table 4-1**.

6.0 STORM WATER POLLUTION PREVENTION PLAN

This EERP has been prepared with the assistance of the PADEP guidance documents entitled, “Guidelines for the Development and Implementation of Environmental Emergency Response Plans” (2005) and “Supplemental Guidance for the Development and Implementation of Preparedness, Prevention and Contingency (PPC) Plans under the National Pollutant Discharge Elimination System (NPDES) Storm Water Permitting Program” (1997). The latter document specifies requirements for addressing storm water issues. This section addresses these requirements.

6.1 Storm Water Best Management Practices

The facility’s NPDES (Stormwater) General Permit (PAR900004) and the PADEP PPC Guidance require the implementation of general and specific best management practices (BMPs). Although a majority of these practices are addressed throughout this EERP, a summary is presented in **Table 6-1**. An annual NPDES/Stormwater Inspection Form are included as **Appendix 11**.

Best Management Practices (BMP) Summary

- a. **Trash and Ash Carryout** - The primary potential to impact stormwater at the DVRRF is through drag-out of trash from the tipping floor and ash from the residue building. Trash drag-out is primarily controlled by keeping the main path from the entrance to exit doors clear, and by periodically collecting loose trash and pushing it back into the building. One street sweeper is operated as needed to collect material that escapes the tipping floor. Fabric “sewer socks” are installed within the three closest stormwater drains to the residue building, and the two drains near the entrance to the tipping hall. These socks are also checked at least once/week, and are replaced as necessary. Pressure washing of stormwater drainage aprons (utilizing water only) is performed periodically.
- b. **Vehicle and Equipment Maintenance** – As much as possible, all maintenance is performed either within or adjacent to the facility’s loader shop. This entire area has concrete or asphalt surfaces. Work that is performed outside is done in a manner to minimize oil or fluid spillage to the asphalt. However, if spills do occur, the area is washed down on a daily basis, and all collected wash water is directed to a sump that sends the water to an indoor wastewater storage tank. This water is used as make-up for the facility’s air pollution control system in the scrubbers and ash extractors. All stormwater generated in the loader shop area is directed to the same sump for collection. Dry absorbent is also employed to collect spills as necessary. All major petroleum storage is located within a covered, diked area. Parts cleaners are located at both the maintenance and loader shops, and both employ aqueous cleaning systems. Weekly inspections of both areas are performed, and issues corrected when noted. Batteries are stored inside or within enclosed containers. Stored vehicles, primarily loaders are also included in weekly inspections.
- c. **Painting Operations** – All painting operations are conducted inside, except for those involving building structures. Paint wastes are collected and disposed of as hazardous wastes through contract.

- d. Vehicle and Equipment Washing – All vehicle and equipment washing is done in the loader shop area. All wash water is collected and recycled as described above.
- e. Liquid Storage in Above-Ground Tanks – Appropriate tanks are registered with the DEP. All outdoor tanks are located within secondary containment.
- f. Outside Storage of Raw Materials, Byproducts, Finished Products or Deicing Salt – The main items stored outside involved materials used for maintenance activities, mainly steel. These areas are inspected on a weekly basis and corrections made as necessary.
- g. Handling Hazardous Materials – As much as possible, all handling of hazardous materials and/or waste is done within the confinements of the facility buildings. Storage is either inside or within secondary containment.

Table 6-1: Potential Exposure Routes and BMPs

Material Description	Potential Exposure Route	Best Management Practices
Municipal Solid Waste (BOD, COD, oils and grease, suspended solids, total dissolved solids, total organic carbon)	Spillage and windblown materials from incoming trucks; tracking of residual materials from tipping hall floor onto the exit drive	Tipping hall exit area is swept approximately three times a day to remove debris.
Diesel oil, engine oil, waste oil, transmission oil, hydraulic oil, grease, anti-freeze (oil & grease)	Minor spills are promptly contained and spillage and drips from vehicles throughout the site cleaned up. Overflow of oil and grease collector pit during heavy storm events.	Maintenance of vehicles and equipment in vicinity of the loader maintenance building. Oil and grease in the conveyor collector pit is removed periodically.
Lime (calcium oxide, pH)	Spillage of lime during material delivery to the lime silo. Spills are primarily contained in a small containment trench. However, spills beyond the trench may enter the storm drain.	Containment trench cleanup with vac-trucks, and sweeping as necessary.
Fly ash (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, suspended solids)	Primary exposure of fly ash is through spills and figurative emissions from bag house operations. Fly ash which settles to the ground is primarily collected by the containment trench surrounding the bag houses, lime silo, and acid gas scrubbers. However, fly ash which settles to the ground and not collected may enter the storm sewer system through storm water inlets.	Containment trench cleanup with vac-trucks, and sweeping as necessary.
Combined ash (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, suspended solids)	Combined ash is wetted to minimize fugitive emissions, loaded in to trucks inside the residue building, and transported to a landfill for disposal. The primary exposure route is through tracking of by ash trucks as they exit the residue building.	Ash handling occurs primarily indoors.
Segregated metal (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, suspended solids)	Segregated metal which is recovered from bottom ash is loaded onto truck inside the residue building. The primary exposure route is through tracking of metal which trucks exit the residue building.	The exit area is swept periodically to remove metal debris and tracked materials.
Hazardous substances and miscellaneous chemicals listed in table 1-2 and 1-3 of the Plan	Liquid chemicals are primarily stored on concrete diked structures with sufficient containment volume or indoors. However, a limited potential exists for materials to enter the storm sewer system during material delivery and transport.	Containment is provided and primary chemical storage is within sealed tanks on secondary containment or indoors or under roof overhangs to minimize exposure to storm water.

6.2 Sediment and Erosion Prevention

Storm water discharges at the Facility are both point source and sheet flow. Based on field observations and site topography, sheet flow velocities may be high in certain areas and may pose an erosion problem. Currently all areas that can suffer high sheet flow velocities are protected from erosion by pavement or vegetation. High velocity storm water discharges, such as roof run-off, are directed into the drainage areas using down-spouts, culverts, and other flow directional devices. Yearly inspections will include monitoring for erosion. Eroded areas will be repaired as soon as practicable and steps will be taken to prevent the erosion from recurring with the use of vegetation planting or placement of non-erodible material.

6.3 SARA Title III, Section 313 Facilities

Section 313 water priority chemicals are not stored above threshold limits within the Facility, and therefore are not included in this plan.

6.4 Requirements for Onshore Facilities

The preventative systems used for facility drainage containment control measures and specific secondary containment requirements for bulk storage containers are listed below and in **Tables 1-1, 1-2, and 1-3**. In addition, spill prevention facilities, equipment and practices utilized at the facility to prevent oil spills or discharges are outlined as preventative measures provided at the facility.

- dikes, berms or retaining walls sufficiently impervious to contain spilled oil;
- curbing or drip pans;
- sumps and collection systems;
- culverting, gutters, or other drainage systems;
- weirs, booms, or other barriers;
- spill diversion ponds;
- retention ponds; or
- sorbent materials.

6.5 Secondary Containment – Bulk Storage Containers

EPA SPCC regulations [40 CFR 112.8(c)(2)] require all bulk oil storage containers (including mobile and portable containers) with a capacity of 55 gallons or greater to have secondary containment capable of providing 100% containment of the largest primary vessel plus sufficient freeboard if exposed to precipitation. **Tables 1-1 and 1-2** detail the methods of secondary containment for each container or group of containers and **Appendix 12** provides calculations of the containment volumes provided.

6.6 Demonstration of Impracticability for Diversionary Structures or Containment

The facility employs the use of appropriate secondary containment and equipment for discharge control [40 CFR 112.7(d)]. Although secondary containment for the transformers throughout the facility is not specifically required since the equipment does not fulfill the definition of “bulk storage container” in 40 CFR 112.2 (definitions), the vast majority of transformer equipment on site has secondary containment. For those transformers that do not have secondary

containment, they are located within buildings, on the APC pad, and in the switchyard which has underground containment that will minimize the impact of a spill. In the unlikely event that transformer fluid will escape the switchyard area, the area surrounding the switchyard has a level grade that will minimize runoff to adjacent roadways and storm sewers. The DVRRF will also employ temporary impervious barriers or portable booms to contain spilled oil from this equipment as necessary.

6.7 Transfer Containment

While secondary containment for bulk storage tanks and portable storage containers must be addressed under the specifically sized secondary containment requirements identified in section 6.5, the delivery activities for the transfer of fuel and chemicals from the supplier's equipment to the tank may be addressed by the criteria for "general secondary containment". Per 40 CFR 112.7(a)(3)(ii) and 112.8(d), general secondary containment requires the determination of the most likely spill of oil and allows for the use of both active and passive secondary containment to address the most likely release. This same determination can be applied to chemical spills as well. Existing containment and diversion structures for the containers listed in **Tables 1-1, 1-2, and 1-3** are secondary containment, impervious surfaces, or underground vaults.

6.7.1 Facility Transfer Operations (40 CFR 112.8(d))

The following details transfer activity containment precautions at the DVRRF.

6.7.1.1 Buried Piping Installation Protection and Examination

Although the DVRRF has underground piping for the distribution of LPG, there is no buried piping used for the transfer of oil products; therefore, section 40 CFR 112.8(d)(1) is not applicable to this facility.

6.7.1.2 Terminal Connections

The facility does not have "not-in-service" or standby service terminal connections; therefore, section 40 CFR 112.8(d)(2) is not applicable to this facility.

6.7.1.3 Pipe Supports Design

Piping supports are not required to transfer oil products; therefore, section 40 CFR 112.8(d)(3) is not applicable to this facility.

6.7.1.4 Aboveground Valve and Piping Examination

Section 40 CFR 112.8(d)(4) requires the regular examination of aboveground valves and piping. Above ground piping and valves will be visually inspected at least monthly to confirm system integrity. In addition to identifying any leaks from piping, joints or valves, observations will include determination of interference with other piping and equipment, excessive vibration, deflection or sag, and the general condition of supports, hangers and guides. The proper

position of system valves will also be confirmed. Any anomalies will be promptly corrected.

6.7.1.5 Aboveground Piping Protection from Vehicular Traffic

Section 40 CFR 112.8(d)(5) requires the protection of aboveground piping from vehicle traffic. All tanks located on the facility used for petroleum/hazardous materials storage are either protected by a containment dike or located within building structures. Therefore, vehicular traffic concerns will be limited to tote and drum deliveries. Adequate precautions are taken to minimize traffic during material unloading, and product is quickly moved inside to appropriate storage locations.

6.8 Drainage from Diked Storage Areas & Other Protections

DVRRF staff occasionally have to drain the secondary containment areas of stormwater. The following presents a summary of the appropriate procedures for the drainage of the secondary containment structures at the facility. A Secondary Containment Dike Drainage Records is included in **Appendix 13**.

6.8.1 Drainage Control

40 CFR 112.8(b)(1) requires the identification of drainage controls for diked storage areas. Diked areas do not have automatic pumps or ejectors. Collected liquids are manually pumped using drum pumps or other similar devices. In the unlikely event that a spill will overflow or breach an indoor containment basin, or leak from associated piping, liquid will flow to floor trenches that discharge to wastewater sump. Outdoor diked areas are not equipped with valves/plugs, and also require manually pumping to remove collected liquids. In the case of the switchyard, containment for the main transformer is provided by an underground concrete basin (filled with crushed stone). The other transformers either have curbing, or are located on the APC or inside buildings where trench drains will contain any spills.

6.8.2 Valves Used on Diked Storage Areas

There are no valves on diked storage areas (40 CFR 112.8(b)(2)).

6.8.3 Plant Drainage Systems from Exterior Undiked Areas

Spill control in areas outside of containment is discussed in Section 3.1 – Pre-Release Planning [40 CFR (112.8(b)(3))].

6.8.4 Final Discharge of Drainage (Diversion Systems)

In the unlikely event that a spill will escape collection/diversion prior to reaching the storm water system, the spilled material will travel through the pipeline to the box culvert [40 CFR 112.8(b)(4)]. At this point the spilled material can potentially be captured with absorbent booms/pads (e.g. petroleum products).

6.8.5 Facility Drainage Systems and Equipment

Other than the box culvert, the DVRRF does not have other discharge points since the facility is essentially “zero” discharge (except for sanitary wastewater) [40 CFR 112.8(b)(5)].

6.8.6 Diked Area Construction and Containment Volumes

Secondary containment is provided for bulk storage containers as listed on **Tables 1-1 and 1-2**. Per 40 CFR 112.8(c)(2), the containment provided for each storage container or group of containers has sufficient volume to contain the volume of each container or the largest in the group of containers. Secondary containment calculations for diked storage areas are provided as **Appendix 12**.

6.8.7 Diked Area, Inspection and Drainage of Rainwater

In the event that rainwater accumulates in diked areas (40 CFR 112.8(c)(3)), the following procedures will be implemented:

- a. Observe the sump/diked area for oil sheen or chemical contamination. If none, manually pump the water out of the containment area.
- b. If only a sheen is observed, use oil absorbent pads or booms to absorb as much of the oil as possible before pumping and discharging the water.
- c. In the event that chemical/oil contamination is observed, either pump the material into a 55-gallon drum and dispose of it in the wastewater sump, or return the material to the process stream.
- d. In the event that a large amount of diesel fuel or petroleum product is collected, process this material through one of the boilers.

Appendix 14 will be used to document whenever there is drainage from containment areas that appear to be contaminated.

6.8.8 Corrosion Protection of Buried Metallic Storage Tanks

There are no buried metallic storage tanks at the facility; therefore, section 40 CFR 112.8(c)(4) is not applicable.

6.8.9 Corrosion Protection of Partially Buried Metallic Tanks

There are no partially buried tanks at the facility; therefore, section 40 CFR 112.8(c)(5) is not applicable.

6.8.10 Control of Leakage through Internal Heating Coils

There are no oil storage containers that use internal heating coils at the facility; therefore, section 40 CFR 112.8(c)(7) is not applicable.

6.8.11 Overfill Prevention System

The major storage tanks located at the facility are equipped with either sight glasses and/or level indicators to ensure that overfilling of storage tanks doesn't occur during refilling operations [40 CFR 112.8(c)(8)].

6.8.12 Observation of Wastewater Treatment Facilities for Oil-Contaminated Spills

Other than the box culvert, the DVRRF does not have other discharge points since the facility is essentially "zero" discharge (except for sanitary wastewater) [40 CFR 112.8(c)(9)].

6.8.13 Visible Oil Leak Corrections from Container Seams and Gaskets

As part of the monthly above ground piping inspection and during routine facility walk downs required under 40 CFR 112.8(c)(10), any leaks from seams, gaskets, pumps, rivets or bolts will be identified and promptly corrected. Any accumulated oil will be collected and properly disposed as soon as it is identified.

6.8.14 Appropriate Positioning of Mobile or Portable Oil Storage Containers

The facility does have portable oil storage containers on a flatbed pick-up truck. Unless it has been mobilized for refueling, it is parked in the loader shop area to provide adequate containment of any spills that may occur [40 CFR 112.8(c)(11)].

6.9 Tank Truck Transfer Operations

To meet the requirements of 40 CFR 112.7(a)(3)(ii), the following procedures are for transfers of oil between oil supplier tank trucks and facility tanks. This procedure will also be deployed for the transfer of chemicals between chemical supplier tank trucks and facility tanks. All suppliers must meet the minimum requirements and regulations for tank truck loading/unloading established by the U.S. Department of Transportation (USDOT). Fuel and chemical suppliers are informed of these site specific transfer procedures by the facility prior to commencing transfer operations.

Prior to Transfer

- a. A designated, trained facility employee shall be present to observe all oil and chemical transfers and ensure that proper spill prevention procedures are followed. All oil and chemical transfer personnel must be familiar with transfer procedures prior to commencing oil and chemical transfers.
- b. Have spill kit materials present and trained personnel on standby, and fuel/chemical transfer containment structures (where applicable) in place and ready for use.
- c. Maximum capacity for any single tank on a tank truck shall be as small as possible (relative to required transfer volume) to reduce potential spill volume in the event of a spill emergency.
- d. Determine volume required for transfer in advance of shipment to avoid excess oil or chemicals on tank truck.

- e. A trained facility employee shall inspect shipping documents to verify type and quantity of oil or chemical to be transferred.
- f. Identify fill port and receiving tank for oil or chemical being transferred.
- g. Verify receiving tank has sufficient capacity for volume of oil or chemical being transferred.
- h. Place oil drip container or chemical absorbent pads under the appropriate connections, as necessary.
- i. Ensure fill port spill buckets are in place and free of oil, water, and debris.
- j. Verify that drain valves of secondary containment structures are in the closed position (if applicable).
- k. Verify that tank truck operator has secured tank vehicle with wheel chocks and interlocks.
- l. Verify that tank truck operator has established grounding/bonding wires where required.

During Transfer

- a. The tank truck operator shall follow all USDOT requirements including, but not limited to, 49 CFR Part 177.843 which requires the following:
 - i. The tank truck operator must ensure that the cargo tank truck is attended at all times during unloading by a “qualified person.” A person is “qualified” if he/she:
 - Has been made aware of the nature of the hazardous material which is to be transferred,
 - Has been instructed on the procedures to be followed in emergencies,
 - Is authorized to move the tank truck and has the means to do so.
 - ii. The tank truck operator is considered to be attending the transfer operations if, throughout the process, he/she is alert and is within 25 feet of the tank truck and must have an unobstructed view of the tank truck and transfer hose to the maximum extent practicable during the unloading operation.
- b. Upon commencement of oil or chemical transfer, immediately verify that there are no leaks and that the oil or chemical is transferring to the desired tank.
- c. Inspect piping and tanks including valves and connections for leaks during the transfer.
- d. A trained facility employee must be present at all times during transfer operations to observe transfer and ensure that oil or chemical transfer is terminated immediately when receiving tank is full.
- e. Monitor liquid level in the receiving tank and transfer flow rate to prevent overflow.

Following Transfer

- a. After transferring oil or chemicals, verify that tank truck operator fully empties lines.
- b. Verify that the tank truck operator has secured all valves controlling the flow of oil or chemicals into the tank in the closed position prior to uncoupling the hose from the fill port.
- c. Verify that the tank truck operator has purged and uncoupled vapor recovery hose (if applicable).
- d. Securely cap and lock the fill line (and vapor recovery line if applicable).

- e. Verify that tank truck operator disconnects grounding/bonding wires.
- f. A trained facility employee must verify that the tank truck is disconnected from tanks and piping prior to exiting from the facility.
- g. Verify that the tank truck operator has removed wheel chocks and interlocks.
- h. Prior to the tank truck exiting the facility, a trained facility employee shall inspect the transfer area to insure that no oil or chemicals have been leaked or spilled during the transfer. Any spilled or leaked oil or chemicals shall be contained and cleaned up immediately, and the EC shall be notified.
- i. If no oil or sheen is present, the tank truck shall be permitted to exit facility and a trained employee shall restore transfer containment structures to normal status as appropriate.
- j. Document and keep records of all transfers including: quantity of oil and chemical transferred, identification number of receiving tank, and any problems encountered during the transfer.

6.10 Truck Unloading Operations

40 CFR 112.7(H)(1-3) requires adequate spill prevention during truck unloading.

6.10.1 Adequate Secondary Containment for Vehicles

To provide adequate secondary containment for vehicles [40 CFR 112.7(h)(1)], all tank fill connections are either located within the tank containment area, or a small catchment basin is constructed below the connections, to contain any residual material that may spill upon disconnecting the truck hose. The area in the vicinity of the mobile equipment refueling station and aqueous ammonia storage tank is curbed/graded such that any appreciable spill will be contained such that the spill can be effectively cleaned-up prior to draining off site. All filling/refueling activities are manned for the full duration of the operation.

6.10.2 Warning Barrier System for Vehicles

Fuel oil and chemical delivery truck wheels will be chocked prior to unloading operations and removed after the delivery hose has been disconnected and just prior to departure. These measures provide a warning system for vehicles per 40 CFR 112.7(h)(2).

6.10.3 Vehicles Examined for Drainage Outlets Before Leaving

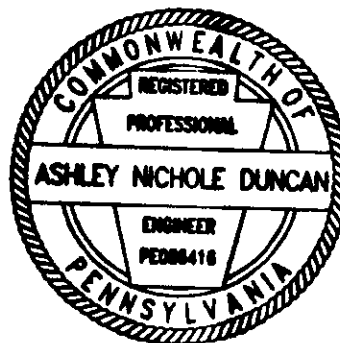
The bulk storage containers are filled from tank trucks as needed. The vendor/transporter has been instructed on the initial notification requirements of this Plan and must be present at all times during filling operations. In accordance with 40 CFR 112.7(h)(3), vehicles will be inspected for leaks prior to departing the facility. Facility personnel must be present to ensure proper unloading procedures are used and to verify the vendor is present at all times during filling operations. Diesel fuel and chemical dispensing into onsite mobile equipment and tanks are only permitted with an operator in attendance during the entire fueling process. Care is taken to minimize spillage and to ensure that spills are promptly contained and removed.


7.0 CERTIFICATION FOR NON-STORMWATER DISCHARGES

As required and applicable for Spill Prevention, Control and Countermeasure (SPCC) Plans under 40 CFR Part 112, a certification shall be provided as part of this EERP by a Registered Professional Engineer.

The undersigned Registered Professional Engineer certifies that he/she is familiar with the requirements of Part 112 of Title 40 of the Code of Federal Regulations (40 CFR Part 112), and has supervised the examination of the facility by appropriately qualified Barton & Loguidice, D.P.C. (B&L), personnel on September 13, 2022. Based on the information available at the time of the site examination, and to the best of Engineer's knowledge and belief, this Environmental Emergency Response Plan (EERP) has been prepared in accordance with the standard and care typical of good engineering practices, including consideration of applicable industry standards, to meet or exceed the minimum provisions required by 40 CFR Part 112. Procedures for required testing, inspections and spill response have been established such that the plan is adequate for the facility. As a condition of this engineer's provision, the facility management has approved this plan and is committed to providing appropriate oversight, resources, staff, equipment and training to implement it fully.

This statement in no way relieves the owner or operator of the facility of his/her duty to prepare, update and fully implement this EERP in accordance with the applicable requirements of 40 CFR Part 112. This plan is valid only to the extent that the facility owner or operator maintains, tests, and inspects all equipment, containers, secondary containment structures, and other devices as prescribed in this plan. This document has been prepared for the exclusive use of Covanta Delaware Valley LP, located at 10 Highland Avenue, Chester, Delaware County, Pennsylvania.





Ashley N. Dobak, P.E.
Managing Engineer

3/22/2023

Date

8.0 SIGNATURES

This Environmental Emergency Response Plan (EERP) will be implemented as herein described. I understand that a complete copy of the EERP shall be maintained in the Main Office, and that all employees are trained to know the location of the plan, and the plan is accessible to employees during facility operating hours in case of a spill emergency in accordance with 40 CFR 112.3(e). I have personally examined and am familiar with the information contained in the EERP and all attachments, and I believe that the information is true, accurate, and complete.

Table 8-1: DVRRF EERP Management Commitment

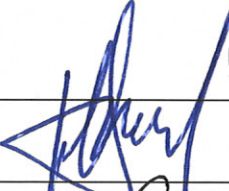
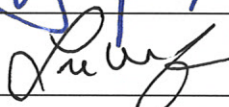

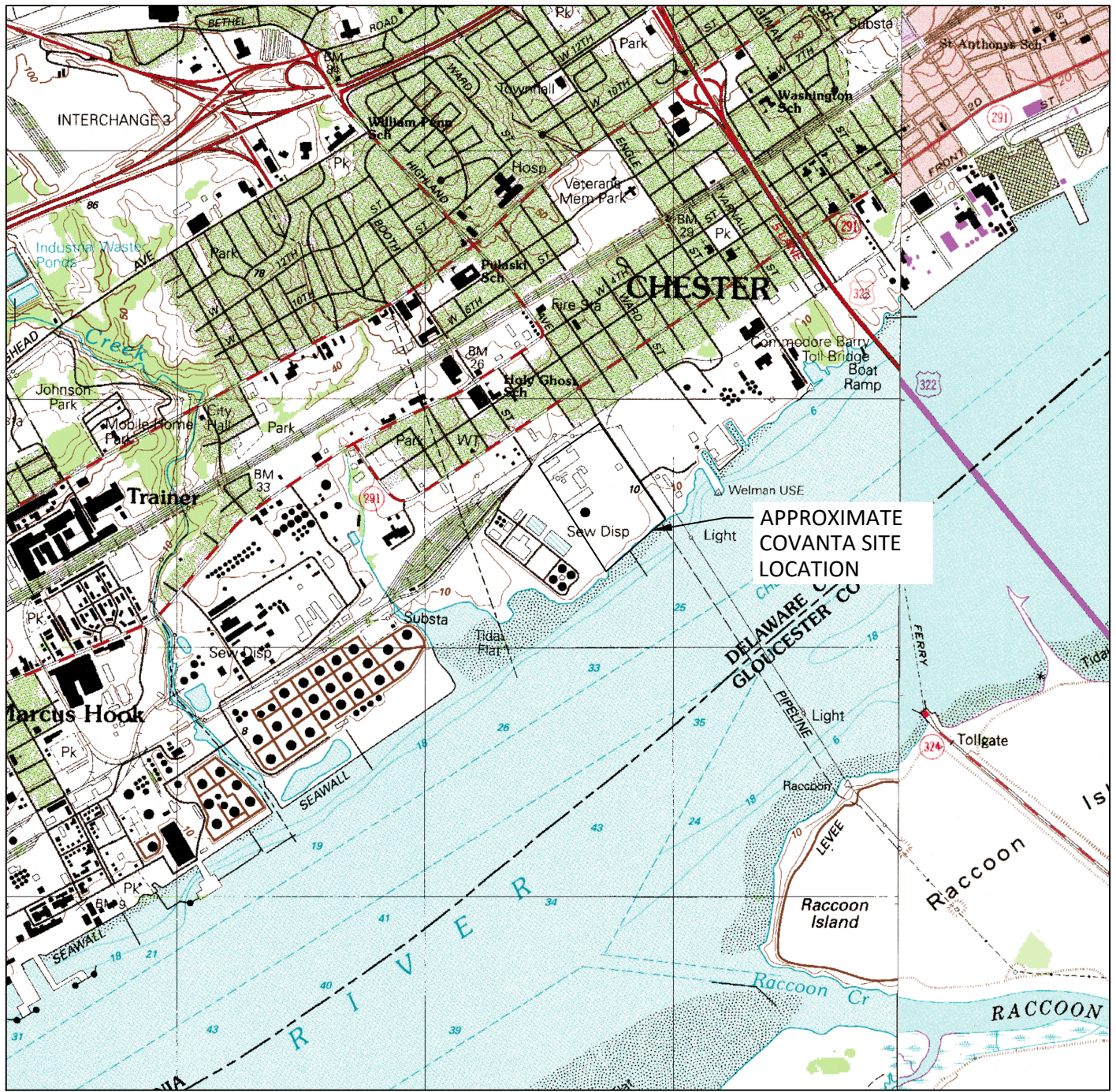
Name (Title)	Date	Signature
Larry Smith Facility Manager	3/22/23	
Lee Wolfe Operations Manager	3/22/23	
Allie Jozwik Environmental Compliance Specialist	3/22/23	
Vacant Safety Manager		

FIGURE 1
SITE LOCATION MAP

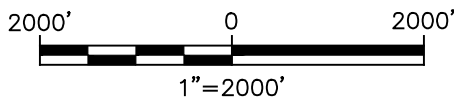
Plotted: Mar 22, 2023 - 12:34PM SYR By: adobak
Z: \\BL-Vault\ID2\18217AD2-1C71-4823-8927-99D5C4054147\0\2817000-2817999\2817881\1\1\1999.008.001_Permit Renewal_USGS - Minor Modification (ID 2817881).dwg



SOURCE: MARCUS HOOK, PENNSYLVANIA U.S.G.S. QUADRANGLE MAP
DATED 1993
BRIDGEPORT, NEW JERSEY U.S.G.S. QUADRANGLE MAP
REVISED 1994



QUADRANGLE LOCATION



TRUE OR CALLED
NORTH

**Barton
& Loguidice**

Date
MARCH, 2023

Scale
AS SHOWN

COVANTA ENERGY SYSTEMS
DELAWARE VALLEY RESOURCE RECOVERY FACILITY
EERP

SITE LOCATION MAP

CITY OF CHESTER

DELAWARE COUNTY, PENNSYLVANIA

Figure Number
1

Project Number
1999.008.001

FIGURE 2
SITE PLAN



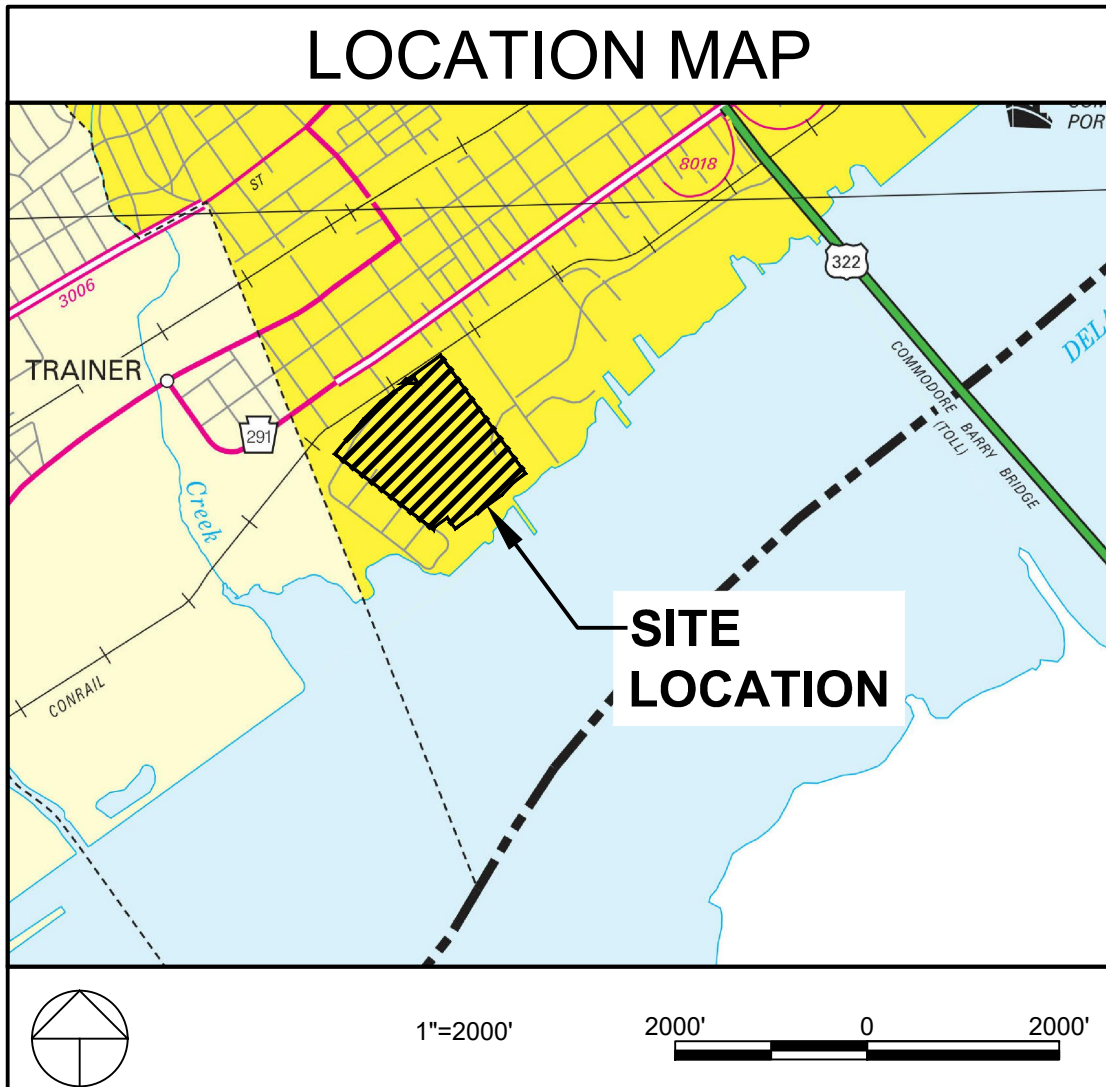
GENERAL SHEET NOTES

1. THIS SITE PLAN IS FOR PERMITTING PURPOSES ONLY AND IS NOT FOR CONSTRUCTION.
2. DRAWING BACKGROUND BASED ON A SURVEY PERFORMED BY STV INCORPORATED , OF DOUGLASSVILLE, PENNSYLVANIA. UPDATED NOVEMBER, 2015.
3. HORIZONTAL AND VERTICAL CONTROL BENCH MARKS - STV #1, CAPPED REBAR, N 2,632.181.47, E 188,257.37, EL 11.14 AND STV #2, CAPPED REBAR, N 2,632.297.43, E 188,461.44, EL 8.80. HORIZONTAL DATUM IS NAV83, PENNSYLVANIA STATE PLANE COORDINATES, SOUTH ZONE. ELEVATION DATUM IS NAVD88.
4. ALL INTERMODAL CONTAINERS ARE DOUBLE STACKED. FULL INTERMODAL CONTAINERS ARE PLACED ON A PAVED SURFACE WITH PROPER STORMWATER MANAGEMENT CONTROLS.

Legend:

- EXISTING PERMIT BOUNDARY
- EXISTING PROPERTY LINE
- EASEMENT
- RADIATION ISOLATION AREA
- RAILROAD TRACKS
- FENCE
- STORMWATER LINE
- WATER LINE
- FIRE LINE
- SANITARY LINE
- GAS LINE
- COMMUNICATION LINE
- ELECTRIC LINE
- OVERHEAD ELECTRIC LINE
- BUILDING
- STORMWATER INLET
- STORMWATER MANHOLE
- SANITARY MANHOLE
- LIGHT POLE
- BENCHMARK

MA MADE LAND, GRAVELY MATERIALS, 0 TO 8 PERCENT SLOPES



COVANTA DELAWARE VALLEY
ENVIRONMENTAL EMERGENCY RESPONSE PLAN

SITE PLAN

CITY OF CHESTER

DELAWARE COUNTY, PENNSYLVANIA

Date
MARCH, 2023

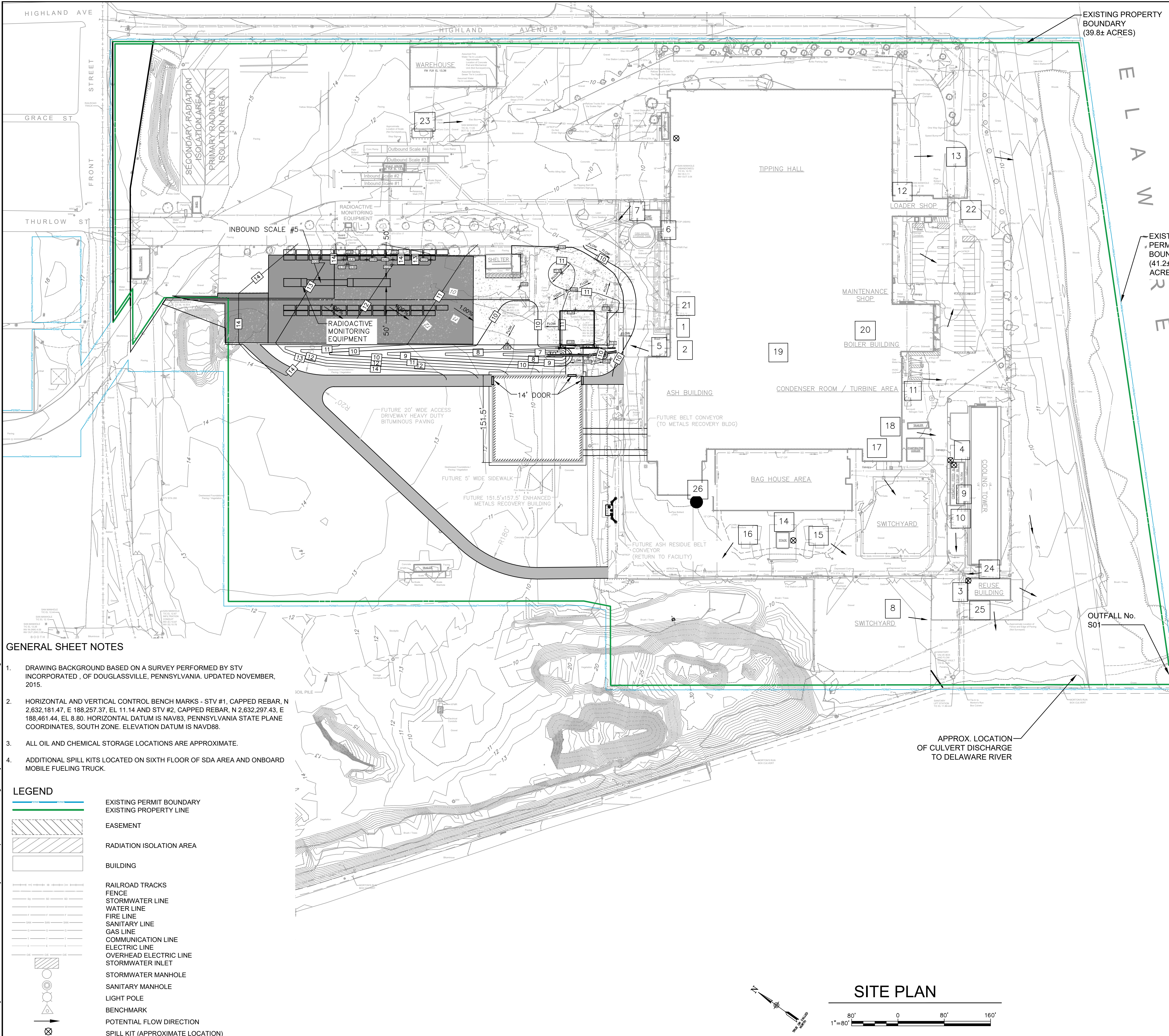
AS SHOWN

SITE PLAN

File Number

1999.005.001

FIGURE 3
OIL AND CHEMICAL STORAGE LOCATIONS



GENERAL SHEET NOTES

- DRAWING BACKGROUND BASED ON A SURVEY PERFORMED BY STV INCORPORATED, OF DOUGLASSVILLE, PENNSYLVANIA, UPDATED NOVEMBER, 2015.
- HORIZONTAL AND VERTICAL CONTROL BENCH MARKS - STV #1, CAPPED REBAR, N 2,632.181.47, E 188.257.37, EL 11.14 AND STV #2, CAPPED REBAR, N 2,632.297.43, E 188.461.44, EL 8.80. HORIZONTAL DATUM IS NAV83, PENNSYLVANIA STATE PLANE COORDINATES, SOUTH ZONE. ELEVATION DATUM IS NAVD88.
- ALL OIL AND CHEMICAL STORAGE LOCATIONS ARE APPROXIMATE.
- ADDITIONAL SPILL KITS LOCATED ON SIXTH FLOOR OF SDA AREA AND ONBOARD MOBILE FUELING TRUCK.

LEGEND

	EXISTING PERMIT BOUNDARY
	EXISTING PROPERTY LINE
	EASEMENT
	RADIATION ISOLATION AREA
	BUILDING
	RAILROAD TRACKS
	FENCE
	STORMWATER LINE
	WATER LINE
	FIRE LINE
	SANITARY LINE
	GAS LINE
	COMMUNICATION LINE
	ELECTRIC LINE
	OVERHEAD ELECTRIC LINE
	STORMWATER INLET
	STORMWATER MANHOLE
	SANITARY MANHOLE
	LIGHT POLE
	BENCHMARK
	POTENTIAL FLOW DIRECTION
	SPILL KIT (APPROXIMATE LOCATION)

LOCATION KEY:

1	LUBRICATING OIL DTE 25 TANK (300 GAL) GREASE AND OILS DRUMS (15 @ 55 GAL EA.) MISCELLANEOUS OILS DRUMS (UP TO 20 @ 55 GAL EA.) GREASES + MIXED BED RESINS TANKS (2X 120 GAL) OIL IN EQUIPMENT (240 GAL)
2	OIL IN EQUIPMENT (220 GAL) CHEMTREAT BL-1756 TANK (2,000 GAL) CHEMTREAT PRODUCT DRUMS (6 @ 55 GAL)
3	CHEMTREAT CL3000 TOTES (2 @ 300 GAL) CHEMTREAT P8281L TOTES (2 @ 250 GAL) CHEMTREAT RL0124 TOTE (400 GAL) CHEMTREAT RL9007 TOTE (250 GAL) CHEMTREAT PRODUCT DRUMS (UP TO 15 @ 55 GAL)
4	SODIUM HYPOCHLORITE TANK (5,200 GAL) SULFURIC ACID TANK (4,200 GAL)
5	DIESEL FUEL TANK (175 GAL) ASST. FLAMMABLE GASSES (30 @ 350 CF)
6	MINERAL OIL IN PC-8 TRANSFORMER (154 GAL)
7	DIESEL FUEL OIL TANK (275 GAL)
8	WECOSOL IN STEP UP TRANSFORMER (4,196 GAL) WECOSOL IN START-UP TRANSFORMER (8,573 GAL) WECOSOL IN PLANT SVC TRANSFORMER (2,386 GAL)
9	CHEMTREAT CL-1497 TANK (550 GAL) CHEMTREAT CL-1497 TOTES (2 @ 500 GAL)
10	MINERAL OIL IN TRANSFORMER 8 (221 GAL) MINERAL OIL IN TRANSFORMER 9 (221 GAL)
11	LIQUID NITROGEN TANK (3,000 GAL)
12	WASTE OIL IN PARTS WASHER (<5 GAL) WASTE OIL TANK (500 GAL) DIESEL FUEL TANK (4,000 GAL) ENGINE OIL TANK (500 GAL) TRANSMISSION OIL TANK (500 GAL) HYDRAULIC OIL TANK (500 GAL) ENGINE OIL TANK (275 GAL) GREASE DRUMS (1 @ 55 GAL) ANTIFREEZE IN TOTE (200 GAL) DIESEL EXHAUST FLUID TOTE (200 GAL)
13	SPLIT TANK: HYDRAULIC OIL (175 GAL) & ANTIFREEZE (75 GAL)
14	LIME SILO (220 TONS) LIME SLURRY TANK (7,000 GAL) ASST. NON-FLAMMABLE GASSES (60 @ 350CF)
15	MINERAL OIL IN TRANSFORMER 6 (156 GAL)
16	MINERAL OIL IN TRANSFORMER 7 (156 GAL)
17	WASTE OIL DRUMS (3 @ 55 GAL)
18	WASTE OIL TOTES (2 @ 300) WASTE OIL DRUMS (3 @ 55) MINERAL OIL IN PC-1 TRANSFORMER (156 GAL) SODIUM HYPOCHLORITE 12.5% SOL. TANK (200 GAL) CHEMTREAT RL0124 TOTE (400 GAL) DEICER IN TOTE (300 GAL) CHEMTREAT PRODUCTS IN DRUMS (UP TO 7 @ 55 GAL)
19	HYDRAULIC OIL IN FEED RAM SKIDS (6 @ 500 GAL) HYDRAULIC OIL IN ASH EXTRACTOR SKID (400 GAL) DTE LIGHT OIL IN ELECTRIC BOILER PUMP (60 GAL) DTE LIGHT OIL IN STEAM BOILER PUMPS (2 @ 100 GAL) DTE LIGHT OIL IN INSTRUMENT AIR COMP. (2 @ 110 GAL)
20	MINERAL OIL IN PC-2 TRANSFORMER (272 GAL) MINERAL OIL IN PC-3 TRANSFORMER (272 GAL)
21	GASOLINE IN ASST. CONTAINERS (3 @ 10 GAL) PAINTS AND THINNERS (MISC, 75 GAL TOTAL)
22	DIESEL FUEL TANK ON-BOARD TRUCK (300 GAL) OIL TANK ON-BOARD TRUCK (40 GAL) HYDRAULIC OIL TANK ON-BOARD TRUCK (40 GAL) WASTE OIL TANK ON-BOARD TRUCK (80 GAL)
23	OFF-ROAD DIESEL FUEL TANK (2,500 GAL)
24	SULFURIC ACID TANK (1,050 GAL) SODIUM HYPOCHLORITE TANK (1,050 GAL) SODIUM BISULFITE TANK (1,000 GAL) FERRIC CHLORIDE TANK (1,000 GAL)
25	MINERAL OIL IN TRANSFORMER 10 (450 GAL)
26	AMMONIA TANK (35,000 GAL)

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By: DSP Date: 01/2019
Ck'd: SCS Date: 01/2019

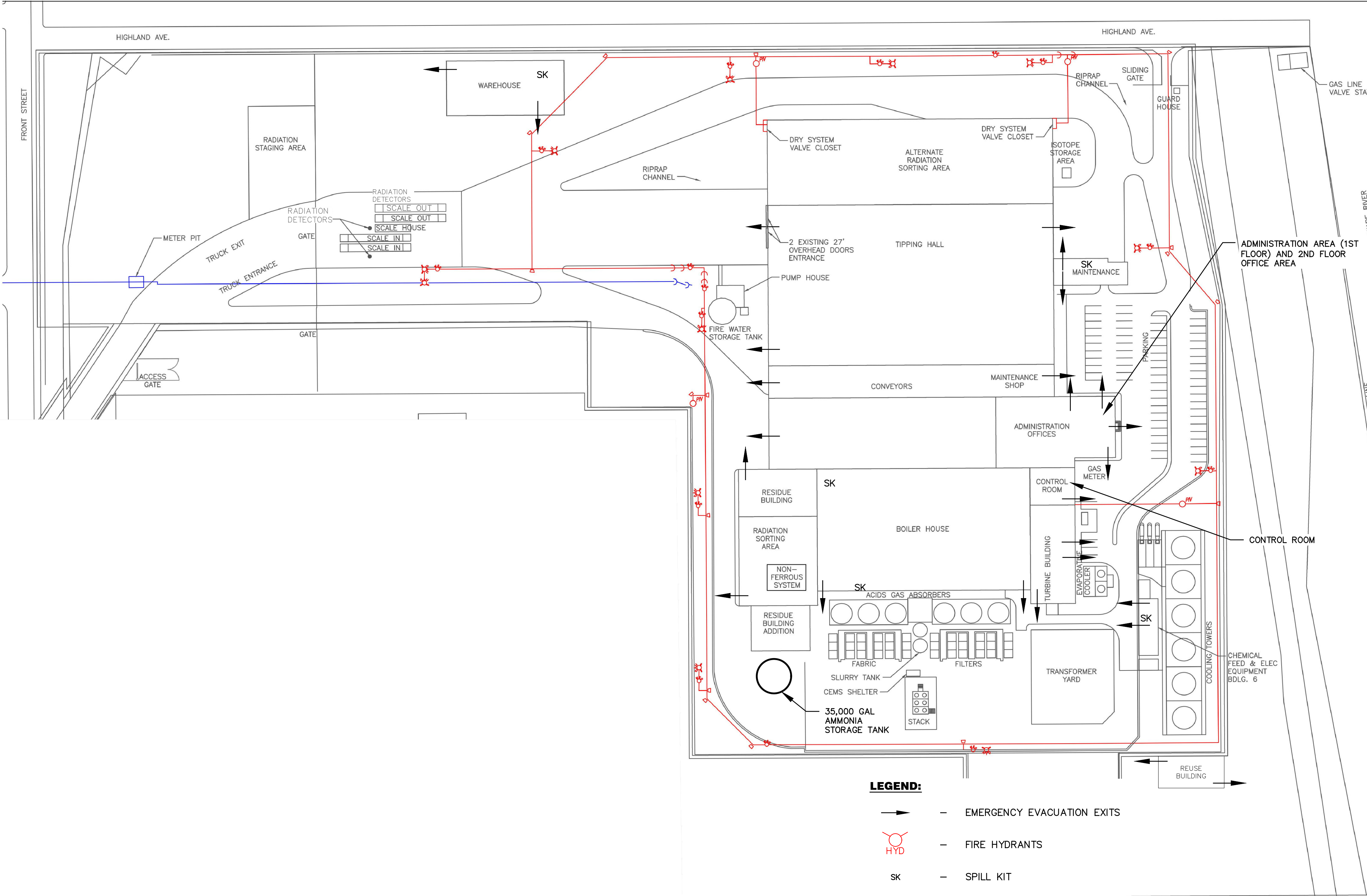
REVISIONS	
ALD2	12/2020 REVISION OF STORAGE LOCATION AND QUANTITIES
MGR	03/2023 ADDITION OF AMMONIA STORAGE TANK & TURRET FLEEN UNIT CONTOUR REVISIONS

COVANTA DELAWARE VALLEY
ENVIRONMENTAL EMERGENCY RESPONSE PLAN
OIL AND CHEMICAL STORAGE LOCATIONS
DELAWARE COUNTY, PENNSYLVANIA
CITY OF CHESTER

B&L
Slate Hill Business Center
3901 Hartzdale Drive
Suite 101
Camp Hill, PA
17011-7843
Barton & Loguidice, D.P.C.

Date: MARCH, 2023
Scale: AS SHOWN
3
File Number: 1999.008.001

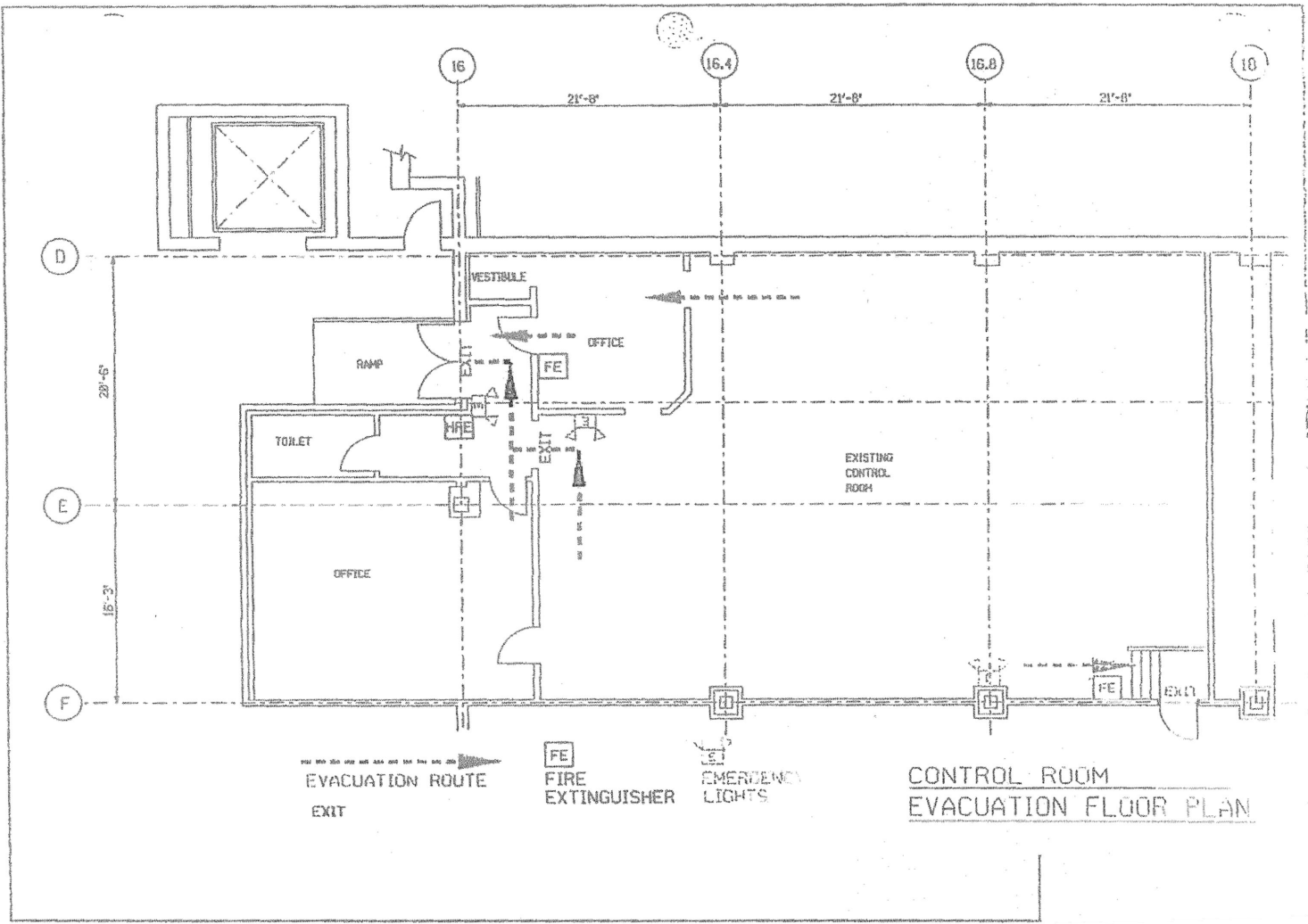
FIGURE 4
EMERGENCY EVACUATION PLAN



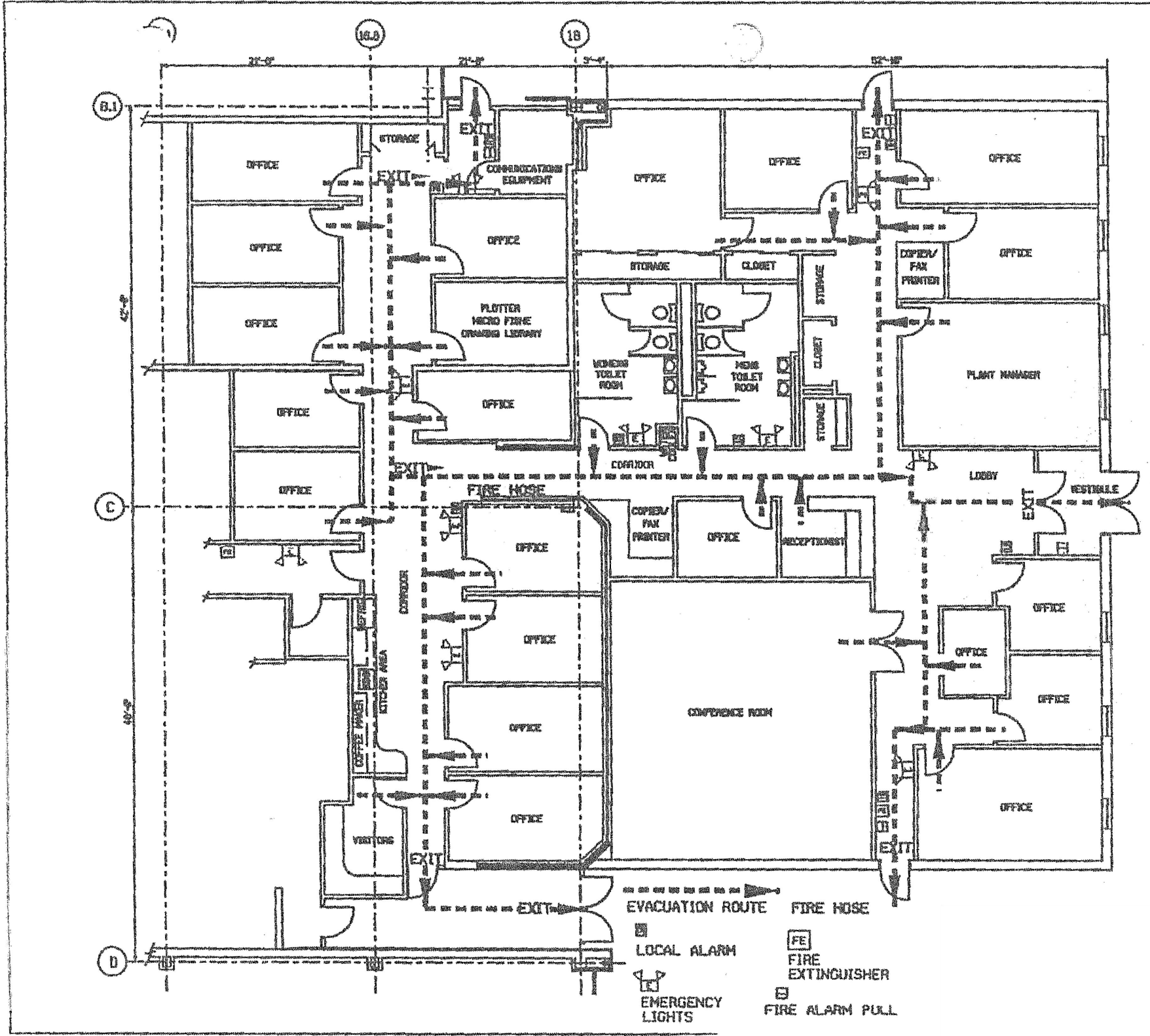
- LEGEND:**
- - EMERGENCY EVACUATION EXITS
 - HYD - FIRE HYDRANTS
 - SK - SPILL KIT

FIRE EXTINGUISHER LOCATIONS			
1. Elevator Room	28. 125' Behind 1,7,8 DPU	55. 100' BLR. #6 FCP	82. Bottom of Slaker Steps
2. 179' Elevator	29. 125' Center Stairs	56. 100' NW Stairs	83. Top of Slaker Steps
3. 179' Center Stairs	30. 125' SW Corner	57. 100' BLR. #6 FD Fan	84. ER #5
4. SDA #123	31. 125' BLR #6 Rams	58. 100' ER #3	85. ER #5
5. SDA #456	32. 125' BLR #3 Rams	59. 100' ER #3	86. Stack Elevator
6. 179' SW Corner	33. 125' BLR #1 Rams	60. 100' Demin. Door	87. CEMS Outlet new
7. 158' Elevator	34. 115' Elevator	61. 100' WW Tanks/ER-2	88. CEMS Outlet old
8. 158' E. Hyd. Skid	35. 115' Cond. Room NW	62. 100' Flammable Storage	89. ER#6
9. 158' Center Stairs	36. 115' Center Stairs	63. 100' Flammable Storage	90. ER#6
10. 158' W. Hyd. Skid	37. 115' SW Corner	64. Uniform Room	91. Chem Feed Room
11. 158' SW Corner	38. 115' ER #2	65. 100' Maint Office / ER2	92. Hydrogen Cage
12. 145' Center Stairs	39. 100' ER #2 W	66. 100' Planning Office	93. Engineering Offices
13. 145' SW Corner	40. 100' ER #2 E	67. 100' Chem Lab	94. Lunch Room
14. 138' Elevator	41. 100' Elevator	68. 100' ER #1@ Door	95. Maint. Shop Door
15. 138' Center Stairs	42. 100' BFP E. Wall	69. 100' ER #1 East	96. Maint. Exit to T. F.
16. 138' SW Corner	43. 100' Cond. Rm. NW	70. 100' BLR #2 FD Fan	97. CEMS Inlet Room New
17. I&E Front Door	44. 100' Cond. Rm. NE	71. 100' BLR #4 FD Fan	98. CEMS Inlet Room New
18. I&E Back Corner	45. 100' Cond. Rm. SE	72. 100' BLR #5&6 FD Fans	99. Maint. Mezzanine
19. I&E Outside Door	46. 100' Cond. Rm. SW	73. 100' BLR #5&6 AE	100. Maint. Mezzanine
20. 125' Elevator	47. 100' Compressors	74. 100' BLR #3&4 AE	101. Maintenance Forklift
21. 125' Control E. Door	48. 100' Slipstick Alley	75. 100' BLR #4&5 AE	102. T. F. Truck Exit
22. 125' Control W. Door	49. 100' SW Stairwell	76. 100' BLR #2&3 AE	103. T. F. Truck Exit
23. Permit Room	50. 100' Residue Sump Exit	77. 100' BLR #1&2 AE	104. T. F. Truck Exit
24. 25' Turbine Deck N.	51. Non Ferrous Door	78. CEMS Inlet	105. T. F. Truck Exit
25. 125' Turbine Deck E.	52. Ferrous Cab Under	79. CEMS Inlet	106. T. F. Truck Exit
26. 125' Turbine Deck S.	53. Ferrous Cab Under	80. ER #4	107. Loader Shop
27. 125' SE Stairs	54. Pugmill Room	81. ER #4	108. Loader Shop
			109. Loader Fuel Station
			110. Loader Fuel Station
			111. T. F. Truck Entrance
			112. T. F. Truck Entrance
			113. T. F. Truck Entrance
			114. T. F. Shack
			115. T. F. Truck Entrance
			116. T. F. Truck Entrance
			117. Fire Pump House
			118. Guard Shack
			119. Scale House
			120. Warehouse
			121. Warehouse
			122. Warehouse
			123. Warehouse
			124. Warehouse
			125. Warehouse Truck
			126. Warehouse Forklift
			127. T. F. Under Stairs
			128. T. F. Under Stairs
			129. T. F. Under Stairs
			130. T. F. Under Stairs
			131. T. F. Under Stairs
			132. MSW Pit Roll-Up
			133. MSW Pit Roll-Up
			134. MSW Walkway
			135. MSW Walkway
			136. MSW Walkway
			137. MSW Pit #1 Stairs
			138. MSW Pit #3 Stairs
			139. MSW Pit #5 Horiz.
			140. Training Room
			141. Outside Communications
			142. Communications Room
			143. Outside Conference Rm
			144. Outside Comptroller's
			145. Outside Locker Room
			146. Reuse Bldg. Front Door
			147. Reuse Bldg. Elec. Room
			148. Reuse Bldg. Back Door
			149. Sweeper
			150. Operations Forklift # 2
			151. Tipping Floor Forklift
			152. Aerial Lift
			153. Skid Steer
			154. Power Buggy
			155. Zettlemeyer
			156. Service Truck
			157. NY Fuel Tank

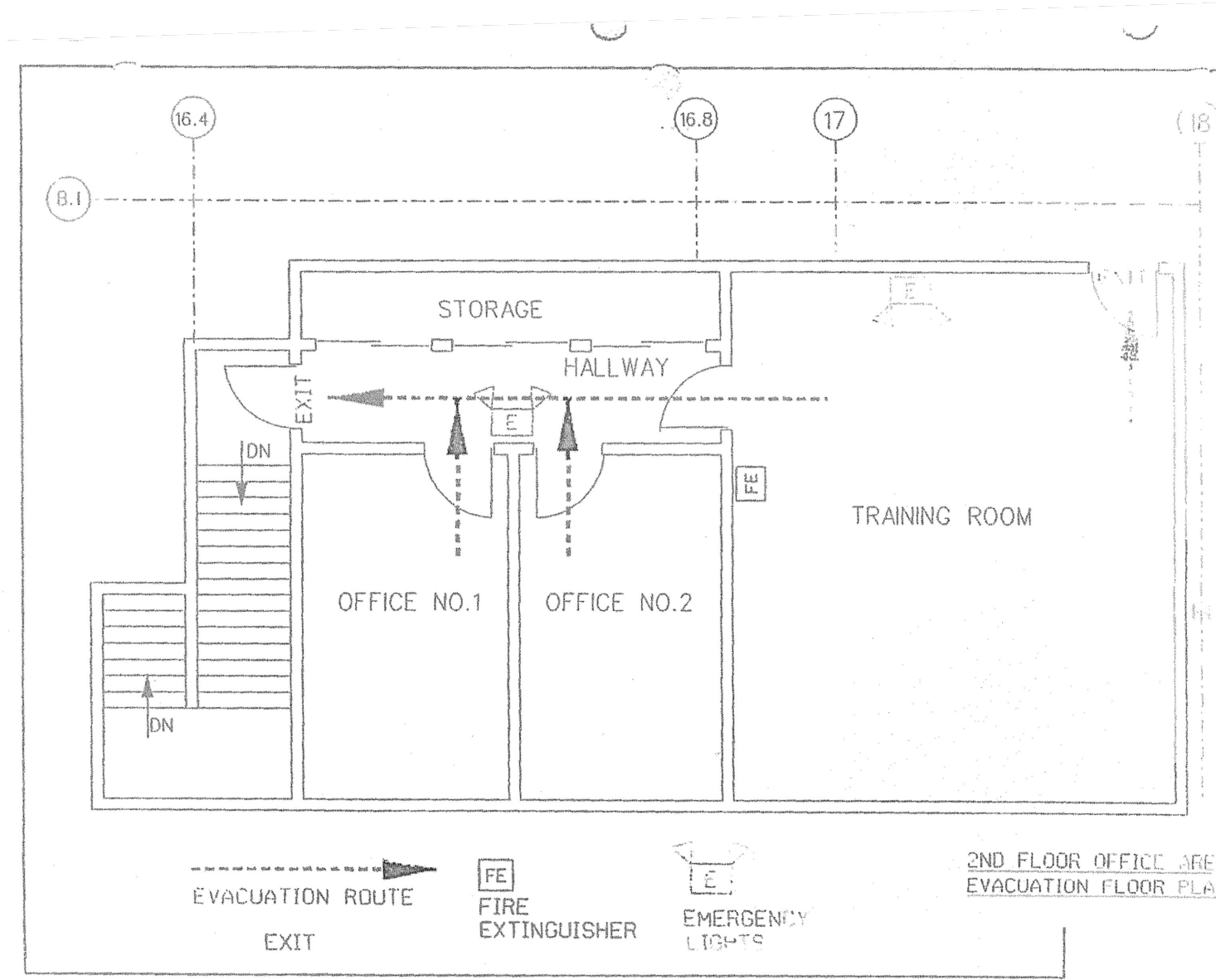
SAFETY SHOWER AND EYEWASH STATION LOCATIONS	
LOCATION	TYPE
Chemical Feed Room	Safety Shower/Eyewash Station
Outside Chemical Feed Room	Safety Shower/Eyewash Station
Maintenance Shop	Eyewash Station
Outside Slaker Room	Safety Shower/Eyewash Station
Outside Slurry Pump Room	Safety Shower/Eyewash Station
Boiler RO	Safety Shower/Eyewash Station
Water Treatment Lab	Eyewash Station
Sodium Hypo Tank Condenser Room	Portable Eyewash
Loader Shop	Portable Eyewash
Loader Service Bay	Portable Eyewash
Battery Room	Portable Eyewash
SDA Deck #1	Portable Eyewash
SDA Deck #2	Portable Eyewash
RO Re-Use Building	Portable Eyewash
Switch Yard	Portable Eyewash



CONTROL ROOM EVACUATION FLOOR PLAN



ADMINISTRATION AREA EVACUATION FLOOR PLAN



2ND FLOOR OFFICE AREA EVACUATION FLOOR PLAN

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THE ELECTRONIC FILES, THE SEALED DRAWINGS
SHALL GOVERN.

By _____ Date _____
Ck'd _____ Date _____

REVISIONS		
MRG	03/2023	ADDITION OF AMMONIA STORAGE TANK

COVANTA ENERGY SYSTEMS
DELAWARE VALLEY RESOURCE
RECOVERY FACILITY

EMERGENCY EVACUATION PLANS

DELAWARE COUNTY, PENNSYLVANIA

CITY OF CHESTER

Slate Hill Business Center
3901 Hartzdale Drive
Suite 101
Camp Hill, PA
17011-7843

B&L

Barton & Loguidice, D.P.C.

Date
FEBRUARY, 2023

Scale
NOT TO SCALE

Attachment
4

File Number
1999.008.001

APPENDIX 1
SAFETY DATA SHEETS (SEE MSDS ONLINE VIA THE COVANTA HEALTH AND
SAFETY SHAREPOINT WEBSITE)
[HTTPS://CHEMMANAGEMENT.EHS.COM/9/4FA284D3-3BA7-4F99-AD65-](https://chemmanagement.ehs.com/9/4fa284d3-3ba7-4f99-ad65-232d2404ae82/ebinder)
[232D2404AE82/EBINDER](https://chemmanagement.ehs.com/9/4fa284d3-3ba7-4f99-ad65-232d2404ae82/ebinder)

APPENDIX 2
POLLUTION INCIDENT HISTORY LOG

Pollution Incident History Log

Covanta Delaware Valley Resource Recovery Facility

Date	Material(s) Released	Quantity Released	Discharge Location	Cause	Corrective Actions Taken	Preventative Measures Implemented
June 3, 2013	Diesel Fuel	<ul style="list-style-type: none"> 15 gallons 	Pavement	Truck tank rupture	Repair truck and tank	N/A current measures were satisfactory
June 15, 2016	Diesel Fuel	<ul style="list-style-type: none"> 20-25 gallons 	Pavement	Truck tank rupture	Repair truck and tank	N/A current measures satisfactory
December 29, 2019	Non-contact cooling water from cooling water circulation line	<ul style="list-style-type: none"> 21,00-gallons of water total 1-Hydroxyethylidene-1, 1-diphosphonic acid, tetrapotassium salt (0.65 lbs) Potassium Hydroxide (1.30 lbs) Sodium Molybdate (0.20 lbs) Tolyltriazole, Sodium Salt (0.91 lbs) Sulfuric Acid/Balance Water (46.69 lbs) Chlorine (0.0053 lbs) 	Stormwater system and into the Delaware River	Rupture in non-contact cooling water circulation line	The non-contact cooling water circulation line was inspected and repaired on December 29, 2019 and returned to service with no further incidences	Continued monitoring and scheduled repairs
August 12, 2022 (identified on September 2, 2022)	Non-contact cooling water from cooling water circulation line underground	<ul style="list-style-type: none"> Chlorine (0.127 lbs) 1-Hydroxyethylidene-1, 1-diphosphonic acid, tetrapotassium salt (1.48 lbs) Sulfuric Acid/Balance Water (173.71 lbs) 	Underground	Rupture in non-contact cooling water circulation line	non-contact cooling water circulation line was isolated to prevent further discharge to the subsurface	Covanta will continue to monitor the situation and make scheduled repairs as required

APPENDIX 3
SPCC PLAN CHECKLIST AND REGULATORY CROSS-REFERENCE

SPCC Plan Checklist and Regulatory Cross-Reference
Covanta Delaware Valley Resource Recovery Facility

The following table has been prepared to assist in the preparation of the cross-referencing of the requirements listed in the SPCC Rule and the equivalent requirements of the EERP. It can be used if the SPCC plan does not follow the newly reorganized sequence from the regulations. It lists each requirement in the New SPCC Rule, provides the corresponding old SPCC regulatory reference, a description of the requirement and leaves space where you can indicate the location (Section) of the provision in your plan. This table also serves as a completeness checklist to ensure that your plan meets all of the requirements of the SPCC regulation.

SPCC Citation	Description	Section
	Owner and Operator Addresses and Phone Numbers	2.4
		Table 2-2
	Day-to-Day Operations and Facility Background	1.1
	Receiving Water/Probable Flow Paths	
112.3(d)(1)	Professional Engineer Certification	7.0
112.5(b)	Reviewed within the past five years	2.1
112.5(c)	Certification of Technical Amendments by Professional Engineer (or agent)	2.1 / 7.0
112.7	General Requirements for SPCC Plans	1.7
112.7	Full management approval	8.0
112.7(a)(1)&(2)	Deviations from Plan Requirements	1.7.2
112.7(a)(3)	Physical Layout/Description of Facility	1.1 Figure 2
112.7(a)(4)	Spill (Discharge) Reporting Procedures	4.1.4
112.7(a)(5)	Spill (Discharge) Response Procedures	4.1.1
112.7(b)	Discharge Prediction (Fault Analysis)	3.1
112.7(b)	Discharge Prediction (Fault Analysis)	3.1
112.7(c)	Diversiory Structures and Secondary Containment	1.4 / 3.1
112.7(d)	Demonstration of impracticability for diversiory structures or containment (Contingency Planning)	3.1
112.7(e)	Inspection and records (Maintain for 3 years)	3.3
	Keep written inspection procedures	3.3
	Records of inspections, tests signed by appropriate supervisor	3.3
	Records of inspections, discharges, trainings, briefings.	3.3
	Professional Engineer and owner have a role in development of inspection procedures.	3.3
112.7(f)	Personnel, training and discharge prevention procedures	3.0/4.0
112.7(f)(1)	Oil-handling personnel instructed in equipment operation and maintenance to prevent discharges, discharge procedure protocols, applicable pollution control regulations, and general facility operations and the contents of the SPCC plan.	3.8
112.7(f)(2)	One person accountable for discharge prevention	2.2
112.7(f)(3)	Owner/operator conducts briefings annually for oil-handling personnel.	2.1

	Training highlights and describes known discharges or failures, malfunctioning components, and recently developed precautionary measures.	3.8
112.7(g)	Security	3.6
112.7(g)(1)	Fully fenced.	3.6.2
	Gates locked when plant unattended.	
112.7(g)(2)	Master flow and drain valves of containers locked closed	3.6.4
112.7(g)(3)	Starter control locked “off” or located only where the authorized have access.	3.6.4
112.7(g)(4)	Out-of-service pipelines capped or blank-flanges	3.6.5
112.7(g)(5)	Lighting adequate for night discharge detection and deterring vandals.	3.6.6
112.7(h)	Truck Unloading Operations	6.10
112.7(h)(1)	Secondary containment for largest vehicle compartment (or quick drainage system).	6.10.1
112.7(h)(2)	Prevention of early vehicle departure via warning signs, physical barriers or interlocked warning light.	6.10.2
112.7(h)(3)	Vehicle examined for leakage at all outlets prior to departure.	6.10.3
112.7(i)	Brittle Fracture Evaluation	3.3.2
	Evaluate field-constructed containers that have undergone repair, alteration, reconstruction or change in service.	3.3.2
	Evaluate when there is a discharge or failure due to brittle fracture or catastrophic release.	3.3.2
112.7(j)	Conformance with Additional State Requirements	1.7
	Applicable SPCC requirements, and	1.7.2
	Any other more stringent state or local rules, regulations or guidelines	1.7.3 / 1.7.4
	Specific SPCC Plan Requirements – Discharge Prevention and Containment Procedures	3.0
112.8(b)	Drainage Control	6.8
112.8(b)(1)	Dike drainage via valves or manually controlled pumps	6.8.1
112.8(b)(2)	No flapper-type drain valves on diked areas; Dike drain valves manual control.	6.8.2
112.8(b)(3)	Undiked areas drain to catch basins	6.8.3
112.8(b)(4)	If no drain prep as above, diversion system to return oil.	6.8.4
112.8(b)(5)	If drainage water not moved by gravity flow, then redundant lift pump setup.	6.8.5
112.8(c)	Bulk Storage Containers	6.5
112.8(c)(1)	Material and construction compatible with contents	3.2 / 6.8.7
112.8(c)(2)	Secondary containment for largest container + precipitation, <u>and</u> dikes sufficiently impervious to discharged oil <u>or</u> trench enclosure draining to catch basin.	6.8.5
112.8(c)(3)	Rainwater drainage (into storm drain or water course) is allowed to bypass in-plant treatment if:	6.8.9
112.8(c)(3)(i)	Bypass valve normally sealed closed, <u>and</u>	6.8.9
112.8(c)(3)(ii)	Inspection and compliance with water quality standards, <u>and</u>	6.8.9
112.8(c)(3)(iii)	Valve opened under responsible supervision, <u>and</u>	6.8.9

112.8(c)(3)(iv)	Records kept of drainage events. (Note: NPDES records, if available may be used to document stormwater bypass events for SPCC purposes instead of keeping separate SPCC records for the same events).	6.8.9
112.8(c)(4)	Buried tanks protected against corrosion.	6.8.10
112.8(c)(5)	Partially buried tanks protected against corrosion	6.8.11
112.8(c)(6)	Regularly scheduled integrity testing of aboveground containers via visual inspection and one of the following nondestructive methods: _____ hydrostatic testing, _____ radiographic testing, _____ ultrasonic testing, _____ acoustic emissions testing or _____ another nondestructive shell testing method.	3.3.2
	Additional integrity testing when repairs are made. Keep records of inspections and tests. (Records kept under usual and customary business practices will suffice).	
112.8(c)(7)	Frequent visual inspections of outside containers for signs of deterioration, discharge or oil accumulation in diked areas Internal heating coils are closed loop <u>or</u> treated and monitored.	6.8.12
112.8(c)(8)	Alarm Systems. Fail-safe engineering on all containers, new and old, via high liquid level alarms or high liquid pump cutoff devices, or audible/code warning, <u>and</u> regular testing of liquid level sensors.	6.8.13
112.8(c)(9)	Wastewater treatment facilities inspected regularly for oil-contaminated discharges (NPDES).	6.8.14
112.8(c)(10)	Visible leaks on containers and piping corrected (Protocol).	6.8.15
112.8(c)(11)	Secondary containment for largest portable storage container. Portable container area free from periodic flooding or washout.	6.8.16
112.8(d)	Facility Transfer Operations	6.7.1
112.8(d)(1)	Buried pipe protected against corrosion (protective wrapping or coating). Cathodic protection or protection to satisfy Part 280 or Part 281 requirements.	6.7.1.1
112.8(d)(2)	Out-of-service pipes capped or blank-flanged with origin marked.	6.7.1.2
112.8(d)(3)	Pipe supports minimize abrasion, corrosion, sagging.	6.7.1.3
112.8(d)(4)	Regular inspection of surface pipes and valves Regular pressure testing for pipes with no secondary containment. Integrity and leak testing of buried piping at time of installation, modification, construction, relocation or replacement.	6.7.1.4
112.8(d)(5)	Signs to warn vehicles about piping.	6.7.1.5
112.20(e)	Applicability of Substantial Harm Criteria Checklist	1.7.2 Appendix 4

APPENDIX 4
CERTIFICATION OF THE APPLICABILITY
TO SUBSTANTIAL HARM CRITERIA

Certification of Applicability of Substantial Harm Criteria Checklist
Covanta Delaware Valley Resource Recovery Facility

Facility Name: Delaware Valley Resource Recovery Facility (DVRRF)

Facility Address: 10 Highland Avenue, Chester, PA 19013

	Yes	No
1. Does the facility transfer oil over water to or from vessels, and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?		X
2. Does the facility have a total oil storage capacity greater than or equal to one million gallons, and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?		X
3. Does the facility have a total oil storage capacity greater than or equal to one million gallons, and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula {1}) such that a discharge from the facility can cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Title 40 Part 112 Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan.		X
4. Does the facility have a total oil storage capacity greater than or equal to one million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula {1}) such that a discharge from the facility will shut down a public drinking water intake {2}?		X
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?		X

Notes:

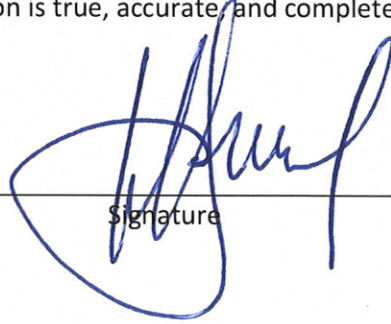
- {1} If a comparable formula is used documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.
- {2} For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Lee & Smith Jr.

Name (please type or print)

A handwritten signature in blue ink, appearing to be 'Lee & Smith Jr.', written over a horizontal line.

Signature

Facility Manager

Title

3/22/23

Date

APPENDIX 5
EERP REVIEW AND AMENDMENT LOGS

EERP Review Log

Covanta Delaware Valley Resource Recovery Facility

Management Review

Review Date: _____

Name (please print): _____

Signature: _____

By signature, I have completed a review and evaluation of the EERP for Covanta Delaware Valley Resource Recovery Facility on the date indicated above and the plan **will will not** require amendment as a result.

Management Review

Review Date: _____

Name (please print): _____

Signature: _____

By signature, I have completed a review and evaluation of the EERP for Covanta Delaware Valley Resource Recovery Facility on the date indicated above and the plan **will will not** require amendment as a result.

Management Review

Review Date: _____

Name (please print): _____

Signature: _____

By signature, I have completed a review and evaluation of the EERP for Covanta Delaware Valley Resource Recovery Facility on the date indicated above and the plan **will will not** require amendment as a result.

Management Review

Review Date: _____

Name (please print): _____

Signature: _____

By signature, I have completed a review and evaluation of the EERP for Covanta Delaware Valley Resource Recovery Facility on the date indicated above and the plan **will will not** require amendment as a result.

In the event that the facility undergoes a modification that alters the contents of this Plan, including, but not limited to, construction activities; change in ownership; fabrication or alteration of a process, an amended plan shall be prepared and certified by a licensed PE familiar with the facility. The amended Plan shall replace this plan. The reason, date and impacted pages of the Plan amendments are to be included in the log on the following page.

In addition, if more than 1,000 gallons of oil is discharged into or upon the "Navigable Waters of the United States" or adjoining shorelines in a single spill event, or in two (2) spill events of greater than or equal to 42 gallons of oil occurring within a 12 month period, the EPA shall be notified, as discussed in Section 4.1.4, and the EPA Regional Administrator may require the Facility to amend this Plan. Within thirty (30) days of EPA notice to amend the plan, the PE certified amendment must be forwarded to the EPA.

APPENDIX 6
INSPECTION FORMS

Monthly Facility Inspection Form
(Included in weekly environmental walk down)
Covanta Delaware Valley Resource Recovery Facility

	<u>Transformers</u>	<u>Boiler/Turbine Bld</u>	<u>Boiler/Turbine Bld</u>	<u>Cooling Tower Area</u>	<u>Re-Use Area</u>	<u>Loader Shop/Tipping</u>	<u>Bulk Fuel Tanks</u>	<u>Aqueous Ammonia Tank</u>
	Various locations at facility (12 total)	Drums – Water treatment chemicals/ petroleum	Tanks – BL1756/ Sodium Hypochlorite/ Petroleum	93% Sulfuric Acid/ 12.5% Sodium Hypochlorite/ CL1497	93% Sulfuric Acid/ 12.5% sodium hypochlorite/ Various chemical drums & totes	Petroleum tanks & drums/ Fuel oil tanks/ Antifreeze tank & drums	Emergency Diesel Generator/ Firewater Pump/ Diesel tank next to Scalehouse	35,000 gallon tank near Ash Building
Conditions (Sat/Unsat or Y/N)								
Security is adequate								
Container Signage adequate								
Container Condition								
Container free of signs of Leak								
Containment Provided								
Containment Condition								
Tank level gauges/alarms								
Tank vents unobstructed								
Tank valves/flanges not leaking								
Loading/unloading area clean								
Hose condition								
Piping condition								
Spill Kit nearby/adequate								

Inspection Completed By: _____

Date: _____

APPENDIX 7
ANNUAL EMPLOYEE TRAINING LOG

Annual Employee Training Log
Annual Employee Spill Prevention Training Meeting
Covanta Delaware Valley Resource Recovery Facility

Topics to Discuss

1. General Overview of the Facility's Spill Prevention Control and Countermeasure (SPCC) Plan
 - a. Regulations Behind the SPCC Plan
 - b. Review of the Provisions of the Facility's SPCC Plan
 - c. Goals of the SPCC Plan
2. Spill Prevention Equipment
3. Tank Inspections and Recordkeeping
4. Spill Response Procedures
5. Spill Cleanup Procedures
6. Prior Spill Response Critique (If Applicable)
7. Issues Regarding Current Fuel Handling and Storage at the Facility
8. Updates to the SPCC Plan
9. Employee Suggestions for Improvements
10. "Mock" Spill Drill

APPENDIX 8
NOTIFICATION FORM FOR REPORTABLE SPILL EVENT

NOTIFICATION OF RELEASE (*Owners and Operators*)

FACILITY I.D. NUMBER _____

☐ Initial
☐ Follow-Up

NOTIFICATION OF CONTAMINATION (*Certified Installers and Inspectors*)

INFORMATION FOR OWNERS AND OPERATORS (O/O)

The Storage Tank Program's Corrective Action Process (CAP) regulations establish requirements for owners and operators of storage tank systems and storage tank facilities to report confirmed releases and, in certain cases, suspected releases.

Suspected Release Reporting: Upon the completion of a suspected release investigation from which it could not be determined whether a release has occurred, the owner or operator must, within 15 days of the indication of the suspected release, complete and submit this form to the appropriate regional office of the Department (Subsection 245.304(c)(2)).

Confirmed Release Reporting: The owner or operator must notify the appropriate regional office of the Department by telephone as soon as practicable, but no later than 24 hours, after the confirmation of a release (Subsections 245.305(a) and (b)). Within 15 days of that telephone notification, the owner or operator must complete and submit this form to the appropriate regional office of the Department, to each municipality in which the release occurred, and to each municipality where that release has impacted environmental media or water supplies, buildings, or sewer or other utility lines (Subsections 245.305(c) and (e)). And if new impacts to environmental media or water supplies, buildings, or sewer or other utility lines are discovered after that initial written notification, the owner or operator must, within 15 days of the discovery of the new impact, complete and submit this form to the Department and to each impacted municipality (Subsections 245.305(d) and (e)).

INFORMATION FOR CERTIFIED INSTALLERS AND INSPECTORS (I/I)

In accordance with the Storage Tank Program's certification regulations, certified installers and inspectors must complete and submit this form to the Department within 48 hours of observing any of the following while performing services as a certified installer or inspector: a release of a regulated substance; suspected or confirmed contamination of soil, surface or groundwater from regulated substances; or a regulated substance in a containment structure or facility (Subsections 245.132(a)(4) and 245.132(a)(6)).

INSTRUCTIONS

Record the storage tank facility I.D. number at the top right-hand corner of each page of this form.

Owners and Operators (O/O): Indicate if this is an initial or follow-up notification by marking the appropriate box found in the top right-hand corner of this page.

- To report a Suspected Release, complete all information in Sections I, II, IIIA, IIIC, VI, VIII and IX.
- To report a Confirmed Release, complete all information in Sections I, II, IIIA, IIIB, IIIC, IV, V, VIII and IX.

Certified Installers and Inspectors (I/I): Complete all information in Sections I, II, IIIA, IIIC, VI or VII, VIII, and IX. Attach a copy of the failed, valid tightness test results, if applicable.

PLEASE SEND COMPLETED ORIGINAL FORM TO:

PA Department of Environmental Protection
Environmental Cleanup and Brownfields Program
Storage Tank Section

(and the appropriate address below, depending on where the FACILITY is located)

<p>Northwest Region 230 Chestnut Street Meadville, PA 16335-3481 PHONE: 814-332-8945 / 800-373-3398 FAX: 814-332-6121 Counties: Armstrong, Butler, Clarion, Crawford, Elk, Erie, Forest, Indiana, Jefferson, Lawrence, McKean, Mercer, Venango, Warren</p>	<p>North-central Region 208 W. Third Street, Suite 101 Williamsport, PA 17701 PHONE: 570-327-3636 FAX: 570-327-3420 Counties: Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union</p>	<p>Northeast Region 2 Public Square Wilkes-Barre, PA 18701-1915 PHONE: 570-826-2511 FAX: 570-820-4907 Counties: Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming</p>
<p>Southwest Region 400 Waterfront Drive Pittsburgh, PA 15222 PHONE: 412-442-4000 FAX: 412-442-4194 Counties: Allegheny, Beaver, Cambria, Fayette, Greene, Somerset, Washington, Westmoreland</p>	<p>South-central Region 909 Elmerton Avenue Harrisburg, PA 17110 PHONE: 717-705-4705 / 866-825-0208 FAX: 717-705-4830 Counties: Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York</p>	<p>Southeast Region 2 East Main Street Norristown, PA 19401 PHONE: 484-250-5900 FAX: 484-250-5961 Counties: Bucks, Chester, Delaware, Montgomery, Philadelphia</p>

I. FACILITY INFORMATION (Both O/O and I/I)		II. OWNER/OPERATOR INFORMATION (Both O/O and I/I)	
Facility Name _____	Facility I.D. Number _____	Owner Name _____	
Street Address (P.O. Box not acceptable) _____		Address _____	
City _____	State _____ Zip Code _____	City _____	State _____ Zip Code _____
County _____	Municipality _____	Telephone Number () - _____	
Contact Person _____	Telephone Number () - _____	Operator Name _____	Telephone Number () - _____

III. REGULATED SUBSTANCE INFORMATION			
A. Type of Product(s) Involved (Mark All That Apply ☐): Both O/O and I/I	B. Quantity (Gallons) of Product(s) Released: O/O Only	C. Contamination Suspected [S] or Confirmed [C] (Mark All That Apply ☐): Both O/O and I/I	
Leaded Gasoline _____ ☐	_____	_____ [S] _____ [C]	
Unleaded Gasoline _____ ☐	_____	_____ [S] _____ [C]	
Aviation Gasoline _____ ☐	_____	_____ [S] _____ [C]	
Kerosene _____ ☐	_____	_____ [S] _____ [C]	
Jet Fuel _____ ☐	_____	_____ [S] _____ [C]	
Diesel Fuel _____ ☐	_____	_____ [S] _____ [C]	
New Motor Oil _____ ☐	_____	_____ [S] _____ [C]	
Used Motor Oil _____ ☐	_____	_____ [S] _____ [C]	
Fuel Oil No. 1 _____ ☐	_____	_____ [S] _____ [C]	
Fuel Oil No. 2 _____ ☐	_____	_____ [S] _____ [C]	
Fuel Oil No. 4 _____ ☐	_____	_____ [S] _____ [C]	
Fuel Oil No. 5 _____ ☐	_____	_____ [S] _____ [C]	
Fuel Oil No. 6 _____ ☐	_____	_____ [S] _____ [C]	
Other (Specify) _____ ☐	_____	_____ [S] _____ [C]	
Unknown _____ ☐	_____	_____ [S] _____ [C]	

IV. CONFIRMED RELEASE INFORMATION (O/O Only)	
Date Release was Confirmed: _____ / _____ / _____ m d y	Date Owner/Operator Sent Copy of this Written Notification to Local Municipality(ies) and Name of Municipality(ies) Notified: _____
Date Owner/Operator Verbally Notified Appropriate Regional Office of Confirmed Release and Office Notified: _____	Date: _____ / _____ / _____ Municipality: _____ m d y
Date: _____ / _____ / _____ Office: _____ m d y	Date: _____ / _____ / _____ Municipality: _____ m d y

Source (Mark All That Apply ☐):	How Discovered (Mark All That Apply ☐):	Environmental Media Affected and Impacts (Mark All That Apply ☐):
Tank (DEP Assigned Nos. _____) _____ ☐	During Closure _____ ☐	Soil _____ ☐
Piping System (Aboveground Regulated) _____ ☐	Lining Installation _____ ☐	Sediment _____ ☐
Piping System (Underground Regulated) _____ ☐	Routine Leak Detection _____ ☐	Surface Water _____ ☐
Piping System (Non-Regulated) _____ ☐	Third Party Inspection _____ ☐	Ground Water _____ ☐
Dispenser/Dispensing Equipment _____ ☐	Tightness Testing Activities _____ ☐	Bedrock _____ ☐
Spill Prevention Equipment _____ ☐	Visible Product or Odor Reports _____ ☐	Water Supplies _____ ☐
Submersible Turbine Pump Head/Fittings _____ ☐	Water in Tank _____ ☐	Vapors/Product in Buildings _____ ☐
Containment/Sump Failure _____ ☐	Construction _____ ☐	Vapors/Product in Sewer/Utility Lines _____ ☐
Other (Specify) _____ ☐	Upgrade/Repair _____ ☐	Ecological Receptors _____ ☐
Unknown _____ ☐	Supply Well Sample Results _____ ☐	
Cause (Mark All That Apply ☐):	Monitoring Well Sample Results _____ ☐	
Faulty Installation _____ ☐	Property Transfer _____ ☐	
Corrosion _____ ☐	Other (Specify) _____ ☐	
Physical/Mechanical Failure _____ ☐	Unknown _____ ☐	
Spill During Delivery _____ ☐		
Overfill at Delivery _____ ☐		
Vehicle Gas Tank Overfill _____ ☐		
Product Delivery Hose Rupture _____ ☐		
Accident/Natural Disaster _____ ☐		
Other (Specify) _____ ☐		
Unknown _____ ☐		

V. INTERIM REMEDIAL ACTIONS (O/O Only)Indicate the Interim Remedial Actions Planned, Initiated or Completed (Mark All That Apply ☒):

	Planned	Initiated	Completed	Not Applicable
Regulated Substance Removed from Storage Tanks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire, Explosion and Safety Hazards Mitigated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contaminated Soil Excavated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Free Product Recovered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Supplies Identified and Sampled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary Water Supplies Provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. SUSPECTED RELEASE / CONTAMINATION INFORMATION (Both O/O and I/I)Date the Indication of a Suspected Release / Contamination was Observed: ____ / ____ / ____
m d yIndication of Suspected Release / Contamination (Mark All That Apply ☒):

- | | |
|---|--|
| <input type="checkbox"/> Unusual Level of Vapors | <input type="checkbox"/> Containment Sump Test Failure |
| <input type="checkbox"/> Erratic Behavior of Product Dispensing Equipment | <input type="checkbox"/> Spill Prevention Equipment Test Failure |
| <input type="checkbox"/> Release Detection Results Indicate a Release | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Discovery of Holes in the Storage Tank | |

VII. CONFIRMED CONTAMINATION INFORMATION (I/I Only)Date the Confirmed Contamination was Observed: ____ / ____ / ____
m d yExtent of Confirmed Contamination (Mark All That Apply ☒):

- | | |
|--|--|
| <input type="checkbox"/> Product Stained or Product Saturated Soil or Backfill | <input type="checkbox"/> Free Product or Sheen on the Ground Water Surface |
| <input type="checkbox"/> Ponded Product | <input type="checkbox"/> Free Product or Sheen on Surface Water |
| <input type="checkbox"/> Free Product or Sheen on Ponded Water | <input type="checkbox"/> Other (Specify) _____ |

VIII. ADDITIONAL INFORMATION (Both O/O and I/I)

Provide any additional, relevant, available information concerning the release or contamination. If reporting a confirmed release, include specific details about the source and cause of the release, the affected environmental media, and any impacts to water supplies, buildings, or sewer or other utility lines. Owners or Operators reporting a suspected release should describe what procedures were followed to investigate the indication(s) of the suspected release noted in Section VI. Provide both DEP-assigned and owner/operator-assigned tank number(s), where applicable. Use additional 8½" x 11" sheets of paper, if necessary.

IX. CERTIFICATION (Both O/O and I/I)**OWNER OR OPERATOR CERTIFICATION**

I, _____, hereby certify, under penalty of law as provided in 18 Pa.
(Print Name)

C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the owner or operator of the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Owner or Operator

_____/_____/_____
Date

CERTIFIED INSTALLER CERTIFICATION

I, _____, hereby certify, under penalty of law as provided in 18 Pa.
(Print Name)

C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified installer who performed tank handling activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Certified Installer

_____/_____/_____
Date

Installer Certification Number

Company Certification Number

CERTIFIED INSPECTOR CERTIFICATION

I, _____, hereby certify, under penalty of law as provided in 18 Pa.
(Print Name)

C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified inspector who performed inspection activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.

Signature of Certified Inspector

_____/_____/_____
Date

Inspector Certification Number

Company Certification Number

APPENDIX 9
ENVIRONMENTAL INCIDENT REPORT FORM

Environmental Incident Report Form
Covanta Delaware Valley Resource Recovery Facility

Spill History

Covanta Delaware Valley, Inc.

Note: Information for Spill History Report

Date and Time of Spill _____

Substance Spilled _____

Quantity Discharged _____

Duration of Discharge _____

Duration of Clean-up _____

Brief Description of Spill:

Equipment Damage:

Recommendations to Prevent Re-occurrence:

Response Team Leader _____ Date _____

Facility Manager _____ Date _____

APPENDIX 10
DOWNSTREAM NOTIFICATION LIST

Downstream Notification List
Covanta Delaware Valley Resource Recovery Facility

Table 1: Surface Intake Downstream Notification List

Company Name	Contact Person	Address	Telephone
Evergreen Resources Group	-	Marcus Hook Industrial Complex 3144 Passyunk Avenue Philadelphia, PA 19153	215-339-2000
Monroe Energy LLC	Jeff Warmann	4101 Post Road Marcus Hook, PA 19061	610-364-8000
Martin Marietta Communication Systems	Don Kern, Manager of Environmental Health & Safety	11 Federal Street Camden, NJ 08102	609-338-2535
MAFCO Worldwide	Guy Dietrich	3rd & Jefferson Streets Camden, NJ 08104	609-964-8840
South Jersey Port Corporation	Hank Di Andrea	Second and Beckett Streets Camden, NJ 08103	609-757-4965
Holt Hauling and Warehousing	Arthur Davis	P.O. Box 8698 Philadelphia, PA 19101	609-742-3033
Wheelabrator-Gloucester Oil Co.	Mr. Lindwood Bubar Plant Manger	600 US Rt. 130 Westville, NJ 08093	609-742-1484
Coastal Eagle Point Oil Co.	Shift Supervisor	P.O. Box 1000 Westville, NJ 08083	609-853-3100
PECO Schuylkill Generating Station	Mr. Claude Reifsnyder	2800 Christian Street Philadelphia, PA 19146	215-427-8200
Philadelphia Gas Works	Marion Ambros	3100 Passyunk Avenue Philadelphia, PA 19145	215-339-4857
Sun Refining and Marketing Point Breeze Refinery	Operations Shift Superintendent	3144 Passyunk Avenue Philadelphia, PA 19145	215-339-2286
Sun Refining and Marketing Girard Point Refinery	Operations Shift Superintendent	3144 Passyunk Avenue Philadelphia, PA 19145	215-339-7114
Essex Chemical Corporation	Harold Blake	P.O. Box 368 Paulsboro, NJ 08066	609-423-2050
Sun Refining and Marketing Hog Island Dock	Operations Shift Superintendent	3144 Passyunk Avenue Philadelphia, PA 19145	215-339-7114
Cito Asphalt Refining	Environmental Department	P.O. Box 249 Paulsboro, NJ 08066	609-423-5400
Mobile Oil Corp. Paulsboro Plant	Production Team Leader or Guard (off hours)	800 Billingsport Road Paulsboro, NJ 08066-0480	609-244-0100
E.I. du Pont de Nemours & Co., Inc.	Mr. Michael Lindsey	North Repauno Avenue Gibbstown, NJ 08027	609-423-0105
Tinicum Properties Associates, Ltd.	Ms. Pat Brennan	Mail Stop No. 1 Tinicum Industrial Park 10 Industrial Highway Eddystone, PA 19022	610-595-2000
Philadelphia Electric Company	Shift Supervisor	Eddystone Station No. 1 Industrial Highway	610-595-8100

Company Name	Contact Person	Address	Telephone
		Eddystone, PA 19022	
Metro Machine of Pennsylvania Security	Eric Lassale	Metro Machine Corporation P.O. Box 1860 Norfolk, VA 23501	215-490-1894
Foemex International, Inc.	Edwin W. Griffiths	1500 E. Second Street Eddystone, PA 19022	610-499-7824
Kimberly Clark Company	Mr. Peter Budd	Front & Avenue of the States Chester, PA 19013	215-874-4331
Rollins Environmental Services Inc.	Patrick C. Prosser	P.O. Box 428 Marcus Hook, PA 19061	610-467-3100
B.P. Oil, Inc.	Patrick C. Prosser	P.O. Box 428 Marcus Hook, Pa, 19061	610-499-7221
Sun Refining & Marketing Marcus Hook Refinery	Gary Rabik, Manager Environmental Engineer	P.O. Box 428 Marcus Hook, PA 19061	610-447-1176
Logan Generating Limited Partnership Harry Mossman	Harry Mossman	Box 169 C Route 130 South Swedesboro, NJ 08085	609-467-2128
General Chemical Corp.	Shift Supervisor	6300 Philadelphia Pike Claymont, DE 19703	302-792-8500
CITISTEEL USA, Inc.	Guard	4001 Philadelphia Pike Claymont, DE 19703	302-792-5400
Delmarva Power & Light Company	(Edgemoor) Shift Supervisor	P.O. Box 231 800 King Street Wilmington, DE 19899	302-429-3011
E. I. Du Point de Nemours & Co.	Shift Supervisor	104 Hay Road Edgemoor, DE 19809	302-761-2218
Wilmington Marine Terminal	John Penn	P.O. Box 1191 Wilmington, DE 19899	302-571-4600
ICI Americas Inc.	Guard	315 Cherry Lane New Castle, DE 19720	302-247-1414
E.I. du Pont de Nemours & Co. Chamber Works	Mr. Alan Pagano Environmental Supervisor	Rt. 130 Deepwater, NJ	609-645-4001
Atlantic City Electric Co. (Depwater)	Main Control Room Supervisor	1199 Blackhorse Pike Pleasantville, NJ 08232	609-645-4001

Table 2: Downstream County and Municipalities List

Municipality Name	Contact Person	Address	Telephone
Gloucester County, New Jersey	Dennis P. McNulty (Director of Emergency Response)	1200 N. Delsea Drive Clayton, NJ 08312	856-307-7100 856-589-0911 (after hr)
Logan Twp.	Lt. Joe Flately (EMC) Scott Oatman (LTFD)	125 Main Street PO Box 314 Bridgeport, NJ 08014	856-589-0911 856-467-3626 ext. 3019
Salem County, New Jersey	Scott Haines (Director) Jeffery Pompper (Deputy EMC)	135 Cemetery Road Woodstown, NJ 08098	609-769-2900
Carneys Point Township	Arnold DiTeodoro	303 Harding Highway Carneys Point, NJ 08069	856-491-1246 856-299-0070 ext. 124 (non-emergency)
Oldmans Township	Jeff Newman (EMC)	40 Freed Road PO Box 416 Pedricktown, NJ 08067	609-299-3255
Borough of Penns Grove	Richard Rivera (Police Director)	2 N. Smith Avenue Penns Grove, NJ 08069-1411	856-299-0056 ext. 104
Pennsville Township	Stephen J. Krough (EMC) Robert Chambers (Deputy) Jeff Hoffman (Deputy)	90 N. Broadway Pennsville, NJ 08070	856-678-3089
Delaware County, Pennsylvania	Time Boyce (Director)	360 N. Middletown Road Lima, PA 19063	610-565-8700
City of Chester	Elizabeth Williams (Director of Public Safety)	1 Fourth Street Chester, PA 19103	610-447-7728 610-447-7751
Borough of Trainer	Jennifer Frazier (Council President)	824 Main Street Trainer, PA 19061	484-350-6200 (Direct) 610-497-3838 (Borough)
Borough of Marcus Hook	Gregory Grillone (Borough Manager)	1111 Market Street Marcus Hook, PA 19061	610-485-1341
Lower Chichester Township	Rocco Gaspari, Jr. (Chairman Public Safety)	1410 Market Street PO Box 1255 Linwood, PA 19061	610-485-1472 610-485-6839 (Fire) 610-485-2760 (Police)
New Castle County, Delaware	Dave Carpenter Jr (EMC)	3601 N. DuPont Highway New Castle, DE 19720	302-395-2700
City of Wilmington	Willie J. Patrick Jr. (Director)	Office of Emergency Management - Emergency Operations Center 22 S. Heald Street Wilmington, DE 19801	302-576-3914
City of New Castle	William Barthel (City Administrator)	220 Delaware Street New Castle, DE 19720	302-322-9801
Delaware City	David Baylor City Manager	P.O. Box 4159 Delaware City, DE 19706	302-834-4573
Town of Bellefonte	Scott MacKenzie (Commission President)	Bellefonte Town Hall 901A Rosedale Avenue	302-761-9638

APPENDIX 11
ANNUAL NPDES/STORMWATER INSPECTION FORM



PAG-03
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR DISCHARGES OF
STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITY
ANNUAL REPORT

FOR THE PERIOD JANUARY 1, ____ TO DECEMBER 31, ____

GENERAL INFORMATION

Permittee Name:	Covanta Delaware Valley Chester City Facility	Permit No.:	PAG900004
Permittee Address:	10 Highland Avenue	Permit Approval Date:	9/24/16
Permittee City, State, Zip:	Chester, PA 19013	Permittee Phone:	(610) 497-8100

- ☒ The permittee intends to continue operating under the PAG-03 General Permit in the next calendar year
- ☐ The permittee does not intend to continue operating under PAG-03 and requests termination of permit coverage; all discharges of stormwater associated with industrial activity have been or will be terminated by the Annual Report due date.
- Has the permittee's PPC Plan been reviewed and if necessary updated during the reporting period? ☒ Yes ☐ No
- Has employee training been provided during the reporting period? ☒ Yes ☐ No Date: _____
- Identify the PAG-03 Appendix(ies) the permittee is subject to: P

INSPECTION INFORMATION

1. Document all visual inspections conducted by the permittee during the reporting period below.

Inspection No.	Inspection Date	Inspector Name	Inspector Title	Stormwater Discharge During Inspection?
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

2. Check the appropriate boxes to indicate areas, activities and practices evaluated during the inspections:

- ☐ Areas where industrial materials or activities are exposed to stormwater.
- ☐ Areas identified in the PPC Plan as potential pollutant sources.
- ☐ Areas where spills or leaks have occurred in the past three years.
- ☐ Stormwater outfalls and locations where authorized non-stormwater discharges may commingle.
- ☐ Physical BMPs used to comply with this General Permit.

3. For each inspection, answer the following questions concerning inspection results (check box if answer is "Yes").

Inspection No.	Were raw materials, products or wastes observed that may have or could come into contact with stormwater?	Were leaks or spills from equipment, drums, tanks or other containers observed?	Was off-site tracking of industrial or waste materials or sediment where vehicles enter or exit the site observed?	Was tracking or blowing of raw, final or waste materials from exposed areas to areas of no exposure observed?	Were control measures or BMPs needing replacement, maintenance or repair observed?	Was the presence of authorized non-stormwater discharges not identified in the NOI or unauthorized non-stormwater discharges observed?
001	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
002	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. For any boxes checked above (i.e., for any "Yes" responses), indicate the corrective measures taken or are planned by the permittee.

5. Were all BMPs required by Part C and the applicable Appendix implemented by the permittee during the reporting period? ☐ Yes ☐ No
If No, identify which BMPs were not implemented and efforts being undertaken to begin or resume implementation.

CERTIFICATION

I have read the latest PAG-03 General Permit issued by DEP and agree and certify that (1) the permittee continues to be eligible for coverage under the PAG-03 General Permit and (2) the permittee will continue to comply with the conditions of that permit, including any modifications thereto. I understand that if I do not agree to the terms and conditions of the PAG-03 General Permit, I will apply for an individual permit within 90 days of publication of the General Permit. I further attest that the best management practices, pollution prevention plans, and other control measures are designed, installed, and maintained in accordance with the General Permit requirements and in compliance with state water quality standards. I also acknowledge that any facility construction needed to comply with the General Permit requirements shall be designed, built, operated, and maintained in accordance with operative laws and regulations.

I certify under penalty of law that this report was 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).

Name (type or print legibly)

Official Title

Signature

Date Signed



**PAG-03
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR DISCHARGES OF
STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITY
ANNUAL REPORT INSTRUCTIONS**

The submission of this PAG-03 Annual Report by May 1 each year is a requirement under the PAG-03 General Permit for ongoing coverage under the General Permit. Permittees do need to submit NOIs to renew their coverage, unless notified in writing by DEP.

Enter the reporting period (calendar year) at the top of the report (e.g., January 1, 2016 to December 31, 2016).

General Information

Identify the permittee name (as it appears on the first page of the PAG-03 General Permit issued by DEP), the permittee address and phone number, the PAG-03 permit number, and the General Permit coverage approval date (i.e., latest new or reissued approval issued by DEP). Check the appropriate box to indicate whether the permittee intends to continue operating under the PAG-03 General Permit in the next calendar year or the permittee wishes to terminate permit coverage and all discharges have been or will be terminated by the Annual Report due date. If termination is requested and all discharges have been or will be terminated by the due date, the NOI installment payment of \$500 is not required. Check the appropriate box to indicate whether the permittee's Preparedness, Prevention and Contingency (PPC) Plan has been reviewed and if necessary updated during the calendar year reporting period. Check the appropriate box to indicate whether annual employee training required by the PAG-03 General has been provided during the reporting period and list the date(s) training occurred. Identify the PAG-03 Appendix that the permittee is subject to.

Inspection Information

1. The PAG-03 General Permit requires visual inspections at least semiannually (once every calendar semiannual period). A table is provided to summarize all inspections conducted during the calendar year. Assign each inspection event a number, chronologically, and report the number in the table. Report the date of the inspection and the name and title of the inspector (i.e., the qualified inspector required by the General Permit). Check the box in the column for "Stormwater Discharge During Inspection?" If a stormwater discharge was occurring during the inspection. The General Permit requires that at least one semiannual inspection be conducted during conditions where a stormwater discharge is occurring.
2. Check the appropriate boxes to indicate areas, activities and practices evaluated during the inspections. These areas, activities and practices must be inspected during all inspections in accordance with Part C of the PAG-03 General Permit.
3. For each inspection answer each of the questions listed in the column headers. Enter the Inspection No. corresponding to the inspection dates identified in No. 1, and check any box in which the answer to the question is "Yes".
4. Where any answer to No. 3 is "Yes", describe the corrective measures taken or are planned by the permittee.
5. Check the appropriate box to indicate whether all BMPs required by Part C of the PAG-03 General Permit and the Appendix the permittee is subject to were implemented during the reporting period (Yes or No). If No, identify which BMPs were not implemented and efforts being undertaken to begin or resume implementation of the BMPs.

Stormwater Outfall Information

1. Permittees must complete the stormwater outfall table for each Annual Report. It is possible for conditions to change from year to year; for example, an outfall that is considered "No Exposure" one year is not the next year, and the percentage of impervious surface in an outfall's drainage area may change. The following lists the column headers and an explanation of the information requested:

- **Outfall No.** – Provide a 3-digit identification number (numeric only) for each outfall (discharge point) discharging stormwater associated with industrial activity from the facility, starting with 001 and continuing with 002, 003, etc. If there are more outfalls than space allows, attach an additional sheet. If the outfalls were identified in the latest NOI submitted to DEP for new or renewed PAG-03 General Permit coverage, this list should be consistent with the NOI except for any changes that may have occurred since submission of the NOI.
- **No Exp.?** – Check the box if, during the reporting period, the listed outfall discharges stormwater consistent with a "No Exposure" condition.

No Exposure means that all industrial materials and activities (in the drainage area of the outfall) are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. (See the instructions to the No Exposure Certification application, 3850-PM-BCW0083e, for additional information).

By checking the box, the applicant is certifying that a No Exposure condition existed within the drainage area for the particular outfall during the reporting period. Under the PAG-03 General Permit, "No Exposure Outfalls" do not need to be monitored for pollutants listed in the appendices. If that condition were to change, the permittee must begin complying with the monitoring requirements of the applicable appendix.

- **Non-SW?** – Check the box if the listed outfall received any non-stormwater discharges during the reporting period.
- **Sampling?** – Check the box if the listed outfall has been sampled for analysis of pollutant concentrations, consistent with a PAG-03 Appendix or other DEP-requested analyses, during the reporting period.
- **Rep. Outfall** – Identify the representative outfall, if applicable, for each listed outfall during the reporting period.

Permittees may group outfalls based on industrial activities occurring within the drainage areas of those outfalls and, if it is determined by the permittee that the quality of stormwater discharges are substantially identical, select one outfall to represent others in the group. Enter the representative outfall number, if applicable. For example, if during the reporting period Outfalls 001, 002 and 003 all have drainage areas characterized by unloading of the same raw materials and the applicant has reason to believe that the quality of Outfalls 001, 002 and 003 are substantially identical, the applicant may select Outfall 001 as representative of Outfalls 002 and 003. The permittee would then monitor stormwater discharges for pollutants in the applicable PAG-03 Appendix for Outfall 001 only. In this example, for the Annual Report the "Rep. Outfall" column would remain blank for Outfall 001, and contain "001" for Outfalls 002 and 003 (see below).

Outfall No.	No Exp.?	Non-SW?	Sampling?	Rep. Outfall
001	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
002	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	001
003	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	001

- **DA (sf)** – Report the drainage area of the outfall in square feet, as of the last day of the reporting period.
- **% Imp.** – Enter the percentage of the outfall's drainage area that is impervious surface, as of the last day of the reporting period.
- **Description of Materials/Activities in Drainage Area Exposed to Precipitation** – Enter a characterization of the drainage area for each outfall during the reporting period, identifying all existing activities including material storage and utilization. Attach additional pages with this information to the Annual Report if necessary.
- **Description of BMPs in Drainage Area to Control Pollutants in Stormwater** – Identify and describe all best management practices (BMPs) that were implemented within the drainage areas of each outfall to control

pollutants in stormwater during the reporting period. Attach additional pages with this information to the Annual Report if necessary.

2. Check the appropriate box to indicate whether any of the outfalls identified in Nos. 6 and 7 above discharge to a municipal separate storm sewer system (MS4) (Yes or No). If Yes, identify the name of the MS4 owner/operator and list all outfall numbers that discharge to the MS4.

NOTE – If the permittee discharges to an MS4, a copy of the Annual Report must be submitted to the operator of the MS4.

3. Indicate whether any changes to outfall information (Nos. 1 and 2 above) have changed during the reporting period as compared to the previous reporting period by checking the appropriate box (Yes or No). If changes have occurred, describe those changes in the space provided or as a separate attachment.

Stormwater Sampling Event Information

1. In the table provided, enter the information requested concerning each storm event in which samples were collected. The following lists the column headers and an explanation of the information requested:

- **Outfall No. Sampled** – List every outfall number sampled per storm event.
- **Sample Date** – Identify the date in which samples were collected.

Example – Three outfalls were sampled twice during the reporting period: one event took place on February 1 and the other event occurred on August 15. The first two columns should be completed as follows:

Outfall No. Sampled	Sample Date
001	2/1/2016
002	2/1/2016
003	2/1/2016
001	8/15/2016
002	8/15/2016
003	8/15/2016

- **Duration of Storm Event** – Report the duration, in hours, of the storm event in which samples were collected.
- **Sample Collected within First 30 Minutes?** – Check the box if the sample was collected within the first 30 minutes of the stormwater discharge.
- **Precipitation Amount** – Report the amount of precipitation, in inches, that fell during the storm event in which samples were collected. Note that the PAG-03 General Permit requires that samples be collected from storm events producing greater than 0.1 inch of precipitation.
- **Duration Between Storm Event Sampled and Previous Measurable Storm Event** – Enter the amount of time, in hours, between the storm event sampled and the previous measurable storm event (greater than 0.1 inch of precipitation).
- **Were Results Reported on DMR?** – Check the box if the analytical results for the sampling event were reported to DEP on a Discharge Monitoring Report (DMR).
- **Were Benchmark Value(s) in PAG-03 Exceeded?** – Check the box if any benchmark values identified in the applicable Appendix of the PAG-03 General Permit were exceeded for the outfall and sampling event listed.

- **Parameter(s) Exceeding Benchmark Value(s)** – If benchmark values were exceeded, report the name(s) of all parameter(s) in which stormwater concentrations exceeded the benchmarks.
2. Indicate whether the need to develop and submit a corrective action plan was triggered during the reporting period by checking the appropriate box (Yes or No). The PAG-03 General Permit requires submission of a corrective action plan within 90 days following the end of the reporting period that demonstrates two consecutive exceedances of benchmark values. If Yes, list the date the corrective action plan was submitted to DEP, and the date by which corrective measures will be implemented.
 3. Check the appropriate box (Yes or No) to indicate whether samples were collected by the permittee at the request of DEP for parameters not identified in the applicable PAG-03 Appendix. If yes, attach the analytical report(s) to the Annual Report.
 4. If samples were not collected within the first 30 minutes for any stormwater sampling event, provide an explanation below as to why this could not be done in the space provided. If not applicable, enter "N/A".

Certification

The permittee must certify that the information contained in the Annual Report is true, accurate and complete and agree to continue to abide by the terms and conditions of the General Permit. In addition, the responsible official's signature also verifies that the discharges continue to be eligible for the General Permit and BMPs are or will be implemented to ensure that water quality standards and effluent limits are attained.

The Annual Report must be signed as follows:

For individually owned operations - the owner of the facility must sign the Annual Report.

For a Corporation - by a responsible corporate officer. For purposes of this section, a responsible corporate officer means a principal executive officer of at least the level of vice president or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the Annual Report originates.

For a Partnership or Sole Proprietorship - by a general partner or the proprietor, respectively.

For a Municipality - state, federal or other public agency - by either a principal executive officer, ranking elected official or other authorized employee. For purposes of the Annual Report, a principal executive officer of a federal agency includes:

1. The chief executive officer of the agency, or
2. A senior executive officer who has responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Submission

One copy of the Annual Report must be submitted to the regional office of DEP that approved PAG-03 General Permit coverage by May 1 each year. For a list of DEP regional office addresses, please visit www.dep.pa.gov, and select "Regional Resources." Where the permittee discharges stormwater to an MS4, one copy of the Annual Report must be submitted to the operator of the MS4.

The annual NOI installment payment of \$500 must be submitted to DEP BCW by May 1 each year at the address below:

PA Department of Environmental Protection
Bureau of Clean Water
Rachel Carson State Office Building
400 Market Street, PO Box 8466
Harrisburg, PA 17105-8466

APPENDIX 12
SECONDARY CONTAINMENT CALCULATIONS FOR DIKED STORAGE AREAS

Secondary Containment Calculations for Diked Storage Areas
Covanta Delaware Valley Resource Recovery Facility

(Example Calculation. See attached spreadsheet for containment calculations.)

Area ID Name/Number:

Dike Specifications:

L	=	Length (ft)
W	=	Width (ft)
H	=	Height of wall (ft)
D	=	Tank Diameter(s) (ft)
FB	=	Freeboard (ft)

(based on 25-year, 24-hour storm event)

Base Area of Tank = $\Pi (d/2)^2$

Required Dike Volume = volume of largest tank
= gallons x 0.1337 cu.ft/gal
= cu.ft.

1. Total Dike Area = L x W (ft²)
2. Displacement Area due to tanks (if there is more than one tank in containment)
= Area of tank (ft²)
3. Available Dike Area = (Total Dike Area) - (Displacement Area of Tanks) (ft²)
4. Available Dike Height = (Height of Wall) - (Freeboard) (ft)
5. Available Dike Volume = (Available Dike Area) x (Available Dike Height) (ft³)
6. Compare the "Available Dike Volume" to the "Required Dike Volume". If "Available Dike Volume" is greater than the "Required Dike Volume", then the containment area available is sufficient to hold the largest tank.

Chemical	Tank Location	Inside/ Outside	Tank Capacity (gallon)	Tank Capacity (ft³) ⁽¹⁾	Tank Area in Diked (ft³)	Dike Height (in)	Dike Width (in)	Dike Length (in)	Dike Area (ft³)	Freeboard (ft³) ⁽²⁾	Total Diked Area Required (ft³) ⁽³⁾	Dike Area – Total Dike Area Required (ft³)
BL-1756	Boiler Bldg.	Inside	2,000	267.4	267	9	252	228	299.3	0	294.1	5.1
Sodium Hypochlorite	Cooling Tower Bldg.	Outside	2,500	334.3	334	29	204	125	428.0	29.5	397.2	30.8
Sulfuric Acid	Cooling Tower Bldg.	Outside	2,000	267.4	267	29	204	211	722.4	49.8	344.0	378.4
CL-1497	Cooling Tower Bldg.	Inside	550	73.5	74	9	252	228	299.3	0	80.9	218.4
Diesel Fuel	Loader Shop ⁽⁴⁾	Inside	4,000	534.8	535	18	360	408	1,530.0	0	588.3	941.7
Turbine Lube Oil	Condenser Room	Inside	2,600	347.6	348	-	-	-	229.5	0	382.4	-152.9 ⁵
Sodium Hypochlorite	Condenser Room	Inside	200	26.7	27	-	-	-	81.4	0	29.4	52.0
Hydraulic Oil	Boiler Building	Inside	400	53.5	53	24	60	72	60.0	0	58.8	1.2
Off-Road Diesel Fuel	Scalehouse	Outside	2,500	334.3	334	12	414	170	488.8	81.5	449.1	39.6
Aqueous Ammonia ⁶	Near Ash Building	Outside	35,000	4679.5	4680	66	408	414	6451.5	195.5	5343	1108.6

Notes:

- (1) Tank capacity assumed a maximum fill level of 100%
- (2) Freeboard calculation assumed a 2" rain event over a 24-hour period for covered areas. Tanks located inside assume 0".
- (3) Dike Area required is 110% of total tank capacity (in addition to freeboard for outdoor tanks).
- (4) Tank area in loader shop petroleum diked area assumed that the largest tank (diesel) fails. Other petroleum tanks are in same curbed area.
- (5) Although the turbine lube oil tank has an available dike area < tank volume, the tank is located inside the turbine building. Periodic checks of this tank will assure tank integrity.
- (6) Aqueous ammonia storage tank. Storage tank to be installed upon receipt of PADEP regulatory permits.

APPENDIX 13
SECONDARY CONTAINMENT DIKE DRAINAGE RECORDS

Secondary Containment Dike Drainage Records
Covanta Delaware Valley Resource Recovery Facility

Drainage of precipitation from containment areas, interstices, and/or dikes shall be documented in the following log.

If modifications are made to the facility adding additional diked containment areas, records for drainage events from these areas must be added to this Appendix. Records of transfer containment area precipitation drainage (if applicable) shall also be maintained in this Appendix.

The following log certifies that facility employees have monitored drainage of accumulated fluids in the secondary containment at the facility. Employees signing this log are certifying that they have performed a visual and/or pH inspection of the contents to verify no oil, sheen or pH level is present that signifies the presence of non-stormwater liquids prior to draining precipitation from the containment dike. **If oil/sheen or a pH level out of normal range is present, accumulated fluids must be handled as petroleum or hazardous contaminated fluids and disposed of accordingly.**

[illegible]

APPENDIX 14
DRAINAGE DISCHARGE REPORT FORM

Drainage Discharge Report Form
Covanta Delaware Valley Resource Recovery Facility

Complete whenever there is drainage from a containment or undiked storage area that appears to be
contaminated - Maintain on file with SPCC plan

Operator Name:	Area Designation:
Date and Time valve was opened or pumped out in containment area or undiked area sump:	
Date and Time valve was closed or pump-out completed in containment area or undiked area sump:	
Appearance of water at time of pumping or discharge:	
Did water have an oil sheen? Yes / No (please circle)	
Was the pH level normal for stormwater? Yes / No (please circle)	
Signature of Operator	

APPENDIX 15
EMERGENCY RESPONSE CHECKLIST

IN CASE OF CHEMICAL OR PETROLEUM SPILL ON SITE
FOLLOW THESE PROCEDURES

1. Assess the situation.
 - a. Is there a fire?
 - i. Yes – **Call 911**. Notify per **Table 2-2**. Move to Item B.
 - ii. No – Move to Item B.
 - b. Does the spill threaten human health or the environment?
 - i. Yes – **Call 911**. Notify per **Table 2-2**. Notify the PADEP Emergency Notification System (**Table 4-1**) and Notification List in **Table 5-2**. Move to Item C.
 - ii. No – Notify per **Table 2-2**. Move to Item C.
 - c. Can the spill be contained on site by Covanta staff?
 - i. Yes – **Notify per Table 2-2**. Locate and use spill response kits as needed. Move to Item D. for notifications.
 - ii. No – **Notify per Table 2-2**. Isolate the spill to the greatest extent possible. Contact Downstream Notifications in **Appendix 10 within 2 hours after the release if the spill will reach the nearby water supply**. Contact an emergency spill response and remediation contractor (**Table 4-1**) for assistance. Move to Item D for additional notifications.
 - d. How much material has spilled?
 - i. Check **Table 1-1, 1-2 and 1-3** for the RQ value for the material spilled.
 - ii. Spill < RQ
 1. Notify per **Table 2-2**. Move to Item 2.
 - iii. Spill > RQ
 1. Contact USEPA National Response Center (**Table 4-1**) within 15 minutes of the spill or discovery of the spill.
 2. Contact PADEP Emergency Notification.
 3. Contact Delaware County Emergency Management Agency
 4. Contact PADEP Regional Office within 24 hours of a spill or discovery of a spill.
 5. Contact Pennsylvania Emergency Management Agency (PEMA).
 6. Contact additional authorities per **Table 4-1**.
 7. Move to Item 2.
 - iv. Oil spill > 1,000 gallons in single event or 42 gallons or more in two discharge events occurring within any 12-month period?
 1. Yes – notify EPA in writing within 60 days of the triggering incident.
 2. Move to Item 2.
 2. Eliminate the hazard. Move to Item 3.
 3. Dispose of contaminated materials. Move to Item 4.
 4. Restore emergency equipment. Move to Item 5.
 5. Report the incident in writing as required. Move to Item 6.
 6. Analyze the incident. Modify the EERP, as needed.

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Form P
Incinerator and Other Processing Facilities



Date Prepared/Revised
12/2022

DEP USE ONLY

Date Received

FORM P INCINERATORS AND OTHER PROCESSING FACILITIES

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 P, 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: Chapters 283 and 297

SECTION A. SITE IDENTIFIER

Applicant/permittee: Covanta Delaware Valley, L.P.

Site Name: Covanta Delaware Valley Resource Recovery Facility

Facility ID (as issued by DEP): 521177

SECTION B. OPERATING PLAN

1. Description of general operating plan:

Energy-from-Waste facility that processes municipal and approved residual waste to generate electricity.

See Attached Narrative

2. Solid Waste

a. Origin: _____

b. Composition: _____

c. Weight or volume (cubic yards, _____
tons): _____

3. Process to be used:

SECTION B. OPERATING PLAN (continued)

4. Daily operational methodology of process and method of waste measurement:
5. Describe how wastes, not approved by the Department, will be prevented from being accepted at the facility.
6. Loading rate: _____
7. Capacity of Facility: _____
8. Expected life: _____
9. Plan for an alternative waste handling or disposal system during periods when the proposed facility is not in operation, including procedures to be followed in case of equipment breakdown. Procedures may include the use of standby equipment, extension of operating hours, and contractual agreements for diversion of wastes to other facilities.
10. Describe how the installation and operation of this facility will be consistent with the requirements of Act 1988-101.
11. Plan for operational safety, fire prevention and emergency response, that will adequately protect workers and patrons of the facility, prepared by an expert in the field of industrial hygiene and safety.
12. Plan for hiring and training equipment operators and other personnel concerning the operation and approved design of the facility.
13. Operating hours of facility:

SECTION C. DESIGN AND RELATED INFORMATION

Include a narrative description of:

1. Sources, types, and weight or volume of solid waste to be processed, including data on moisture content of waste, and information concerning special environmental pollution or handling problems that may be created by the solid waste.
2. Methods to be used to control the flow of waste to the facility, including a flow chart with a materials balance depicting the processing of solid waste and mechanical components of the processing system.
3. Interior dimensions of the tipping fiord, storage area and, when applicable, ingress and egress thereto.
4. Size, type, capacity, and general specifications of the equipment for the handling, processing and storage of waste.
5. Anticipated recovery rate of marketable materials or energy.
6. Actual or expected physical and chemical composition of ash, residue, or wash water produced by operation of the facility.
7. The proposed location and method for disposal, storage or processing of ash, residue or wash water produced by operation of the facility.
8. Plan for separation, storage and ultimate disposal of unmarketable waste generated by the process, including plans for the temporary storage of bulky waste.
9. Minimum and maximum volume or weight of the types of material or solid waste to be prior to sale, reuse or disposal, and the minimum and maximum time that material or waste is to be stored.
10. Plan for disposal or processing of waste if the facility or a processing line within the facility is closed or shutdown.
11. Utilities to be installed at the facility.
12. Plans and designs for operating and maintaining the proposed facility to prevent fires, explosions, the emission of noxious or toxic gases and other emergencies.
13. A plan for the repair or replacement of equipment in the event of equipment breakdown, including plans for obtaining spare parts.
14. Drawing indicating area for isolating detected radioactive waste.
15. Drawing indicating location of radioactive monitoring equipment.

SECTION D.

Public and Private Water Supply for Resource Recovery Facilities over 50 tons/day Capacity. Provide a study of the short-term and long-term effects that the facility will have on the quality and quantity of public and private water supplies. The study shall include, but not be limited to, effects of pollution, contamination, diminution, and alternative sources of water adequate in quantity and quality for the purposes served by the water supply both public and private.



Form P
Narrative

SECTION B. OPERATING PLAN

B.1. DESCRIPTION OF GENERAL OPERATING PLAN:

The Delaware Valley Resource Recovery Facility (DVRRF) accepts municipal solid waste (MSW) and DEP-approved residual waste for processing. Solid waste vehicles enter the facility via the Harwick Street entrance. Incoming solid waste trucks position themselves in the queuing yard prior to being scaled in. The facility has made enhancements in order to accept waste in sealed intermodal containers as well as continue to accept waste by means of traditional waste delivery vehicles (e.g. tractor trailers, packer trucks, etc.). The facility will accept the delivery of waste using one of two operating scenarios, depending upon what mode of transport is being used to deliver waste to the facility. Operational Scenario 1 describes how the facility will accept waste by traditional waste delivery vehicles. Operational Scenario 2 describes how the facility will accept waste delivered in intermodal containers after various facility improvements are completed to enhance the facility's ability to accept and process waste delivered in intermodal containers. Operational Scenario 2 builds upon and allows for continuing use of the operations of Operational Scenario 1, allowing for a practical transition to the final enhancements.

The enhancements to the metals removal process includes the future construction of a new metals recovery building, the installation of an enclosed conveyor system to transport metals/ash to the new metals recovery building, as well as convey ash material out of the new metals recovery building and back to the ash processing building, and installation of new metal recovery equipment. A previously approved interim traffic plan will be implemented during the construction of these facilities through the previously approved minor modification to the permit.

Operational Scenario 1 (OS-1)

Waste Receiving and Unloading

For the first operating scenario (OS-1), waste will be delivered by typical waste transport vehicles such as tractor trailers and packer trucks. Vehicles will enter the property via the Harwick Street entrance/exit drive, and enter the truck queuing yard. Before being weighed upon the inbound scale, the vehicle passes through radiation detectors. If the radiation alarm is activated, the vehicle is directed back to the radiation staging/isolation area for further screening as detailed in Form X. If no radiation is detected, the vehicle passes over inbound scale #1 or #2. After being weighed and recorded, the vehicle will proceed into the DVRRF main processing building where it will empty its contents onto the

tipping floor. Empty vehicles then proceed to the tipping floor exit at which point they turn left and proceed along the paved drive back to the front of the building. The vehicle will pass over outbound scale #3 or #4 and its empty weight is recorded before exiting the facility. See drawing OS-1-102 for vehicle flow paths.

Daily Receipts

Daily receipts will be recorded at the scalehouse and the total quantity of received waste upon the tipping floor each day will be maintained as necessary for the facility to comply with daily permitted limits. On Monday through Friday (4 a.m. to 6 p.m.), the facility is permitted to accept 5,700 tons per day. The facility may accept a maximum of 3,000 tons of waste on Saturdays and the following holidays (4 a.m. to 2 p.m.): Memorial Day, July 4th and Labor Day. The facility does not accept any waste on the following holidays: New Year's Day, Martin Luther King Day, Thanksgiving, and Christmas Day.

Storage Duration

Storage of waste received under OS-1 is limited to the tipping floor. Waste that is placed upon the tipping floor will be processed in a timely manner such that nuisances are minimized. At all times, the facility will limit storage to no more than 14,200 tons.

Noise Control

In OS-1, the majority of operations take place inside the walls of the facility. Operations outside the facility walls are limited to delivery vehicles and maintenance. To date, the DVRRF has not experienced significant complaints or issues in this regard.

Odor Control

In OS-1, the majority of operations take place inside the walls of the facility. Operations outside the facility walls are limited to tarped delivery vehicles and maintenance vehicles. Under OS-1, indoor air is drawn from the tipping floor and is used as make-up air for the rotary combustors. This essentially places the area from where odors might be generated under negative pressure and assists with odor control. Once again, DVRRF has not experienced significant complaints or issues in this regard.

Maintenance of Equipment

Maintenance of heavy mobile equipment is performed at the loader shop, which is located at the exit to the tipping floor. There are limited facilities for storage and maintenance of this equipment, particularly the front-end loaders. Therefore, some routine maintenance and repair is performed outside.

Scales

Four scales, two inbound and two outbound, are used to measure loads entering and exiting the facility under OS-1. See drawing OS-1-102 for their locations.

Record Keeping

The facility maintains a record of incoming waste according to waste receipts from the inbound scales and tare weights from the outbound scale.

Operational Scenario 2 (OS-2)

Waste Receiving and Unloading

In the second operating scenario (OS-2), waste will continue to be delivered by typical waste transport vehicles and handled in the truck queuing yard and at the scales as described in Operational Scenario 1; however waste will also be delivered in intermodal rail containers. These containers have a 62 cubic yard capacity, and hold approximately 20 tons of waste. Typical waste hauling vehicles will be utilized to transport waste to the tipping floor in the same manner as they would under OS-1. The intermodal containers will be transported to the facility by drop deck trailers. These trailers enter the facility using the same entrance via Harwick Street.

Upon entering the facility, the management of intermodal containers is different than typical waste transport vehicles. Intermodal storage containers enter the facility as they would under OS-1, but upon entering the facility, they bypass the scalehouse and instead are transported to the intermodal container storage area, shown on drawing OS-2-102, where they will cross scale #5 (solely for weighing of intermodal storage containers). Once weighed, they will be stored in the intermodal storage area, prior to transfer to the tipping floor. All full intermodal containers will be stored on a paved surface with proper stormwater management controls.

Drop deck trailers are not equipped to transfer the contents of the intermodal containers onto the tipping floor. Drop deck trailers bring intermodal storage containers to the intermodal storage area, crossing scale #5 and being scanned for radiation. Once in the intermodal storage area, a reach stacker is used to transfer full containers onto a separate vehicle with a tipping chassis for transport to the tipping floor. The intermodal containers are scaled and screened on the day of receipt at the scale and the radiation detection monitor. Containers that have been

weighed and screened for radiation may be stored in the storage area for up to 3 days.

When the intermodal container proceeds to inbound scale #5, it passes through the radiation detection monitor. If radiation is detected above established limits within the container, it is directed to the radiation isolation area and further evaluated per the facility's Radiation Protection Action Plan (See Form X). The radiation isolation area is located at the northeast area of the truck queuing area. This area is approximately eighty (80) feet from the facility's property line. The radiation isolation area is comprised of a primary and secondary isolation area. The primary isolation area is intended to hold hot loads until appropriate measures are arranged to manage the load. The primary isolation area has a capacity to hold up to 20 intermodal and/or typical waste transport trailers. The secondary area is located in between the primary area and the property line and is intended to be used for access to the primary area. The secondary area also provides additional area in the event that space in the primary area is exceeded.

If there is no radiation detected above alarm set points for the intermodal container, the drop deck trailer proceeds through scale #5 so that the weight can be recorded. Tare weights of the intermodal containers are utilized to determine the weight of the waste. The storage area can hold up to 100 full or empty intermodal containers at one time.

The drop deck trailer unloads the intermodal storage container in the intermodal container storage area. Once unloaded, the trailer will exit the facility.

The tipping trailer will be loaded with intermodal storage containers in the intermodal storage area. Once loaded, the trailer proceeds to the DVRRF main processing building where it empties contents of the container onto the tipping floor. The trailer does not cross over the inbound and outbound scale prior to delivery to the tipping floor. After the contents from the container are transferred to the tipping floor, the tipping trailer proceeds to the tipping floor exit, at which point they turn left and proceed along the paved drive back to the front of the building. The tipping trailer returns the empty intermodal container to the storage area. The reach stacker removes the empty container from the tipping trailer and either places it upon a drop deck trailer to be taken off site, or the empty container can be staged with other containers in the storage area until a drop deck trailer is available to take it off site. Drop deck trailers are loaded with empty containers and proceed through the facility exit via Harwick Street.

Daily Receipts

Daily receipts will be recorded at the scalehouse. Full intermodal containers that have been weighed and recorded will be tracked and the quantity of waste upon the tipping floor will be maintained as necessary for the facility to comply with daily permitted limits.

On Monday through Friday (4 a.m. to 6 p.m.), the facility is permitted to accept 5,700 tons per day. The facility may accept a maximum of 3,000 tons of waste on Saturdays and the following holidays (4 a.m. to 2 p.m.): Memorial Day, July 4th and Labor Day. The facility does not accept any waste on the following holidays: New Year's Day, Martin Luther King Day, Thanksgiving, and Christmas Day.

Storage Duration

Full intermodal containers will be stored onsite for no more than 3 days. Waste that is placed upon the tipping floor will be processed in a timely manner such that nuisances are minimized. At all times, the facility will limit its storage to no more than 14,200 tons.

Noise Control

In OS-2, operations outside the building are limited to delivery vehicles, the transfer of containers within the queuing lot and storage area. Under OS-2, there are no anticipated noise impacts to the adjacent areas greater than the impacts in OS-1.

Odor Control

In OS-2, the majority of operations involving direct processing of waste take place inside the walls of the facility. Similar to OS-1, indoor air is drawn from the tipping floor and is used as make-up air for the rotary combustors. This essentially places the area from where odors might be generated under negative pressure and provides odor control. Operations outside the facility walls are limited to transfer of sealed intermodal containers, tarped delivery vehicles, maintenance vehicles and the container wash down area. These sealed intermodal containers are of the latest design that minimize odor generation and are essentially leak proof. When containers require maintenance, any waste within the container will be removed to the extent possible, and where necessary, the containers will be washed. These procedures will minimize odor potential.

Maintenance of Equipment

Maintenance of heavy mobile equipment is performed at the loader shop, which is located at the exit to the tipping floor. There are limited facilities for the storage and maintenance of this equipment, particularly the front-end loaders and reach stackers. Therefore, some routine maintenance

and repair is performed outside. In the infrequent occasion that an intermodal container is in need of repair, the empty container may be taken to the container maintenance area so that trace amounts of debris can be removed. The wash-down area consists of a concrete pad and spraying equipment that will be used to wash out the containers. Waste water will be contained within the concrete wash pad and collected in a below grade concrete sump area with approximately 1,000 gallon capacity. The wash down area and sump will be covered with a roof in order to limit stormwater being collected in the sump. The sump will be covered with a grate or access hatch which can be accessed when waste water is pumped out of the sump and treated with other waste water. Refer to drawings OS-2-101 and OS-2-102 for details. The wash-down area is intended for intermittent use. However this area will be monitored for any potential nuisances, which will be mitigated as necessary.

Scales

Scale #5 for inbound weighing and tare weights of the intermodal containers is used to measure intermodal storage container loads entering the intermodal storage area under OS-2. See drawing OS-2-102 for their locations. The scale approaches are configured to allow for drop deck trailers to be scaled.

Record Keeping

The facility maintains a record of incoming waste according to waste receipts from the inbound scales and tare weights from the outbound scales.

Manufacturer's cut sheets for representative equipment used to receive and unload waste delivered to the site in intermodal containers is provided in the Form P Attachment. The Form P Attachment also includes a cycle time analysis for OS-2 related to the intermodal container handling equipment.

Operational traffic patterns for each operating scenario are provided in the supporting permit drawings OS-1-102 and OS-2-102.

General Operating Plan

The following description of the general operating plan applies to both operational scenarios described above.

Vehicles are inspected by plant personnel for tarps, proper vehicle labeling (residual/municipal waste), Act 90 stickers, and leaking containers. When directed by facility scalehouse personnel, vehicles pass through the radiation detectors and then weigh in on the facility scales located on the facility entrance

road. If the radiation alarm is activated the vehicle is directed back to the radiation staging area for further screening using a hand-held isotope identifier.

If the radiation alarms are not set off, they are directed by scalehouse personnel to proceed to the entrance door of the tipping floor or the intermodal storage area, respectively.

When operators on the tipping floor are ready to receive waste, the floor coordinator directs vehicles to enter the tipping floor one at a time and unload in a designated area. When a vehicle has finished unloading, operators ensure that each vehicle safely exits the tipping floor through the exit door and travels around the tipping hall on the Highland Avenue side. Exiting vehicles proceed to the outbound scale and weigh out. Vehicles exit the facility via the Harwick Street entrance/exit.

Tipping floor operators perform a visual inspection of the waste that is off-loaded on the tipping floor. The facility utilizes 3-4 front end loaders to process the waste that is off-loaded onto the tipping floor. If any unacceptable wastes are identified, the truck delivering that waste is detained. Tipping floor personnel then notify the Environmental Engineer and/or the Fuels Handling Supervisor/Superintendent to determine the proper disposition of the waste. If hazardous materials and/or medical waste are identified, those wastes are typically loaded back on the truck that brought the unacceptable wastes on site. Upon identification of unacceptable wastes, the facility notifies the Pennsylvania Department of Environmental Protection (DEP) if required, relaying the name and truck number of the hauler, the time of the event, and how the waste was contained. All relevant information is also noted in the daily log.

The facility stages bulky and white good materials removed from the tipping floor waste stream and stored on the eastern wall of the tipping floor. These bulky materials are periodically loaded into walking floor trailers and then sent to the Rolling Hills Landfill for recycling/disposal.

After waste is off-loaded from the transport vehicle, it can be loaded directly onto the individual incline conveyors feeding each of the six (6) combustor/boiler units or it can be pushed into storage piles. The facility has a waste handling plan to ensure that no more than the permitted amount of waste accumulates on the floor at any one time and that all waste is sent into the combustors within the time frame as specified in its operating permits. One or two loaders load the incline conveyors and the remaining loader(s) move waste off-loaded from incoming trucks and stores waste in storage piles on both sides of the truck aisle.

After waste has been processed, bottom ash and fly ash are currently collected on a conveyor system and directed to the facility residue building. A drum

magnet and grizzly conveyor are currently utilized to pull ferrous off the bottom ash conveyor. Nonferrous recovery was installed at the facility in 2007. The site currently segregates ferrous and nonferrous materials in the southern area of the residue building. A magnetic crane is used to separate ferrous materials from the bulky pile prior to the shipment of ferrous to the off-site recycling facility.

As part of the previously approved major modification, a metals recovery building, as shown on the Site Plan, is to be installed adjacent to the existing ash residue building in the future. After ferrous removal using a drum magnet is completed in the residue building, nonferrous materials are collected on an enclosed conveyor and transported to the metals recovery building. After a series of eddy currents, screens and vibrating feeders, the material is separated into less than 3/8" nonferrous materials, greater than 3/8" nonferrous materials and potentially further separated into greater than and less than 3/8" ferrous solids using additional magnets. The recovered nonferrous and ferrous solids are stored in concrete bunkers in the metals recovery building until they are loaded into open top trailers, inside the building, by front end loaders to be delivered off-site for secondary processing or to go directly to market. The remaining ash is conveyed back to the ash residue building where it feeds onto the conveyor along with the fly ash prior to storage in a bunker for transport for disposal, further processing or reuse.

All bulky/non-recyclable materials are sent to the landfill for disposal. Ferrous metal is loaded into open top trailers for off-site recycling by the following methods:

- Loader
- Overhead Magnetic Crane
- Portable Magnet Crane
- Other means approved by the Department

One or a combination of the aforementioned methods are used to load ferrous metal for transportation to an off-site recycling facility. Recovered nonferrous metal is stored in bays within the metals recovery building prior to transport off site. The loaded material that is transported fulfills the compositional requirements of the recycling facility. Trucks used for the transportation of recovered metal are secured with a tarp or other cover that minimizes the potential for fugitive emissions. This approach is used for the transportation of facility ash residue and has been demonstrated to be effective in the control of fugitive emissions.

Ash drops off a conveyor, and a loader pushes the ash up against a push wall for temporary storage. Ash comprises about 30% of the original waste delivered to the site. Dump trucks/trailers enter the southern entrance to the residue

building for loading. The loader loads each truck with ash and each truck is tarped prior to leaving the building to minimize fugitive emissions.

The facility keeps the residue building doors closed as much as possible to minimize the potential for fugitive emissions. The DVRRF operates two sweepers on an alternating basis throughout the day over its impervious areas to ensure that any ash, broken glass, litter, dirt or leaked petroleum products are cleaned up. During times of excessive rainfall, water in the MSW may drain onto the tipping floor. In order to minimize this accumulation of water, the facility implements the following best management practices:

- As ponding of water is noted, the loader operators will be directed to push MSW through these areas to soak up the free standing water.
- As necessary, increased use of the facility street sweeper will be employed to capture waste water that is tracked off the tipping floor. Waste water that is collected by sweeper is placed with other MSW to be processed.

B.2. SOLID WASTE

a. ORIGIN: The facility principally accepts municipal and residual solid waste from Delaware County, Philadelphia, and the states of Delaware, New Jersey and New York. Based on market demands, the facility may accept waste from other locations.

b. COMPOSITION: Over 90% of the waste that the facility receives is municipal waste. Under its permit, the facility is permitted to accept DEP-approved residual waste. Under Permit Condition #25, Form R residual wastes requiring chemical analyses may comprise up to 10% of the facility's total daily waste stream or 500 tons per day, whichever is greater. In addition, under Condition #35, Form R residual wastes with chemical analyses waived (as listed under Condition #17 of the facility permit) accepted each month may also comprise up to 10% of the facility's total monthly waste stream.

c. WEIGHT OR VOLUME: The facility is permitted to accept 5,700 tons per day (Monday through Friday 4 a.m. to 6 p.m.) and 3,000 tons per day on Saturdays and the following holidays (4 a.m. to 2 p.m.): Memorial Day, July 4th and Labor Day. The facility does not accept any waste on the following holidays: New Year's Day, Martin Luther King Day, Thanksgiving, and Christmas Day.

B.3. PROCESS TO BE USED:

The facility is equipped with six combustor/boiler trains, one turbine-generator, one condenser, condensate pumps, feed-water heaters, one de-aerator, boiler feed pumps, and a closed-loop cooling system with a cooling tower.

The facility is equipped with six (6) rotary O'Connor water-wall combustors to incinerate incoming waste. The combustors are tilted at a 6° angle. The combustor turns at approximately 2-3 revolutions/hour, and the waste is tumbled and mixed with combustion air (as under- and over-fire air) which enters the combustion barrel through perforations in the water-wall tube membrane. As wastes move forward in the combustors, the waste is dried and combusted. Remaining inert material and organic materials, including non-combustibles and ash, move downward to the afterburner grates where combustion is completed.

Combustion air is drawn from the tipping floor and delivered to the combustion air heaters by the forced draft (FD) fan located on each unit. Draft air for the combustor is provided by the FD fans and induced draft (ID) fans located on each unit. Each combustor is equipped with natural gas burners for start-up, shutdown, and flame stabilization.

Steam is produced in the rotary combustor, two convection generating banks and a radiant furnace section and is collected in the steam drum. Cyclone and chevron-type moisture separators remove moisture from the steam in the steam drum. Saturated steam is redirected into the boiler superheater sections, which are feedwater-attemperated to produce a constant temperature steam output. The saturated steam output of each unit is cross-connected to a single main steam header which feeds turbine-driven pumps, boiler auxiliaries, and a turbine-generator. During turbine outages, steam is directed to a dump condenser, allowing the facility to continue to process waste when the turbine is unavailable.

Boiler make-up water is produced by a reverse osmosis (RO) system treating water supplied by the Chester Water Authority (CWA). Water from CWA is also used as a potable water supply, and supplemental make-up water for the facility's cooling tower. The facility uses secondary effluent from the DELCORA wastewater treatment facility for a majority of the make-up water for the cooling tower. Implementation of effluent reuse included the installation of an effluent supply line, a wastewater return line, two RO units with pre-filters, modification of existing chemical storage and supply lines, and a lift station at the southern end of the cooling tower.

Process wastewater and stormwater collected in the area of the facility's loader shop is re-used, and can be used for cooling tower make-up, ash quenching, ash conditioning, and baghouse temperature control to minimize water usage and

process discharges. Sanitary wastewater is discharged to the adjacent DELCORA wastewater treatment facility.

The plant is equipped with one 3,600 rpm turbine-generator, rated at 90 MW, located in the turbine building adjacent to the combustor trains. The turbine exhausts to a condenser utilizing circulating water from on-site cooling towers.

Flue gas in each unit is drawn through an air pollution control (APC) system by the ID fans. The APC equipment removes acidic gases and particulates. As part of this modification, ammonia injection locations will be added to each of the six combustion units, prior to the spray dryer APCD, to convert the NO_x emissions into nitrogen and water vapor, to improve the facilities current air emissions. Lime slurry will then be used in a dry scrubber for each unit to react with acidic gases (i.e., SO₂ and HCl) to form particulate calcium compounds which are then removed. After the scrubber, flue gas is then passed through fabric filter systems or baghouses for particulate control prior to discharge to the stack.

Flue gas constituents are monitored through the site Continuous Emissions Monitoring System (CEMS). CEMS monitors for a number of parameters including CO, O₂, CO₂, HCl, SO₂, NO_x, opacity, furnace temperature and baghouse inlet temperature to ensure that the facility is meeting the limits set forth in its Air Permit and/or plan approvals.

B.4. DAILY OPERATIONAL METHODOLOGY OF PROCESS AND METHOD OF WASTE MEASUREMENT:

Manufacturer's cut sheets for representative equipment used to receive, and unload waste delivered to the site in intermodal containers are included in the Form P Attachment.

As waste enters each unit, licensed operators in the control room monitor the entire combustion process including ash handling operations. The facility has video cameras in place to allow the facility control operators to monitor waste as it enters the gate, being unloaded on the tipping floor, as it moves up the incline conveyors, fed into the feed hoppers, and moves through the combustors during the combustion process. Video cameras are also installed in the residue building and at the entrance/exit gates.

The facility has inbound and outbound scales to weigh incoming and outgoing truck traffic. The facility has radiation detectors installed on the incoming scales to screen incoming waste for radioactive materials.

Waste is unloaded on the tipping floor and loaders stack the waste in storage piles on either side of the center ingress/egress aisle. The facility's solid waste permit allows uncompacted MSW to be stacked to a height of 20 feet.

The facility's solid waste permit also allows for compaction of MSW on the tipping floor. When the facility plans to compact, it will notify the Department in writing one week prior to commencing compaction and keep the written notification on-file. The facility will specifically notify the Department whether it is compacting the front pile, the back pile or both piles. When the facility terminates tipping floor compaction or seeks to alter its compaction configuration, it will also provide the Department with notification. When the facility alters the compaction configuration, for a period of time, the pile where compaction is either being commenced or discontinued will be transitioning from an uncompacted height of 20 feet to a compacted height of 14 feet or transitioning from a compacted height of 14 feet to an uncompacted height of 20 feet. The total storage capacity of the facility will be a combination of waste on the tipping floor plus the amount of waste held in offloaded intermodal containers at the facility. At all times, the facility will limit storage to no more than 14,200 tons.

B.5. DESCRIBE HOW WASTES, NOT APPROVED BY THE DEPARTMENT, WILL BE PREVENTED FROM BEING ACCEPTED AT THE FACILITY:

All haulers who utilize the facility are subject to facility management approval process. Haulers establish waste disposal accounts through facility marketing personnel and enter into waste acceptance contracts with the facility. Facility waste acceptance contracts set forth a definition of acceptable waste.

Prior to receiving a hauler's waste for disposal, a hauler is required to complete a waste hauler approval form. As part of the approval process, facility marketing personnel work with the site environmental engineer to ensure that all waste streams that are accepted by the facility are approved under state regulations and the facility's permits.

A hauler must be pre-approved to deliver waste to the facility prior to being allowed to bring municipal or residual waste to the facility. Scalehouse personnel are required to turn away any haulers who are not pre-approved. The facility has radiation detectors mounted on the scalehouse that are designed to detect the presence of any radioactive material above background levels and prevent it from entering the facility.

Generators that produce wastes requiring special handling are required to schedule delivery in advance. If a waste requiring special handling is delivered without it being scheduled, scalehouse personnel, under the direction of facility

management, will reject delivery of the waste when it reaches the scalehouse or when identified at the tipping floor.

The Fuels Handling Supervisor and the fuels handling staff receive training regarding what wastes constitute acceptable waste and those that are unacceptable. Fuels handling personnel are vigilant for any unacceptable wastes that a pre-approved hauler may deliver to the tipping floor. Bulk items that may pose an operational problem are removed from incoming waste loads. Fuels handling personnel also inspect approximately 5% of the incoming loads to ensure that only acceptable wastes are being delivered to the facility. The inspection process ensures that no items, such as medical waste, sludges, explosives, asbestos, and drums containing unapproved chemicals are being delivered to the facility.

If hazardous and other unacceptable wastes are found during the spot inspections, the loads are rejected and sent back with the hauler who brought them. The facility notifies haulers who deliver unacceptable wastes to discontinue the practice or face being barred from the facility. If the facility cannot identify the transporter or if the waste was received in intermodal container, it will handle the unacceptable waste in accordance with applicable regulations.

B.6. LOADING RATE:

Covanta Delaware Valley, L.P. operates the DVRRF located at 10 Highland Avenue in the City of Chester, Delaware County, Pennsylvania. The DVRRF is an Energy-from-Waste facility, which operates six (6) rotary combustors, a 90-megawatt capacity turbine-generator, along with ancillary equipment to support facility operations. In accordance with its solid waste permit, the DVRRF receives waste Monday-Friday from 4 a.m. to 6 p.m., and between the hours of 4 a.m. to 2 p.m. on Saturday and the following holidays: Memorial Day, Fourth of July, and Labor Day. No waste is received on Sundays and the following holidays: New Year's Day, Martin Luther King Day, Thanksgiving, and Christmas Day. The DVRRF is restricted to accepting no more than 5,700 tons/day of waste Monday-Friday; and no more than 3,000 tons/day of waste on Saturday, Memorial Day, Fourth of July, and Labor Day. In addition, the permitted storage capacity is limited to 14,200 tons.

To process this waste, the DVRRF operates six (6) rotary combustors that operate 24 hours/day, 7 days/week, and 52 weeks/year, except for scheduled outages and unscheduled repair and maintenance. Routine boiler availability exceeds 90%. The facility Title V Air Quality Permit restricts the 4-hr hourly steam production to 110% of the documented steam flow during annual dioxin testing or 161,000 lb/hr per unit, whichever is lower.

B.7. CAPACITY OF FACILITY:

See B.6.

B.8. EXPECTED LIFE: > 50 Years

B.9. PLAN FOR ALTERNATIVE WASTE HANDLING OR DISPOSAL SYSTEM DURING PERIODS WHEN THE PROPOSED FACILITY IS NOT IN OPERATION INCLUDING PROCEDURES TO BE FOLLOWED IN CASE OF EQUIPMENT BREAKDOWN. PROCEDURES MAY INCLUDE THE USE OF STANDBY EQUIPMENT, EXTENSION OF OPERATING HOURS AND CONTRACTUAL AGREEMENTS FOR DIVERSION OF WASTES TO OTHER FACILITIES:

The facility receives waste from 4 am – 6 pm Monday-Friday and from 4 am – 2 pm on Saturdays. The facility does not accept waste on New Years' Day, Martin Luther King Day, Thanksgiving and Christmas Day. The facility processes wastes 24 hours/day, 7 days per week. On an annual basis, the facility schedules outages to inspect each combustor/boiler unit and perform necessary repairs. Scheduled outages help to ensure a high availability for each unit and that each unit maintains high combustion efficiency.

From time to time, the site must take unscheduled outages and bring some of the combustor/boiler units down due to equipment malfunctions. In those situations, waste is routed to the units that are on-line. In the rare event that the whole plant is tripped off line, the black plant is typically due to a mechanical/power problem which can be quickly corrected. In those situations, the facility has ample storage capacity on the tipping floor and queuing yard to store waste while the plant is down, or when inclement weather impedes the movement of intermodal containers. In addition, the facility maintains an inventory of spare parts in its warehouse to ensure that it has parts on hand to quickly repair any mechanical/power problems.

In the event that the plant or any units must remain down for a prolonged period, waste would be diverted until the plant could be brought back on-line to its full capacity. The Delaware County Solid Waste Authority would be directed to haul its solid waste directly to the Rolling Hills Landfill in Boyertown, Pennsylvania. Other solid waste sources would be directed to seek out other solid waste facilities for disposal. The DEP will be notified of such events.

B.10. DESCRIBE HOW THE INSTALLATION AND OPERATION OF THIS FACILITY WILL BE CONSISTENT WITH THE REQUIREMENTS OF ACT 1988-101:

The site is located in Delaware County and is included in the Delaware County Solid Waste Plan. The facility is under contract with the Delaware County Solid Waste Authority to accept a large percentage of the solid waste generated in the County. Municipal waste is routed from the two Delaware County transfer stations to the facility for processing.

The site also accepts municipal solid waste from a variety of communities including but not limited to Philadelphia County, other Pennsylvania counties, the States of Delaware, New Jersey and New York. Acceptance of this waste is consistent with applicable laws and regulations.

B.11. PLAN FOR OPERATIONAL SAFETY, FIRE PREVENTION AND EMERGENCY RESPONSE, THAT WILL ADEQUATELY PROTECT WORKERS AND PATRONS OF THE FACILITY, PREPARED BY AN EXPERT IN THE FIELD OF INDUSTRIAL HYGIENE AND SAFETY:

The facility has a contingency plan maintained on site that addresses operational safety, fire prevention and emergency responses. The facility has multiple fire suppression equipment including sprinklers, fire extinguishers, foam carts, dry chemical carts and two fire cannons on the tipping floor that are capable of handling fires that could potentially occur.

B.12. PLAN FOR HIRING AND TRAINING EQUIPMENT OPERATORS AND OTHER PERSONNEL CONCERNING THE OPERATION AND APPROVED DESIGN OF THE FACILITY.

The facility's Operations and Maintenance Manual (O&M) includes information pertaining to operation and maintenance functions. The plan consists of eleven volumes. Volume I is entitled Administrative Procedures, and includes all environmental requirements and procedures. Volume II is entitled System Descriptions, and includes System Descriptions, Combustion Theory, Additional Operating Procedures, Fuel Handling Procedures and Maintenance Procedures. The Operational and Maintenance Plan is considered a living document and changes as the facility improves its knowledge regarding operations. The Hiring and Training Plan currently being implemented is included in Volume X.

The facility strives to ensure that representative levels of qualified community members are employed in the facility. The facility strives for a level of 55% for non-exempt employees and 40% exempt employees based upon individual qualifications of available candidates. Efforts to accomplish these goals include working with the City Council members to solicit the names of qualified employees, working with the Chester employment office of recruiting, as well as Trade School recruiting such as Williamson Trade School located in Media. The

facility also seeks to hire community members via periodic internships in various areas including Safety and Environmental affairs.

B. 13 OPERATING HOURS OF THE FACILITY

In accordance with its solid waste permit, the DVRRF receives waste Monday-Friday from 4 a.m. to 6 p.m., and between the hours of 4 a.m. to 2 p.m. on Saturday and the following holidays: Memorial Day, Fourth of July, and Labor Day. No waste is received on Sundays and the following holidays: New Year's Day, Martin Luther King Day, Thanksgiving, and Christmas Day. To process this waste, the DVRRF operates six (6) rotary combustors that operate 24 hours/day, 7 days/week, and 52 weeks/year, except for scheduled outages and unscheduled repair and maintenance.

SECTION C. DESIGN AND RELATED INFORMATION

C.1. SOURCES, TYPES, WEIGHT OR VOLUME OF SOLID WASTE TO BE PROCESSED, INCLUDING DATA ON MOISTURE CONTENT OF WASTE, AND INFORMATION CONCERNING SPECIAL ENVIRONMENTAL POLLUTION OR HANDLING PROBLEMS THAT MAY BE CREATED BY THE SOLID WASTE:

The facility is permitted to process municipal and residual waste. The moisture content in municipal waste typically varies from 25%-45%. Many of the residual wastes that the facility would process have moisture contents that are similar to municipal waste. In situations where residual wastes have high moisture content (>75%) such as latex paints, the facility staff would ensure that the wastes were properly containerized prior to receipt to prevent any handling or spillage problems. For handling purposes, the facility does not accept loads containing significant amounts of free liquids which would be dumped directly onto the tipping floor. Wet waste delivered during periods of excessive precipitation is stockpiled on the tipping floor to allow for drainage prior to charging the material to the combustors. As ponding of water is noted, the loader operators will be directed to push MSW through these areas to soak up the free standing water. In the event that the transfer of waste to the tipping floor is inhibited by freezing conditions, on site equipment may be used to break the frozen load free. Deliveries that are frozen can also be placed in an area where it will receive direct sunlight until container temperatures increase enough to loosen the load. If intermodal containers arrive during adverse weather conditions, such as extreme cold temperatures, the sealed containers will be placed upon an elevated area within the queuing yard or container maintenance area where direct portable heating units can be used to loosen surface adhesion of the load.

Facility generated waste oils are currently stored on-site, typically in 5-gallon pails, and taken up to the feed hoppers located on the 5th floor in the cargo elevator. Facility waste oil is dumped directly into the feed hopper.

C.2. METHODS TO BE USED TO CONTROL THE FLOW OF WASTE TO THE FACILITY, INCLUDING A FLOW CHART WITH A MATERIAL BALANCE DEPICTING THE PROCESSING OF SOLID WASTE AND MECHANICAL COMPONENTS OF THE PROCESSING SYSTEM:

As previously stated in B.5, facility management has an approval process for any haulers who wish to utilize the facility. Haulers enter into waste acceptance contracts with the facility, and those contracts set forth a definition of acceptable waste. In the contract, the facility specifically prohibits the delivery of hazardous waste to the facility.

Prior to receiving a hauler's waste for disposal, a hauler is required to complete a waste hauler approval form. As part of the approval process, facility marketing personnel work with the site environmental engineer to ensure that all waste streams are approved for acceptance under state regulations and the facility's permits.

When a solid waste vehicle enters the facility scalehouse to deliver municipal or residual waste, the hauler must be pre-approved to deliver waste to the facility. Scalehouse personnel turn away any haulers who are not pre-approved. Radiation detectors are mounted on the scalehouse to prevent any radioactive waste from entering the facility. Wastes requiring special handling must be scheduled in advance.

Although most wastes are visually scanned when they are dumped on the tipping floor, fuels handling personnel are vigilant for any unacceptable wastes and conduct a detailed inspection on at least 5% of the incoming loads to ensure that they do not contain medical waste, sludges, explosives, asbestos and drums containing unapproved chemicals.

Waste is delivered to the tipping floor and then fed onto inclined conveyors which convey the waste up to a feed chute. A feed ram pushes waste into the rotary combustor where combustion occurs. The combustor is set at a 6° angle and rotates so that as waste is dried and burned, waste tumbles down the combustor onto the afterburner grate where final burnout occurs before ash, called bottom ash, drops into the ash extractor to be quenched. The bottom ash is then dumped onto a conveyor and travels to the residue building.

The facility receives community service burn waste on the tipping floor. To prevent re-sale or reuse, delivery of this agency waste from law enforcement

agencies will be handled in a confidential manner to ensure destruction of the contraband delivered including documents, clothing, DVD's and other plastic recording media, firearms and controlled substances such as marijuana, pills, cocaine, and heroin. Only facility management will be informed by the agencies of the dates and times of these community service burn waste deliveries. Loads of agency waste range from 1-5 tons. In most cases, the agency wastes will be delivered to the facility feed chutes on the 5th floor utilizing the facility cargo elevator via hand trucks and agency personnel will witness destruction of the waste. In some instances, these community service burn wastes will be fed onto the incline conveyors and up to the feed chute.

The ash residue that is generated as a result of the combustion process constitutes approximately 30% by weight of the original municipal solid waste that was fed into the combustors. It is estimated that 80-90% of the ash that is generated is bottom ash. The balance of ash, called fly ash, travels through the boiler and is captured in the air pollution control equipment. As part of this minor modification, ammonia injection locations will be added downstream of the combustion units to convert the NOx emissions to nitrogen and water vapor. Ammonia will be fed into the injection lances from a 35,000 gallon storage tank located on site near the ash building that will contain approximately 19% ammonia, with the remaining tank composition being water. In accordance with Permit Condition #16, DVRRF may install a flexible screw conveyor to add lime to the facility's ash residue waste stream as a conditioning agent. Fly ash is then conveyed into the residue building where it is wetted down in pugmills that mix water in with the fly ash to prevent fugitive emissions. The combined ash is then sent to the Rolling Hills Landfill, the Gloucester County Solid Waste Complex in Swedesboro, New Jersey serves as a backup facility for the acceptance of ash material. As required under Pennsylvania regulations, the ash is tested for total and TCLP metals, total and volatile residue, pH, total dissolved solids (TDS), total organic carbon (TOC), and chemical oxygen demand (COD) on a quarterly basis.

C.3. INTERIOR DIMENSIONS OF THE TIPPING FLOOR, STORAGE AREA AND WHEN APPLICABLE, INGRESS AND EGRESS THERETO:

The tipping floor is 380' x 292'. The front pile area is 360' x 140' and the back pile area is 380' x 92'. Both piles combined provide an approximate usable area of 85,360 square feet of storage. The usable area is based upon a minimum 27' wide center aisle for vehicle maneuvering plus a 13' wide unloading zone along the south wall of the tipping floor. Trucks currently enter the site via Harwick Street and drive through the scalehouse entrance onto the tipping floor by traveling basically in a straight line. Upon unloading, trucks exit the tipping floor by heading straight toward the river and, upon leaving the building, trucks immediately turn northward around the building and proceed back to the outbound scale(s).

Intermodal containers with waste that are staged for processing on the ground in the queuing lot will be accounted for in the facility's total permitted storage capacity of 14,200 tons.

C.4. SIZE, TYPE, CAPACITY, AND GENERAL SPECIFICATIONS OF THE EQUIPMENT FOR THE HANDLING, PROCESSING AND STORAGE OF WASTE:

The actual per unit processing rate is based on 110% of the demonstrated load during the most recent dioxin compliance test runs computed on a four-hour block average basis to a maximum of 161,000 lbs/hour. Each of the six combustor/boiler units is capable of processing waste in quantities that are computed accordingly. The facility uses as many as four (4) loaders on the tipping floor to load the incline conveyors and handle the waste being tipped from trailers. The loaders have buckets that vary in size from 6-12 cu. yd. The facility is permitted to compact waste on the tipping floor, however it currently does not utilize this option. If and when it does, it will utilize bulldozers for compaction.

For waste delivered in intermodal containers mobile unloading equipment and mobile tippers will be used to offload and process containers. The ash building is 177'x 99' and houses the ferrous and nonferrous recovery operation and the ash storage/load-out operation. A magnetic crane is used to separate ferrous materials from the bulky pile prior to the shipment of ferrous to the off-site recycling facility. The facility utilizes the following equipment to load ferrous metals:

- Loader
- Overhead Crane
- Portable Magnet Crane
- Other Methods Approved by the Department

One or a combination of the aforementioned methods will be used to load ferrous into 20 ton trailers and containers. The site typically loads out approximately 150 tons of ferrous on a daily basis. Nonferrous separation is accomplished through the use of an eddy current separator. Recovered nonferrous metal is moved from the residue building to a bay inside the special waste receiving area, located in the tipping hall, using motorized "buggies". The site typically loads out approximately 20 tons of nonferrous every 1-2 weeks. A 50' x 56' area of the building is used to stockpile ash and that area is capable of storing approximately 3,000 tons of ash. One loader is used to load ash. The site typically loads out approximately 1,500 tons of ash on a daily basis. With the addition of the metals recovery building, discussed further below, it is anticipated

less ash will be loaded out and more nonferrous metals will be recovered as a result of the process upgrades.

Nonferrous separation shall eventually take place in the metals recovery building. An enclosed conveyor will bring ash from the existing residue building to the metals recovery facility, where a combination of eddy currents, vibrating feeders and screens will be used to separate the nonferrous material in less than and greater than 3/8". Nonferrous material will be stored in the metals recovery building, in bunkers, prior to transport off site. Any remaining ash from the nonferrous separation process will be conveyed back to the existing residue building and stored in the existing residue building prior to transport for disposal. The site loads out approximately 20 tons of nonferrous every 1-2 weeks. With the improvements to the metals recovery operation, that amount is expected to increase.

C.5. ANTICIPATED RECOVERY RATE OF MARKETABLE MATERIALS OR ENERGY:

The facility recovers approximately 30,000 – 40,000 tons of ferrous, and 900-1,200 tons of nonferrous material per year. The facility utilizes the incoming waste stream to generate approximately 650,000-700,000 MW-hrs of electricity on an annual basis.

The metal recovery system is designed to recover material at an approximate rate of 1.0% of the weight processed.

C.6. ACTUAL OR EXPECTED PHYSICAL AND CHEMICAL COMPOSITION OF ASH, RESIDUE OR WASH WATER PRODUCED BY OPERATION OF THE FACILITY:

A Form 41 is submitted to the department on a quarterly basis. Typically, the ash contains 3-5% metals, 20% combustibles, and 30% moisture. The TCLP metal levels are well within regulatory limits.

C.7. THE PROPOSED LOCATION AND METHOD FOR DISPOSAL, STORAGE OR PROCESSING OF ASH, RESIDUE OR WASH WATER PRODUCED BY OPERATION OF THE FACILITY:

Ash is stored in the facility residue building. The facility sends its ash to Rolling Hills Landfill. The Gloucester County Solid Waste Complex in Swedesboro, New Jersey serves as a backup facility for the acceptance of ash material. The facility generates very little waste water on the tipping floor. However, any waste water collected in the pit below the incline conveyors is pumped from the pit sump to facility wastewater tanks. In addition, waste water collected from under the ash slipstick and is pumped to the wastewater tanks.

Wastewater from the wastewater tanks is then used in combustor/boiler ash extractors to quench ash from the incinerator process.

C.8. PLAN FOR SEPARATION, STORAGE, OR ULTIMATE DISPOSAL OF UNMARKETABLE WASTE GENERATED BY THE PROCESS, INCLUDING PLANS FOR THE TEMPORARY STORAGE OF BULKY WASTE:

Bulky wastes dumped on the tipping floor by incoming vehicles are segregated from the storage piles. Typically, bulky wastes are stored on the eastern wall of the tipping floor until sufficient quantity is accumulated to dispose of the wastes. Items such as sofas and long rolls of carpet are sent to the Rolling Hills Landfill if they cannot compact down to a size that enables the loader operator to feed the item onto the incline conveyors. White goods are directed to local scrap dealers. Ash is disposed at the Rolling Hills Landfill in Boyertown, Pennsylvania. The Gloucester County Solid Waste Complex in Swedesboro, New Jersey serves as a backup facility for the acceptance of ash material.

C.9. MINIMUM AND MAXIMUM VOLUME OR WEIGHT OF THE TYPES OF MATERIAL OR SOLID WASTE TO BE PRIOR TO SALE, REUSE OR DISPOSAL, AND THE MINIMUM AND MAXIMUM TIME THAT MATERIAL OR WASTE IS TO BE STORED:

The facility is currently permitted to store up to 14,200 tons of solid waste. This total represents the combined amount of waste in intermodal containers staged in the queuing lot plus the amount of waste on the tipping floor. Waste that is received at the facility must be processed within the time frame specified in the facility's operating permit.

The facility has the capability to store approximately 3,000 tons of ash in its ash building. This gives the facility the capacity to store approximately three days of ash generated from its process.

The facility also provides maximum height markings on tipping floor columns to ensure that we are within the maximum allowable height of 20'. The facility also uses imaginary lines crossing the tipping floor to ensure that there is no waste protruding onto the truck maneuvering lanes.

C.10. PLAN FOR DISPOSAL OR PROCESSING OF WASTE IF THE FACILITY OR A PROCESSING LINE WITHIN THE FACILITY IS CLOSED OR SHUT DOWN:

The facility has six (6) processing lines. If one or several lines shut down, the site redirects waste to the other operating lines. In the event, the facility is unable to process waste that it anticipates receiving, it notifies solid waste sources that are not under contract to send their wastes to other solid waste facilities. If necessary, the facility will direct the Delaware County Solid Waste Authority to haul solid waste directly to its landfill. The Delaware County Solid Waste Authority would haul waste to its own landfill located in Boyertown, Berks County, Pennsylvania.

C.11. UTILITIES TO BE INSTALLED AT THE FACILITY:

The facility has been in operation since 1991. Utilities serving the facility include: Philadelphia Electric Company (electrical power), UGI Energy Services, Inc. (natural gas supplier), the local telephone provider (telephone lines), DELCORA (wastewater lines), DELCORA (treated effluent used as cooling tower make-up water), and Chester Water Authority (potable water supplier).

C.12. PLANS AND DESIGNS FOR OPERATING AND MAINTAINING THE PROPOSED FACILITY TO PREVENT FIRES, EXPLOSIONS, THE EMISSION OF NOXIOUS OR TOXIC GASES AND OTHER EMERGENCIES:

The facility was originally designed to ensure that the units and the building conform to the National Fire Prevention Code. The site has a fire suppression system installed on its tipping floor, rail container building, boiler house, and administrative building. In addition, fire extinguishers and a water supply system with connection points are located throughout the site to fight fires. The site is also inspected annually by Hartford Steam Boilers to make sure that the facility meets relevant safety standards and is still insurable. The facility has two fire cannons on the tipping floor as an added measure of fire security. These cannons have the capability to fight small fires which could possibly erupt on the floor.

With regard to the building's ability to withstand explosions, the building was designed in accordance with the 1989 BOCA Code.

The facility has an air pollution control system which is equipped with a scrubber that scrubs acid gases and a baghouse which filters out particulates including any metals. As part of this minor modification, an ammonia injection system will be added which will convert the NO_x emissions into nitrogen and water vapor, further improving the site's air emissions. In addition, the facility conducts annual stack testing to ensure that it meets applicable regulations including Pennsylvania DEP Air Regulations and its Air Permit with regard to air emissions. The facility was built according to the codes that were in place at the time of permitting/construction. Any new construction will meet present codes.

C.13. A PLAN FOR THE REPAIR OR REPLACEMENT OF EQUIPMENT IN THE EVENT OF EQUIPMENT BREAKDOWN, INCLUDING PLANS FOR OBTAINING SPARE PARTS:

The facility maintains a computerized Maintenance Management System that provides a listing of critical parts for each of the site's systems. These systems include the combustion/boiler systems, the water treatment system, the turbine system, the air pollution control system, the Continuous Emissions Monitoring System (CEMS), the ash handling system, and the cooling water system. The system also provides an up-to-date inventory of critical parts.

C.14. DRAWING INDICATING AREA FOR ISOLATING DETECTED RADIOACTIVE WASTE.

Refer to the Site Plan, which indicates the locations of the radiation staging and sorting areas.

C.15. DRAWING INDICATING LOCATION OF RADIOACTIVE MONITORING EQUIPMENT

Refer to the Site Plan, which indicates the location of the radioactive monitoring equipment.

Form P
Attachment

Intermodal Container Handling Equipment

FORM P ATTACHMENT

INTERMODAL CONTAINER HANDLING EQUIPMENT

INTERMODAL CONTAINERS

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INTERMODAL SPECIFICATION

SPECIFICATION NO: 100060

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ISSUE DATE: 4/23/09

REVISION NO: 4

REVISION DATE: 3/9/13

APPROVED BY: ANTHONY D. PETZITILLO, JR

SIGNATURE: 

- MODEL I-62/OT/AL
- INTERMODAL CONTAINER
- 62 CUBIC YARD CAPACITY. 19'-10 1/2" L x 8'-6" W x 12'-0" H
- OPEN TOP CONTAINER W/ TOP HINGED DOOR AND STEEL LID
- DOOR CLOSURE – ADJUSTABLE AUTO-LOCKING SYSTEM
- CERTIFIED FOR 5 HIGH STACKING AT 70,000#

SECTION I

- 1.1 **GENERAL REQUIREMENTS:** The following specifications describe a 20 foot long, 62 cubic yard Intermodal Environmental, watertight container to be used for rail, barge, truck transport of municipal solid waste.

Sufficient documentation must be produced for each container to satisfy the requirements of Wastequip Accurate Quality Assurance Program and this specification. The container systems shall be of the type as manufactured by Wastequip Accurate, Erial, New Jersey, or equal.

- 1.1.1 **QUALITY ASSURANCE:** The container manufacturer shall show evidence of a Quality Assurance Program. The container manufacturer must have fifteen (15) years of experience building containers of a similar size and design. No prototypes will be accepted.

- 1.1.2 **DESIGN:** The design is based upon solid waste container systems as manufactured by Wastequip Accurate, and the terminology used herein may include reference to that manufacturer's proprietary product. Such reference shall be construed as establishing the quality of materials and workmanship to be used under this section. The design shall be verified by an independent verification agency, such as The American Bureau of Shipping.

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- 1.1.3 **MODEL:** The solid waste container systems shall be an Wastequip Accurate I-62/OT/AL production unit.
- 1.1.4 **PERFORMANCE:** The manufacturer must have field proven performance in design and manufacturing similar type solid waste containers. Manufactures must provide evidence through references, of 12' high containers manufactured for operations loading and transporting MSW. The previously manufactured Environmental containers used to meet this requirement shall have been designed specifically for MSW transport. References shall include, but not be limited to; the name of purchaser, contact information of purchaser, and the date containers were sold.
- 1.1.5 **PROTOTYPE TESTING:** The manufacturer must have the capabilities in house of performing the Prototype Tests. Prototype Testing must be supervised and certified by an independent agency, such as The American Bureau of Shipping (ABS). An ABS Prototype Test Certificate shall be provided to the owner.
- 1.1.6 **PRODUCTION INSPECTION:** Production processes are periodically inspected during manufacture by an independent verification agency, such as ABS, who shall issue a "Cargo Container Production Certificate" to the owner upon the completion of this job.
- 1.1.7 **PRODUCTION TESTING:** Production Testing shall be as described in Section 3.1 of this specification.
- 1.1.8 **AUDITS AND INSPECTIONS BY OWNER:** Owner has the right to audit quality systems, and perform periodic inspections during the manufacture of the containers, which may include witnessing of the QC/QA testing performed.

SECTION II

2.1 DETAIL SPECIFICATIONS:

- 2.1.1 **CERTIFICATIONS:** Containers shall meet the current applicable requirements of the American Association of Railroads, AAR M930-98 / ABS Rules / CSC and be certified by an independent agency such as the American Bureau of Shipping.
- 2.1.2 **DIMENSIONS:** The container shall be 62 cubic yard net inside capacity. The outside dimensions shall meet the ABS tolerances on length, width, and diagonal measurements for a nominal 19'-10 1/2" long x 8'-6" wide container. Height shall be 12'-0" maximum.
- 2.1.3 **CORNERS:** The containers shall be fitted with eight (8) ISO corner castings and shall be located to meet ABS standards. There shall be no protrusion of any kind, including hardware, doors, lids, etc., past the outer envelope of the corner castings.

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2.1.4 **MATERIAL SPECIFICATIONS:** Documentation of materials will conform to "Material Identification" form provided by Accurate and approved by ABS. A) All structural steel tubing shall be ASTM A-500B minimum. B) Steel 7 Ga. and lighter shall be ASTM A606. C) 1/4" and heavier shall be ASTM A-36 or equivalent. D) Round bars shall be ASTM A-36, minimum. All detailed specifications are minimum only, heavier and/or stronger specifications are acceptable.

2.2 **FLOOR:**

2.2.1 Floor shall be 7 Ga. steel, and shall have engineered 5 1/2" formed 10 Ga. steel channel cross-members on approximately 16" spacing. Bottom side sills shall be a 4" x 8" structural tubing a minimum of 1/8" thick. All floor joints shall be located over a cross-member and spaced so a weld can be applied to joint and cross-member and full seam welded to assure structural integrity and watertight capabilities.

2.2.2 Fork pockets shall be installed in floor to meet ABS design requirements; 81" centers, 14" wide minimum, 4 1/2" high minimum.

2.2.3 Floor shall have an approximate 1 1/2" high sump at the door end that will provide an approximate 125 gallon reservoir prior to the need of the gasket seal.

2.3 **SIDES:**

2.3.1 Sides shall have a smooth inside and must be 12 Ga. Steel, minimum. Structural side supports shall be tapered to allow easy cleanup at 3 3/4" deep and 10 Ga. steel, minimum. All side supports shall be full welded to side sheets via automated welding processes. Bottom of sidewall and bottom of formed tubes are full welded to floor and bottom rail on outside and inside. Top horizontal structural welded tubing shall be 5" x 5" x 5/16" minimum, positioned at an angle to provide the required impact resistance and cleaning capabilities during the loading process. Sidewall shall be designed to withstand the stresses developed during the loading and discharge of the container.

2.3.2 All four (4) corners shall have vertical structural welded tubing, between and supporting, the top and bottom corner castings. These tubes shall be designed structurally to meet the AAR M930-98 / ABS Rules / CSC requirements for stacking loaded containers with a gross weight of 70,000 pounds, during transportation.

2.3.3 The top of the container shall be reinforced on each end to prevent racking.

2.3.4 **Vent:** Requires no manual operation. Remains closed during transportation. Only opens when required at discharge.

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2.4 **DOOR:**

- 2.4.1 **DOOR: AS AN IMPORTANT SAFETY ITEM THE OPERATOR MUST BE ABLE TO OPEN THE DOOR REMOTELY KEEPING ALL PERSONNEL CLEAR OF THE DOOR AND THE LOAD WHEN THE LOCK IS RELEASED.**
- 2.4.2 Door shall be one (1) piece and hinged from the top. Hinge pins shall be stainless steel. All hinges to be fit with grease zerks.
- 2.4.3 Liquids present in the loads to be hauled are considered to be a CONTAMINATED WASTE. Therefore, it is imperative to have a proven watertight seal system in addition to the CSC weatherproof seal. A proven design of an EPDM gasket sealed with a "knife edge" shall be provided between the door and doorframe to guarantee a watertight seal, so that no liquids from the waste material can leak out of the containers. Gasket must be made of durable material and easily replaceable. Manufacturer shall provide design details, sample and evidence of successful field usage prior to bid. No prototype designs are acceptable. Gasket and seal design must be approved by owner prior to bid. Gasket must be of "knife-edge" design to ensure a positive seal. No compression gasket will be accepted.
- 2.4.4 Door shall have two (2) horizontal and two (2) vertical 1/4" steel plate formed channel frames, plus two (2) vertical members. Door shall be a minimum of 10 Ga. steel. Four (4) hinges shall be installed on top of door so the door opens at bottom. Interior and exterior of door shall be full welded.
- 2.4.5 Door to be locked in place via the Wastequip Accurate Auto-Locking System. Consisting of a system that compresses the knife edge gasket, utilizing an under floor cam lock system with three grab hands to fully compress the knife edge into the gasket guaranteeing a fully watertight seal. There must be means to individually adjust the sealing characteristics at any point in the operation, whether in transport or storage. There must be no less than three (3) points of adjustment (each corner and the center) on the door providing the means to locally adjust the seal accounting for variations that may occur due to normal wear or damage. This system must have proven durability in previous container operations. Door is to be locked into place via an automatic locking system integrated into the tipping truck or trailer. The door is to be locked and unlocked at the face of the landfill without the need for manual operation. Eliminating the use of standard load binders on the door, the system shall significantly reduce or eliminate the exposure of operators to the fatigue and risks involved with manually locking and unlocking container doors.

SPECIFICATION NO: 100060
ISSUE DATE: 4/23/09
REVISION NO: 4
REVISION DATE: 3/9/13

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PROTECTED BY U.S. PATENT NO. 7,240,936
- OTHER PATENTS PENDING -

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2.5 BULKHEAD:

- 2.5.1 Bulkhead shall be 11 Ga. sheet steel and shall have two (2) vertical members, a minimum of 3 3/4" deep. Top horizontal tube shall be 6" x 4" x 3/16" structural tube minimum. Bulkhead shall be full welded.

2.6 LID & VENT:

- 2.6.1 Lid shall be a shoebox design, overlapping the top of the container on all four sides. Structural perimeters shall be full length pieces of rolled steel, no splits or joints. The lid must be fully welded and weatherproof and shall be sealed with a skinned open cell gasket.
- 2.6.2 The lid shall be designed to work exclusively with the patented Accu-Lidder system as specified in the DSNY Section 14601 Container Lidding System.
- 2.6.3 The lid shall be locked and unlocked at the four (4) corners utilizing twist locks and castings as detailed in U.S. Patent No 7,240,936.
- 2.6.4 Lid shall provide the provision to be operated manually if required and shall provide means to be handled via chain spreader or forklift if requested.

SECTION III

3.1 PRODUCTION TESTING:

- 3.1.1 Containers shall be certified by the American Bureau of Shipping (ABS) based on the design requirements as outlined by, ABS Rules for the certification of cargo containers. Testing based on ABS standards shall include but not be limited to:
- Water tightness
 - Weather tightness
 - Corner fitting lifting
 - Fork-lift pocket lifting
 - Roof loading
 - Floor strength
 - Floor deflection
 - Walls, door, and Bulkhead loading
 - Stacking Transverse Racking
 - Longitudinal Racking
 - Dimensions, including diagonals, within design tolerances
- 3.1.2 **INTERNAL WATER TEST:** The container shall be watertight welded and tested in accordance with procedures. A Water Test Report shall be provided for each container stating the internal water test procedure and signed by the Quality Control Inspector. Every container must be filled 24" with water and let stand for a minimum of thirty (30) minutes and inspected for watertight integrity. This process, if necessary, must be repeated until the container is inspected and has no leaks. The door gasket must be

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inspected thoroughly during this procedure. Every container must be fully welded on all joints and seams on the inside.

- 3.1.3 **VERTICAL LIFTING FROM THE TOP AT THREE (3) TIMES RATED CAPACITY:** Each and every container must be tested and certified by the manufacturer that top corner castings have been tested to three (3) times the rated capacity in accordance with procedures. A Pull Test Report will be provided.

SECTION IV

4.1 PREPARATION, BLASTING & PAINTING:

- 4.1.1 **PREPARATION:** Container shall be scraped and ground to remove sharp edges. All exterior and interior surfaces shall be cleaned.
- 4.1.2 **SHOT BLASTING:** Container shall be shot blasted or sand blasted on four (4) exterior sides to SSPC-SP7 standards.
- 4.1.3 **PAINT:** Shall be a Hempel Marine Grade Coating System with a 5 year warranty.
- Exterior: Prime Coat – 1 coat Hempadur Fast Dry 17410 (3-5 mils dft)
Top Coat – 1 coat Hempathane HS 5561K (2-3 mils dft)
- Interior: Stripe Coat – 1 coat Hempadur Fast Dry 17410 (2-3 mils dft)
Prime Coat – 1 coat Hempadur Fast Dry 17410 (3-5 mils dft)
- 4.1.4 **PAINT COLOR:** Customer to specify color.
- 4.1.5 **CAULKING:** Shall be gray silkaflex No. 221., or equal.

4.2 LABELING:

- 4.2.1 **NUMBERING SYSTEM:** Letters and numerical decals 6" high to meet ABS Requirements will be furnished and installed by the container manufacturer on all four (4) sides. Number sequence to be provided by owner.
- 4.2.2 **AAR PLACARD:** Will be furnished and installed by container manufacturer.
- 4.2.3 **CSC PLACARD:** With CSC approval number will be furnished and installed by container manufacturer.
- 4.2.4 **ABS DECAL:** Will be furnished and installed by container manufacturer.
- 4.2.5 **CUSTOMER DECALS:** Will be provided by customer and installed by manufacturer.

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4.2.6 **PLACARDS:** No placard holders or paperwork holders or other mounting brackets shall be installed.

4.4 **DOCUMENTATION TO BE PROVIDED TO OWNER WILL BE COPIES OF THE FOLLOWING:**

4.4.1 Prototype and Production Certification Report to meet ABS rules for special service including "Prototype Test Certificate" and "Production Certificate".

DROP DECK TRAILERS

PREPARED FOR:
COVANTA 4RECOVERY

HERCULES ENTERPRISES
43' DOUBLE DROP CHASSIS
SPECIFICATION

DATED: FEBRUARY 2013

HERCULES ENTERPRISES
321 Valley Rd. Hillsborough NJ 08844
TEL: 908-369-0000
FAX: 908-369-0626

1. GENERAL:

The chassis is designed for repeated use in stevedoring and transporting of one 20' long, 8' wide, 12' high intermodal container. Meets all FMVSS, ANSI, DOT, ABS, SAE, and TTMA specifications in effect at time of manufacture and applicable to operation in the United States.

2. DIMENSIONS:

OVERALL LENGTH:	43'
OVERALL WIDTH:	102"
KING PIN LOCATION:	18"
TANDEM LOCATION:	53" (from rear of chassis to tandem center)
5 TH WHEEL HEIGHT:	48"
LOADING DECK HEIGHT:	18"
GROUND CLEARANCE:	7 ½"
LANDING GEAR LOCATION:	98" (from C/L of king pin)
ESTIMATE WEIGHT:	11,200 lbs
GVWR:	70,000 lbs

3. FRAME:

4.1 UPPER COUPLER:

5/16" pick up plate with 2" diameter spool type king pin per SAE standard J700B supported by 1/4" thick channels.

4.2 GOOSENECK RAILS:

Fabricated beams with 3/4" x 6" bottom and ½" x 6" top flange up to 18" deep.

4.3 MAIN RAILS:

10" deep fabricated beams with 1" x 8" T-1 (130,000# yield) top and bottom flanges.

4.4 CROSS MEMBERS:

3/16" A572 Grade 50 material formed channels.

4.5 FRONT & REAR BOLSTER:

6 x 8 structural tubing with twist locks at the ends.

5. LANDING GEAR:

Jost A400.T1.17 landing gear sets, each with cushion foot. Supported by ¼" thick "deep" type mounting bracket. Meets or exceeds all AAR and TTMA specifications.

6.SUSPENSION:

Watson & Chalin TA-250 series 25,000 lb capacity each, tandem air ride suspension with override regulatory valves at the rear.

7.RUNNING GEAR:

5" round 25,000 capacity each, 77.5" track hub piloted axles. 16.5"x7" quick change brakes with non-asbestos linings. Bearings are lubricated with Shell-Retinax grease. Automatic type slack adjusters. 255/70R22.5 tires on 10 hole steel disc wheels. Light weight fenders over tires.

8. BRAKE SYSTEM:

Meritor/Wabco 2S-1M anti-lock brake system, type 30/30 spring brake chambers with parking brakes per U.S.D.O.T./FMVSS 121.

9. ELECTRICAL SYSTEM:

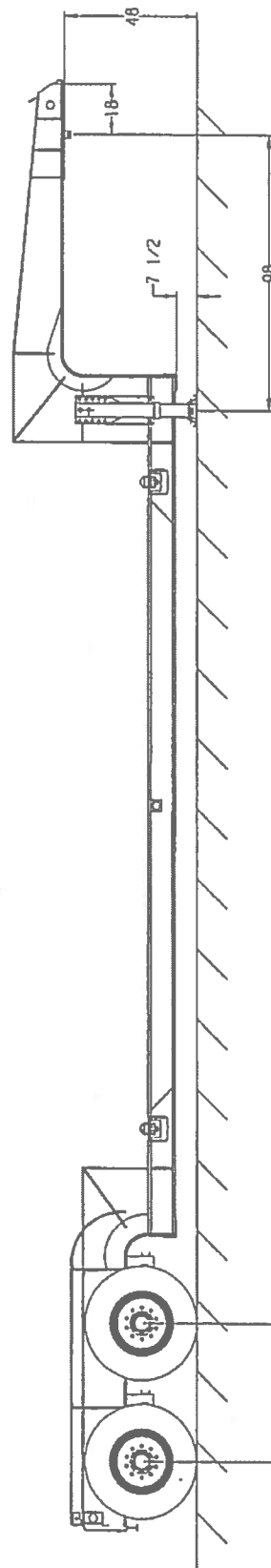
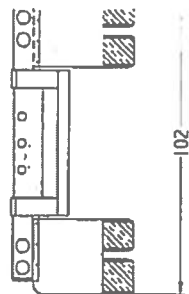
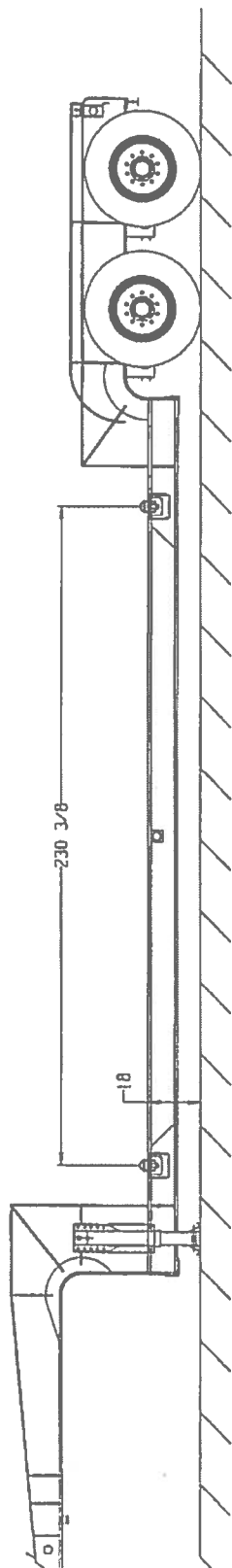
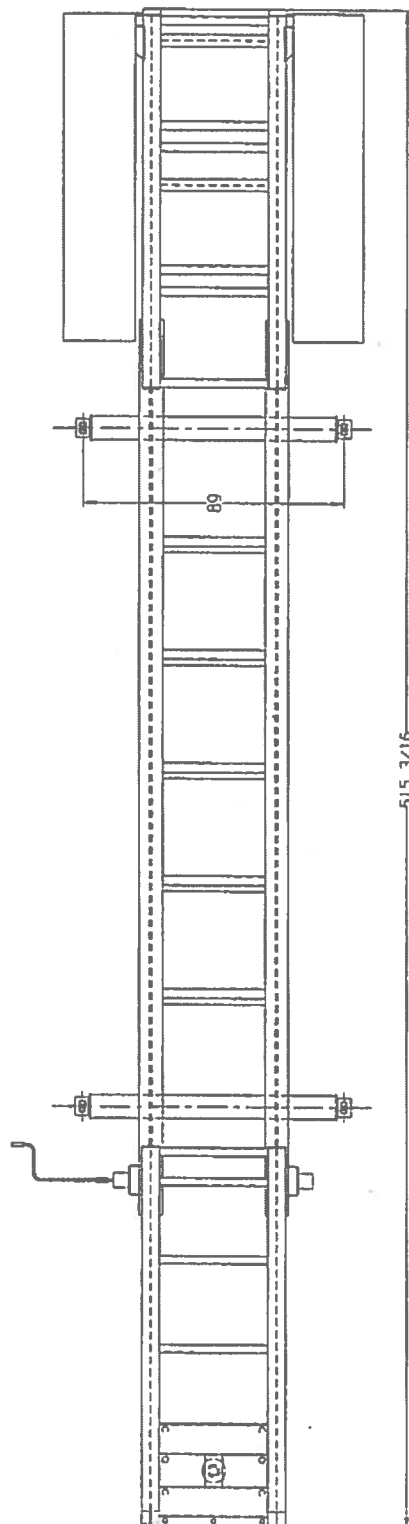
Trucklite 12 Volt lighting system per U.S.D.O.T. / FMVSS 108, Sealco wiring harness with plug type connectors and Tramec 7 way electrical plug.

10. FINISHING:

Chassis are prepared for paint by commercial abrasive blast. Painted in full accord with the specification and under the guidance and direction of Valspar. Painted with zinc primer #EEG0015 and urethane black top coat #KAA0087 (high gloss two coat hard finish paint system). All chassis has Trucklite # 97960 registration holders and new conspicuity tape.

11. WARRANTY:

Hercules Enterprises will warranty all workmanship, materials and installation on all parts manufactured by Hercules Enterprises for a period of 3 (three) years from the date of manufacture under normal conditions for its intended use. All claims must be reviewed by Hercules Enterprises and any and all warranty work to be done by Hercules or authorized representative. Claims on other manufacturers made parts will be referred to that manufacturer by Hercules Enterprises.



HERCULES ENTERPRISES		SA-BI-04-28	
DOUBLE DROP		MAIN FRAME	
AIR RIDE		ASSY	
APPROVAL	DATE	SCALE	1 OF 1
DESIGN	00/12/08	1/2	
CHK	REVISION	1/2	
APP	REVISION	1/2	
BY	REVISION	1/2	
BY	REVISION	1/2	

REACH STACKERS



Modern Group LTD.

2501 Durham Road
Bristol, Pa. 19007
215-943-9100

March 10, 2013

To:
Covanta Energy Corporation
445 South Street

From:
Ray Wiley
VP of Sales Morristown, NJ 07960
267-2449-4020

Attn: Mr. Jim Roberts

Ref Quote # 70-31847070 Rev 1, 8 March 2013 added operator training & Powered pile slope as an option



MODEL: HYSTER RS46-36CH Reachstacker
5 high Stacking of 9'6" Containers
4 high stacking of 12" tall containers

Nominal CAPACITY: 101,000 lbs. @ 73" load centre (First Row)
79,000 lbs. @ 151" load centre (Second Row)
42,000 lbs. @ 252" load centre (Third Row)

Capacity with 20 foot Fixed Attachment limited to 88,000 lbs. in any row

***Rugged Reliable Components Proven over Time!!!
Chassis Proven in 2 generations of previous Reachstackers***

CHASSIS:

244 inch Wheelbase
Strong yet simple box-frame construction

Performance / Productivity!!!

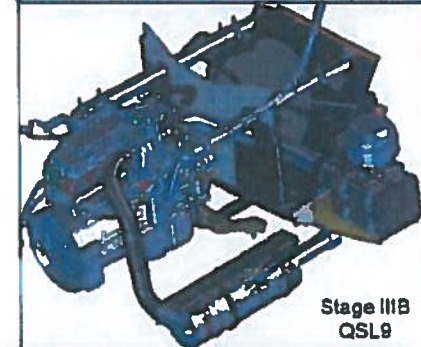
ENGINE 370 HP – Tier 4i

- Cummins QSL9, Industrial diesel, 8.9 litre, 6-cyl.-in-line, turbo-intercooler.
- Max. performance **276 kW / 370 HP** @ 1900 rpm (nominal 261 kW / 350 HP @ max. 2100 rpm).
- Max. torque is 1491 Nm @ 1500 rpm.
- Low exhaust emissions conform to EPA Tier4i emission standards
- With 'EGR' low emissions system, consists of a VGT (Variable Geometry Turbo), Cooled EGR technology that does not require urea, saving time and money. Includes Diesel Particulate Filter; Innovative selectable ECO eLo-HiP performance modes offer excellent fuel economy and maximum productivity. Hibernate idle saves fuel by lowering engine RPM when truck is not used
- Hydraulically driven, variable speed cooling fan for lower fuel consumption & less noise.
- Engine protection system, acting on low oil pressure and high coolant temperature. With initial engine de-rating and finally engine shut-down. With override function for emergency situations.
- Anti-corrosive exhaust system, stainless steel and aluminized steel

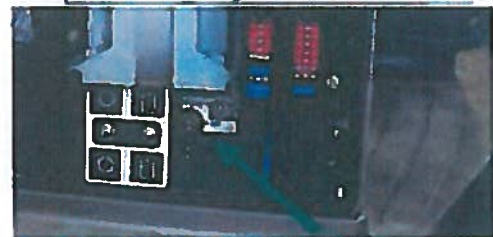
Note: Stage IIIB engines have to work on **ULSD** (Ultra-Low-Sulphur-Diesel) diesel fuel, with a maximum 15 ppm (Parts-Per-Million) sulphur content.

TRANSMISSION:

This powertrain has a Spicer Off-Highway TE-32 powershift transmission with 4 speeds forward and 4 speeds reverse. The programmable APC 200 transmission controller enables "soft shifting" while changing gears. The APC will trouble shoot transmission errors for fast resolution. A Powertrain Protection System monitors and protects the transmission, includes protective forward-reverse and high engine rpm shift lock-out.



Stage IIIB
QSL9



DRIVE AXLE: Kessler model D102 PL 341/528NLB double reduction planetary axle. Includes wet disc brakes. - Width across tires is 165".

STEER AXLE: Hyster "sandwich" type, double-acting single cylinder, and non-adjustable tie rods for long life and low maintenance.

BRAKES: Service brake: **Fully Hydraulic Wet Disc** type with large oil cooler and separate 5 micron brake oil filter. Charged by accumulator.
Parking brake: Spring applied, hydraulic release.

AIR FILTRATION: Donaldson two stage "safety" filter assembly. Includes restriction indicator in cabin, when paper element needs servicing.
Sy-Klone Type Pre-cleaner

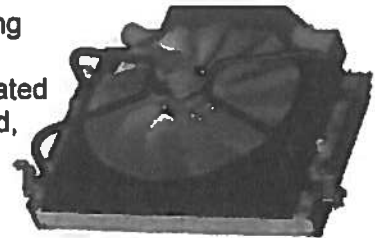
FUEL SYSTEM: **235 gallon larger capacity tank**, depending on application, and operator performance, this should provide a minimum of 36 hours service before refuelling.

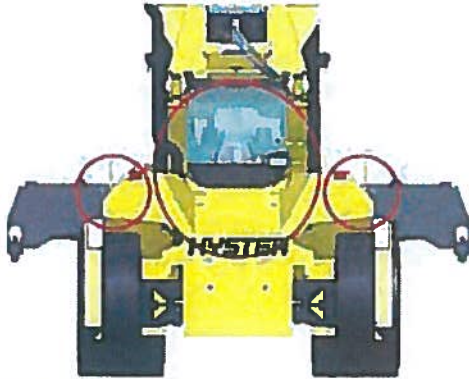
HYDRAULIC SYSTEM: Power On Demand Hydraulic System with Variable Displacement hydraulic pumps which lower fuel consumption while reducing heat and noise. 154 gal/min output with priority flow to steering and brake accumulator.
Two speed regenerative derricking system yields higher lift
Speeds with up to 10 tons of load under the spreader.
Automatic 'Rev-Up' function when lifting:
If not in gear: Up to 1800 rpm,
Leak Free ORFS hoses and fittings
Full flow 20 micron pressure filtration system, 5 micron return line filtration at the tank, and Magnetic particle suction strainers and service access panel. Large capacity **160 gallon bolt on Hydraulic Tank** helps keep hydraulic temperature low. Tank has level and temperature gauges and magnetic drain plugs
Exceptional Service access to Hydraulic Components, plus Centralized pressure check points & digital pressure indicator on the brake system accumulator

COOLING:

A four section cooling system ensures maximum cooling, allowing the engine and transmission to operate in temperatures up to 122 degrees F under normal operations. An electronically activated Variable speed hydraulic cooling fan only operates when needed, reducing fuel consumption and noise.

- Cooling air outlet is now between the boom towers.
No flow of warm air inside the engine compartment





COUNTERWEIGHT:

With optimized rear contour for minimized turning radius and shortest possible truck length. With purposely bevel-shaped surfaces that offer outstanding visibility, both rearwards as well as side-rear. The rear Boom Towers are spaced wide apart to give the maximum visibility directly behind the machine



Best Visibility in its Class!!!



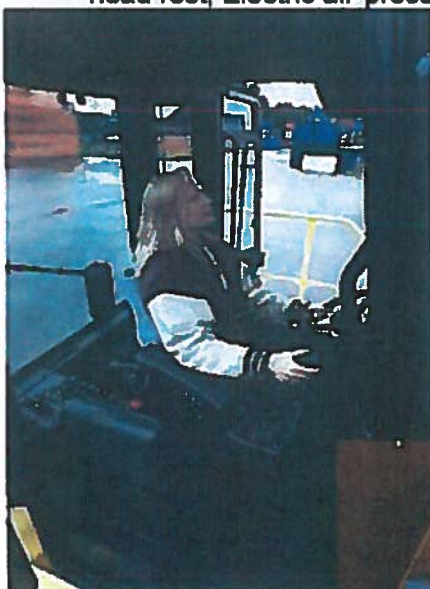
OPERATOR COMPARTMENT:

Hyster's cabin is state-of-the-art in driver comfort and provides clear sightlines all-round. Front, top, and rear wipers with washers. Full gauge and warning lights, plus Multifunction Display Panel Joystick on RH armrest to control Boom telescoping and Derricking, and spreader functions: Sideshift, Rotation, 20-40 extension & Twistlocks unlocking (locking is automatic).
LEQ noise levels: 72 dB(A) BITA equivalent.

38,000 btu Air Conditioning, heater/demister, Sunshades fitted top and rear, plus air circulation fan, Wide Angle Mirrors inside cab and on front fenders
Steering wheel with spinner knob.
Adjustable steering column (fwd-back & up-down).

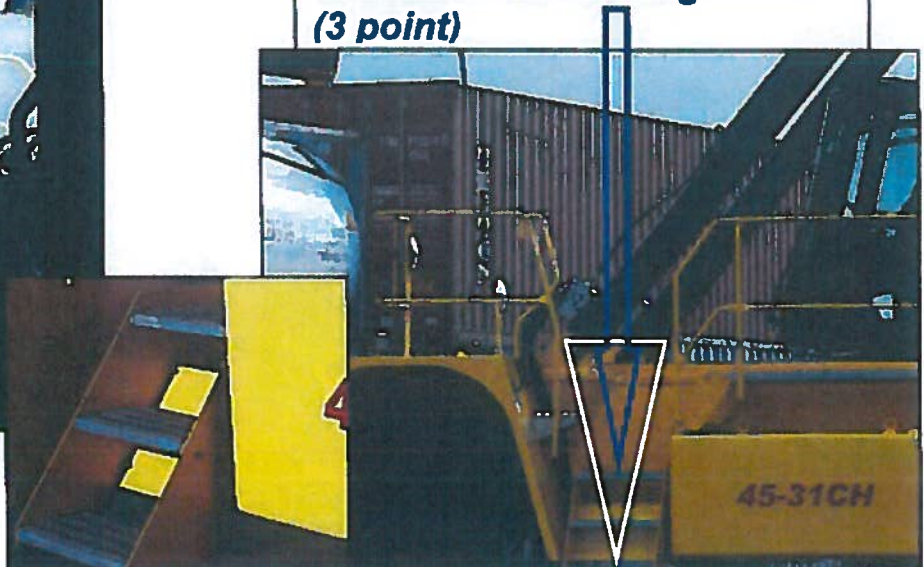


Deluxe Air Ride Full Suspension Cloth Seat with: Automatic weight adjustment from 110 330 lbs.; Adjustable shock absorber; Fore/aft dampened rocking motion; Seat Cushion length adjustment; Seat Cushion angle adjustment; Higher Backrest.; Removable head rest; Electric air-pressure Lumbar adjustment

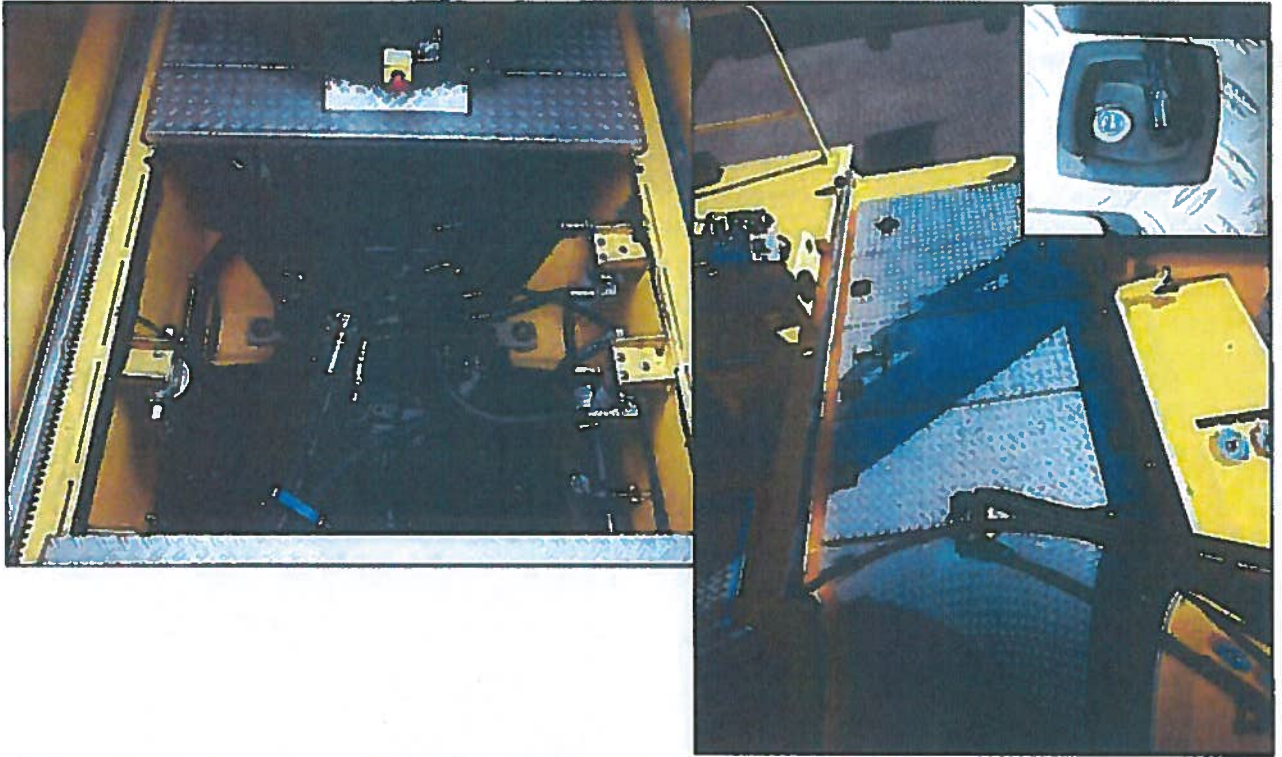


Superior Ergonomics!!!

***Excellent Access / Egress!!!
 (3 point)***



Unbeatable Serviceability!!!



Full-sliding cab:
Powered=Optional
(see add-on price)

The sliding cab can move over 100", fully forward. When Cabin is in forward position, all the components in the engine compartment are accessible for maintenance. By removing the lightweight Aluminium floor plates front railings are standard only with **powered** sliding cab



The picture above shows no RH Stair access. If Covanta Energy wants to have RH Stair access see optional add-on price below.

ELECTRICAL SYSTEM: 24 V with 120 Amp alternator, sealed starter, and lockable battery isolation switch. Water tight lockable connectors on all chassis wire harnesses. 'Canbus' connection in the cab, for engine, transmission, instruments cluster and load-moment protection system.

TIRES: 18.00 x 33-36 bias ply pneumatic tread

BOOM: Two-stage telescoping boom, rectangular shape, welded inside and outside. Telescopic section on self-lubricating self-aligning non-metallic bearings.
Boom elevation 0-60 degrees angle, derricking by 2 double-acting cylinders

BOOM HEAD: With uniquely wide-spaced supports for the spreader.
Manual Damping Cylinders standard on CH spreader:

- keeps the container level.
- Also keeps empty Spreader slightly tilted Backwards for easier Landings



ROTATOR: Two hydraulic wet disc brakes, one hydraulic motor.
Ample rotation angle of maximum +195 / -105 degrees.

LOAD MANAGEMENT: ELECTRONIC LOAD MOMENT CONTROL system,
With Large Color Screen
Automatic hydraulic shut-off beyond the rated load-moment.
Warning lights: Green, Orange (at 90% load-moment), Red (at 100% rated load-moment)
Digital display unit, showing actual load, max. rated load, and load distance plus load height.

Color display includes extra functions:
engine rpm, travel speed,
engine temperature, etc.,
instead of the standard display,



ATTACHMENT: Hyster 20 foot fixed ISO container handling attachment
This attachment will only engage 20 foot long containers with corner-castings in the standard ISO locations

- 63 inches of total side shift
- Mechanical pile slope
- ISO pendulating Twistlocks
- Twistlock Indicator lights under boom and in Cabin for landed, locked and unlocked signals
- Electrical twistlock protection system.
- Automatic twistlocking after landed signal.
- Lifting only possible after correct locking indication.
- Twistlocks unlocking only after correct positioning.
- 4 x Lifting eyes on the 4 corners of the end beams, for handling general cargo with D-lugs, Chains, or Slings.

STACKING: 5 high 9'6", 4 high 12' containers, with standard Boom head
(See capacity and stacking chart below)

LIGHTS: Halogen light package
- 4 Front work lights (on the boom, pointed to 20' and 40'),
- 2 Rear work lights,
- 4 head lights, 2 Front marker lights,
- 4 Direction indicators, 2 Tail / stop lights,
- Orange flashing beacon, ignition activated
- 2 Work lights on the spreader, pointed to the twistlocks
- Engine compartment light

ACCESSORIES: Background noise sensitive reverse alarm.
Hyster Safety yellow Paint
Air horn
Steer wheel nut protection.
Lockable battery disconnect switch
Mirrors inside the cabin and outside on the front fenders.
12 Volt Converter in Cabin with Power and Earth Wires
Preparation for Radio includes 12 volt pre-wiring, 2 speakers,
and antenna
Computer mounting bar in cabin
Reading light in cabin
Engine shut down - Engine shuts down if the driver is not on
the seat, during a (programmable) amount of time. **Saves fuel!**

COVANTA ENERGY OPTIONS INSTALLED:

SEAT BELT: Factory installed 3-point seatbelt, orange high visibility color.

ELECTRICAL: Circuit breakers to replace standard fuses

ACCESSORIES: Forward and reverse alarms will be activated when truck is in gear.

CAMERA: 1 Camera system color with one LCD monitor in cab. Orlaco Products B.V. 1) Camera installed on the rear counterweight. Compact color camera; light sensitivity 0.5 lux, nitrogen-filled housing, waterproof IP 69, heated lens surface preventing condensation and frost, high resolution shockproof and vibration-resistant fixed lens, angle of aperture 115°. 2) Compact LCD monitor 7" high resolution, 430000 pixels, integrated sun cover, shockproof and vibration-resistant. 3) PUR mantle cable, oil- and petrol resistant, waterproof connectors. Warranty by Orlaco Products B.V. 24 months

ACCESSORIES: Reverse activated strobe light relocated on rear counterweight

FIRE PROTECTION: Ansul Engine compartment automatic fire suppression system. Installed by Ansul locally at point of delivery

COLD WEATHER PACKAGE: Cold start aid: Engine block heater, and heated side mirrors factory installed. Transmission and Hydraulic Kim Hot-start pad heaters installed along with battery blankets and charger by local Hyster dealer.

OPERATOR TRAINING: Operators will receive classroom and on machine control familiarization training for operating the Hyster Reachstackers. We can also provide "Train the Trainer" services.

Investment (each):	\$519,590 USD (Not Including Sales Tax)
Validity:	Price is valid through July 1st, 2013
Delivery:	Assembled and Commissioned.
Local Freight:	See Excel worksheet for various locations
Estimated Availability:	26-28 weeks, subject to prior sales
Warranty:	Extended to 24 months Standard Hyster Warranty terms and conditions apply.

Note: the First 4 options below were mentioned in the RFQ. At Covanta's request, we will change the quotation and include them. Base on their costs, we wanted to give Covanta the choice to select them or take them out of the bid.

OPTIONS AVAILABLE (ADD-ON PRICE)

Initial the below lines to add the option

Initial to Add	AUTO LUBRICATION SYSTEM - for the chassis, steering, and outer boom.	1 \$3,650.00
Initial to Add	AUTO LUBRICATION SYSTEM - for the Inner boom and ISO container attachment	1 \$7,765.00
Initial to Add	Telemetry: TDS1 Level 2, 2000 log memory, key pad or RFID reader access for 900 drivers. Keyless push button start/stop, daily check acceptance feature, driver re-training date- truck lock out feature, 2 x impact sensors on machine adjustable on PC, with alarm or truck stop options, operation utilization monitoring and idle shutdown. Software included + blue tooth fast download kit	1 \$6,120.00
Initial to Add	Spare 18.00 x 33 - 36pr tire and wheel rim	1 \$7,500.00
Initial to Add	POWERED PILE SLOPE - Ability to level the container from side to side +/- 6 degrees.	1 \$7,950.000
Initial to Add	RIGHTHAND STAIRS TO CAB - improves access for drivers and technicians	1 \$1,640.00
Initial to Add	POWER SLIDING CAB - full sliding cabin so drivers can change cab position while operating to improve visibility	1 \$5,460.00

Initial to Add	TOP WINDOW - HEATED	1	\$350.00
Initial to Add	WORKLIGHTS ON SPREADER - change from Halogen to LED	1	\$1,510.00
Initial to Add	INDICATOR LIGHTS - spreader (green, amber, & red) indicator lights changed from halogen to LED	1	\$485.00
Initial to Add	LIGHT KIT 4: Halogen work lights 4 forward 1 rear changed to High Intensity discharge lights.	1	\$2,930.00
Initial to Add	FUEL CAP - LOCKABLE	1	\$70.00
Initial to Add	HYDRAULIC TEMPERATURE PROTECTION -monitors for low and high temps. De-rates engine power if temperature is not in normal operating range.	1	\$580.00
Initial to Add	INSET GUIDES ON ATTACHMENT - Aids in drivers landing on containers	1	\$1,100.00
Initial to Add	HYSTER TRAINING - Factory engineer to provide 4 day Technical Service training to up to 12 Technicians. Both classroom and hands on training with manuals provided to Technicians	1	\$3,410.00



Limitations of Offer

In the absence of any other signed agreement between Hyster and Customer made expressly applicable to the purchase of Hyster® Company, acceptance by Customer of Hyster's offer to sell is subject to Hyster's Terms and Conditions of Sale, a copy of which is available upon request.

Warranty: As described in Hyster's published limited warranty statement in effect at the time the product is delivered. A copy is available upon request and will be provided upon delivery.

No part of this document, including but not limited to Hyster's pricing and terms, or any information contained in it may be shared with any third party without the express written permission of Hyster.

Acceptance of this proposal constitutes an order for the products described above. After signing, please submit to:

Modern Group LTD.
Attn: Ray Wiley
2501 Durham Road
Bristol, Pa. 19007
Email: wileyr@moderngroup.com
Phone: 267-249-4020

Acceptance of this quotation beyond its expiration date is at the sole discretion of Hyster.

Orders may not be cancelled or modified without the written agreement of Hyster and Customer. Cancellation or order changes may be subject to additional charges.

Proposal by:

Date: 3/10/13

Ray Wiley
VP of Sales
Modern Group LTD.
Ph: 765-307-4680

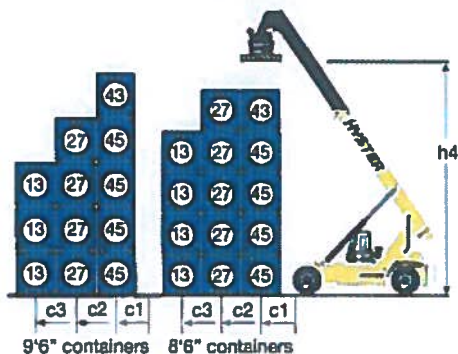
Purchase option Accepted by:

Date:

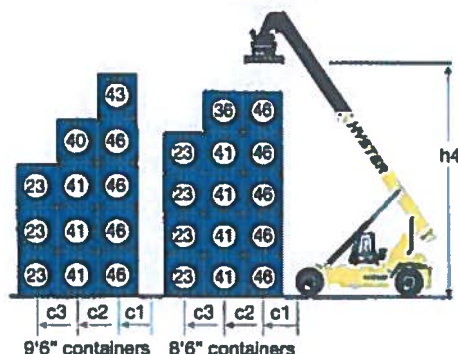
Covanta Energy Customer Representative

Rated Capacities and Stacking Heights – Container Handlers

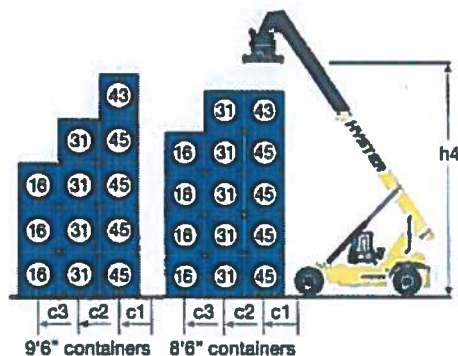
RS 45-27 CH Container Spreader



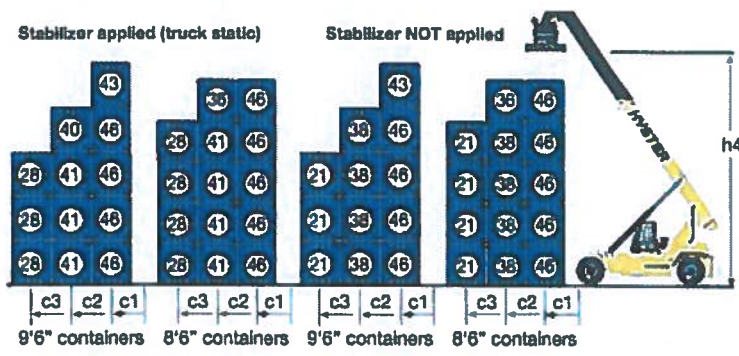
RS 46-41L CH Container Spreader



RS 45-31 CH Container Spreader

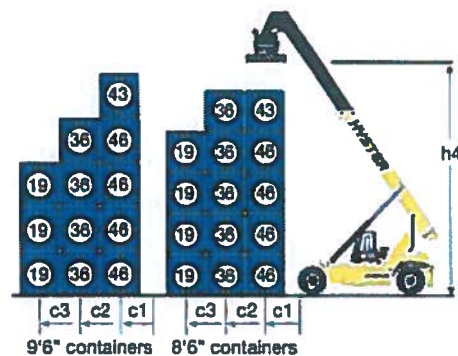


RS 46-41S CH Container Spreader

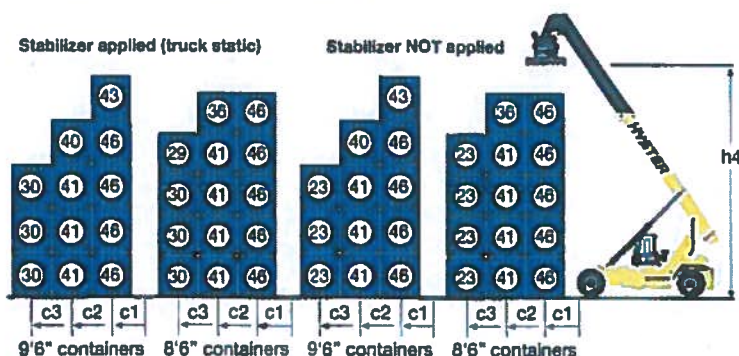


Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres, deduct 100mm for load centres taken from the front face of the Stabilizer.

RS 46-36 CH Container Spreader



RS 46-41LS CH Container Spreader

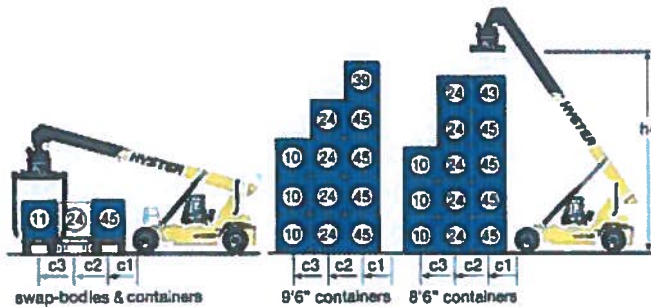


Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres, deduct 100mm for load centres taken from the front face of the Stabilizer.

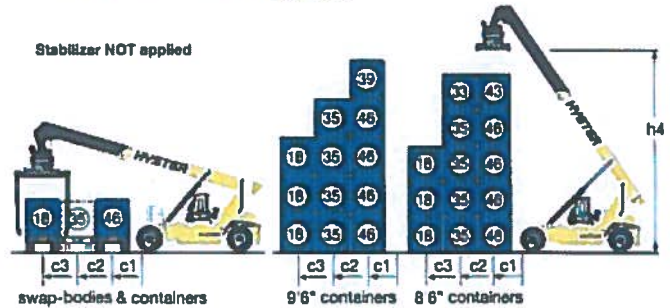
NOTE: Care must be exercised when handling elevated loads. When the load is elevated, truck stability is reduced.

Rated Capacities and Stacking Heights – Intermodal Handlers

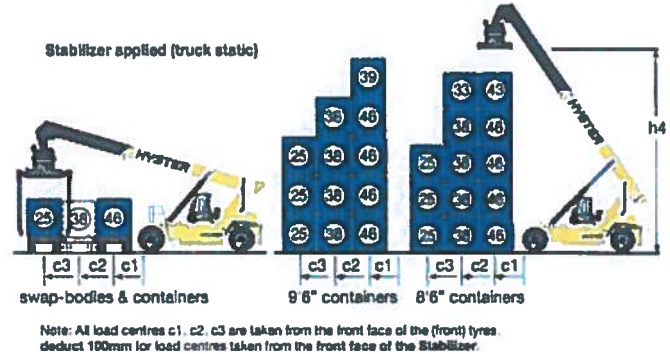
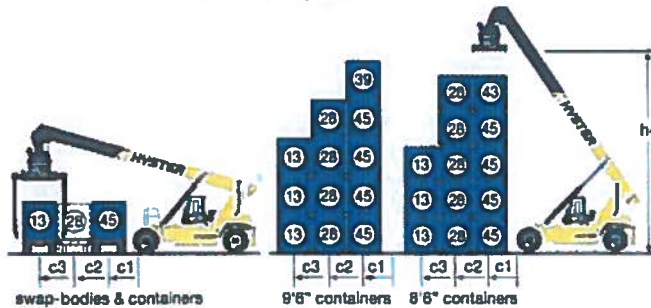
RS 45-24 IH Intermodal Spreader



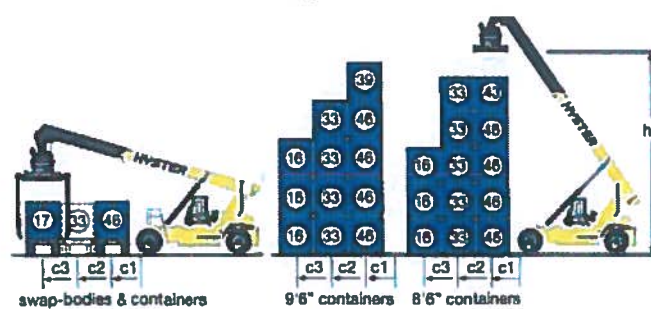
RS 46-38S IH Intermodal Spreader



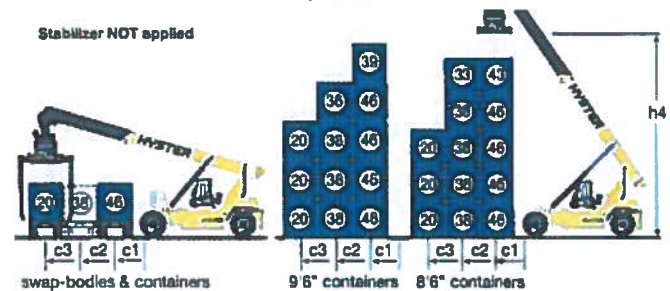
RS 45-28 IH Intermodal Spreader



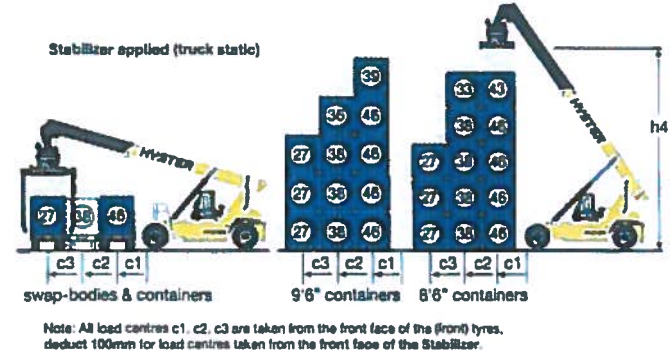
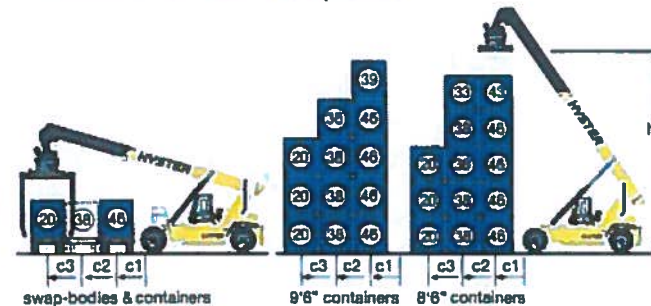
RS 46-33 IH Intermodal Spreader



RS 46-38LS IH Intermodal Spreader



RS 46-38L IH Intermodal Spreader



NOTE: Care must be exercised when handling elevated loads. When the load is elevated, truck stability is reduced.

RS 45-27 CH - RS 46-41LS CH Container Handlers

CHARACTERISTICS	1.1	Manufacturer	
	1.2	Model designation	
	1.3	Power: battery, diesel, LPG, electric mains	
	1.5	Load capacity first / second / third container row	Q (kg)
		Load capacity first / second / third row, with Stabilizer applied (truck static)	Q (kg)
	1.6	Load centre first/second/third container row, from face of front tyres	c1/c2/c3 (mm)
	1.8	Load distance to face of front tyres / front of Stabilizer	x (mm)
	1.9	Wheelbase	y (mm)

WEIGHTS	2.1	Unladen weight	kg
	2.2	Axle loading at load centre c1, with rated load, front / rear	kg
	2.2	Axle loading at load centre c2, with rated load, front / rear	kg
	2.3	Axle loading at load centre c1, unloaded, front / rear	kg
	2.3	Axle loading at load centre c2, unloaded, front / rear	kg

WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid, SE=pneumatic-shaped solid	
	3.2	Tyre size, front	
	3.3	Tyre size, rear	
	3.5	Number of wheels front/rear (X = driven)	
	3.6	Track width, front	mm
	3.7	Track width, rear	mm

DIMENSIONS	4.1	Boom angle minimum / maximum	degrees
	4.2	Boom height, minimum	h1 (mm)
	4.3	Minimum distance spreader from ground	h2 (mm)
	4.4	Maximum lift height under spreader, in first container row / second container row	h4 (mm)
	4.5	Boom height, maximum	h6 (mm)
	4.8	Seat height	h7 (mm)
	4.19	Overall length	l1 (mm)
	4.20	Length without boom	l2 (mm)
	4.21	Overall width over front tyres	b2 (mm)
	4.30	Sideshift movement, from centre to left / right	b8 (mm)
	4.31	Ground clearance lowest point, without load	m1 (mm)
	4.32	Ground clearance, center of wheelbase	m2 (mm)
	4.34	90° Stacking Aisle 20' / 40', spreader central above front axle, without operating clearance	Ast (mm)
		90° Stacking Aisle 20' / 40', without operating clearance	Ast (mm)
		90° Stacking Aisle 20' / 40', with 200mm operating clearance	Ast (mm)
		90° Stacking Aisle 20' / 40', with 10% operating clearance according FEM TN01	Ast (mm)
	4.35	Turning radius	Wa (mm)

PERFORMANCE	5.1	Travel speed with load / without load - with 224 kW Stage IIIA engine	km/h
		Travel speed with load / without load - with optional 272 kW Stage IIIA engine	km/h
		Travel speed with load / without load - with 276 kW Stage IIIB engine	km/h
	5.2	Lifting speed with load (35 ton) / without load, first row average - with 224 kW Stage IIIA engine	m/s
		Lifting speed with load (35 ton) / without load, first row average - with optional 272 kW Stage IIIA engine	m/s
		Lifting speed with load (35 ton) / without load, first row average - with 276 kW Stage IIIB engine	m/s
	5.3	Lowering speed with / without load	m/s
	5.6	Maximum drawbar pull with load (with all engines)	kN
	5.7	Gradeability with load (with all engines) @1.6 km/h	%
	5.8	Maximum gradeability with load (with all engines)	%
	5.10	Service brake	

POWER DATA	7.1	Engine make and type	
	7.2	Engine power, in accordance with ISO1585, Stage IIIA: maximum @ 1800 rpm / nominal @ max. 2100 rpm	kW(hp)
		Stage IIIB: maximum @ 1900 rpm / nominal @ max. 2100 rpm	kW(hp)
	7.3	Governed maximum engine speed	rpm
	7.4	Number of cylinders/displacement	cm3
	7.5	Fuel consumption, average	l/h

OTHER	8.1	Drive control	
	8.2	Pressure for attachments	bar
	8.3	Oil flow for attachments	l/min
	8.4	Noise level LPAZ, inside cab, according to DIN 45635	dB (A)
	8.5	Towing coupling type	

HYSTER RS 45-27 CH			HYSTER RS 45-31 CH			HYSTER RS 46-36 CH		
Diesel			Diesel			Diesel		
45 000	27 000	13 000	45 000	31 000	16 000	46 000	36 000	19 000
N/A			N/A			N/A		
1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315
840 / NA			840 / NA			930 / NA		
6 200			6 200			6 200		

68 500		72 200		79 300	
99 900	13 600	99 600	17 600	103 200	22 100
87 800	7 700	94 500	8 700	105 300	10 000
35 300	33 200	35 800	37 200	36 500	42 800
40 500	28 000	40 300	31 900	41 700	37 600

L		L		L	
18.00 x 25		18.00 x 25		18.00 x 33	
18.00 x 25		18.00 x 25		18.00 x 33	
4X / 2		4X / 2		4X / 2	
3 033		3 033		3 033	
3 020		3 020		3 020	

0° / 59°		0° / 59°		0° / 59°	
4 700		4 700		4 760	
1 342		1 342		1 440	
15 260	13 850	15 260	13 850	15 370	13 960
18 110		18 110		18 200	
2 555		2 555		2 645	
11 873		11 873		12 073	
8 360		8 360		8 650	
4 220		4 220		4 220	
800 / 800		800 / 800		800 / 800	
312		312		400	
495		495		585	
9 817	12 569	9 817	12 569	9 977	12 569
12 439	14 203	12 439	14 203	12 608	14 203
12 639	14 403	12 639	14 403	12 808	14 403
13 683	15 623	13 683	15 623	13 869	15 623
8 495		8 495		8 562	

20	23	20	23	20	25
21	23	21	23	23	26
20	22	20	22	21	23
0.25	0.48	0.25	0.48	0.25	0.48
0.28	0.48	0.28	0.50	0.28	0.50
0.28	0.48	0.28	0.50	0.28	0.50
0.46	0.45	0.46	0.45	0.46	0.45
378		378		378	
22	26	22	26	22	26
34		33		32	
Oil Immersed brakes		Oil Immersed brakes		Oil Immersed brakes	

Cummins QSM11/QSL9	Cummins QSM11/QSL9	Cummins QSM11/QSL9
Stage IIIA: 224 (300) / 216 (290) optional Stage IIIA: 272 (365) / 261 (350)		
Stage IIIB: 276 (370) / 261 (350)		
2 100	2 100	2 100
Stage IIIA: QSM11: 6 / 10 800 Stage IIIB: QSL9: 6 / 8 900		
Stage IIIA QSM11: 20 Stage IIIB QSL9: 17		

4-speed autoshift SOH TE27 optional SOH TE32		
260	260	260
110	110	110
70		
Stage IIIA: QSM11: 112 Stage IIIB: QSL9: 109		
-	-	-

HYSTER RS 46-41L CH			HYSTER RS 46-41S CH			HYSTER RS 46-41LS CH		
Diesel			Diesel			Diesel		
46 000	41 000	23 000	46 000	38 000	21 000	46 000	41 000	23 000
N/A			46 000	41 000	28 000	46 000	41 000	30 000
1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315
930 / NA			930 / 1 030			930 / 1 030		
6 700			6 200			6 700		

82 600		83 600		84 600	
103 400	25 200	105 400	24 200	105 600	25 000
113 100	10 500	111 900	10 200	115 300	10 300
38 200	44 400	38 700	44 900	40 400	44 200
43 000	39 600	43 900	39 700	45 300	39 300

L		L		L	
18.00 x 33		18.00 x 33		18.00 x 33	
18.00 x 33		18.00 x 33		18.00 x 33	
4X / 2		4X / 2		4X / 2	
3 033		3 033		3 033	
3 020		3 020		3 020	

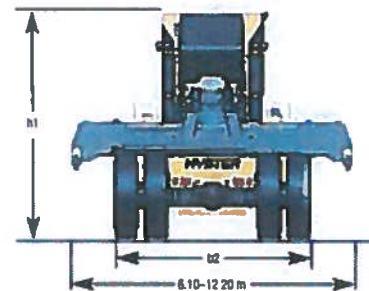
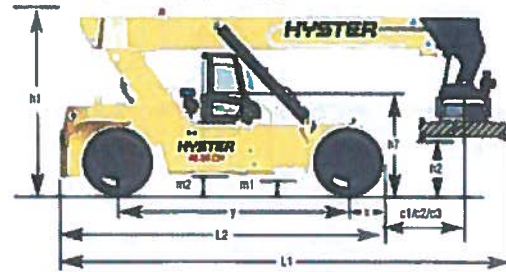
0° / 59°		0° / 59°		0° / 59°	
4 760		4 760		4 760	
1 440		1 440		1 440	
15 370	13 960	15 370	13 960	15 370	13 960
18 200		18 200		18 200	
2 645		2 645		2 645	
12 573		12 073		12 573	
9 150		8 750		9 250	
4 220		4 220		4 220	
800 / 800		800 / 800		800 / 800	
400		250		250	
585		585		585	
10 477	12 569	9 977	12 569	10 477	12 569
12 608	14 203	12 608	14 203	12 608	14 203
12 808	14 403	12 808	14 403	12 808	14 403
13 869	15 623	13 869	15 623	13 869	15 623
9 062		8 562		9 062	

19	22	19	22	19	22
20	24	20	24	20	24
21	23	21	23	21	23
0,25	0,48	0,25	0,48	0,25	0,48
0,28	0,50	0,28	0,50	0,28	0,50
0,28	0,50	0,28	0,50	0,28	0,50
0,46	0,45	0,46	0,45	0,46	0,45
374		376		374	
19	22	19	22	19	22
29		29		29	
Oil Immersed brakes		Oil Immersed brakes		Oil Immersed brakes	

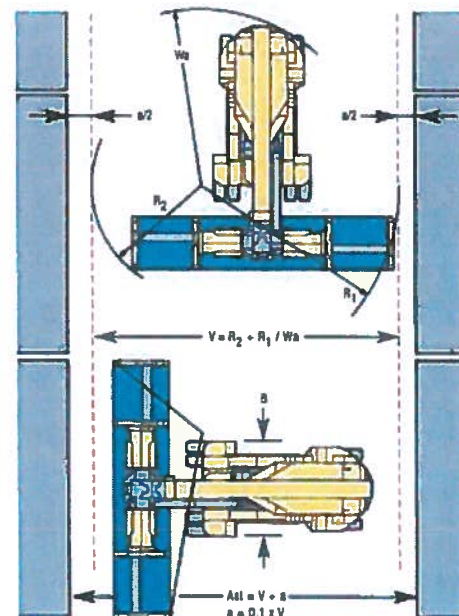
Cummins QSM11/QSL9	Cummins QSM11/QSL9	Cummins QSM11/QSL9
Stage IIIA: 224 (300) / 216 (290) optional Stage IIIB: 272 (365) / 261 (350)		
Stage IIIB: 276 (370) / 261 (350)		
2100	2100	2100
Stage IIIA: QSM11: 6 / 10 800 Stage IIIB: QSL9: 6 / 8 900		
Stage IIIA: QSM11: 20 Stage IIIB: QSL9: 17		

4-speed auto shift SOH TE27 optional SOH TE32		
260	260	260
110	110	110
70		
Stage IIIA: QSM11: 112 Stage IIIB: QSL9: 109		

Illustration shows CH model



90 Degree Stacking Aisle
(According to FEM TN01)



a_{s1} = Practical 90 degrees Stacking aisle
 $= V$ (theoretical stacking aisle) + a (total operating clearance)
 Where $V = R_2 + \text{the larger of } R_1 \text{ or } W_a$
 $a = 200 \text{ mm (100 mm each side acc. VDI)}$
 See line 4.34
 $a = 10\% \text{ of } V$ (acc. FEM TN01 recommendation).

Notes:

Please refer to notes on the following page.

RS 45-24 IH - RS 46-38LS IH Intermodal Handlers

CHARACTERISTICS	1.1	Manufacturer		HYSTER RS 45-24 IH			HYSTER RS 45-28 IH			HYSTER RS 46-33 IH		
	1.2	Model designation		Diesel			Diesel			Diesel		
	1.3	Power: battery, diesel, LPG, electric mains		45 000	24 000	11 000	45 000	28 000	12 000	46 000	33 000	17 000
	1.5	Load capacity first / second / third container row	Q (kg)	N/A			N/A			N/A		
		Load capacity first / second / third row, with Stabilizer applied (truck static)	Q (kg)	1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315
WEIGHTS	1.6	Load centre first/second/third container row, from face of front tyres	c1/c2/c3 (mm)	840 / NA			840 / NA			930 / NA		
	1.8	Load distance to face of front tyres / front of Stabilizer	x (mm)	6 200			6 200			6 200		
	1.9	Wheelbase	y (mm)									
	2.1	Unladen weight	kg	72 400			76 100			83 200		
	2.2	Axle loading at load centre c1, with rated load, front / rear	kg	105 400	12 000		105 200	15 900		108 800	20 400	
WHEELS & TYRES	2.2	Axle loading at load centre c2, with rated load, front / rear	kg	89 300	7 100		96 000	8 100		106 800	9 400	
	2.3	Axle loading at load centre c1, unloaded, front / rear	kg	40 800	31 600		40 500	35 600		42 100	41 100	
	2.3	Axle loading at load centre c2, unloaded, front / rear	kg	47 300	25 100		47 000	29 100		48 600	34 600	
	3.1	Tyres: L=pneumatic, V=solid, SE=pneumatic-shaped solid		L			L			L		
	3.2	Tyre size, front		18.00 x 25			18.00 x 25			18.00 x 33		
DIMENSIONS	3.3	Tyre size, rear		18.00 x 25			18.00 x 25			18.00 x 33		
	3.5	Number of wheels front/rear (x = driven)		4X / 2			4X / 2			4X / 2		
	3.6	Track width, front	mm	3 033			3 033			3 033		
	3.7	Track width, rear	mm	3 020			3 020			3 020		
	4.1	Boom angle minimum / maximum	degrees	0° / 59°			0° / 59°			0° / 59°		
PERFORMANCE	4.2	Boom height, minimum	h1 (mm)	4 700			4 700			4 760		
	4.3	Minimum distance spreader from ground	h2 (mm)	882			882			981		
	4.4	Maximum lift height under spreader, in first container row / second container row	h4 (mm)	14 780	13 375		14 780	13 375		14 880	13 375	
	4.5	Boom height, maximum	h6 (mm)	18 110			18 110			18 200		
	4.8	Seat height	h7 (mm)	2 555			2 555			2 645		
	4.19	Overall length	l1 (mm)	11 873			11 873			12 073		
	4.20	Length without boom	l2 (mm)	8 360			8 360			8 650		
	4.21	Overall width over front tyres	b2 (mm)	4 220			4 220			4 220		
	4.30	Sideshift movement, from centre to left / right	b8 (mm)	800 / 800			800 / 800			800 / 800		
	4.31	Ground clearance lowest point, without load	m1 (mm)	312			312			400		
	4.32	Ground clearance, center of wheelbase	m2 (mm)	495			495			585		
	4.34	90° Stacking Aisle 20' / 40', spreader central above front axle, without operating clearance †	Ast (mm)	9 817	12 569		9 817	12 569		9 977	12 569	
		90° Stacking Aisle 20' / 40', without operating clearance	Ast (mm)	12 439	14 203		12 439	14 203		12 608	14 203	
		90° Stacking Aisle 20' / 40', with 200mm operating clearance	Ast (mm)	12 639	14 403		12 639	14 403		12 808	14 403	
		90° Stacking Aisle 20' / 40', with 10% operating clearance according FEM TND1	Ast (mm)	13 683	15 623		13 683	15 623		13 869	15 623	
4.35	Turning radius	Wa (mm)	8 495			8 495			8 562			
POWER UNIT	5.1	Travel speed with load / without load - with 224 kW Stage IIIA engine	km/h	20	23		20	23		20	25	
		Travel speed with load / without load - with optional 272 kW Stage IIIA engine	km/h	21	23		21	23		23	26	
		Travel speed with load / without load - with 276 kW Stage IIIB engine	km/h	20	22		20	22		21	23	
	5.2	Lifting speed with load (35 ton) / without load, first row average - with 224 kW Stage IIIA engine	m/s	0.24	0.47		0.24	0.47		0.24	0.47	
		Lifting speed with load (35 ton) / without load, first row average - with optional 272 kW Stage IIIA engine	m/s	0.27	0.47		0.27	0.47		0.27	0.47	
		Lifting speed with load (35 ton) / without load, first row average - with 276 kW Stage IIIB engine	m/s	0.27	0.47		0.27	0.47		0.27	0.47	
	5.3	Lowering speed with / without load	m/s	0.46	0.45		0.46	0.45		0.46	0.45	
	5.6	Maximum drawbar pull with load (with all engines)	kN	378			378			378		
	5.7	Gradeability with load (with all engines) @ 1.6 km/h †	%	22	26		22	26		22	26	
	5.8	Maximum gradeability with load (with all engines) †	%	33			32			31		
DRIVE	5.10	Service brake		Oil immersed brakes			Oil immersed brakes			Oil immersed brakes		
	7.1	Engine make and type		Cummins QSM11/OSL9			Cummins QSM11/OSL9			Cummins QSM11/OSL9		
	7.2	Engine power, in accordance with ISO1585, Stage IIIA: maximum @ 1800 rpm / nominal @ max. 2100 rpm	kW(hp)	Stage IIIA: 224 (300) / 216 (290) optional Stage IIIA: 272 (365) / 261 (350)			Stage IIIB: 276 (370) / 261 (350)			Stage IIIB: 276 (370) / 261 (350)		
		Stage IIIB: maximum @ 1900 rpm / nominal @ max. 2100 rpm	kW(hp)	2 100			2 100			2 100		
	7.3	Governed maximum engine speed	rpm	Stage IIIA: QSM11: 6 / 10 800 Stage IIIB: OSL9: 6 / 8 900			Stage IIIA: QSM11: 20 Stage IIIB: OSL9: 17			Stage IIIA: QSM11: 20 Stage IIIB: OSL9: 17		
	7.4	Number of cylinders/displacement	cm3	4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32		
	7.5	Fuel consumption, average	l/h	260			260			260		
				110			110			110		
				70			70			70		
				Stage IIIA: QSM11: 112 Stage IIIB: OSL9: 109			Stage IIIA: QSM11: 112 Stage IIIB: OSL9: 109			Stage IIIA: QSM11: 112 Stage IIIB: OSL9: 109		

HYSTER RS 46-38L IH			HYSTER RS 46-38S IH			HYSTER RS 46-38LS IH		
Diesel			Diesel			Diesel		
46 000	38 000	20 000	46 000	35 000	18 000	46 000	38 000	20 000
N/A			46 000	38 000	25 000	46 000	38 000	27 000
1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315
930 / NA			930 / 1 030			930 / 1 030		
6 700			6 200			6 700		

CHARACTERISTICS

86 500		87 500		88 500	
108 800	23 700	111 000	22 500	111 000	23 500
114 500	10 000	112 500	10 000	116 700	9 800
43 600	42 900	44 200	43 300	45 800	42 700
49 600	36 900	50 700	36 800	51 900	36 600

WEIGHTS

L		L		L	
18.00 x 33		18.00 x 33		18.00 x 33	
18.00 x 33		18.00 x 33		18.00 x 33	
4X / 2		4X / 2		4X / 2	
3 033		3 033		3 033	
3 020		3 020		3 020	

WHEELS & TIRES

0° / 59°		0° / 59°		0° / 59°	
4 760		4 760		4 760	
981		981		981	
14 880	13 375	14 880	13 375	14 880	13 375
18 200		18 200		18 200	
2 645		2 645		2 645	
12 573		12 073		12 573	
9 150		8 750		9 250	
4 220		4 220		4 220	
800 / 800		800 / 800		800 / 800	
400		250		250	
585		585		585	
10 477	12 569	9 977	12 569	10 477	12 569
12 608	14 203	12 608	14 203	12 608	14 203
12 808	14 403	12 808	14 403	12 808	14 403
13 869	15 623	13 869	15 623	13 869	15 623
9 173		8 562		9 173	

OPERATING CAPACITIES

19	22	19	22	19	22
20	23	20	23	20	23
21	23	21	23	21	23
0,24	0,47	0,24	0,47	0,24	0,47
0,27	0,47	0,27	0,47	0,27	0,47
0,27	0,47	0,27	0,47	0,27	0,47
0,46	0,45	0,46	0,45	0,46	0,45
376		376		376	
18	21	19	22	18	21
28		29		28	
Oil immersed brakes		Oil immersed brakes		Oil immersed brakes	

PERFORMANCE

Cummins QSM11/QSL9	Cummins QSM11/QSL9	Cummins QSM11/QSL9
Stage IIIA: 224 (300) / 216 (290) optional Stage IIIB: 272 (365) / 261 (350)		
Stage IIIB: 276 (370) / 261 (350)		
2100	2100	2100
Stage IIIA: QSM11: 6 / 10800 Stage IIIB: QSL9: 6 / 8900		
Stage IIIA QSM11: 20 Stage IIIB QSL9: 17		

POWER UNIT

4-speed auto shift SOH TE27 optional SOH TE32		
260	260	260
110	110	110
70		
Stage IIIA: QSM11: 112 Stage IIIB: QSL9: 109		

GEAR



Notes:

Specifications are affected by the condition of the vehicle and how it is equipped, as well as the nature and condition of the operating area. If these specifications are critical, the proposed application should be discussed with your dealer.

- ◆ Deduct 100 mm for load centre from front side of Stabilizer
- For CH models only: With optional P(owered) P(ile) S(lope) function: Deduct 310mm from dimension h4.
- † Spreader at 8.0m high
- ❖ This data applies to when the container is carried 500 mm in front of the wheels (load centre 1720 mm)
- ¶ Gradeability figures (lines 5.7 & 5.8) are provided for comparison of tractive performance but are not intended to endorse the operation of the vehicle on the stated inclines. Follow instructions in the operating manual regarding operation on inclines.
- ⊙ Add 2 dB(A) for option with additional cab fan

All capacities are according to prEN1459

All specifications and capacities are valid for trucks equipped with a Hyster container handling spreader for handling ISO containers.

CE Safety: This truck conforms to the current EU requirements.

Operators must be trained and adhere to the instructions contained in the Operating Manual.

TIPPING TRAILERS

Uncontrolled Copy

INTERMODAL SPECIFICATION

SPECIFICATION NO: 100073

Page 1 of 4

ISSUE DATE: 3/12/13

REVISION NO: 0

REVISION DATE: NA

APPROVED BY: ANTHONY D. PETZITILLO, JR

SIGNATURE:

Anthony D. Petzitto, Jr.

- MODEL ORTC-ALIT-2080-XHD
- AUTO LOCKING OFF ROAD TIPPING CHASSIS
- 80,000 # CAPACITY
- HEAVY DUTY SINGLE POINT SUSPENSION
- HYDRAULICALLY OPERATED AUTO LOCKING SYSTEM
- DOOR CLOSURE – ADJUSTABLE LOCKING SYSTEM

SECTION I

- 1.1 **GENERAL REQUIREMENTS:** The following specifications describe an off road chassis to handle a 20 foot long, 62 cubic yard Intermodal Environmental watertight container with the patented Wastequip Accurate auto locking door closure system. Chassis can be used on nonpublic roadways at speeds under 30 mph. This trailer is not highway legal nor D.O.T registered.
- 1.1.1 **QUALITY ASSURANCE:** The manufacturer shall show evidence of a Quality Assurance Program. The manufacturer must have fifteen (15) years of experience building equipment of a similar size and design. No prototypes will be accepted.
- 1.1.2 **DESIGN:** The design is based upon solid waste equipment systems as manufactured by Wastequip Accurate, and the terminology used herein may include reference to that manufacturer's proprietary product. Such reference shall be construed as establishing the quality of materials and workmanship to be used under this section.
- 1.1.3 **MODEL:** The solid waste container systems shall be a Wastequip Accurate ORTC-ALIT-2080-XHD production unit.

SPECIFICATION NO: 100073
ISSUE DATE: 3/12/13
REVISION NO: 0
REVISION DATE: NA

CONFIDENTIAL
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ACCURATE INDUSTRIES
- PATENT PENDING -

Page 2 of 4

- 1.1.4 **PERFORMANCE:** The manufacturer must have field proven performance in design and manufacturing similar type solid waste equipment. Manufactures must provide evidence through references, of equipment manufactured for operations unloading and transporting MSW. References shall include, but not be limited to; the name of purchaser, contact information of purchaser, and the date containers were sold.
- 1.1.7 **AUDITS AND INSPECTIONS BY OWNER:** Owner has the right to audit quality systems, and perform periodic inspections during the manufacture of the equipment, which may include witnessing of the QC/QA testing performed.

SECTION II

2.1 DETAIL SPECIFICATIONS:

- 2.1.1 **MATERIAL SPECIFICATIONS:** the chassis frame and main fabricated parts are of high strength low alloy steel ASTM A572 Grade 50, having a minimum yield point of 50,000 psi. All structural steel tubing shall be ASTM A-500B/C minimum. All detailed specifications are minimum only, heavier and/or stronger specifications are acceptable.
- 2.1.2 **DIMENSIONS:** The chassis shall be able to handle a 62 cubic yard net inside capacity container with the outside dimensions of 19'-10 1/2" long x 8'-6" wide x 12'-0" high. The maximum height of the container in the tipping position shall be no greater than 27'-0" from the ground to the upper front corners of the container when lifted to the maximum dump angle of 48 to 50 degrees.

OVERALL LENGTH: Approx. 33'

OVERALL WIDTH: 114"

KING PIN LOCATION: 16"

TANDEM LOCATION: TBD

5TH WHEEL HEIGHT: 48"

REAR DECK HEIGHT: 63 1/2"

LANDING GEAR LOCATION: 91" (from center of king pin)

GVWR: 80,000 lbs

2.2.3 CHASSIS:

SPECIFICATION NO: 100073
ISSUE DATE: 3/12/13
REVISION NO: 0
REVISION DATE: NA

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Page 3 of 4

2.2.4 **UPPER COUPLER:** 3/8" pick up plate with 2" diameter spool type king pin per SAE standard J700B supported by 5/8" bars.

2.2.5 **MAIN RAILS:** Two hot rolled structural steel, ASTM-A572 Grade 50 "I" beams. Wide flange 18" in depth 35 lbs/ft.

2.2.6 **CROSS MEMBERS:** 1/4" A572 Grade 50 material formed channels.

2.3 **LANDING GEAR:**

2.3.1 Jost A400.T1.17 landing gear sets, each with 10" x 10" low profile sand shoes. Landing gear mounted on 1/4" thick "deep" mounting brackets, and supported with 1/4" thick "skirt" type gusset reinforcements. In addition, one (1) 4" x 5.4 lb./ft. rolled channel brace horizontally installed between the legs. Meets or exceeds all AAR and TTMA specifications.

2.4 **RUNNING GEAR:**

2.4.1 **SUSPENSION:** Hutch 900 series single point 9 leaf rated 60,000lbs.

2.4.2 **AXLES:** Heavy duty TN Series, 77 1/2" track, 5" round, 3/4" wall axles 30,000 lbs. capacity each. 16-1/2" x 7" quick change brake shoes, automatic type slack adjusters, bearings lubricated with grease, stud piloted hubs. 11R22.5 foam filled tires on 10 hole steel disc wheels.

2.4.3 **BRAKE SYSTEM:** Sealco 2 valve non ABS system. Type 30/30 spring actuated parking brakes. Protected, color coded gladhands. Manual bleeder valve on the air reservoir.

2.4.4 **ELECTRICAL SYSTEM:** 12 Volt lighting system per U.S.D.O.T. / FMVSS 108, Sealco wiring harness with plug type connectors, 7 way electrical plug with rubber boot and Trucklite lights. Chassis shall have rear running lights, brake lights, and a backup alarm.

2.4.5 **TIRES:** Chassis shall have eight (8) foam filled tires (225/70R) or equivalent.

2.5 **TIPPING FRAME:**

2.5.1 **STRUCTURE:** 12" X 8" X 3/8" main rails, bolsters, and cross members. Upper and lower cylinder mounts reinforced. Tilt frame shall have front corner guides and the self cleaning bolsterless rear end.

2.5.2 **HYDRAULIC:** Tipping, twistlocks, and Auto Locking system shall be hydraulically powered via the customer supplied wet kit.

SPECIFICATION NO: 100073
ISSUE DATE: 3/12/13
REVISION NO: 0
REVISION DATE: NA

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- PATENT PENDING -

Page 4 of 4

- 2.5.3 **CONTROLS:** Tipping, twistlocks, and Auto Locking System shall all be controlled electrically from inside the cab.

SECTION III

4.1 PREPARATION, BLASTING & PAINTING:

- 4.1.1 **PREPARATION:** Shall be scraped and ground to remove sharp edges. All exterior and interior surfaces shall be cleaned.
- 4.1.2 **SHOT BLASTING:** Shall be shot blasted or sand blasted to SSPC-SP7 standards.
- 4.1.3 **PAINT:** Exterior – Shall be primed with 1 coat primer. The top coat shall be sprayed with 1 coat, polyurethane or equivalent.
- 4.1.4 **PAINT COLOR:** Customer to specify color.
- 4.1.5 **CAULKING:** Shall be gray silkaflex No. 221., or equal.

Addendum A

- 1 -

PREPARED FOR:
WASTEQUIP

SPECIFICATION
FOR
HERCULES ENTERPRISES
30' TIPPING CHASSIS FRAME

DATED: MAY 2013

HERCULES ENTERPRISES
321 Valley Rd. Hillsborough NJ 08844
TEL: 908-369-0000
FAX: 908-369-0626

1. GENERAL:

This chassis is designed to mount tipping frame for 20' intermodal container. Chassis can be used on nonpublic roadways at speeds under 30 mph. This trailer is not highway legal nor D.O.T registered.

2. MATERIALS:

The chassis frame and main fabricated parts are of high strength low alloy steel ASTM A572 Grade 50, having a minimum yield point of 50,000 PSI.

3. DIMENSIONS:

OVERALL LENGTH:	30'
OVERALL WIDTH:	102"
KING PIN LOCATION:	16"
TANDEM LOCATION	TBD
5 TH WHEEL HEIGHT:	48"
DECK HEIGHT:	50"
LANDING GEAR LOCATION:	91" (from C/L of K/P)
ESTIMATE WEIGHT:	11,000 lbs

4. FRAME:

4.1 UPPER COUPLER:

3/8" pick up plate with 2" diameter spool type king pin per SAE standard J700B supported by 5/8" bars.

4.2 GOOSENECK RAILS:

Two hot rolled structural steel, ASTM-A572 Grade 50 "I" beams. Wide flange 10" in depth 30 lbs/ft.

4.3 MAIN RAILS:

Two hot rolled structural steel, ASTM-A572 Grade 50 "I" beams. Wide flange 18" in depth 35 lbs/ft.

4.3 CROSS MEMBERS:

1/4" A572 Grade 50 material formed channels.

5. LANDING GEAR:

Jost A400.T1.17 landing gear sets, each with 10" x 10" low profile sand shoes. Landing gear mounted on 1/4" thick "deep" mounting brackets, and supported with 1/4" thick "skirt" type gusset reinforcements. In addition, one (1) 4" x 5.4 lb./ft. rolled channel brace horizontally installed between the legs. Meets or exceeds all AAR and TTMA specifications.

6.SUSPENSION:

Hutch 900 series single point 9 leaf rated 60,000lbs.

7.AXLES:

Heavy duty TN Series, 77 1/2" track, 5" round, 3/4" wall axles 30,000 lbs. capacity each. 16-1/2" x 7" quick change brake shoes, automatic type slack adjusters, bearings lubricated with grease, stud piloted hubs. 11R22.5 foam filled tires on 10 hole steel disc wheels.

8. BRAKE SYSTEM:

Sealco 2 valve non ABS system. Type 30/30 spring actuated parking brakes. Protected, color coded gladhands. Manual bleeder valve on the air reservoir.

9. ELECTRICAL SYSTEM:

12 Volt lighting system per U.S.D.O.T. / FMVSS 108, Sealco wiring harness with plug type connectors, 7 way electrical plug with rubber boot and Trucklite lights.

10. FINISHING:

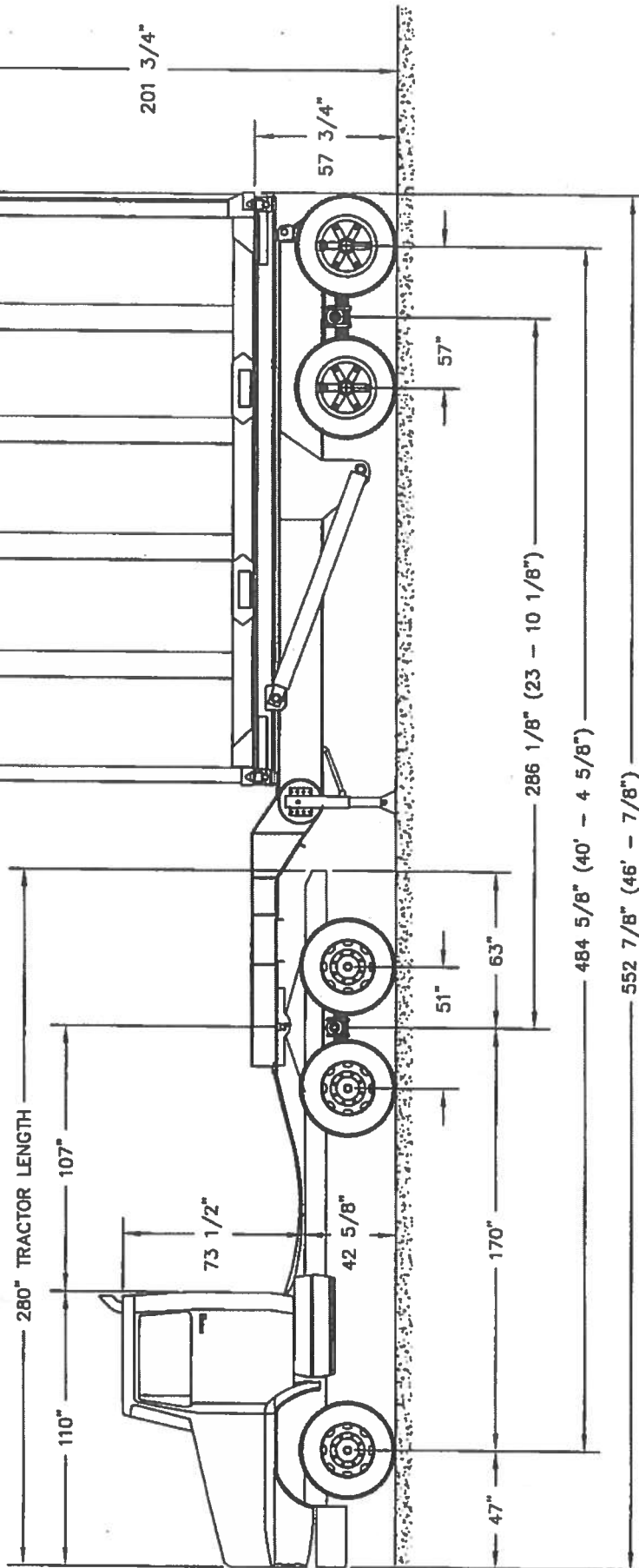
Metal Preparation: Commercial abrasive blast of all metal surface to achieve clean bare steel. Finishing Coat: Valspar zinc primer with black urethane top coat. Marking customer option.

Conspicuity tape: Standard (per NHTSA) or customer option.

11. WARRANTY:

Hercules Enterprises will warranty all workmanship, materials and installation on all parts for a period of 3 (three) years from the date of manufacture under normal conditions for it's intended use. All claims must be reviewed by Hercules Enterprises and any and all warranty work to be done by Hercules or authorized representative. Claims on other manufacturers made parts will be referred to that manufacturer by Hercules Enterprises.

12' HIGH ISO CONTAINER



REV	ECN #	DATE	DESCRIPTION	INT.
1		4/05/13	ISSUED FOR THE FIRST TIME	TAF
2				
3				
4				

CONFIDENTIAL
PROPERTY OF WASTEQUIP ACCURATE

Todd A. Fowler
Todd A. Fowler
CHECKED

Anthony D. Fowler, Jr.
Anthony D. Fowler, Jr.
APPROVED



WASTEQUIP
ACCURATE

THIS DRAWING AND ALL THE INFORMATION CONTAINED HEREIN IS THE EXCLUSIVE PROPERTY OF WASTEQUIP ACCURATE. THIS DRAWING IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF WASTEQUIP ACCURATE.

WASTEQUIP TIPPING CHASSIS
WITH WESTERN STAR 4700SB TRACTOR

DRAWN BY **TAF** DATE 4/02/13 FILE# 1SA0264A JOB#

DWG. N.T.S. SCALE N.T.S. ALL DIMENSIONS SHARE A GLOBAL TOLERANCE OF +0 -1/8" UNLESS OTHERWISE SPECIFIED HEREIN

CYCLE TIME ANALYSIS
100 CONTAINERS/DAY – INTERMODAL STORAGE AREA

Updated 12/29/2022

Intermodal Container Turn Times in Intermodal Storage Area

Existing Operation

Covanta Delaware Valley (Facility) initiated intermodal operations (up to 20 containers) in March 2014. The Facility was eventually approved for 40 containers (12/30/14), 48 containers (4/30/15), 60 containers (9/29/15), 80 containers (6/22/16), and 100 containers (5/9/2019). Municipal solid waste (MSW) is loaded into purpose-built, 20'x8'x12' containers at the New York Container Terminal, then transported by CSX Transportation to the Wilmington, Delaware TransFlo facility ("rail yard"). At TransFlo, CSXT makes the intermodal transfer from rail to truck. A third party contractor, WasteMasters, utilizes seven (7) low-boy (drop deck) trailers to transport the loaded MSW containers along the approved truck route to the Facility. Once in the facility truck queuing lot, the over the road trucks will have their loaded MSW containers transferred from the drop deck trailers using an operation consisting of two reach stackers. The operation consists of; transfer of the loaded container to yard tractor tipper/chassis and a reloading of an empty container for transport back to the CSXT rail yard. The tipping chassis/trailer travels over the facility scale system, is weighed and recorded prior to dumping the MSW on the existing tipping floor.

The reach stacker on-board computers allow Covanta to monitor container traffic in and out of the facility. A review of two weeks of random scale receipts during July/August 2015 indicated that the actual off load – reload time for each individual container has ranged from 13 minutes to 67 minute. The average times during July/August 2015 as indicated below is made possible in part due to empty containers stored within the que area. Truck cycle time varies on a daily basis and is dependent on transfer trailer traffic and tipping floor congestion.

- Monday average = 26.8 minutes
- Tuesday average = 31.2 minutes
- Wednesday average = 27.8 minutes
- Thursday average = 32.4 minutes
- Friday average = 34.3 minutes

These turn times have been implemented through the operation of three (3) yard tractor tipping chassis/trailers. As part of the ramp up to 100 intermodal containers, Waste Masters has the capability of running up to eleven (11) tractor/trailers between the Wilmington rail yard and the Facility. Current Covanta staffing levels at the Facility allows for six (6) drivers. Covanta has eight (8) yard tractors and ten (10) tipping chassis to support intermodal operations.

Therefore the following daily operating schedule is maintained utilizing the 30.5 minutes/container average turn time from July/August 2015:

$[100 \text{ containers} * 30.5 \text{ minutes} / 4 \text{ mobile tippers} / 60 \text{ minutes}] = 12.7 \text{ hours per day}$

As need be, Covanta can run 5 mobile tipping chassis:

$[100 \text{ containers} * 30.5 \text{ minutes} / 5 \text{ mobile tippers} / 60 \text{ minutes}] = 10.1 \text{ hours per day}$

The previously approved permit modification allowed Covanta to adjust the daily waste receipt start time to 4:00 a.m. from 5 a.m. to reduce potential idling truck traffic prior to waste acceptance. With this adjustment, the daily workday was extended to 14 hours. The daily operating schedule above, utilizing 4 mobile tippers, is well within the 14 hour workday.

Contingency/Upsets

The above scenarios assume that loaded containers do not touch the ground in the intermodal queuing area to be stored for later transport to the floor. In the event of heavy congestion on the tipping floor restricting turn times of intermodal containers, equipment/vehicle malfunction, or lack of vehicle/equipment drivers, these containers could be staged at the proposed intermodal storage area until upset conditions can be resolved. Under these upset conditions, container receipt is only limited by the number of operational reach stackers. Since it only takes five minutes for container receipt/stacking:

- 1) One reach stacker – 12 containers received/hour
- 2) Two reach stackers – 24 containers received/hour

The time necessary to receive/stage 100 containers is:

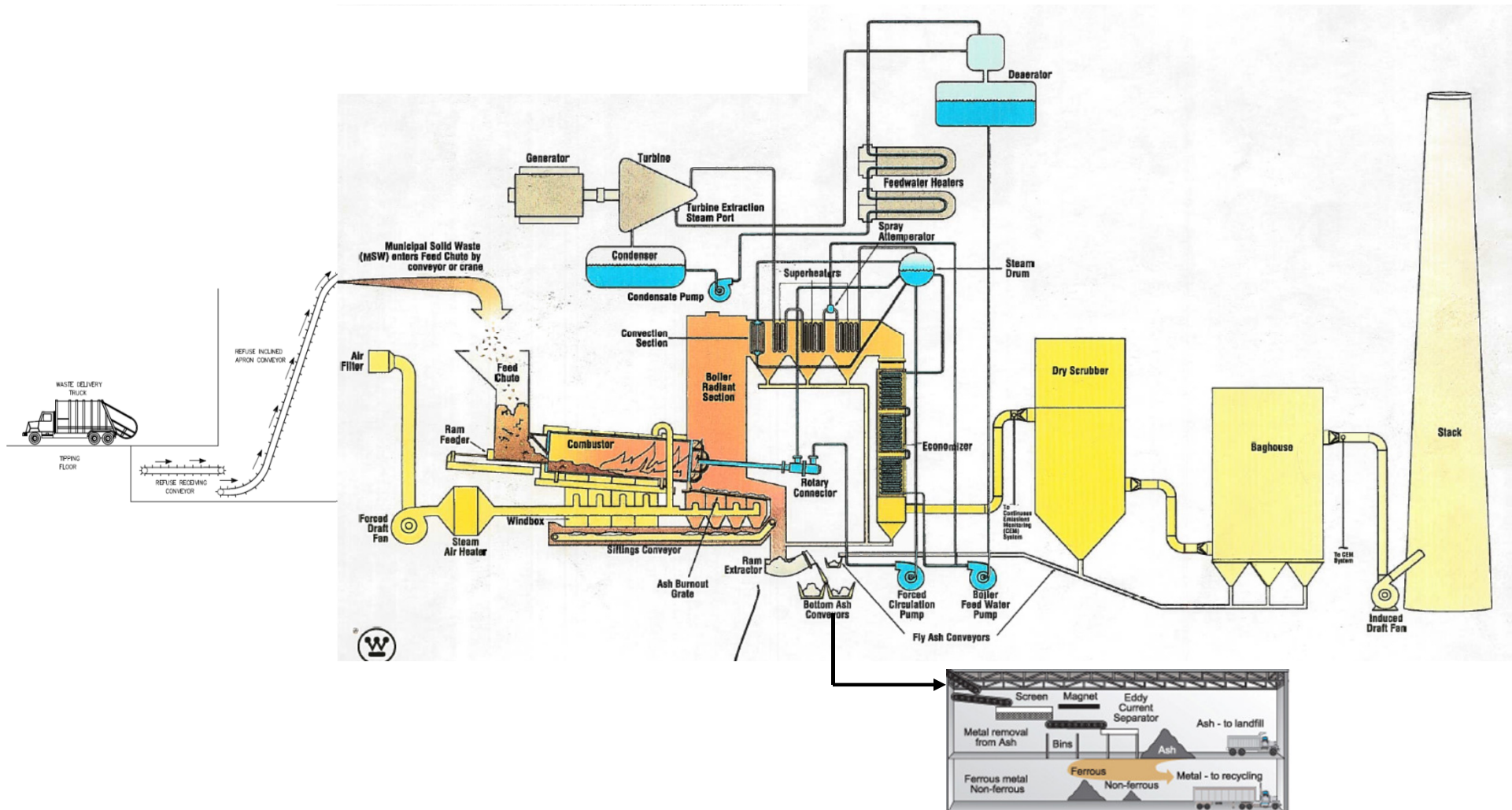
- 1) One reach stacker – 8.3 hours
- 2) Two reach stackers – 4.2 hours

Therefore, in the worst case scenario that only one reach stacker is operational, all 100 containers could be accepted within the permitted 14 hour (4:00 am – 6:00 pm) receiving window. These containers could then be moved and dumped on the tipping floor later in the same or following day.

As a worst case scenario, Covanta, through its contractors, has the ability to lower intermodal container deliveries from Wilmington until routine operation can be resumed.

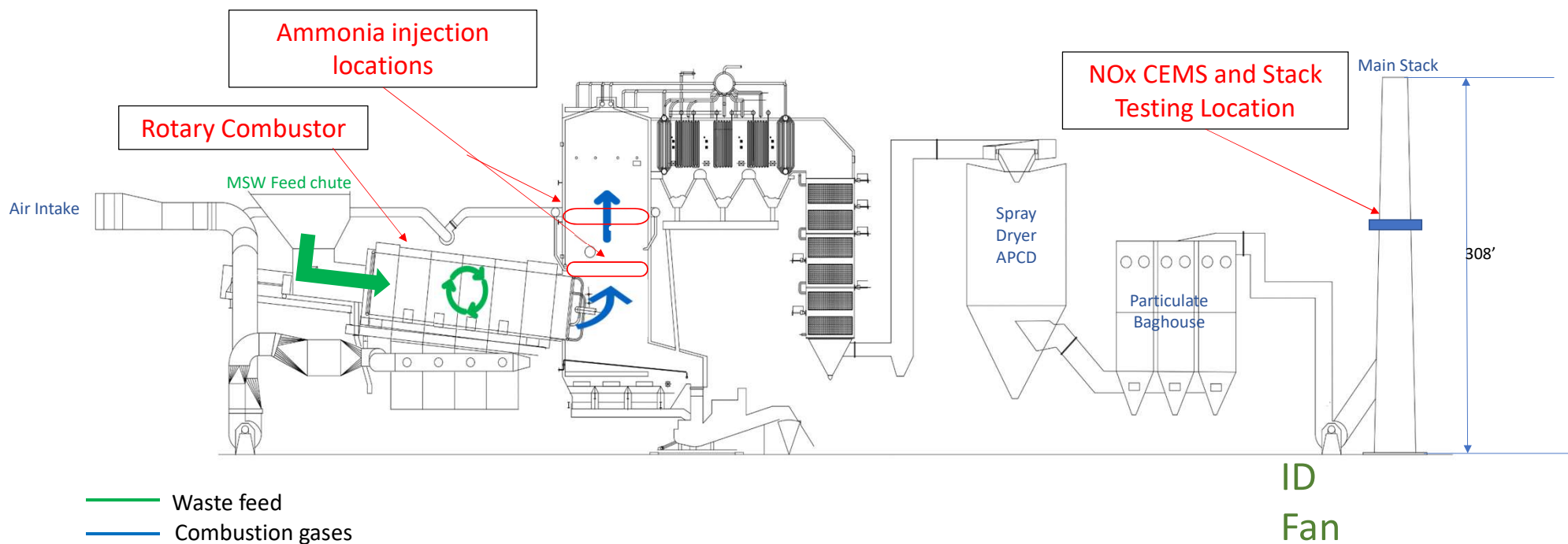
Process Flow Diagrams

Overview of the Covanta Delaware Valley Facility



Covanta Delaware Valley Combustor Side View

- SNCR Injection



Form 5
Map Requirements



Date Prepared/Revised
12/2022

DEP USE ONLY

Date Received

FORM 5 MAP REQUIREMENTS TRANSFER FACILITIES/COMPOSTING FACILITIES/ RESOURCE RECOVERY AND OTHER PROCESSING FACILITIES

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 5, 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: Section 279.103/281.112/283.103

Instructions: Provide the following maps in scales and contours indicated. Before each item listed below, identify the specific map or plan where the information requested can be found.

Drawings shall meet the following requirements or contain:

- a. The maximum drawing size of 30" x 36".
- b. The north arrow designated as magnetic or true.
- c. Grid system tied to north arrow and on-site survey monuments.
- d. A legend of symbols.
- e. Horizontal and vertical scale.
- f. Consecutively numbered drawings.
- g. Seal and signature of PA registered Professional Engineer on cover sheet of drawings.

Application is for:

- ☐ 1. Transfer Facility (T)
- ☐ 2. Composting Facility (C)
- ☒ 3. Resource and Recovery and Other Processing Facilities (P)

Letters before an item (T, C, P) designate that the specific map requirement is not required for this type of facility.

Maps, plans, and cross-sections shall have a scale of 1 inch equals no more than 50 feet with 2-foot maximum contour intervals.

SECTION A. SITE IDENTIFIER

Applicant/permittee Covanta Delaware Valley, L.P.

Site Name Covanta Delaware Valley Resource Recovery Facility

Facility ID (as issued by DEP) 521177

SECTION B. TOPOGRAPHIC MAP

Topographic map of proposed permit area and adjacent area, including necessary narrative descriptions:

1. Boundaries and names of present owners of record of land (surface and subsurface), including easements, rights-of-way and other property interests for proposed permit area and adjacent area.
2. Boundaries of land within proposed permit area; description of title, deed, or usage restrictions.
3. Boundaries of land affected over estimated total life of proposed facility/operation.

SECTION B. TOPOGRAPHIC MAP (continued)

4. Surface water bodies:
 - a. Springs
 - b. Streams
 - c. Lakes
 - d. Ponds
 - e. Wetlands
 - f. Constructed or Natural Drains
 - g. Irrigation Ditches
5. Public and private water sources that are located on or within ¼ mile of the proposed facility.
6. Within 300 feet of proposed facility: rights-of way for high-tension power lines, pipelines, railroads, public and private roads; buildings currently in use.
7. Anticipated water quality monitoring points if monitoring is required by the Department.
8. Boundaries of land where (transfer facilities/composting facilities/resource recovery facilities and other processing facilities) are prohibited (see Sections 279.202, 281.202 and 283.202).
9. Municipalities of proposed permit area.
10. 100-year floodplain boundaries.
11. Access roads (include slopes, grades, lengths of roads),
12. Barriers, fences and similar facilities required for access control (see Sections 279.204, 281.213, 283.212).
13. Water diversion, collection, conveyance, erosion and sedimentation control, treatment, storage and discharge facilities.
- C 14. Solid waste storage or loading/unloading areas.
15. Areas which bond will be posted (Chapter 271, Subchapter D).
16. Buildings and related facilities used in operation:

Sections 281.112 and 283.103: include horizontal and vertical dimensions
17. Scales and weigh stations to be used in operation.
- T 18. Underground mine shafts.
- T, P 19. Composting pads, tipping areas, storage areas and windrows (including leachate or wastewater collection systems).
- T 20. Utilities installed at facility.
21. Area for isolating detected radioactive waste.
22. Location of radioactive monitoring equipment.

SECTION C. SOILS MAP

- P USDA Soil Conservation Service soils map, for aerial photographs where current soils maps are unavailable, showing site boundaries and soil types, for proposed permit area and adjacent area.

SECTION D. BENCHMARK

- C, P Location of permanent benchmark for horizontal and vertical control.

SECTION E. GRID SYSTEM

- T, P Grid coordinate systems for proposed permit area. Horizontal control system shall consist of grid not to exceed 200-foot square sections. Permanent benchmark for horizontal and vertical control shall be shown. Grid system shall be tied to benchmark and baseline.

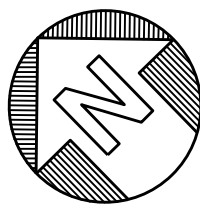
Site Plan



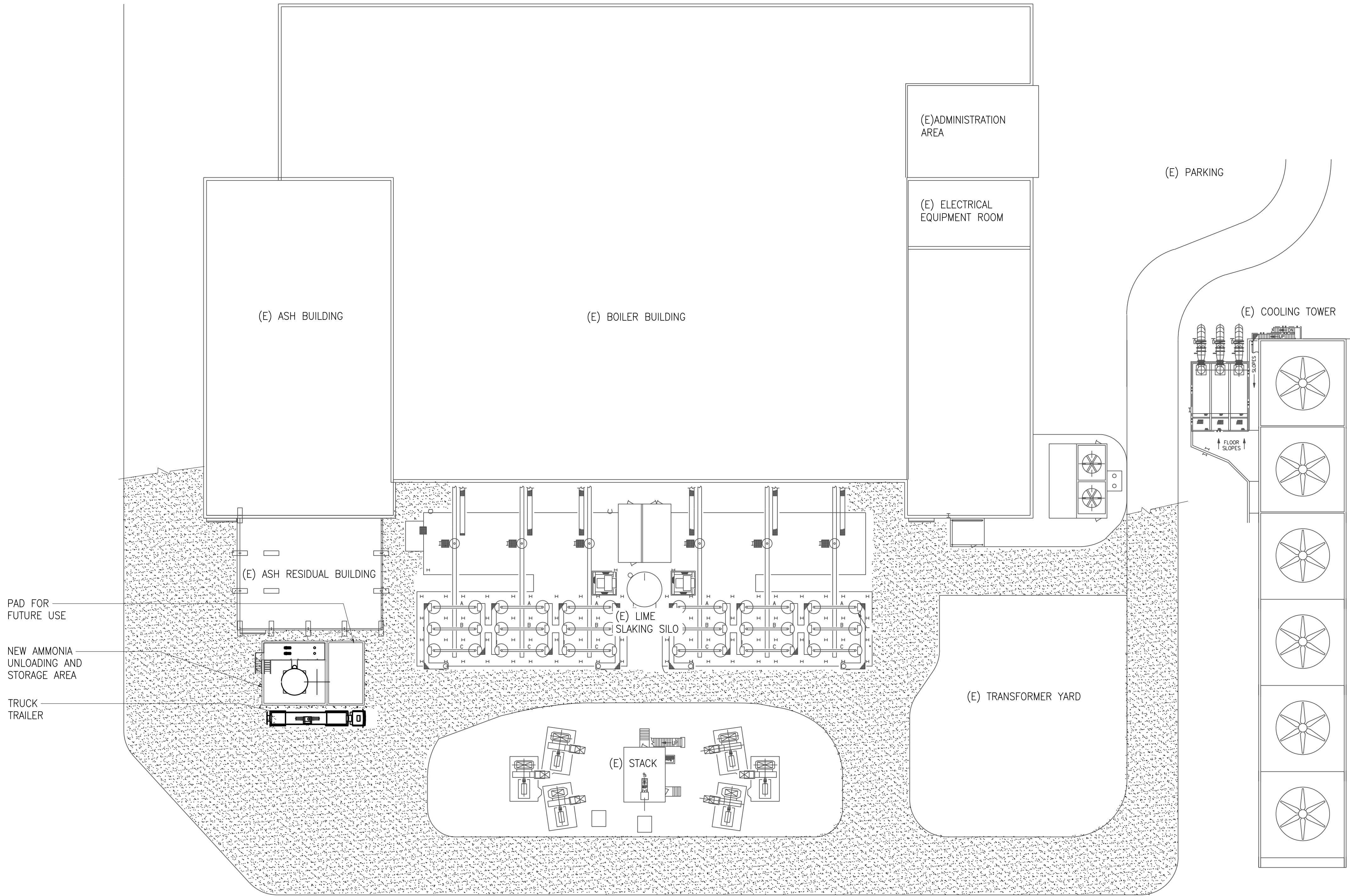
Ammonia Tank Draft Design Drawings



PROJECT NORTH



TRUE NORTH



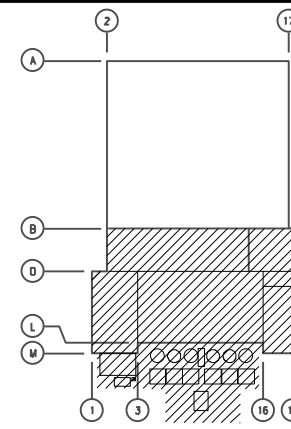
NOTE: (E) DENOTES EXISTING.

NOT FOR CONSTRUCTION
PRELIMINARY

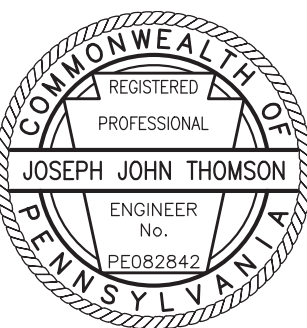


SCALE: 1/32" = 1'-0"

SCALE384



KEY PLAN



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTUALLY UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER OR ADD TO ANY DRAWING BEARING THE STAMP OF A LICENSED PROFESSIONAL. IF A PERSON ALTERS OR ADDS TO ANY DRAWING BEARING THE STAMP OF A LICENSED PROFESSIONAL, THE PERSON SHALL BE CONSIDERED TO BE VIOLATING THE LAW. THE VIOLATOR SHALL BE FINED OR IMPRISONED OR BOTH. THE VIOLATOR SHALL BE RESPONSIBLE FOR ALL DAMAGES AND COSTS INCURRED BY THE STATE OF PENNSYLVANIA IN ENFORCEMENT OF THIS ACT, INCLUDING REASONABLE ATTORNEY'S FEES.

COVANTA DELAWARE VALLEY
FACILITY CHESTER, PA
AQUEOUS AMMONIA SNCR
RETROFIT

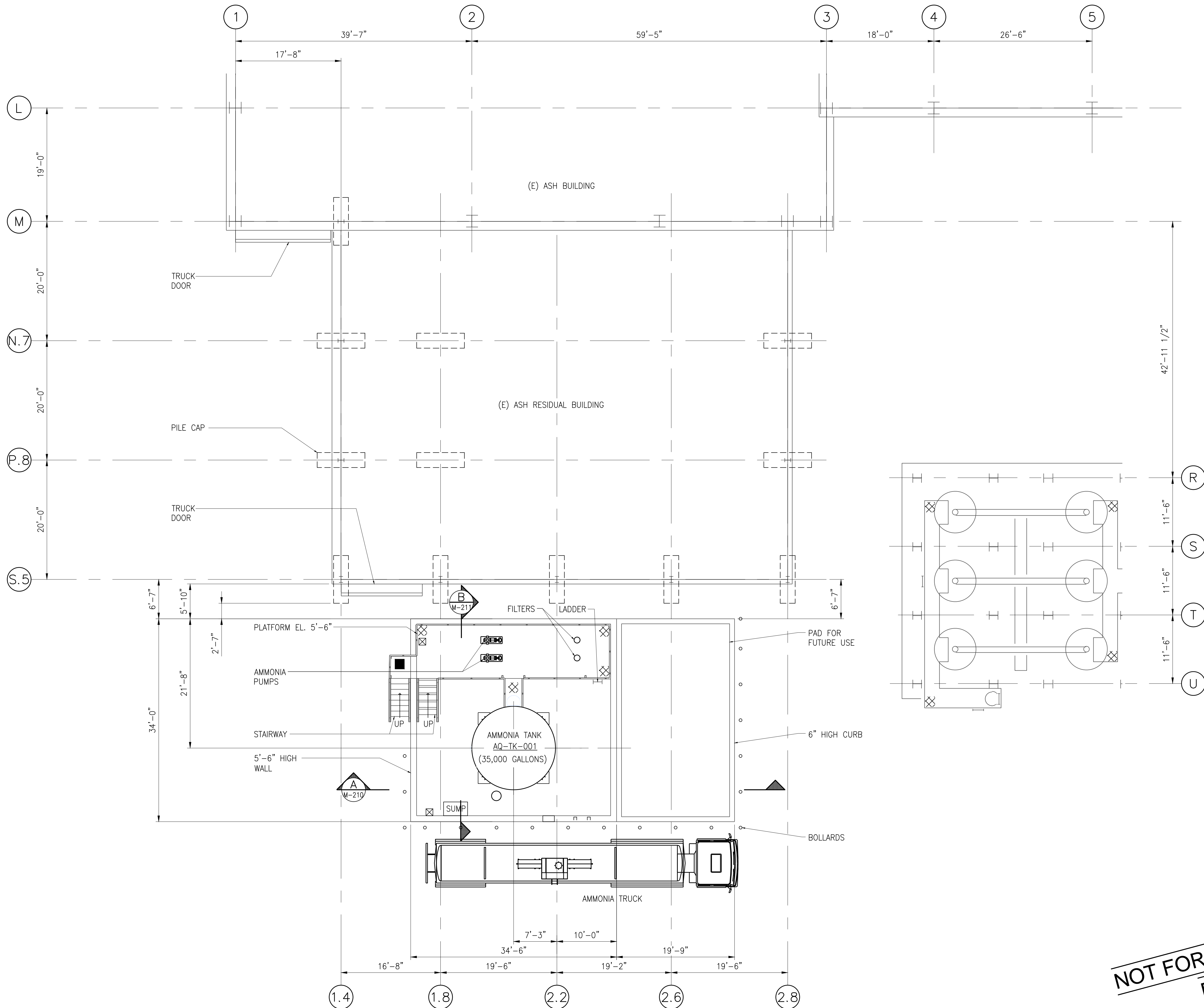
No.	Submittal / Revision	App'd.	By	MmDdYr.
0	ISSUED FOR DEP PERMIT	AJ	CBL	12/12/22
PB	ISSUED FOR REVIEW	AJ	CBL	12/02/22
PA	ISSUED FOR REVIEW	AJ	PP	10/20/22

SITE PLAN
BOILER BUILDING

Designed By: AJ	Drawn By: PP	Checked By: AJ
Issue Date: OCT. 2022	Project No: 77903	Scale: 1/32"=1'-0"

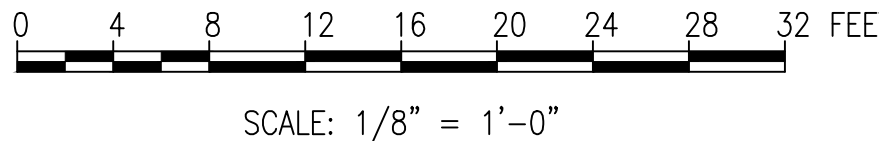
Drawing No.:

M-200

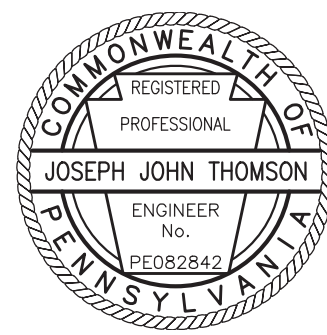


PLAN AT GRADE ELEVATION
SCALE: 1/8" = 1'-0"

NOT FOR CONSTRUCTION
PRELIMINARY



File: V:\PROJECTS\ANY\6\077903.000\09_DESIGN\DRAWINGS\TH_MECH\CAC_DETAILS\PLANT3D\77903\ORTHOS\DWGS\77903 M-201 - B.DWG
Saved: 12/12/2022 2:50:11 PM Plotted: 12/12/2022 2:50:30 PM Current User: Laussen, Bryce LastSavedBy: 6564



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTUALLY UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER ANY ITEM IN ANY MAP OR ANY ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED. THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

COVANTA DELAWARE VALLEY
FACILITY CHESTER, PA
AQUEOUS AMMONIA SNCR
RETROFIT

No.	Submittal / Revision	App'd.	By	MmDdYr.
0	ISSUED FOR DEP PERMIT	AJ	CBL	12/12/22
PB	ISSUED FOR DEP PERMIT	AJ	CBL	12/02/22
PA	ISSUED FOR REVIEW	AJ	PP	10/20/22

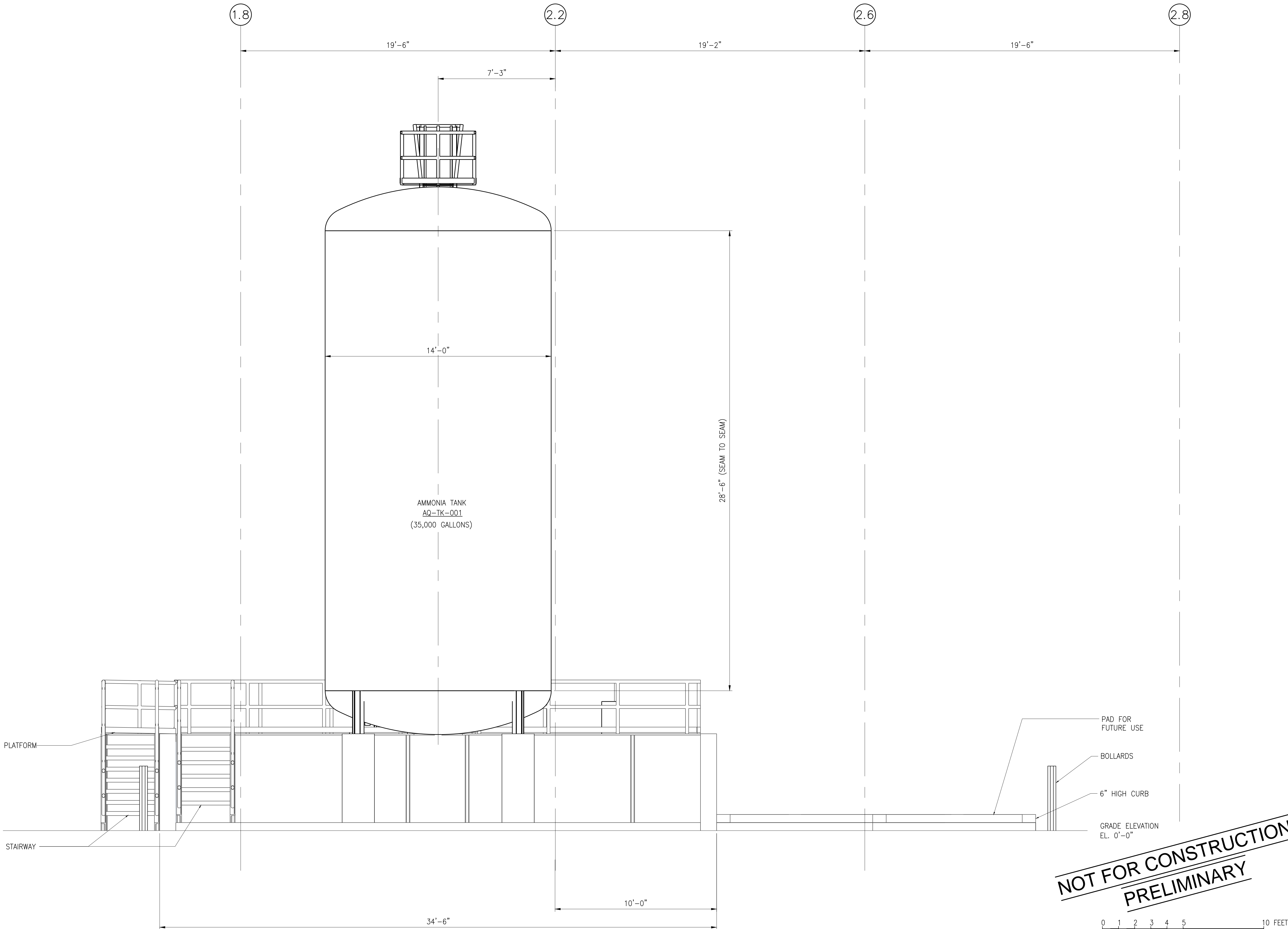
GENERAL ARRANGEMENT
GROUND FLOOR PLAN

Designed By: AJ	Drawn By: PP	Checked By: AJ
Issue Date: OCT. 2022	Project No: 77903	Scale: 1/8"=1'-0"

Drawing No.:

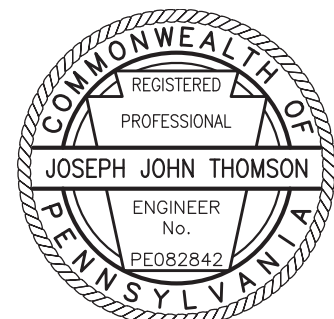
M-201

File: V:\PROJECTS\ANY\6\077903.000\09_DESIGN\DRAWINGS\TH_MECH\CAC_DETAILS\PLANT3D\77903\ORTHOS\DWGS\77903_M-210.DWG
Saved: 12/12/2022 4:57:54 PM Plotted: 12/12/2022 4:58:08 PM Current User: Louesen, Bryce LastSavedBy: 6564



SECTION
SCALE: 3/8"=1'-0"

A
M-201



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTUALLY UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER ANY ITEM IN ANY MEET-ING OF ANY MEETING BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

COVANTA DELAWARE VALLEY
FACILITY CHESTER, PA
AQUEOUS AMMONIA SNCR
RETROFIT

No.	Submittal / Revision	App'd.	By	MmDdYr.
0	ISSUED FOR DEP PERMIT	AJ	CBL	12/12/22
PB	ISSUED FOR REVIEW	AJ	CBL	12/02/22
PA	ISSUED FOR REVIEW	AJ	PP	10/20/22

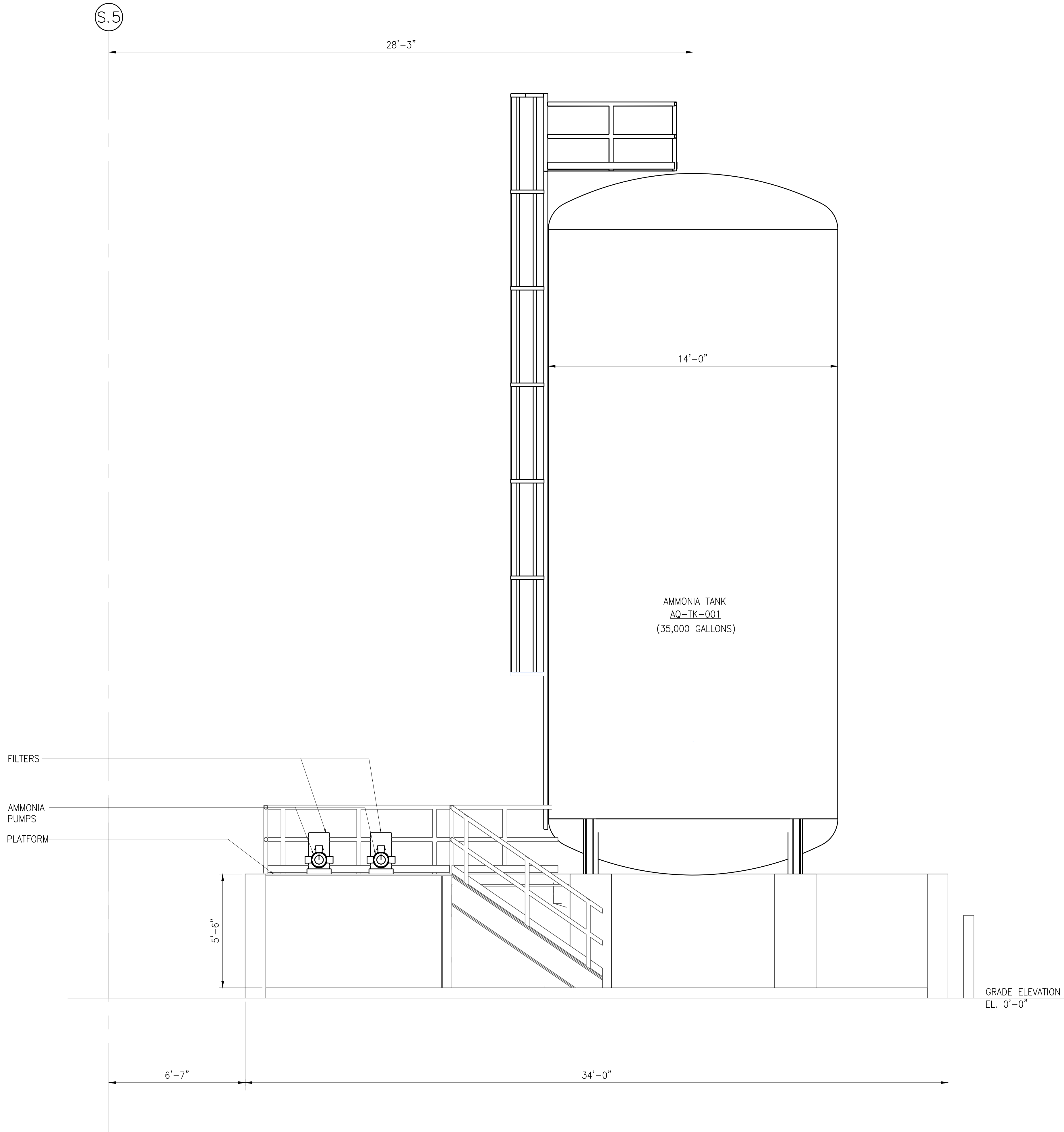
GENERAL ARRANGEMENT
SECTION VIEWS

Designed By: AJ	Drawn By: PP	Checked By: AJ
Issue Date: OCT. 2022	Project No: 77903	Scale: 3/8"=1'-0"

Drawing No.:

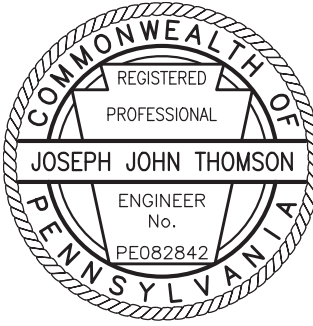
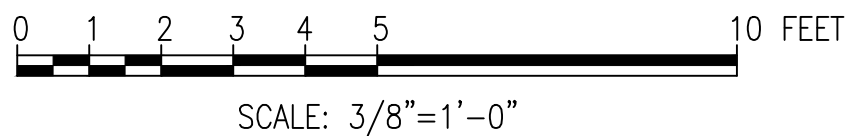
M-210

File: V:\PROJECTS\ANY\6\077903.000\09_DESIGN\DRAWINGS\TH_MECH\CAC_DETAILS\PLANT3D\77903\ORTHOS.DWG\$77903 M-211.DWG
Saved: 12/12/2022 3:05:06 PM Plotted: 12/12/2022 4:58:51 PM Current User: Lauesen, Bryce LastSavedBy: 6564



SECTION
SCALE: 3/8"=1'-0" (B)
M-201

NOT FOR CONSTRUCTION
PRELIMINARY



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTUALLY UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER ANY ITEM IN ANY WAY OF ANY ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

COVANTA DELAWARE VALLEY
FACILITY CHESTER, PA
AQUEOUS AMMONIA SNCR
RETROFIT

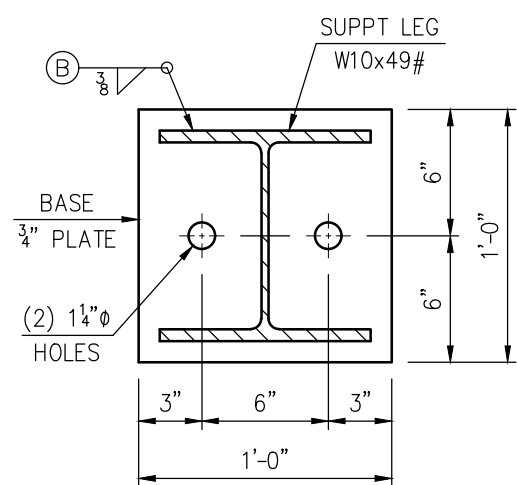
No.	Submittal / Revision	App'd. By	MmDdYr.
0	ISSUED FOR DEP PERMIT	AJ CBL	12/12/22
PA	ISSUED FOR DEP PERMIT	AJ CBL	12/02/22

GENERAL ARRANGEMENT
SECTION VIEWS


Designed By: AJ	Drawn By: PP	Checked By: AJ
Issue Date: NOV. 2022	Project No: 77903	Scale: 3/8"=1'-0"

Drawing No.:

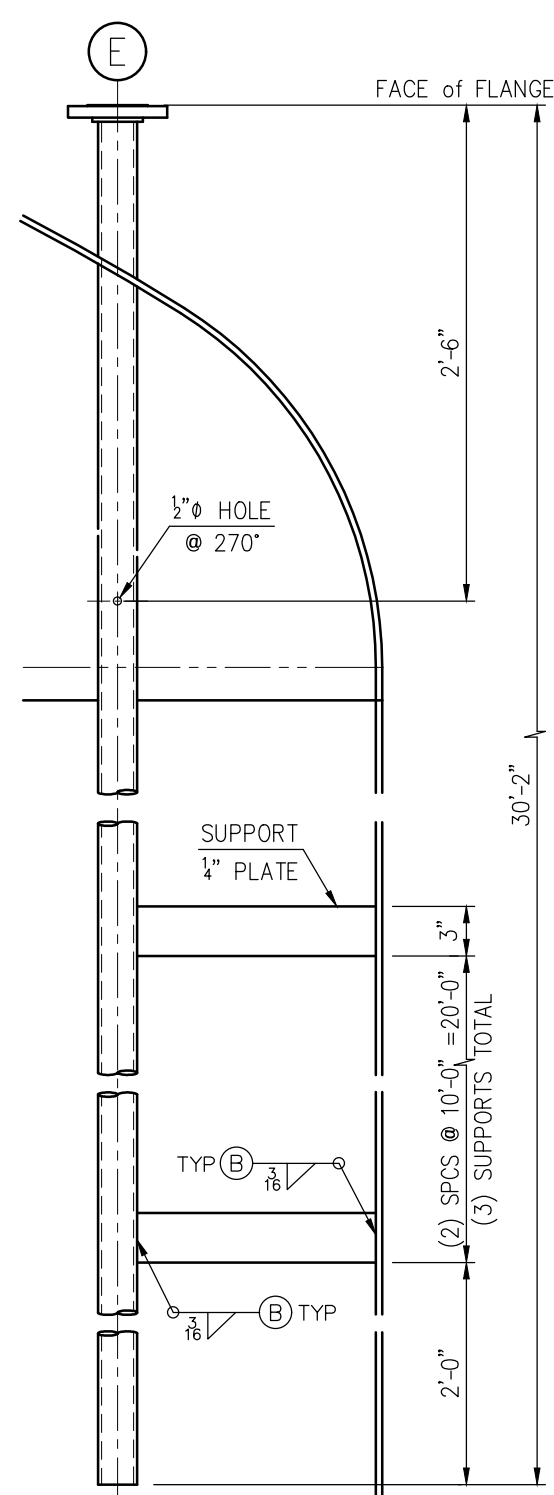
M-211



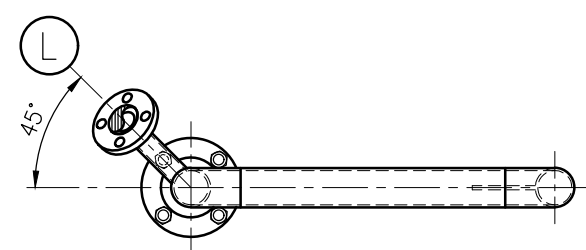
ELEVATION VIEW
SEE PLAN VIEW SHEET 2 FOR TRUE ORIENTATION

<p style="text-align: center;"><u>Prepared for</u></p> <p style="text-align: center;"><u>Covanta Delaware Valley, LP</u></p> <p style="text-align: center;">168" OD x 28'-6" T/T Vertical Pressure Vessel</p>		
DRAWN BY: T. Gass	SCALE: None	REV. NO. 
CHECKED BY: R. Brown	DATE: February 27, 2023	<div style="text-align: center;"> <div>1</div> <div>of 3</div> </div>
PO NO.: DELVA-0000077149	DWG./JOB NO.: 056110-I-1	

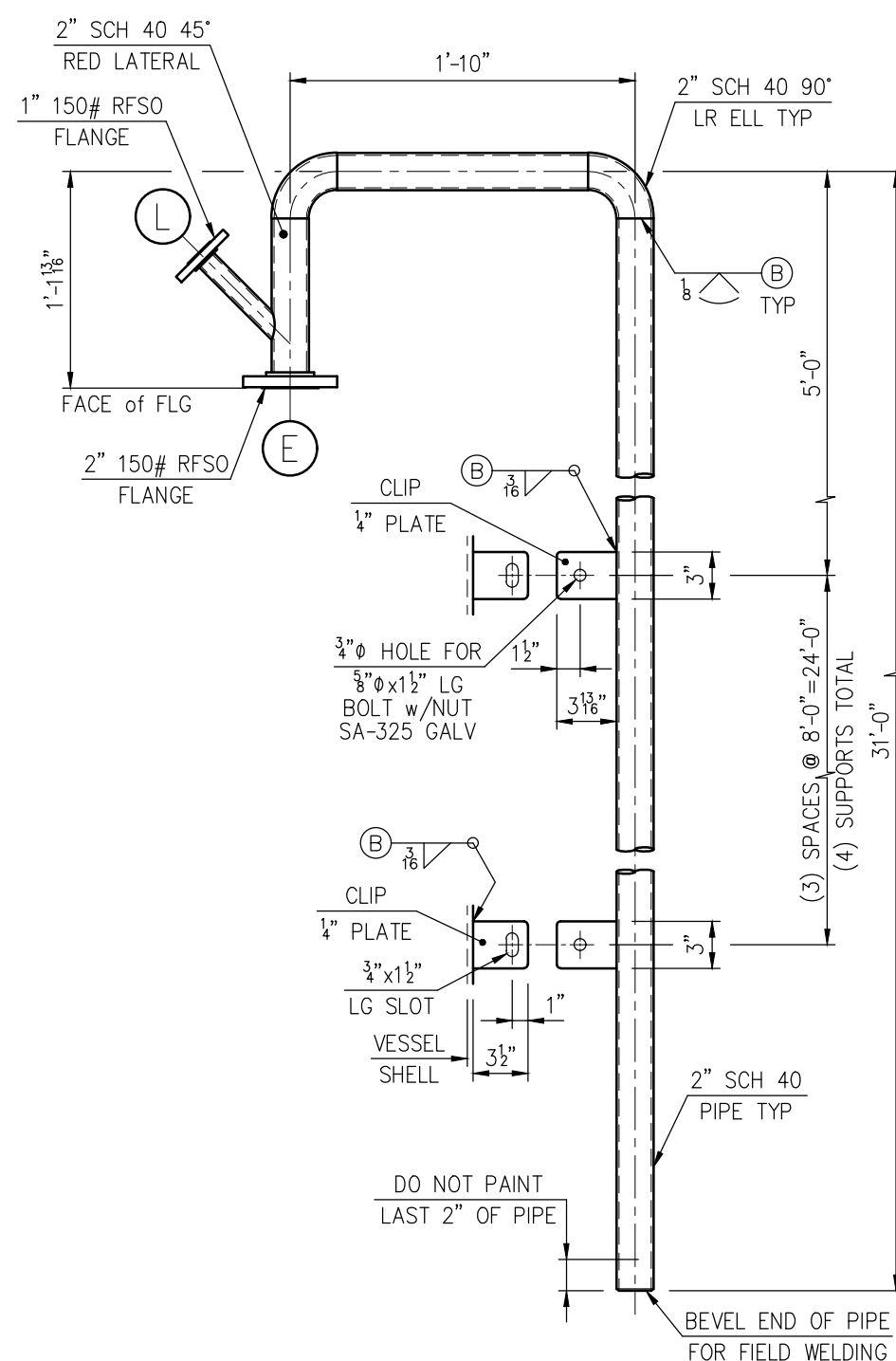
CERTIFIED FOR FABRICATION
 MANAGER: Robert Brown
 ENGINEER: Tim Gass
 DATE: March 8, 2023
 MODERN WELDING COMPANY
 OF GEORGIA, INC



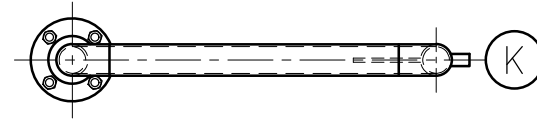
DETAIL NOZZLE E



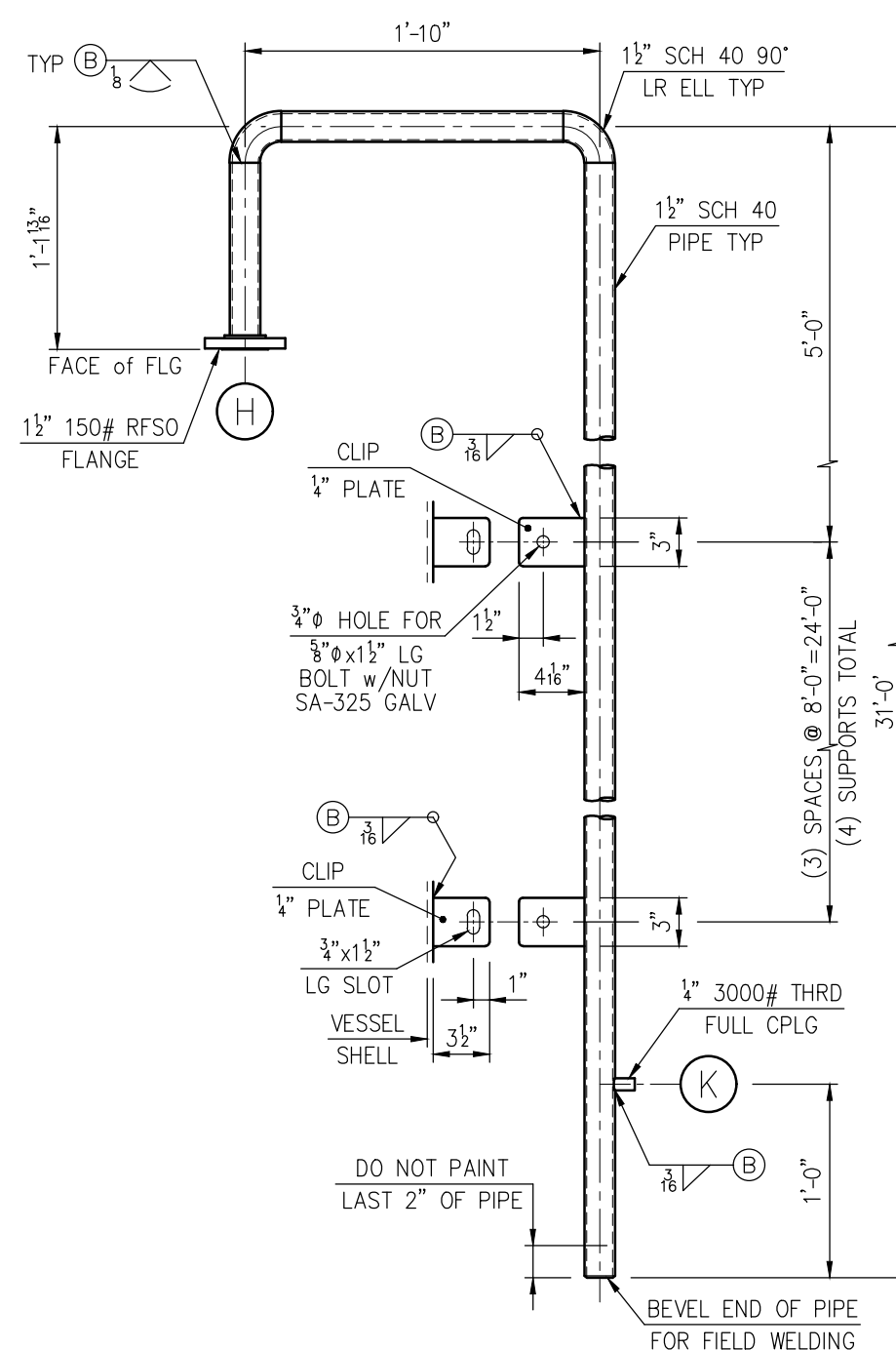
TRUE ORIENTATION NOZZLE L



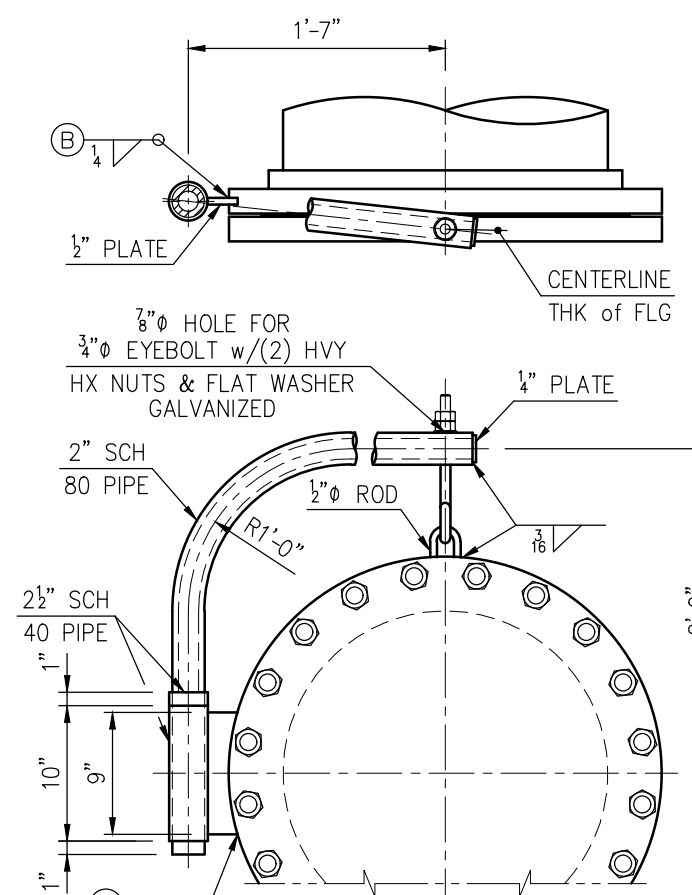
DETAIL NOZZLE L & SPOOL Pc E



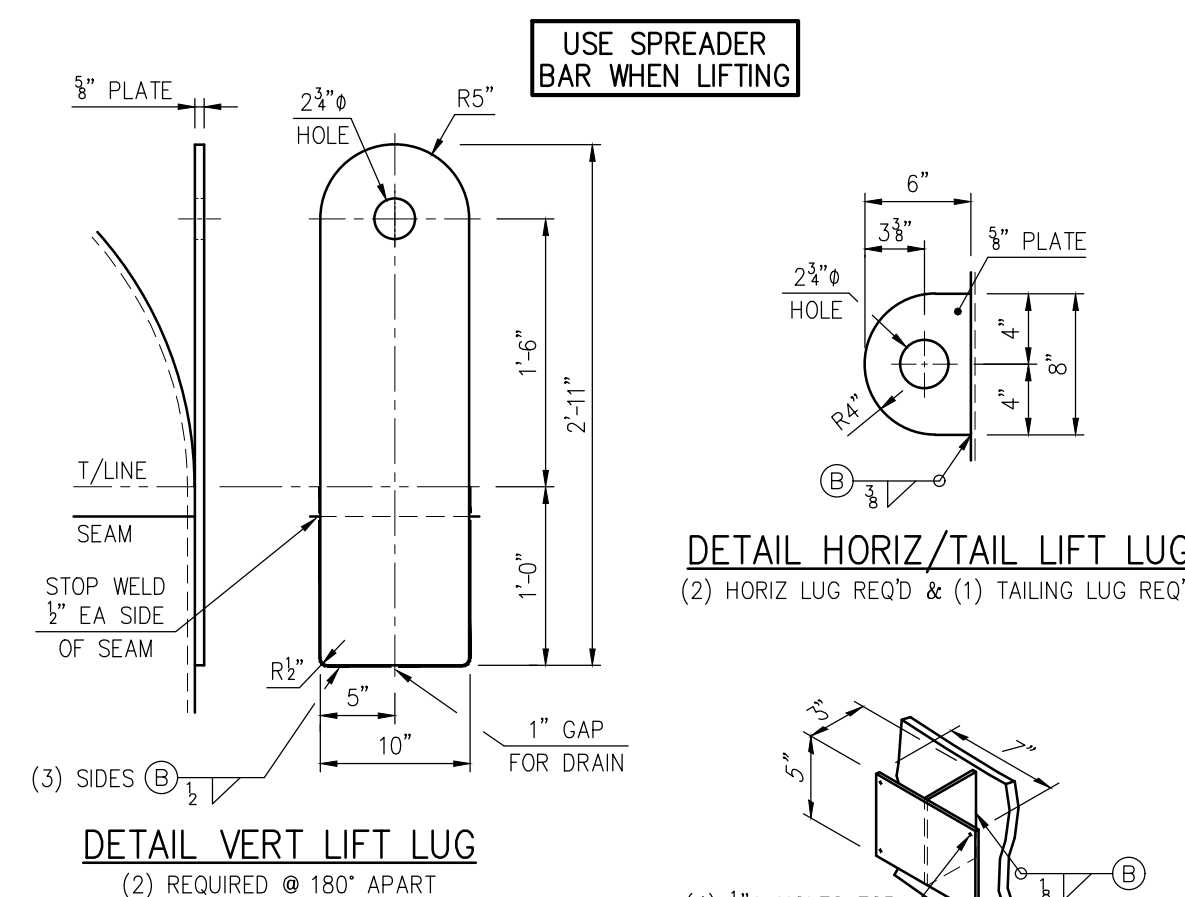
TRUE ORIENTATION NOZZLE K



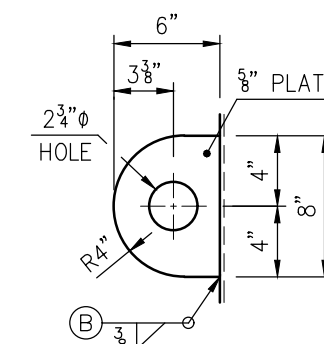
DETAIL NOZZLE K & SPOOL Pc H



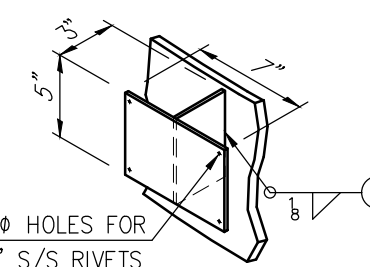
DETAIL MANWAY DAVIT



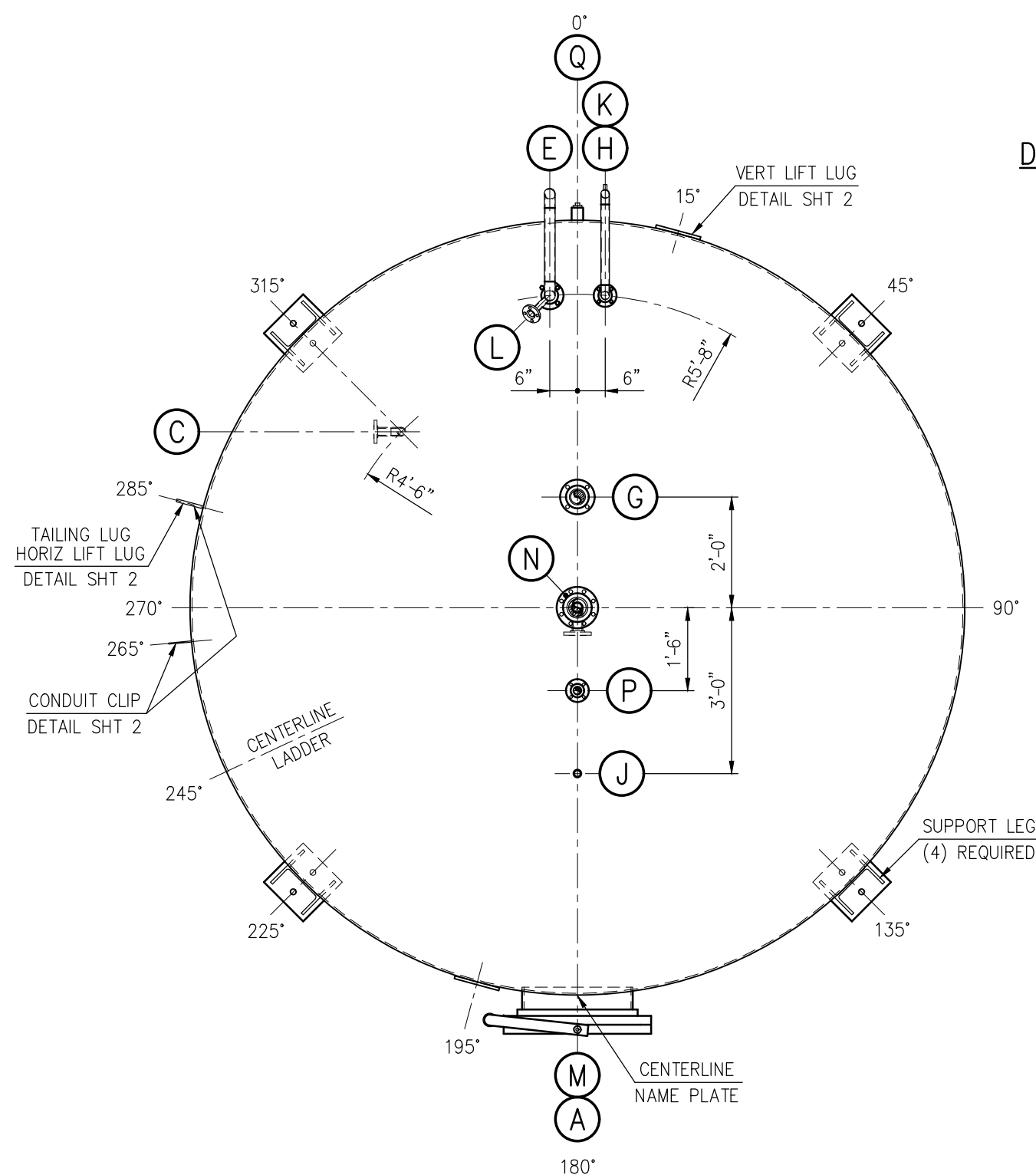
DETAIL VERT LIFT LUG
(2) REQUIRED @ 180° APART



DETAIL HORIZ/TAIL LIFT LUG
(2) HORIZ LUG REQ'D & (1) TAILING LUG REQ'D



DETAIL NAME PLATE BRACKET



PLAN VIEW

SHOP NOTES

- DO NOT PAINT LAST 2" OF SPOOL PIECES & BEVEL END OF PC FOR FIELD WELDING.

RELEASE FOR FABRICATION	3-8-2023	T. GASS
NO.	REVISION	DATE
NO. REQUIRED (1) ONE	ITEM NO. NONE	BY

modern welding company
of georgia, inc.

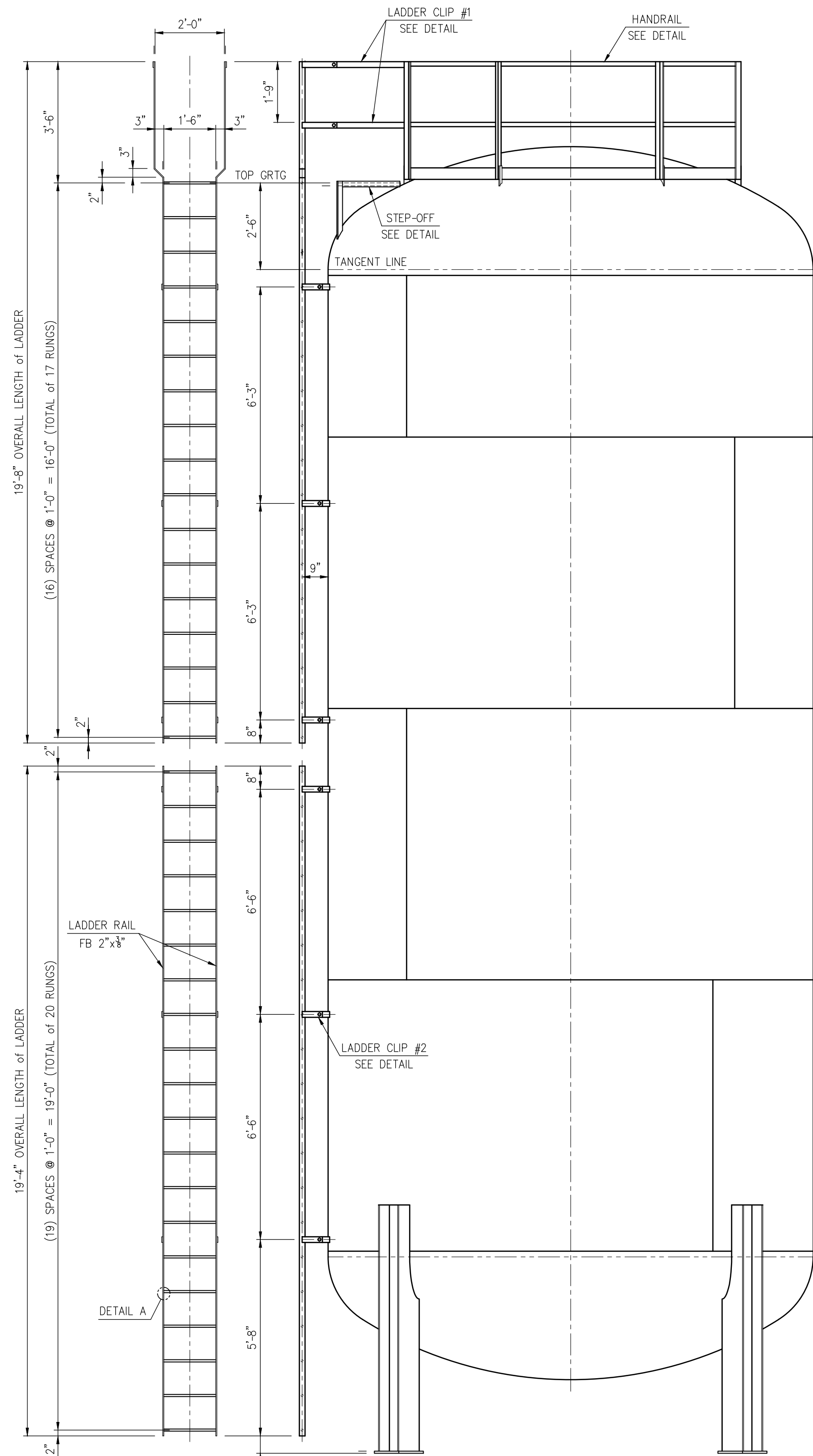
P.O. Box 10067 • 300 Prep Phillips Drive • Augusta, Georgia 30903 • (706) 722-3411

Prepared for

Covanta Delaware Valley, LP
168" OD x 28'-6" T/T Vertical Pressure Vessel

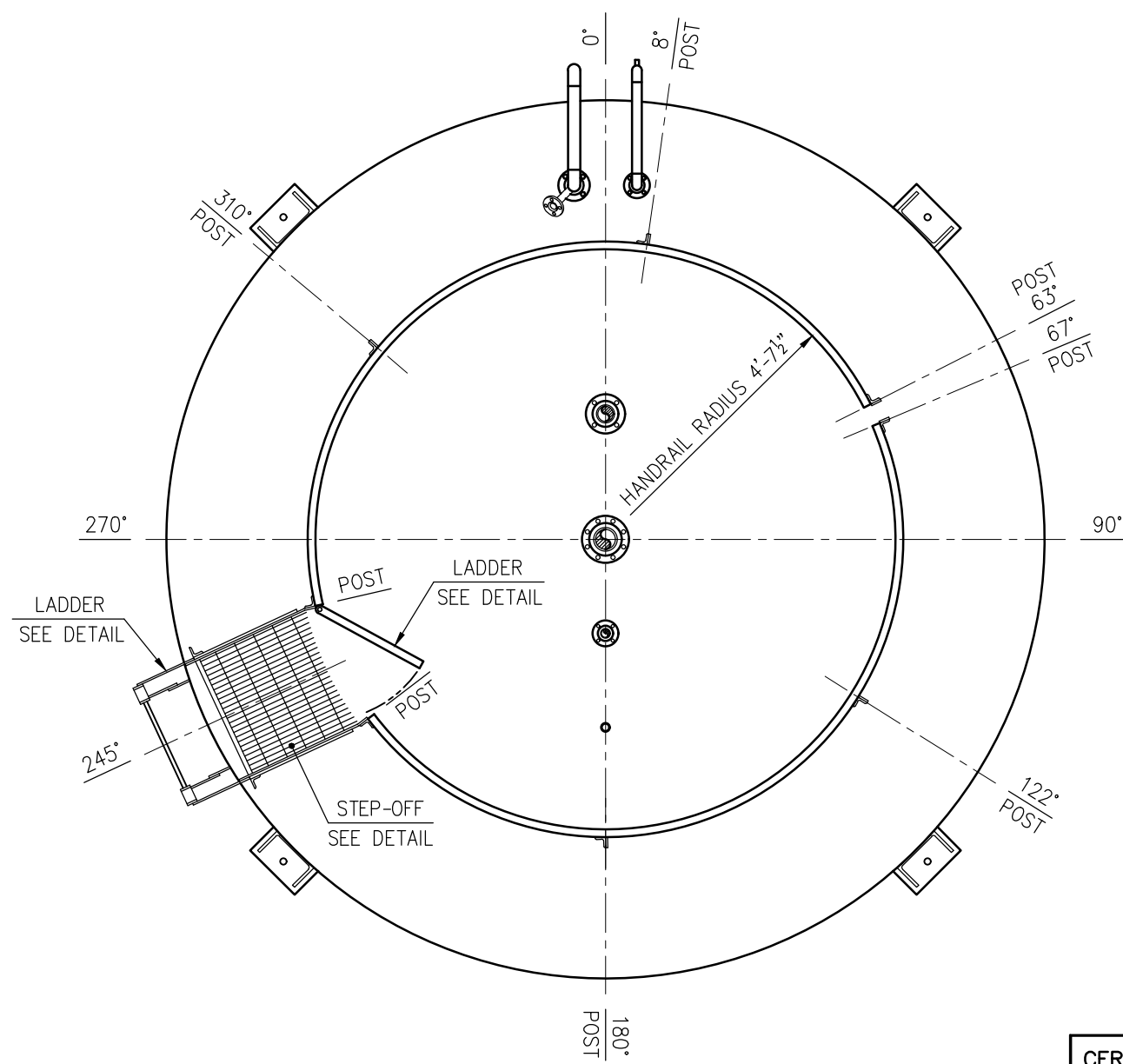
DRAWN BY: T. Gass	SCALE: None	REV. NO.
CHECKED BY: R. Brown	DATE: February 27, 2023	
PO NO.: DELVA-000007719	DWG/JOB NO.: 056110-1-1	SHT. 2 of 3

CERTIFIED FOR FABRICATION
MANAGER: Robert Brown
ENGINEER: Tim Gass
DATE: March 8, 2023
MODERN WELDING COMPANY
OF GEORGIA, INC

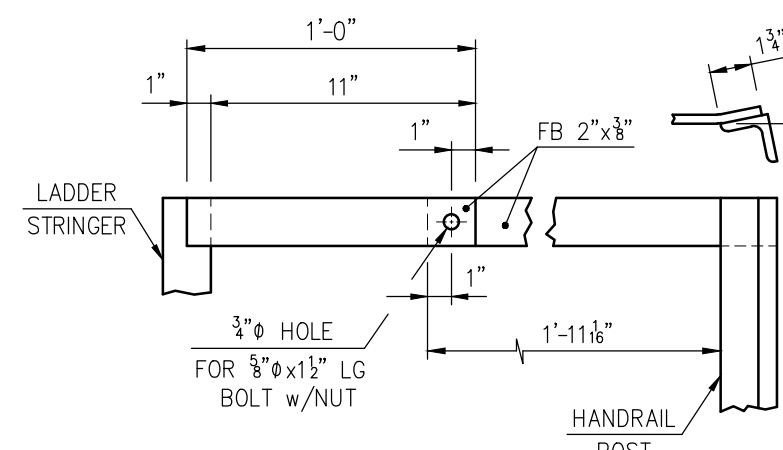


DETAIL LADDER

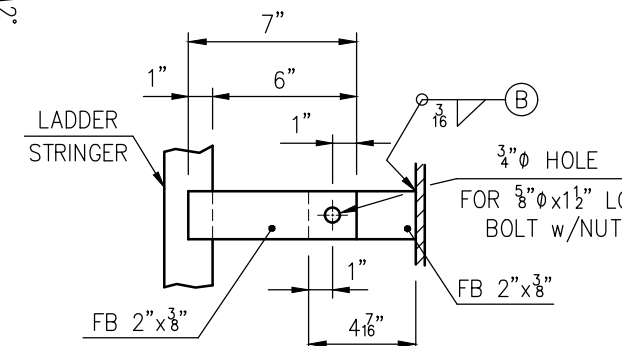
ELEVATION - LADDER & HANDRAIL



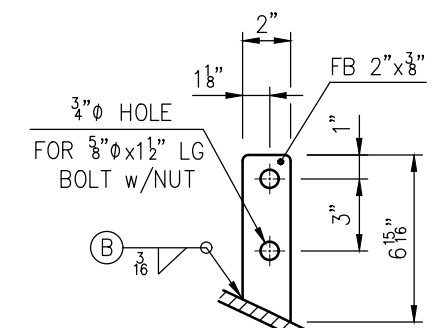
PLAN VIEW - LADDER & HANDRAIL



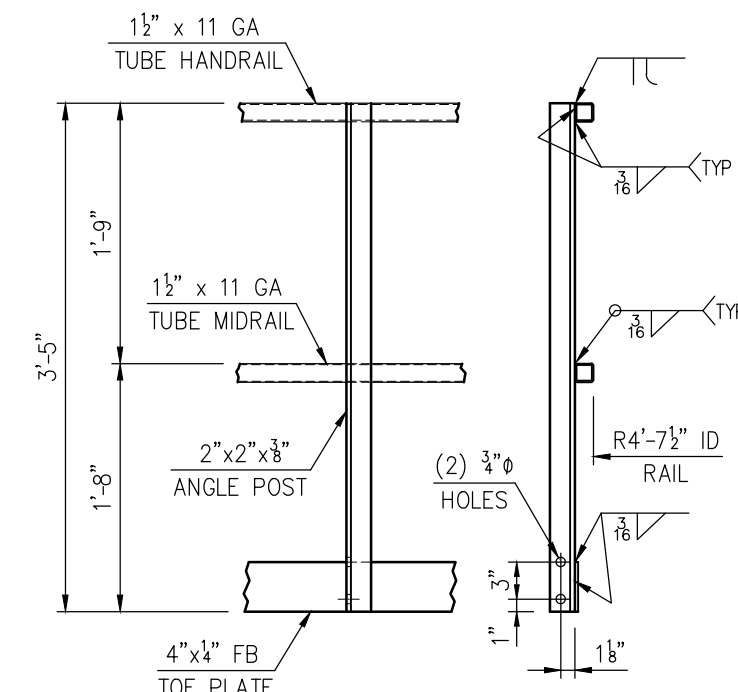
DETAIL LADDER CLIP #1
(2) PAIR REQUIRED



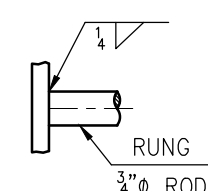
DETAIL LADDER CLIP #2
(6) PAIR REQUIRED



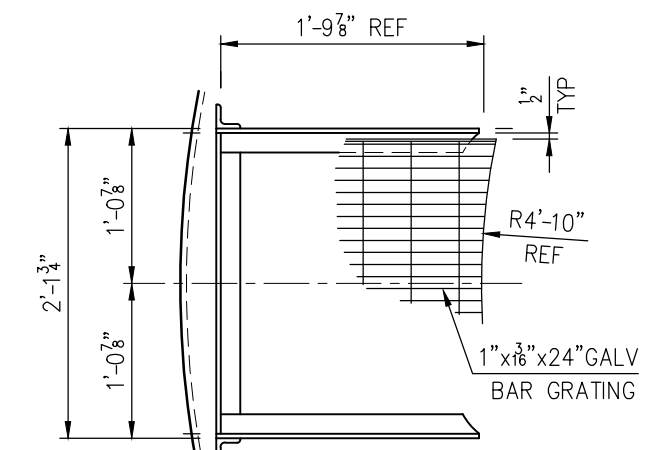
DETAIL POST CLIP
(8) REQUIRED



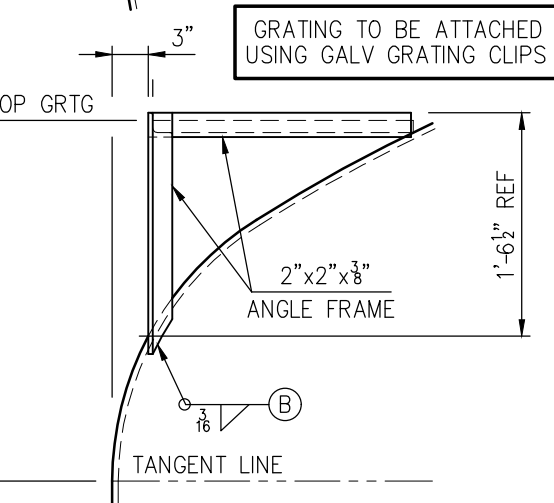
DETAIL HANDRAIL & POST



DETAIL A
TYPICAL



DETAIL STEP-OFF



DETAIL STEP-OFF

SHOP NOTES

- LADDER & PLATFORM TO BE HOT DIPPED GALVANIZED PER ASTM A123.
- ALL MATERIAL TO BE SA-36 CARBON STEEL UNLESS OTHERWISE NOTED.
- BOLTING MATERIAL SA-325 GALVANIZED.
- ALL FILLET WELDS TO BE 3/16" UNLESS OTHERWISE NOTED.
- SELF-CLOSING SAFETY GATE MANUFACTURED BY FABENCO. MODEL NO.: A71-21 GALVANIZED.
- MODERN WELDING TO FURNISH & SHIP LOOSE BLUEWATER by TRACTEL STOPCABLE LADDER SAFETY SYSTEM PART w/TRAVELER NO.: LT1840 LIFE CABLE STOP 40'-0" w/GALVANIZED WIRE ROPE & WIRE ROPE GRAB LT38E DETACHABLE TRAVELER FOR 3/8" WIRE ROPE w/ENERGY ADSORBER

RELEASE FOR FABRICATION	3-8-2023	T. GASS
NO.	REVISION	DATE BY

NO. REQUIRED	(1) ONE	ITEM NO.	NONE
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modern welding company
of georgia, inc.

P.O. Box 10067 • 300 Prep Phillips Drive • Augusta, Georgia 30903 • (706) 722-3411

Prepared for

Covanta Delaware Valley, LP
168" OD x 28'-6" T/T Vertical Pressure Vessel

DRAWN BY: T. Gass	SCALE: None	REV. NO.
CHECKED BY: R. Brown	DATE: February 27, 2023	
PO NO.: DELVA-0000077149	DWG/JOB NO.: 056110-1-1	SHT. 3 of 3

CERTIFIED FOR FABRICATION
MANAGER: Robert Brown
ENGINEER: Tim Gass
DATE: March 8, 2023
MODERN WELDING COMPANY
OF GEORGIA, INC

Copy of Application Check

0000403980

Pay Amount **\$300.00*****

THREE HUNDRED AND XX/100 DOLLAR

Covanta Energy
Authorized Signature

958 16308 111

Check Date:	Feb/17/2023	Supplier Number: 0000029683			Check No:	0000403980
Invoice Number	Invoice Date	Voucher ID	Gross Amount	Discount Taken	Late Charge	Paid Amount
2799172	Feb/10/2023	00080763	300.00	0.00	0.00	300.00
Minor Modification of Solid Waste Permit Fee for SNCR Project						

0000040398 FEB 17 2023 300.00

Check Date:	Feb/17/2023
Invoice Number	Invoice Date
2799172	Feb/10/2023
Minor Modification of Solid Waste Permit Fee for SNCR Project	

Check Number	Date	Total Gross Amount	Total Discounts	Total Late Charge	Total Paid Amount
0000403980	Feb/17/2023	\$300.00	\$0.00	\$0.00	\$300.00

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listen
The power to
solveSM

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