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February 23, 2018

VIA ELECTRONIC MAIL AND HAND-DELIVERY

Mr. Robert Stein, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 192B—CPV Towantic Energy, LLC Motion to Reopen and Modify the June 23, 1999 Certificate of Environmental Compatibility and Public Need Based on Changed Conditions Pursuant to Connecticut General Statutes §4-181a(b) for the Construction, Maintenance and Operation of a 785 MW Dual-Fuel Combined Cycle Electric Generating Facility Located North of the Prokop Road and Towantic Hill Road Intersection in the Town of Oxford, Connecticut—CPV Towantic, LLC's Submittal of Operations Plan

Dear Chairman Stein:

Pursuant to Paragraph 3 of the Connecticut Siting Council's May 14, 2015 Decision and Order in Docket No. 192B, CPV Towantic, LLC hereby submits, as a bulk exhibit, an original and two (2) copies of its Operations Plan, dated February 23, 2018, for review and approval by the Connecticut Siting Council.

Please contact Franca L. DeRosa, Esq. at 860-509-6539 or me at 860-509-6575 with any questions.

Very truly yours,

BROWN RUDNICK LLP

By: Philip M. Small
Philip M. Small

PMS/jmb
Enclosures
cc: Service List

WorkSiteUS\022345\0005\62969043.v1-2/22/18

Complaint Resolution Procedure

CPV Towantic Energy Center

February 2018

Prepared for:

CPV Towantic Energy Center
Woodruff Hill Road
Oxford, CT 06478

Prepared by:

Tetra Tech, Inc.
2 Lan Drive, Suite 210
Westford, MA 01886

TETRA TECH

1.0 INTRODUCTION

This procedure defines the requirements and process for management of complaints received during the operation of the CPV Towantic Energy Center (the Facility). In all cases, Facility representatives will work to resolve or mitigate any issues with those who submit a complaint. CPV Towantic, LLC (Towantic) maintains overall responsibility for the Facility and its obligations. In order to support day-to-day operations, Towantic has retained NAES Corporation (NAES) as the third-party provider of operations and maintenance (O&M) services for the Facility. NAES will be responsible for day-to-day implementation of the complaint resolution procedure, with reports provided to Towantic and, as applicable, to the Connecticut Siting Council (CSC), if any complaints are received.

2.0 COMPLAINT RESOLUTION PROCEDURE

The Facility incorporates certain mitigation measures to ensure Facility operation complies with all regulatory approvals. From time to time, complaints may arise requiring investigation and response. In such instances, the following procedural steps will be followed.

Throughout the operational life of the Facility, Towantic and NAES will document, investigate, evaluate, and attempt to resolve all Facility-related complaints. Towantic and NAES will:

- Use the Complaint Resolution Form (provided as Attachment A), or a functionally equivalent document, to document and respond to each complaint;
- If a complaint is received, it will be logged, with appropriate documentation gathered by personnel at the Facility utilizing a Complaint Resolution Form;
- The Plant Manager or Compliance Coordinator will attempt to contact the person(s) making the compliant within 24 hours, or within 72 hours if the complaint is made over the weekend, to gather any additional information and to affirm to the complainant that appropriate consideration is being given;
- Facility personnel will conduct an investigation to determine the root cause related to the complaint and document the results in the logbook;
- Facility personnel will take all feasible measures to prevent such future incidents. Other measures, including communication with the complainant will be undertaken, as appropriate; and
- A report will be prepared documenting the complaint and the actions taken. The report will summarize the complaint, including final results of the investigation. The Plant Manager will initial the report, which will then be filed and maintained at the Facility for a period of at least five years.

ATTACHMENT A: COMPLAINT RESOLUTION FORM

CPV Towantic Energy Center
Complaint Resolution Form

General Compliant Log Number: _____ Complainant's name and address: Phone number/email:
Date complaint received: _____ Time complaint received: _____ Date complainant first contacted: _____
Nature of complaint:
Description of investigation:
Definition of problem after investigation:
Description of corrective measures taken (if applicable):
This information is certified to be correct: Plant Manager's Signature_____ Date: _____

(Attach additional pages and supporting documentation, as required.)

SPILL PREVENTION, CONTROL & COUNTERMEASURE (SPCC) PLAN

Towantic Energy Center
16 Woodruff Hill Road
Oxford, CT 06478

November 2017

Revision 0

NAES

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NAES

FIGURES

TABLES

APPENDICES

NAES

1. Record of Plan Revisions

By signing this record, the manager attests that he/she, or their agent, has completed a review and evaluation of the SPCC Plan and any amendments will be implemented within six months of plan revision.

DATE	REVISION DESCRIPTION	REVISED SECTIONS / PAGES	PE CERTIFICATION REQUIRED? (YES / NO)	MANAGEMENT SIGNATURE
11/30/2017	*Rev 0 Initial Plan Development*	*All*	*Yes, upon completion of the draft.*	John R Brew

NAES

2. MANAGEMENT APPROVAL

I hereby certify that the information provided in this Spill, Prevention, Control and Countermeasure (SPCC) Plan is true, accurate, and complete to the best of my knowledge. The Plan has the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. The Plan will be implemented as written.

NOV 30 2017

SIGNATURE – CPV Asset Manager DATE
Towantic Energy Center JOHN P BREEN

3. PROFESSIONAL ENGINEER CERTIFICATION

A licensed Professional Engineer (PE) must review and certify this SPCC Plan for it to be effective to satisfy the requirements of 40 CFR Part 112.

I hereby certify that:

i. I am familiar with the requirements of 40 CFR Parts 112.7 and 112.8;
ii. I and/or my agent has visited and examined the facility;
iii. The SPCC Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of 40 CFR Part 112;
iv. Procedures for required inspections and testing have been established in the SPCC Plan; and
v. The SPCC Plan is adequate for the facility

Robert J. Drake

PRINTED NAME OF REGISTERED PROFESSIONAL ENGINEER

SIGNATURE OF REGISTERED PROFESSIONAL ENGINEER

REGISTRATION NUMBER: 15812

STATE: Connecticut [SEAL]

DATE: November 29, 2017

4. INTRODUCTION

As authorized by the Federal Water Pollution Control Act, the Environmental Protection Agency (EPA) has promulgated regulations for addressing Oil Pollution Prevention. Those regulations, published in Title 40 CFR, Part 112 of the Code of Federal Regulations, establish procedures, methods, equipment, and other requirements to prevent the discharge of oil into navigable waters or adjoining shorelines.

Oil Pollution Prevention (SPCC) regulations in 40 CFR Part 112 establish requirements for the preparation and implementation of Spill Prevention, Control, and Countermeasure (SPCC) Plans. SPCC Plans are designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules. The purpose of an SPCC Plan is to form a comprehensive spill prevention program that minimizes potential for discharges. The SPCC Plan must address all relevant spill prevention, control and countermeasures necessary at the specific facility. Compliance with the SPCC regulations does not in any way relieve the owner or operator of a facility from compliance with other federal, state, or local laws.

A. GENERAL APPLICABILITY [§112.1]

SPCC requirements apply to the owner or operator of a facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, using or consuming oil and oil products, which due to its location could reasonably be expected to discharge oil in quantities that may be harmful into or upon navigable waters or adjoining shorelines. Such a facility may have oil in:

1. Any aboveground container
2. Any completely buried tank
3. Any container that is used for standby, seasonal or temporary storage (not permanently closed)
4. Any bunkered or partially buried tank

A facility that, due to its location, could not reasonably be expected to have a discharge of oil would not be subject to SPCC requirements. Such a determination must be based solely upon consideration of the geographical location aspects of the facility, such a proximity to navigable waters or adjoining shorelines, land contour, drainage, etc... without the consideration of any manmade features such as dikes, equipment, or other structures which may serve to restrain, hinder, contain, or otherwise prevent a discharge.

Electric generating facilities may store or use oil in drums, bulk storage tanks, and oil-filled operational equipment. The total capacity of all storage vessels with a capacity of 55 gallons or more must be considered when determining applicability of the SPCC regulations to the facility.

A SPCC Plan has been prepared for this facility because it stores / uses oil in the following quantities:

- Completely buried oil storage capacity of 42,000 gallons or more that are not currently subject to underground storage tank regulations in 40 CFR Part 280 and are not permanently closed, and/or

- An aggregate storage capacity of 1,320 gallons or more in containers of 55-gallon capacity or more

Lists of bulk storage tanks and oil-filled operational equipment at the facility is included in Tables 1 and 2, respectively.

B. DEFINITIONS [§112.2]

The following are key definitions applicable to electric generating facilities in SPCC planning:

Bulk storage container – any container used to store oil (oil-filled operational equipment is not a bulk storage container)

Contract or other approved means – any of the following:

1. A written contractual agreement with an oil spill removal organization that identifies and ensures the availability of the necessary personnel and equipment within appropriate response times; and/or

2. A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times; and/or

3. Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic area; and/or

4. Any other specific arrangement approved by the Regional Administrator upon request of the owner or operator.

Discharge - includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil (see §112.2 for exclusions)

Navigable waters – as defined by the Federal Water Pollution Control Act, and includes a broad range of waters, including but not limited to rivers, streams, tributaries, wetlands, ponds, lakes, and seas (see §112.2 for detailed definition).

Oil-filled operational equipment - equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Oil-filled operational equipment is not considered a bulk storage container, and does not include oil-filled manufacturing equipment (flow-through process). Examples of oil-filled operational equipment include, but are not limited to, hydraulic systems, lubricating systems (*e.g.*, those for pumps, compressors and other rotating equipment, including pump jack lubrication systems), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, and other systems containing oil solely to enable the operation of the device

Storage capacity – shell capacity of container

5. SPCC PLAN PREPARATION & IMPLEMENTATION [§112.3]

Owners or operators of affected facilities must prepare SPCC Plans in accordance with §112.7 and §112.8. New facilities must prepare and implement the plan before beginning operations. The Plan shall be certified by a licensed Professional Engineer. Laws governing the practice of engineering vary by state, but in general, SPCC Plans must be certified by a person that is registered to practice engineering in the state in which the affected facility is located. Professional Engineer certification in no way relives the owner or operator of a facility of his duty to prepare and fully implement the Plan in accordance with the requirements of 40 CFR Part 112.

Facilities maintain a copy of the SPCC Plan on site. If the facility is attended fewer than four (4) hours per day, a copy of the Plan must be kept at the nearest field office. Copies of the SPCC Plan for this facility are maintained in the following location(s): *control room, plant manager's office and compliance coordinator's office.* The Plan will be available for on-site review by federal or state regulatory agencies.

A. AMENDMENT OF SPCC PLAN BY REGIONAL ADMINISTRATOR [§112.4]

Whenever the facility has discharged more than 1,000 gallons of oil in a single discharge, or more than 42 gallons of oil in each of two discharges within a 12-month period, the following must be submitted to the Regional Administrator (regional office of the federal EPA) within 60 days:

1. Name of the facility;
2. Name of the owner or operator;
3. Location of the facility;
4. Maximum storage or handling capacity of the facility and normal daily throughput;
5. Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
6. An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
7. The cause of such discharge, including a failure analysis of the system or subsystem in which the failure occurred;
8. Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
9. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

The report must be submitted to the Regional Administrator and also to the state agency in charge of oil pollution control activities by certified mail as follows:

EPA New England, Region 1
5 Post Office Square, suite 100
Boston, MA 02109-3912

CT. Department of Energy & Environmental Protection
Office of Pollution Prevention
79 Elm Street
Hartford, CT 06106-5127

In the event that the Regional Administrator determines that the SPCC Plan does not meet the requirements of 40 CFR Part 112, amendment of the Plan may be required to include further procedures, methods, equipment, and other requirements necessary to prevent and to contain discharges from the facility. If amendment is required, it must be completed with 30 days of notification by the Regional Administrator and implemented within six months of the amendment.

As required by §112.3(d), technical changes to the Plan must be certified by a Professional Engineer.

B. AMENDMENT OF SPCC PLAN BY OWNERS/OPERATORS [§112.5]

This SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge. Examples of changes that may require amendment of the Plan include, but are not limited to: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility. Such amendments must be prepared within six months of the change and implemented within six months following preparation of the amendment.

The facility must complete a review and evaluation of the SPCC Plan at least once every five years from the date of the last review. The Plan must be amended within six months of the review to include more effective prevention and control technology if the technology has been field- proven at the time of the review and will significantly reduce the likelihood of a discharge from the facility. Any amendments must be implemented as soon as possible, but not later than six months following preparation of the amendments. Completion of the review and evaluation must be documented, and a statement signed as to whether the plan will be amended.

As required by §112.3(d), technical changes to the Plan must be certified by a Professional Engineer. A Record of Plan Review and Revision is included in Section 1. of the Plan.

C. QUALIFIED FACILITY PLAN REQUIREMENTS [§112.6]

Facilities meeting certain requirements are considered qualified facilities and may self-certify the SPCC Plan. A qualified facility is one that meets the following Tier I or Tier II qualified facility criteria:

1. A Tier I qualified facility meets the qualifications for a Tier II facility, and has no individual aboveground oil storage container with a capacity greater than 5,000 U.S. gallons.

2. A Tier II qualified facility is one that has had no single discharge exceeding 1,000 U.S. gallons or no two discharges each exceeding 42 U.S. gallons within any twelve-month period in the three years prior to the SPCC Plan self-certification date, and has an aggregate aboveground oil storage capacity of 10,000 U.S. gallons or less.

This facility does not meet the criteria for either a Tier I or Tier II qualified facility and therefore has prepared the SPCC Plan to be certified by a Professional Engineer.

6. SPCC PLAN – GENERAL REQUIREMENTS [§112.7]

This SPCC Plan is prepared in accordance with good engineering practices and has the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. The Plan follows the sequence specified in §112.7 and therefore does not require a regulatory cross-reference.

A. SPCC PLAN CONFORMANCE [§112.7A) (1) AND (2)]

This SPCC Plan conforms with, and does not deviate from, the requirements of 40 CFR Part 112.

B. FACILITY LAYOUT [§112.7(A) (3)]

Towantic Energy Center (TEC) is located in the State of CT, on the northern portion of the town of Oxford near the boundary with the Town of Middlebury. The Facility is located on Woodruff Hill road and bounded by a Connecticut Light and Power transmission right-of-way to the west; the Algonquin interstate natural gas pipeline system owned by Spectra can be found to the north; additionally, a Spectra-owned gas compression station is located in the northern portion of the Town of Oxford, near the east and lot 9B and Spectra's gas compression station access road to the south.

Note: TEC does not have operational responsibilities for the Spectra-owned gas compression station

Figure 1 of the SPCC shows the site boundary on the United States Geological Survey (USGS) map for the general area. And Figure 2 provides the site boundary and area on an aerial photograph.

C. FACILITY DESCRIPTION

All Facility equipment described in this section is presented either on the Site Plan, Figure 3 and or on the Stormwater management & Grading Plan, Figure 4.

The combined-cycle facility can generate a peak of 785 megawatts (MW) of electricity. On an average ambient day (59°F ambient dry bulb temperature) approximately 524.5 MW of this power is produced using two combustion turbine generator sets. Exhaust heat from the combustion turbines is sent to heat recovery steam generators (HRSGs) to produce steam to drive a steam turbine generator. The steam turbine generator provides approximately 280.5 MW, the

balance of the Facility's gross output, approximately 20 MW are consumed within the Facility to power necessary Facility systems, which leaves a net Facility electric output of 785 MW.

The HRSGs include a natural gas-fired "duct burner" (supplemental firing system). The duct burners allow for additional electrical production during select periods. For environmental purposes, the Facility is equipped with state of the art emissions control technology. This equipment includes selective catalytic reduction technology (SCR) and an oxidation catalyst to control oxides of nitrogen (NOx) and carbon monoxide (CO) emissions, respectively. Exhaust steam from the steam turbine is cooled and condensed and then returned to the HRSG using an air-cooled condenser.

The facility employs approximately 25 employees, is staffed 24-hour a day, 7 days a week and generates electricity on an as needed basis per market demands and energy usage.

The plant utilizes natural gas to generate power using two combustion gas turbine generators and a steam turbine generator and is capable of burning fuel oil (ultra-low sulfur diesel) when natural gas is unavailable. The plant handles stores and uses petroleum products in the form of diesel fuel and lubricating (lube) oil. Oil filled electrical transformers are utilized for the production and distribution of electricity. There is a 21,770-gallon tank of 19.5% aqueous ammonia used for the Selective Catalytic Reduction (SCR) of Nitrogen Oxides (NOx). There are also smaller quantities of a variety of water treatment chemicals used to condition boiler feed water and cooling tower water to support the power generation operations. These non-petroleum storage areas will be identified on the site plan drawing. However, details associated with the management and operation of these areas are not covered in this plan.

The following is general information about the facility:

Facility Name:	Towantic Energy Center (TEC)
Facility Type:	Electric Generating Facility, SIC Code 4911, NAICS Code 221112
Location / Address:	16 Woodruff Hill Road, Oxford, CT 06478
Latitude / Longitude:	41° 28' 58" N / 73° 07' 21" W
Owner Name:	CPV Towantic, LLC c/o Competitive Power Ventures, Inc.
Owner Address:	50 Braintree Hill Office Park, Suite 300, Braintree, MA 02184

The facility is located on two adjacent lots totaling 26.5 acres at the northern end of Woodruff Hill Road in Oxford. The property is bordered to the east and south by the Algonquin Gas Transmission Facility (Lot 9 of the Woodruff Hill Industrial Park Subdivision), to the west by Woodruff Hill Road and Lots 6, 7 and 8 of the Woodruff Hill Industrial Park Subdivision and to the north by Open Space of the Woodruff Hill Industrial Park Subdivision.

There is an Algonquin Gas Transmission Company easement along the northern border of the property as well as a CL&P easement for three existing 115-kV overhead transmission lines which run through the property.

There are no 100-year flood plains located on the site as defined by FEMA Flood Insurance Rate Mapping.

The facility site is located within the Little River Watershed Drainage Basin Number 6920. This watershed is located within the Naugatuck Regional Basin within the Housatonic Major Basin, identified on the Connecticut Department of Environmental Protection Atlas of Public Water Supply Sources and Drainage Basins.

The site is located approximately 0.4 mile from the headwater drainage of Jacks Brook. Two storm water detention ponds have been incorporated into the design of the facility, one located on the northeast corner of the site and another located on the southeast corner, to contain and control rainwater runoff. All storm water drainage within the power block of the site is routed to collection basins which route the water to one of the ponds. Generally, the topography of the power block area has been designed to direct flow from the northern half of the site to the northeastern pond and flow from the southern half of the site to the southeastern pond. As such, these ponds can also provide protection for emergency spills that could occur on-site. Should a significant discharge of petroleum product be directed to either pond, immediate measures will be taken to stop potential releases from the ponds by the installation of pre-fabricated pipe plugs or caps. This action will provide an ultimate collection area for significant petroleum spill events, providing a means of containment prior to release from the site.

D. OIL STORAGE CAPACITY [§112.7(A) (3) (I)]

The facility has several regulated oil and petroleum storage installations that are required to comply with SPCC planning. Including the following:

Oil-filled operational equipment

Equipment that includes an oil storage container (or multiple containers and associated piping intrinsic to the operation of the equipment) in which the oil is present solely to support the function of the apparatus or the device. It is not considered a bulk storage container and does not include oil-filled manufacturing equipment (flow-through process). Some examples include, but are not limited to: hydraulic systems, lubricating systems (e.g., those for pumps, compressors, and other rotating equipment including pump jack lubrication systems), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, and other systems containing oil solely to enable the operation of the device. Oil filled operational equipment with a volume of 55 gallons or greater are listed in Table 2.

Bulk Storage

The facility will use ultra-low sulfur distillate (ULSD) to ensure availability of the plant's output during periods of critical need. ULSD will be stored in a 1.5 million gallon, 48-foot tall tank with steel dike secondary containment designed to hold 110% of the tank's capacity. Fuel oil storage will be in accordance with state and federal requirements, including separation from flammable materials. The Department of Transportation Segregation and Incompatibility Chart (49 CFR 177.848 - Segregation of hazardous materials) will be used to ensure proper storage and segregation.

The ULSD tank will be inspected as per API 653 inspection requirements to confirm the tank is in good condition. The adjacent fuel oil unloading station will be designed to allow the unloading of three trucks simultaneously, located within a curbed unloading area designed to contain any spills. Other ULSD storage areas will be the 3000 gallon "belly"

tank for the emergency diesel generator and the 460 gal horizontal cylindrical tank for the diesel engine fire pump. The ULSD storage and unloading area is highlighted in Figures 3,4 and 7.

Other than the refilling process, handling of ULSD on-site should also be minimal. The refilling process should only be completed by trained personnel with the appropriate equipment and personal protective equipment and will be observed by plant operations personnel at all times. Spills or leaks will be immediately contained and reported in accordance with CT DEEP and EPA regulations.

Diesel Generator

TEC will operate a 1,500kW diesel emergency engine in order to provide emergency back-up power to the facility. The generator will not be connected to the electric grid and will only be utilized as an emergency engine. The diesel engine will be equipped with the safety measures to assist in maintaining the integrity of the installation.

The diesel generator will be furnished with an outdoor enclosure to shield the engine and the belly tank (described below) from any equipment degradation due to unforgiving elements. The enclosure will also help to minimize the risk of lube oil and coolant leakage from the engine.

The diesel generator will also have a "belly" tank that makes up the bottom of the skid that contains the diesel fuel. The generator and engine will sit right on top of the belly tank. Care will be taken to ensure that the belly tank is isolated as much as possible from the generator. This is done by placing springs between the generator and the base tank and by using flexible hose connections to feed fuel to the engine. The belly tank is built as a structural component to not only withstand vibration but also to support the entire weight of the engine generator.

The belly tank is a double walled tank with a rupture basin (secondary wall enclosure) between the generator and the tank. The double wall containment system with rupture alarm prevents leaks, and the high fuel level alarm allows for optimal fuel levels and peak tank capacity.

The fully contained tank allows total containment of system fluid under pressure in the event of a primary tank failure. The tank is designed in accordance with UL 142 "Steel Aboveground Tanks for Flammable and Combustible Liquids". The diesel generator area is highlighted in Figures 3,4 and 10.

Diesel storage tank for fire pump

460 gal horizontal cylindrical tank for the diesel engine fire pump. This tank is a double walled steel tank located within the fire pump building. The fire pump area is highlighted in Figures 3,4 and 8.

Used oil tank and 55 Gallon Drums

A small tank for the collection of used oil will be located within a fully enclosed, pre-fabricated storage building that is equipped with secondary containment adequate for contents of the tank. 55-gallon drums of both new and used product will also be stored

within this building. 55-gallon drums will also be temporarily located where needed within the power block to facilitate maintenance and operations activities. These drums will always be located on pallets that provide adequate secondary containment.

Plant Oil Capacity Inventory

A complete listing of all bulk oil storage containers and oil-filled operational equipment is detailed in Table 1 and Table 2 respectively.

E. DISCHARGE PREVENTION MEASURES [§112.7(A) (3) (II)]

All large oil storage tanks have sized secondary containment. Oil-filled operational equipment within the turbine building is located in areas within the building that drain through the plant drain system designed to collect potential oily residues. This includes floor drains, equipment drains and containment areas for equipment using oil. The plant drains then flow to an oil/water separator designed to separate and contain oil that may be discharged from any oil-filled operational equipment or piping in areas which do not have secondary containment. Treated, non-sanitary waste water is combined with sanitary waste water and then pumped from the oil/water separator effluent chamber into the permitted discharge line to the Town of Oxford sewer system.

Oil Filled Operational equipment such as smaller transformers and the combustion turbine lube oil tanks are located outside in areas where potential leaks would be managed by the general site containment and diversion measures.

Non-destructive integrity evaluation will be performed periodically on the large fuel oil bulk storage tank. The outside of the bulk storage tank secondary containment area will be visually inspected monthly and the interstitial space between the bulk storage tank and the secondary containment area will be visually inspected annually and evaluated following a schedule in accordance with the American Petroleum Institute (API) Standard API 653 tank inspection standard as described in this Plan. All buried fuel oil piping from the bulk tank to the Turbine Building is double-wall pipe with continuously monitored interstitial leak detection and a corrosion resistant Fiberglass Reinforced Plastic (FRP) outer pipe. The interstitial leak detection system will be checked on a monthly basis to ensure proper operation.

Oil-filled operational equipment, shop fabricated double wall tanks and 55-gallon storage drums do not require non-destructive integrity evaluation. In accordance with accepted industry practice, monthly visual inspection provides an effective means of verifying shop-built container integrity where corrosion poses a minimal risk of failure and all sides are visible or have primary container leak detection. Corrosion poses minimal risk of failure for drums which are single-use and remain on site for a relatively short duration and for double wall tanks which are shop fabricated with double wall construction.

The lube oil drum storage area within the dedicated combustible material pre-fabricated storage building and shop fabricated double wall storage tanks will have daily walkthrough inspections during operator rounds and formal monthly visual inspections. Any leakage from the primary double-wall tanks (e.g. the Belly tank on the diesel generator or diesel fire pump storage tank) would be detected through monitoring of the interstitial space performed continuously or following monthly inspections. Any leakage from the secondary shell would be detected visually during scheduled visual inspections by facility personnel. Storage drums are to be elevated on spill containment pallets and therefore any leak would be readily detected by facility personnel before they can cause a discharge. The scope of inspections and procedures will be covered in

the training provided to employees involved in handling oil at the facility. The routine inspections focus specifically on detecting any change in tank walls or piping conditions or signs of product leakage from the tanks, piping systems, and appurtenances.

In accordance with inspection procedures outlined in this plan, if signs of deterioration of a tank are observed by facility personnel, the tank is to be inspected by a tank inspector certified by the American Petroleum Institute (API) or Steel Tank Institute (STI) to assess its suitability for continued service, according to applicable standards (e.g., API Standard 653 for bulk tanks or STI Standard SP-001).

The physical configuration of the double-wall storage tanks, combined with monthly and annual inspections, ensures that any small leak that could develop in a tank shell will be detected before it can become significant, escape secondary containment, and reach the environment.

The facility is designed to prevent or contain spills or releases from oil-containing equipment should such incidents occur. Sized Containment is provided for all large bulk oil storage tanks and large oil-filled operational equipment to prevent release of oil to the environment (e.g. soil, storm water, surface water, groundwater)

The facility is maintained and operated using best management practices to reduce the potential for oil to be discharged and contaminate soil, storm water, surface water, or groundwater. Plant personnel are trained in proper operation of equipment, as well as procedures for transfer of oil. Spill cleanup kits are maintained at key locations throughout the facility to allow rapid response and cleanup.

F. DISCHARGE OR DRAINAGE CONTROLS [§112.7(A) (3) (III)]

Oil is contained in bulk storage tanks, 55-gallon drums, equipment reservoirs, and electrical transformers. All of the bulk storage tanks and most of the oil-filled operational equipment are provided with secondary containment or building structures that will prevent release to the environment. Containment for equipment that is outdoors and exposed to the elements is sized to also allow sufficient freeboard for precipitation except for the small transformers and gas compressors. In the event of equipment leak or rupture, oil would be retained in secondary containment structures until removed by plant personnel or a spill cleanup organization. Containment for spills associated with the small transformers or gas compressors is provided within the general site containment. Routine inspections of this equipment minimizes the potential of a release occurring undetected.

The site is located approximately 0.4 mile from the headwater drainage of Jacks Brook. Two storm water detention ponds have been incorporated into the design of the facility, one located on the northeast corner of the site and another located on the southeast corner, to contain and control rainwater runoff. All storm water drainage within the power block of the site is routed to collection basins which route the water to one of the ponds. Generally, the topography of the power block area has been designed to direct flow from the northern half of the site to the northeastern pond and flow from the southern half of the site to the southeastern pond. As such, these ponds can also provide protection for emergency spills that could occur on-site. Should a significant discharge of petroleum product be directed to either pond, immediate measures will be taken to stop potential releases from the ponds by the installation of pre-fabricated pipe plugs or caps. This action will provide an ultimate collection area for significant petroleum spill events, providing a means of containment prior to release from the site.

All spills will be reported immediately to the control room for spill management to be coordinated. Following a spill, the source of the spill will be located, and corrective action shall be taken immediately to contain it. Temporary containment and clean-up of all spills will follow a strict set of protocols depending on the type and volume of material spilled.

In the event of a spill during refueling or refilling, oil dry and absorbent pads will likely be placed on any spills to contain and collect any fluid. The 55-gallon drum spill kits to be deployed have an absorption capacity of approximately 40 gallons of oil. Shovels and other hands tools will also be used to collect the materials in drums for proper disposal.

In the event of fuel spilled due to storage tank, piping, and/or valve failure, actions will be quickly taken to contain any fluid not immediately gathered into the diked/bermed areas surrounding the aboveground storage tank. Once contained, a clean-up contractor would be contracted to collect the released material and any contaminated soil.

G. DISCHARGE DISCOVERY, RESPONSE, AND CLEANUP [§112.7(A) (3) (IV)]

This section describes the response and cleanup procedures in the event of an oil or chemical discharge. Refer to the Facility Response Plan (FRP) for more detailed procedures.

The uncontrolled discharge of oil or chemicals to groundwater, surface water, or soil is prohibited by state and federal laws. Immediate action must be taken to control, contain, and recover discharged product. Should an oil release occur, the following actions should be completed in a safe yet expeditious manner:

1. NOTIFY the facility Emergency Response Coordinator (ERC) (Qualified Individual) by contacting the control room and provide the location and nature of the spill. This notification must be done regardless of the size of the discharge.

2. For a small [any discharge less than or equal to 2,100 gallons] or medium discharge [36,000 gallons or less] - If you are trained and action is possible without endangering yourself, STOP the product flow by securing pumps, closing valves, etc. Protective equipment should always be worn when attempting to contain or clean up a discharge. At a minimum, eye protection, protective gloves, and protective footwear should be worn.

3. For a large or worst-case discharge [For facilities containing only one aboveground oil storage tank, the worst-case discharge planning volume equals the capacity of the oil storage tank, which at TEC is 1.5 Million Gallons] clearly requiring outside response resources, and for small and medium discharges where action cannot be taken by site personnel without endangering themselves due to a lack of training or protective equipment:

a. ATTEND Injured Personnel if safe to do so.

b. EVACUATE area as necessary;

c. BARRICADE the area from safe distance and deny entry as necessary;

d. PROVIDE critical information to the ERC (Qualified Individual) and outside responders such as personnel injured or trapped, location and spill details, etc.

4. SHUTOFF ignition sources such as motors, electrical circuits, open flames, etc.

5. INITIATE containment activities to stop the flow and spread of the spill. REFER to the SPILL RESPONSE GUIDANCE in the FRP ERAP.

6. The Facility ERC (Qualified Individual) will respond to the location immediately for site assessment and assistance. Upon arriving on the scene, the ERC will inspect the location where the discharge has occurred and determine if there is an immediate threat to human health or safety and whether outside assistance will be required. If necessary, the ERC will activate the Emergency Response Action Plan and make notifications of additional response resources (outside spill contractor, Fire Department, etc.).

Specific emergency response procedures are presented in the FRP. For the purpose of establishing appropriate response procedures, this Plan classifies discharges as either "minor" or "major," depending on the volume and characteristics of the material released.

A list of Emergency Contacts is provided in Section Appendix B. The list will also be posted at prominent locations throughout the facility. A list of discharge response material kept at the facility is provided in the FRP.

H. RESPONSE TO A MINOR/MAJOR DISCHARGE

A "minor" discharge is defined as one that poses no significant harm (or threat) to human health and safety or to the environment. Minor discharges are generally those where:

1. The quantity of product discharged is small (e.g., less than 10 gallons of oil) or is fully contained on an impermeable surface;

2. Discharged material is easily stopped and controlled at the time of the discharge;

3. Discharge is localized near the source;

4. Discharged material is not likely to reach water;

5. There is little risk to human health or safety (e.g., exposure, physical hazards); and

6. There is little risk of fire or explosion (considering flash point, combustible gas concentrations, confinement, the presence of potential ignition sources and the availability of equipment that will not cause ignition).

Minor discharges can usually be cleaned up by TEC personnel that have been trained in the hazards associated with the material they would be addressing, if they can do so without endangering themselves. The following guidelines apply:

1. NOTIFY the facility Emergency Response Coordinator (ERC) (Qualified Individual) by contacting the control room and provide the location and nature of the spill. This notification must be done regardless of the size of the discharge.

2. Under the direction of the *ERC*, have unnecessary personnel leave the area, don personal protective equipment, barricade the area if necessary to prevent unauthorized vehicle or foot access, remove ignition sources, use spark/explosion proof equipment and monitor for combustible gases (if a flammable liquid), stop the source of the release, and contain the discharge with discharge response materials and equipment (e.g., drain mats, absorbent materials, etc.). Place discharge debris in properly labeled waste containers The ERC will ensure completion of the discharge notification form (**Appendix C**).

A "major" discharge is defined as one that cannot be safely controlled or cleaned up by facility personnel, such as when the discharge is large enough to spread beyond the immediate discharge area, the discharged material enters surface water, the discharge requires special equipment or training to clean up, the discharged material poses a hazard to human health or safety or there is a danger of fire or explosion.

In the event of a major discharge the operator on the scene or any plant individual who first observes the discharge must immediately notify the control room which is staffed 24 hours a day.

The plant control room staff will notify the ERC or designated alternate as identified on Appendix B.

The individuals listed on Appendix B are authorized to function as the emergency coordinator and can be contacted through the plant communication system, plant radio or by calling their cell telephone number during off shifts or weekends. This notification must be done regardless of the size of the discharge. At the time of the notification, the person making the notification should communicate the estimated volume of the discharge.

All workers must immediately evacuate the discharge site via the designated exit routes and move to the designated staging areas at a safe distance from the discharge.

The ERC (or alternate ERC) will activate the FRP which includes procedures for notification of medical assistance if workers are injured, police and fire, spill response and cleanup contractors.

The ERC (or alternate ERC) will contact the Connecticut Department of Environmental Protection Emergency and Spill Response Division and the National Response Center and record the call on the Discharge Notification form in Appendix C.

The ERC (or alternate ERC) coordinates cleanup and obtains assistance from a cleanup contractor or other response organization as necessary.

Specific response actions are defined in the FRP.

I. RECOVERED MATERIALS DISPOSAL [§112.7(A) (3) (V)]

Wastes resulting from a minor discharge response will be containerized in impervious drums, bags, or buckets. The ***Compliance Coordinator*** will characterize the waste for proper disposal and ensure that it is removed from the facility by a licensed waste hauler in a timely manner and taken to a permitted recycling or treatment, storage and disposal facility.

Wastes resulting from a major discharge response will be removed and disposed of by the spill response contractor. All wastes will be labeled, stored, and disposed of in accordance with applicable federal and state waste disposal regulations. NAES Environmental Services will be consulted if necessary for assistance in determining waste disposal requirements. In addition, all documentation related to the generation, accounting and ultimate disposal of said materials should be maintained. Any materials sent for off-site disposal, regardless of their waste classification status, should be tracked and documented with a manifest, bill of lading, or invoice as appropriate. This information should be retained to ensure proper cradle to grave management of the spill materials and substantiates proper management of materials generated from a release.

J. CONTACT LIST AND PHONE NUMBERS [§112.7(A) (3) (VI)]

A contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom there is an agreement for response, and appropriate Federal, State, and local agencies who must be contacted in case of a discharge are found in Appendix B.

K. SPILL REPORTING PROCEDURES [§112.7(A) (4)]

In the event of a release, rapid notification of responsible facility personnel, oil spill removal organizations and state and federal regulatory agencies may be essential to protecting the environment in the vicinity of the Facility. Each employee will be trained to recognize emergency situations and shall understand when and how to make the appropriate notifications. TEC shall be responsible for all reporting and documenting reportable quantities of spilled oil and/or hazardous materials. Local authorities (e.g., fire department) will be notified of any major spills. Prompt reporting allows quick response, which may reduce any adverse impacts to human health and the environment.

Each employee is responsible for reporting spills or potential spill situations immediately to the Control Room. It is the control room operator's responsibility to notify the appropriate authorities. A copy of the spill response notification form is included in Appendix C.

The ERC or designee will use the Spill Response Notification Form (Appendix C) for any spill outside an impervious (i.e., concrete) secondary containment area or which poses a threat to human health or the environment to collect spill information and make external notifications to the appropriate authorities as listed in Appendix B. Spills inside impervious containment, which do not pose a threat to human health or the environment and which are promptly cleaned up, are not reportable under current Connecticut regulations, although DEP emergency staff advises reporting all releases as follows:

State of CT Reporting Requirements

Report of Pollution Incident by Petroleum or Chemical Products as required by Chapter 446k, Section 22a-450, of the Connecticut General Statutes.

- the master of any ship, boat, barge or other vessel, or
- the person in charge of any terminal for the loading of any oil or petroleum or chemical liquids or solid, liquid or gaseous products or hazardous wastes, or
- the person in charge of any establishment, or
- the operator of any vehicle, trailer or other machine which by accident, negligence or otherwise causes the discharge, spillage, uncontrolled loss, seepage or filtration of oil or petroleum or chemical liquids or solid, liquid or gaseous products or hazardous wastes, **shall immediately report** such facts to:
- The Department of Energy and Environmental Protection (DEEP), Emergency Response Unit, 860-424-3338 or toll free 1-866-DEP-SPIL (1-866-337-7745), 24 hours/day. Should these numbers become unavailable for any reason, call 860-424-3333.
- Immediately after the spill you are required to report facts such as:
  - the location;
  - the quantity and type of substance, material or waste;
  - the date and the cause of the incident;
  - the name and address of the owner; and
  - the name and address of the person making the report and his relationship to the owner.

Note: Unless specifically requested, the DEEP does not require a written submission when reporting a spill.

EPA Reporting Requirements

In the unlikely event that a spill has reached navigable in "harmful quantities", the Emergency Coordinator or person with any knowledge of such conditions must immediately notify the federal NRC at:

National Response Center (NRC) will be notified by calling (800) 424-8802 in accordance with the requirements of 40 CFR Part 117 and 40 CFR Part 302 as soon as they have knowledge of the release.

> "harmful" to the public health or welfare or the environment of the United States include discharges of oil that: (a) Violate applicable water quality standards; or (b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. (40 CFR 110.3)

When contacting the NRC, the following information should be provided:

1. Time, location, and source of the spill;
2. Type and quantity of material spilled;
3. Cause and circumstances of the spill;
4. Hazards associated with the spill;
5. Personal injuries;
6. Corrective action taken or planned to be taken;

7. Name and telephone number of individual reporting the spill; and

8. Any additional pertinent information.

In addition, the EPA Region I Response Center should be contacted immediately for any spill that reaches navigable waters (per 40 CFR Section 110.6) at the following number:

EPA Region I Hotline

(888) 372-7341 (24 hours per day)

Additional information must be submitted whenever the facility discharges (as defined in 40 CFR 112.1(b)) more than 1,000 gallons of oil in a single event, or more than 42 gallons of oil in each of two discharge incidents within a 12- month period. In those circumstances, the following information, along with a copy of this plan, must be submitted to the EPA Regional Administrator and to CT-DEP within 60 days:

1. Name of the facility;

2. Name of the owner/operator;

3. Location of the facility;

4. Maximum storage or handling capacity and normal daily throughput;

5. Corrective action and countermeasures taken, including a description of equipment repairs and replacements;

6. Description of facility, including maps, flow diagrams, and topographical maps;

7. Cause of the discharge(s) to navigable waters and adjoining shorelines, including a failure analysis of the system and subsystem in which the failure occurred;

8. Additional preventive measures taken or contemplated to minimize possibility of recurrence; and

9. Other pertinent information requested by the Regional Administrator.

L. SPILL RESPONSE PROCEDURES [§112.7(A) (5)]

This section describes the response and cleanup procedures in the event of an oil or chemical discharge. Refer to the Facility Response Plan (FRP) for more detailed procedures as it especially pertains to medium or a worst-case discharge from the above ground storage tank.

The uncontrolled discharge of oil or chemicals to groundwater, surface water, or soil is prohibited by state and federal laws. Immediate action must be taken to control, contain, and recover discharged product. Should an oil release occur, the following actions should be completed in a safe yet expeditious manner:

1. NOTIFY the facility Emergency Response Coordinator (ERC) (Qualified Individual) by contacting the control room and provide the location and nature of the spill. This notification must be done regardless of the size of the discharge.

2. For a small or medium discharge - If you are trained and action is possible without endangering yourself, STOP the product flow by securing pumps, closing valves, etc. Protective equipment should always be worn when attempting to contain or clean up a discharge. At a minimum, eye protection, protective gloves, and protective footwear should be worn.

3. For a large or worst-case discharge clearly requiring outside response resources, and for small and medium discharges where action cannot be taken by site personnel without endangering themselves due to a lack of training or protective equipment:

   a. ATTEND to Injured Personnel if safe to do so.

   b. EVACUATE area as necessary;

   c. BARRICADE the area from safe distance and deny entry as necessary;

   d. PROVIDE critical information to the ERC (Qualified Individual) and outside responders such as personnel injured or trapped, location and spill details, etc.

4. SHUTOFF ignition sources such as motors, electrical circuits, open flames, etc.

5. INITIATE containment activities to stop the flow and spread of the spill. REFER to the SPILL RESPONSE GUIDANCE in the FRP ERAP.

6. The Facility ERC (Qualified Individual) will respond to the location immediately for site assessment and assistance. Upon arriving on the scene, the ERC will inspect the location where the discharge has occurred and determine if there is an immediate threat to human health or safety and whether outside assistance will be required. If necessary, the ERC will activate the Emergency Response Action Plan and make notifications of additional response resources (outside spill contractor, Fire Department, etc.).

Specific emergency response procedures are presented in the FRP. For the purpose of establishing appropriate response procedures, this Plan classifies discharges as either "minor" or "major," depending on the volume and characteristics of the material released.

A list of Emergency Contacts is provided in Section Appendix B. The list will also be posted at prominent locations throughout the facility. A list of discharge response material kept at the facility is provided in the FRP.

M. RESPONSE TO A MINOR DISCHARGE

A "minor" discharge is defined as one that poses no significant harm (or threat) to human health and safety or to the environment. Minor discharges are generally those where:

1. The quantity of product discharged is small (e.g., less than 10 gallons of oil) or is fully contained on an impermeable surface;

2. Discharged material is easily stopped and controlled at the time of the discharge;

3. Discharge is localized near the source;

4. Discharged material is not likely to reach water;

5. There is little risk to human health or safety (e.g., exposure, physical hazards); and there is little risk of fire or explosion (considering flash point, combustible gas concentrations, confinement, the presence of potential ignition sources and the availability of equipment that will not cause ignition). Minor discharges can usually be cleaned up by TEC personnel, if they can do so without endangering themselves.

6. The operator on the scene or any plant individual who first observes the discharge must immediately notify the control room which is staffed 24 hours a day. The control room staff will notify the ERC or designated alternate as identified in Appendix B.

The following guidelines apply:

1. NOTIFY the facility Emergency Response Coordinator (ERC) (Qualified Individual) by contacting the control room and provide the location and nature of the spill. This notification must be done regardless of the size of the discharge.

2. Under the direction of the ***Compliance Coordinator***, have unnecessary personnel leave the area, don personal protective equipment, barricade the area if necessary to prevent unauthorized vehicle or foot access, remove ignition sources, use spark/explosion proof equipment and monitor for combustible gases (if a flammable liquid), stop the source of the release, and contain the discharge with discharge response materials and equipment (e.g., drain mats, absorbent materials, etc.). Place discharge debris in properly labeled waste containers The ***Compliance Coordinator*** will complete the discharge notification form (**Appendix C**).

3. The ***Compliance Coordinator*** will complete the discharge notification form (**Appendix C**).

N. RESPONSE TO A MAJOR DISCHARGE

Specific response actions are defined in the FRP. A "major" discharge is defined as one that cannot be safely controlled or cleaned up by facility personnel, such as when:

1. The discharge is large enough to spread beyond the immediate discharge area;

2. The discharged material enters surface water;

3. The discharge requires special equipment or training to clean up;

4. The discharged material poses a hazard to human health or safety; or

5. There is a danger of fire or explosion.

6. In the event of a major discharge, the following guidelines apply:

7. The operator on the scene or any plant individual who first observes the discharge must immediately notify the control room which is staffed 24 hours a day. The control room staff will notify the ***Compliance Coordinator*** or designated alternate as identified in **Appendix B**.

The individuals listed in Appendix B are authorized to function as the emergency coordinator and can be contacted through the plant communication system or by calling their cell telephone number during off shifts or weekends. This notification must be done regardless of the size of the discharge. At the time of the notification, the person making the notification should communicate the estimated volume of the discharge. All workers must immediately evacuate the discharge site via the designated exit routes and move to the designated staging areas at a safe distance from the discharge. Staging areas are included on the facility diagram and designated exit routes are posted in common areas of the facility.

The Compliance Coordinator (or alternate ERC) will activate the FRP which includes procedures for notification of medical assistance if workers are injured, police and fire, spill response and cleanup contractors.

The Compliance Coordinator (or alternate ERC) will contact the Connecticut Department of Environmental Protection Emergency and Spill Response Division and the National Response Center and record the call on the Discharge Notification form in Appendix C.

The Compliance Coordinator (or alternate ERC) coordinates cleanup and obtains assistance from a cleanup contractor or other response organization as necessary.

O. DISCHARGE SCENARIOS [§112.7(B)]

Tables 1 and 2 present expected volume, discharge rate, general direction of flow in the event of equipment failure or other errors, and means of secondary containment and/or spill mitigation for scenarios that could result in release outside the buildings at different parts of the facility where oil is stored, used, and handled.

Potential spills that might occur during unloading or normal operations would be expected to occur within concrete or stone covered unloading or process secondary containment areas.

P. SPILL CONTAINMENT [§112.7(C)]

Methods of secondary containment at this facility include a combination of structures (e.g., dike, berm, concrete curbs, steel containment wall and built-in double-wall secondary containment), drainage systems (e.g., Oil/Water Separator), and land-based spill response (e.g., drain covers, sorbents) to prevent oil from reaching the land, offsite resources and in an extreme case, navigable waters and adjoining shorelines:

1. **Steel containment wall** – A steel wall has been constructed around the main oil storage tank designed to contain 110% of the tank capacity.

2. **Double-Wall Tank Construction** – Double wall above ground storage tanks are used for Fire Water Fuel Oil Tank and the Emergency Diesel Generator all designed to contain the tank contents.

(Bulk Storage Tank Area). The storm water collected in these areas is only drained from the bulk storage areas to the storm water system after inspection of the retained water to confirm that no visible sheen is present.

3. **Oil-filled operational equipment** within the turbine building is located in areas within the building that drain through the plant drain system designed to collect potential oily residues. This includes floor drains, equipment drains and containment areas for equipment using oil. The plant drains then flow to an oil/water separator designed to separate and contain oil that may be discharged from any oil-filled operational equipment or piping in areas which do not have secondary containment. Treated, non-sanitary waste water is combined with sanitary waste water and then pumped from the oil/water separator effluent chamber into the permitted discharge line to the Town of Oxford sewer system.

The Oil/Water Separator has a total capacity of 2000 gallons, an oil capacity of up to 1420 gallons and a design flow rate of 200 gallons per minute. The Oil/Water Separator is inspected monthly as part of the scheduled inspection to check the level of water within the separator and measure the depth of bottom sludge and floating oils. Floating oil is removed by a licensed waste disposal firm when it reaches the high oil level alarm point. An outlet shutoff valve automatic closes in the event of a high-high oil level condition (at storage volume of 755 gallons).

For chemical storage tanks and totes:

1. Dikes/Sumps – All chemical drums and totes are located within buildings in containment areas constructed with concrete base and walls designed to contain at least 110% of the tank capacity. Oil filled equipment:

2. Oil Filled Transformer Concrete Containment Dikes – The large capacity electric transformers (oil filled electrical equipment) are located in concrete secondary containment structures, which contain any oil that may be released. These areas will be visually inspected before being pumped out to drain to area storm inlets and downstream storm water catch basins to prevent any oil release. Smaller capacity transformers have not been provided specific sized secondary containment. These transformers rely on general site containment design and daily inspections to ensure that any potential leaks are immediately observed and actions taken as needed to avoid offsite release.

3. Operational Equipment within the Turbine Building Containment – Many areas with equipment containing significant amounts of oils are diked or curbed to locally contain oil spills. These catchment areas are not exposed to precipitation. Larger operational equipment (i.e., Lube Oil Reservoirs) have low oil level alarms that will alert operators to a potential leak and higher pressure supply piping encased in lower pressure return piping. All building drains in areas subject to potential oil discharge from equipment are routed to the Oil/Water Separator which separates and detains any oil. Best Management Practices are used to minimize the amount of solids and oil that flow into the Oil/Water Separator. Facility personnel are instructed to avoid spills and address small spills using sorbents to minimize runoff of oil into the Oil/Water Separator.

4. Fuel Gas Compressor and Conditioning Skids – These skids include oil filled operational equipment that continuously remove traces of condensed oil and water

in small process vessels. Levels in these vessels are monitored and periodically drained to tanks. The material will be properly characterized and disposed accordingly.

Q. NON-BULK STORAGE AREAS

1. Drum Storage and Oil Dispensing Areas. Up to 20 drums of fresh oil and used oil may be stored inside the Administration and Maintenance Building or Turbine Building and are not exposed to precipitation. A small tank for the collection of used oil will be located within a fully enclosed, pre-fabricated storage building that is equipped with secondary containment adequate for contents of the tank. 55 gallon drums of both new and used product will also be stored within this building. 55 gallon drums will also be temporarily located where needed within the power block to facilitate maintenance and operations activities. These drums will always be located on pallets that provide adequate secondary containment.

   All oil dispensing or used oil drum filling will be conducted on spill containment pallets or horizontal dispensing rack systems with integral spill containment. Each spill pallet or dispensing rack has a capacity greater than the volume of any single 55-gallon drum. The floor of the Turbine Building and the Administration and Maintenance Building is concrete with perimeter curbing or preformed concrete walls that would restrict the flow of oil outside the building. Floor drains flow into the Oil/Water Separator, which is capable of containing any oil discharged from a 55-gallon drum.

   Fuel oil truck spill containment concrete pad / sump - The fuel oil truck unloading station is located on a concrete pad near the fuel oil storage tank. Potential discharges of oil occurring during truck unloading will be diverted along the pad, which is sloped toward the center of the pad. This delivery area is designed to accept four trucks simultaneously with three trucks actually offloading at once with the fourth either preparing to offload or preparing to depart The fuel oil tank containment structure is more than adequate to contain the volume of any delivery truck.

   Piping. All fuel oil piping from the bulk tanks to the Turbine Building is either within secondary containment dikes, the building which drains to an Oil/Water Separator, or double-walled underground piping with continuous leak detection.

   Drip pans. Drip pans will be used after completion of filling before breaking a hose connection to contain small leaks from the piping/hose connections.

   Spill kits and sorbent material. Spill cleanup kits that include absorbent material, drain mats, and other portable barriers are located at the Turbine Building, Water Treatment Building, adjacent to the fuel oil tank and located in the Cooling Tower Chemical Feed Building. Spill kits will be contained in 55 gal or larger plastic UN type drums and will have sufficient absorbent material for approx. 40 gal of oil. Additional routine cleanup supplies (e.g., sorbent pads and clay absorbent) will be located in the maintenance shop area. The spill kits are located within close proximity of the oil product storage and handling areas for rapid deployment should a spill occur. The response equipment inventory for the facility is listed in

Appendix D of this Plan. The inventory is checked monthly to ensure that used material is replenished.

Drainage system. There is a small likelihood that releases could occur in general drainage areas outside of the contained/treated areas described above. This could be due to filling of smaller ASTs described above, transportation on-site, or unexpected activities on-site. Surface drainage is engineered to flow via storm inlets to storm water detention and sedimentation basins located on the southeast corner of the property and the northeastern edge of the property before being discharged from the site. These basins represent another opportunity for on-site mitigation and recovery during spill response efforts, should a spill be discharged outside of engineered containment structures or areas that drain to the Oil/Water Separator. Generally, the topography of the power block area has been designed to direct flow from the northern half of the site to the northeastern pond and flow from the southern half of the site to the southeastern pond. As such, these ponds can also provide protection for emergency spills that could occur on-site. Should a significant discharge of petroleum product be directed to either pond, immediate measures will be taken to stop potential releases from the ponds by the installation of pre-fabricated pipe plugs or caps. This action will provide an ultimate collection area for significant petroleum spill events, providing a means of containment prior to release from the site

R. SPILL CONTAINMENT PRACTICABILITY [§112.7(D)]

TEC's management has determined that secondary containment is practicable at this facility. Sized secondary containment is provided for all bulk storage tanks and large capacity oil-filled operational equipment at this facility. The small containers installed in the gas compressor process (3 in total) do not have secondary containment are managed within the site's general containment design.

S. INSPECTIONS, TESTS, & RECORDS [§112.7(E)]

The checklist provided in Appendix E is used for formally documented monthly inspections by TEC personnel. The monthly inspections cover the following key elements:

1. Observing the exterior of aboveground storage tanks, pipes, and other equipment for signs of deterioration, leaks, corrosion, and thinning.

2. Observing the exterior of portable containers for signs of deterioration or leaks.

3. Observing tank foundations and supports for signs of instability or excessive settlement.

4. Observing the tank fill and discharge pipes for signs of poor connection that could cause a discharge, and tank vent for signs of obstructions and improper operation.

5. Verifying the proper functioning of overfill prevention systems.

6. Checking the inventory of discharge response equipment and restocking as needed.

7. Observing the effluent and measuring the quantity of accumulated oil within the Oil/Water Separator.

All problems regarding tanks, piping, containment, or response equipment must immediately be reported to the ***Compliance Coordinator***. Corrective actions for addressing these problems should be documented via work order or inspection checklist as appropriate. Visible oil or chemical leaks from tank walls, piping, or other components must be repaired as soon as possible to prevent a larger spill or a discharge to land, surface waters or adjoining shorelines. Pooled oil or hazardous/toxic substances is removed immediately upon discovery.

Written monthly inspection records are signed by trained operations or maintenance personnel and maintained for the record and viewing by regulatory personnel.

Periodic Integrity Testing In addition to the above monthly inspections by facility personnel, the main fuel oil storage tank will be periodically evaluated by an outside certified tank inspector following API Standard 653, *Tank Inspection, Repair, Alteration, and Reconstruction* (2009 or latest Edition).

T. PERSONNEL, TRAINING, & DISCHARGE PREVENTION PROCEDURES [§112.7(F)]

The Plant Manager has overall responsibility to ensure that plant personnel are trained and qualified in the operation and maintenance of all facility equipment. Operation and maintenance training includes training every employee responsible for overseeing product delivery and unloading in the safety and health hazards of the materials and the procedure for unloading shipments before working independently.

Management has designated the ***Compliance Coordinator*** to be accountable for oil and hazardous/toxic substances spill prevention in accordance with 40 CFR Section 112.7(f). The ***Compliance Coordinator*** will coordinate and document specific employee training in the operation and maintenance of oil and hazardous/toxic substances pollution prevention equipment, discharge procedure protocols, applicable pollution control laws, rules and regulations and the content of this SPCC Plan. Training is required annually, and new employees are trained during new employee orientation and before they assume responsibility for independently operating equipment that contains oil.

1. Each employee will be instructed in spill prevention and countermeasures procedures and information, including:

2. Tanks are not to be filled without first checking reserves prior to commencing the filling operation.

3. Unloading pump operations are not to continue unless attended constantly by delivery personnel.

4. Fuel oil truck spill containment sump valves are to remain locked in the closed position during the unloading of all fuel oil trucks.

5. Warning signs are strategically placed to remind delivery personnel to remain with their vehicles and disconnect all unloading lines before departing the unloading area.

6. The discharge prevention procedures presented in the SPC/SPCC Plan.

7. Known discharge events or failures, malfunctioning components, and recently implemented precautionary measures, best practices and revisions to the SPCC plan as well as location of SPCC Plans, instructions and phone numbers for the reporting and control of spills in the plant.

8. Associated FRP training covering spill mitigation/response resources available, procedures that may be used to stop a release and contain it (so long as the employees do not endanger themselves) and Qualified Individual notification. Training records will include training materials, list of attendees, date, instructor name and means to confirm trainee understanding. Records will be maintained by the ***Compliance Coordinator.*** The training log form similar to **Appendix F** will be used to document this training.

Additionally, TEC will complete OSHA emergency response training of its emergency response team members and will continue working with the Fire Department to develop an understanding of Facility processes, oil and chemical storage, and confined space entry. TEC will provide emergency response training to all employees, job specific training, and annual emergency response refresher training.

Additionally, training will be provided whenever the following occurs:

1. There are changes to materials or equipment within the Facility;

2. When the Plan is updated;

3. When Employee's responsibility or designated actions under this plan change; and

4. Whenever incidents, events, exercises or drills indicate additional training may be warranted.

U. SECURITY [§112.7(G)]

All sensitive areas of the facility are surrounded by chain link fencing. The entire power block portion of the facility and the fuel oil storage tank area is surrounded by a 6.5 foot tall chain link fence topped with barbed wire. All gates are kept chained and locked with the exception of the main front gate, which is kept closed except during authorized entry. Peripheral buildings containing oil or hazardous/toxic substances are kept locked at all times when they are unattended.

Plant personnel and visitors gain admission through the main gate by use of a two-way communication station. A closed-circuit video camera monitors the front gate. Anyone requesting entrance must first hail the administrative office (business hours) or the control room (at other times) to request access. Additional cameras are stationed throughout the facility to allow visual monitoring of the entire facility from the control room. Plant operations personnel are present in the control room 24 hours per day.

Tank drain valves that will permit direct outward flow of the tank contents are locked in the closed position, and are either capped or plugged. Manual valves on truck unloading hoses are closed when not in service. All unloading hoses are capped when not in service.

The truck unloading station can be viewed by remote cameras from the control room. The facility is well-lighted for night-time visibility. Each operator has been issued a flashlight for areas that may become poorly lit for any reason. Flood lights are mounted in the fuel oil tank area to illuminate the tanks and immediate surrounding area.

V. TANK TRUCK LOADING / UNLOADING [§112.7(H)]

Fuel oil truck spill containment concrete pad / sump - The fuel oil truck unloading station is located on a concrete pad near the fuel oil storage tank. Potential discharges of oil occurring during truck unloading will be diverted along the pad, which is sloped toward the center of the pad. This delivery area is designed to accept four trucks simultaneously with three trucks actually offloading at once with the fourth either preparing to offload or preparing to depart The fuel oil tank containment structure is more than adequate to contain the volume of any delivery truck.

Fuel deliveries are scheduled for the site only after communication is made with the supplier. Deliveries are scheduled based on the amount of available volume in the storage tanks. All suppliers and drivers must meet the minimum requirements and regulations for tank truck loading/unloading established by the U.S. Department of Transportation 49 CFR Parts 100-185 and 393.67: Liquid fuel tanks. TEC ensures that the vendor understands the site layout, knows the protocol for entering the facility and unloading product, and has the necessary equipment to respond to a discharge from the vehicle or fuel delivery hose. Offloading procedures can be found in SMP-1 for the site, a copy of which is provided in Appendix G.

The ***Compliance Coordinator*** or his/her designee supervises initial oil deliveries for all new suppliers, and periodically observes deliveries for existing, approved suppliers. Site operations or maintenance staff must attend the unloading operation to ensure that the delivery personnel properly follow all set-up, filling and disconnection procedures. Fuel or chemical unloading pump operations are not to continue unless attended constantly by delivery personnel. All loading and unloading of tank vehicles takes place only in the designated loading/unloading areas.

W. BRITTLE FRACTURE ANALYSIS [§112.7(I)]

The only field-constructed petroleum tank at the facility is the main fuel oil Tank. All other tanks were shop-built.

This tank was newly constructed in 2017 and commissioned in 2018. In the event that the tank undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure, the container will be evaluated for risk of discharge or failure and corrective action will be taken as necessary by a tank professional with appropriate qualifications.

X. CONFORMANCE WITH APPLICABLE REQUIREMENTS [§112.7(J)]

All bulk storage tanks at this facility are registered with the local authorities as required and have current certificates of registration and special use permits required by the local fire code as required.

All facility underground features (Oil/Water Separators and underground fuel piping) generally meet the design requirements of the Connecticut UST regulations (Sec. 22a-449 (d)-100 to 113); however, they are not UST regulated. The underground portion of the fuel oil system comprises far less than the <10% of total volume UST regulatory threshold. The Oil/Water Separators are treatment units regulated under the facility wastewater and storm water permits. Design features

include double-walled separator and piping, corrosion resistant outer surface in contact with soil and continuously monitored leak detection

Qualified Oil-Filled Operational Equipment [§112.7(K)]

Y. SECONDARY CONTAINMENT IS PROVIDED FOR ALL QUALIFIED OIL-FILLED EQUIPMENT AT TEC WITH THE EXCEPTION OF THE SMALLER CAPACITY TRANSFORMERS WHICH ARE MANAGED UNDER THE GENERAL SITE CONTAINMENT DESIGN FEATURES. TABLE 2 IDENTIFIES EACH PIECE OF OIL-FILLED EQUIPMENT PRESENT AT THE FACILITY.

7. FACILITY SPECIFIC REQUIREMENTS [§112.8]

The facility's conformance with the specific discharge prevention and containment procedures required in §112.8 is discussed in this section.

A. BULK STORAGE CONTAINERS [§112.8(C)]

Table 1 summarizes the construction, volume, and content of petroleum bulk storage containers at TEC. All oil product tanks used at this facility are constructed of steel, in accordance with industry specifications as described above.

The design and construction of all petroleum bulk storage containers are compatible with the characteristics of the product they contain, and with temperature and pressure conditions. All fuel oil piping from the bulk tanks to the Turbine Building is either within secondary containment dikes, the building which drains to an Oil/Water Separator, or double-walled underground piping with continuous leak detection. Carrier piping is carbon steel and containment piping is fiberglass reinforced plastic designed, installed and supported to minimize corrosion and stress.

Main Fuel Oil Storage Tank - A steel wall with a concrete base enclosure is provided around the fixed aboveground fuel storage tank designed to contain a minimum of 110%. A shed roof has been constructed above the steel containment wall and connected to the tank wall to provide a barrier to rainwater intrusion into the containment area (a field constructed interstitial area that is remotely monitored for moisture)

The outer surface of the containment structure and piping/valve assemblies are visually inspected during the monthly facility inspection to detect any cracks, signs of heaving or settlement, or other structural damage that could affect the ability of the dike to contain oil. Any damage is promptly corrected to prevent migration of oil into the ground, or out of the containment.

The interstitial space is inspected annually.

Diesel Fuel Tanks - Double wall aboveground storage tanks are used for the Fire Water Pump Fuel Oil Tank and the Emergency Diesel Generator tank. Since the secondary containment for these tanks is not open to precipitation, this volume is sufficient to fully contain the product in the event of a leak from the primary container.

The storm water is only drained from the bulk storage area to the storm water system after inspection of the retained water for spills.

The Oil/Water Separator has a total capacity of 2000 gallons, an oil capacity of 1420 gallons and a design flow rate of 200 gallons per minute. The Oil/Water Separator is inspected monthly as part of the scheduled inspection to check the level of water within the separator and measure the depth of bottom sludge and floating oils. Floating oil is removed by a licensed waste disposal firm when it reaches the high oil level alarm (355 gal) point. An outlet automatic shutoff valve closes in the event of a high-high oil level condition (755 gal).

Containment drainage events are recorded on the form included in **Appendix H** of this Plan. All other petroleum product (e.g., transformers and other oil-filled operational equipment) and hazardous/toxic substance (e.g., aqueous ammonia tank, Water Treatment Building) containment areas will be inspected for evidence of spills and then transferred to reuse as cooling tower makeup water, where possible, or to area storm drains.

Inspections and Tests (40 CFR 112.8(c) (6))

Visual inspections of ASTs by facility personnel are performed according to the procedure described in this Plan. Leaks from tank seams, gaskets, rivets, and bolts are promptly corrected. Records of inspections and tests are signed by the inspector and kept at the facility for at least five years.

The scope and schedule of certified inspections and tests performed on the facility's ASTs are specified in API Standard 653 and STI Standard SP-001. The external inspection includes ultrasonic testing of the shell, as specified in the standard, or if recommended by the certified tank inspector to assess the integrity of the tank for continued oil storage.

Records of certified tank inspections are kept at the facility.

B. OVERFILL PREVENTION SYSTEMS (40 CFR 112.8(C) (8))

Oil transfer operations at the main oil storage tank will be constantly monitored by plant personnel and delivery will not be allowed to proceed without first confirming that the available storage within the tank is capable of holding the off-load volume. The off-load pumps are also equipped with an interlock that will terminate pump operation when the maximum allowable tank volume has been reached.

C. EFFLUENT TREATMENT FACILITIES (40 CFR 112.8(C) (9))

To ensure that the OWS does not become a source of a release itself, it is required to have visual and maintenance observations conducted on the effluent treatment facilities. These tasks must be completed frequently enough to detect possible system upsets that could cause a discharge as described as harmful. All maintenance is conducted in accordance with the manufacturer's recommended guidance.

The storm water is only drained from the bulk storage area to the storm water system after inspection of the retained water for spills. Dike drainage would be captured in the facility Dike Drainage areas. If oil or hazardous/toxic substances are present, the contents are held for collection and offsite disposal.

Visible Discharges (40 CFR 112.8(c) (10))

Visible discharges from any container or appurtenance – including seams, gaskets, piping, pumps, valves, rivets, and bolts – will be quickly corrected upon discovery.

Oil or hazardous/toxic substances will be promptly removed from the diked area and disposed of properly.

D. MOBILE AND PORTABLE CONTAINERS (40 CFR 112.8(C) (11))

Up to 40 drums of fresh oil and used oil may be stored inside the Administration and Maintenance Building, Turbine Building or the Pre-Fab outside storage building (provided with integrated secondary containment) and are not exposed to precipitation. Smaller quantities of water treatment chemicals in drums may be ordered from time to time and similarly secured indoors. All oil or chemical dispensing or used oil drum filling is conducted on spill containment pallets or horizontal dispensing rack systems with integral spill containment. Each spill pallet or dispensing rack has a capacity greater than the volume of any single 55-gallon drum. The floor of the Turbine Building, Administration and Maintenance Building and all other ancillary buildings containing oil or hazardous/toxic substances is concrete with integral concrete curbing or preformed concrete walls that would restrict the flow of oil outside the building. Floor drains in areas that may contain oil flow into the Oil/Water Separator, can contain any oil discharged from a 55- gallon drum. Any small spills will be quickly contained and cleaned up using sorbent pads and appropriate cleaning products.

Periodically, plant maintenance, construction and operation projects will require the use of portable bulk storage tanks. All such tanks will be provided temporary secondary adequate for the volume of the largest tank within the containment and sufficient freeboard for storm water accumulation. These temporary storage units will also be temporarily added to the routine inspection schedule for the duration of the time located on the site and will be managed in accordance with the guidance provided in this plan.

E. TRANSFER OPERATIONS, PUMPING, AND IN-PLANT PROCESSES (40 CFR 112.8(D))

Transfer operations at this facility include:

1. The transfer of oil from the main fuel oil storage tank to the combustion turbines. All fuel oil piping from the bulk tanks to the Turbine Building is either within secondary containment dikes, the building which drains to an Oil/Water Separator, or double-walled underground piping with continuous leak detection.

2. The transfer of oil into the main fuel oil storage tank is from tanker trucks at the unloading area.

3. The fuel oil truck unloading station is located on a concrete pad near the fuel oil storage tank. Potential discharges of oil occurring during truck unloading will be diverted along the pad, which is sloped toward the center of the pad. This delivery area is designed to accept four trucks simultaneously with three trucks actually offloading at once with the fourth either preparing to offload or preparing to depart. The fuel oil tank containment structure is more than adequate to contain the volume of any delivery truck.

4. The transfer of aqueous ammonia and bulk chemicals. These transfers completed in accordance with procedure SMP-19. None of these transfer operations are considered to present a significant spill threat.

Figure 1

Site Location USGS

Figure 1. SITE LOCATION USGS

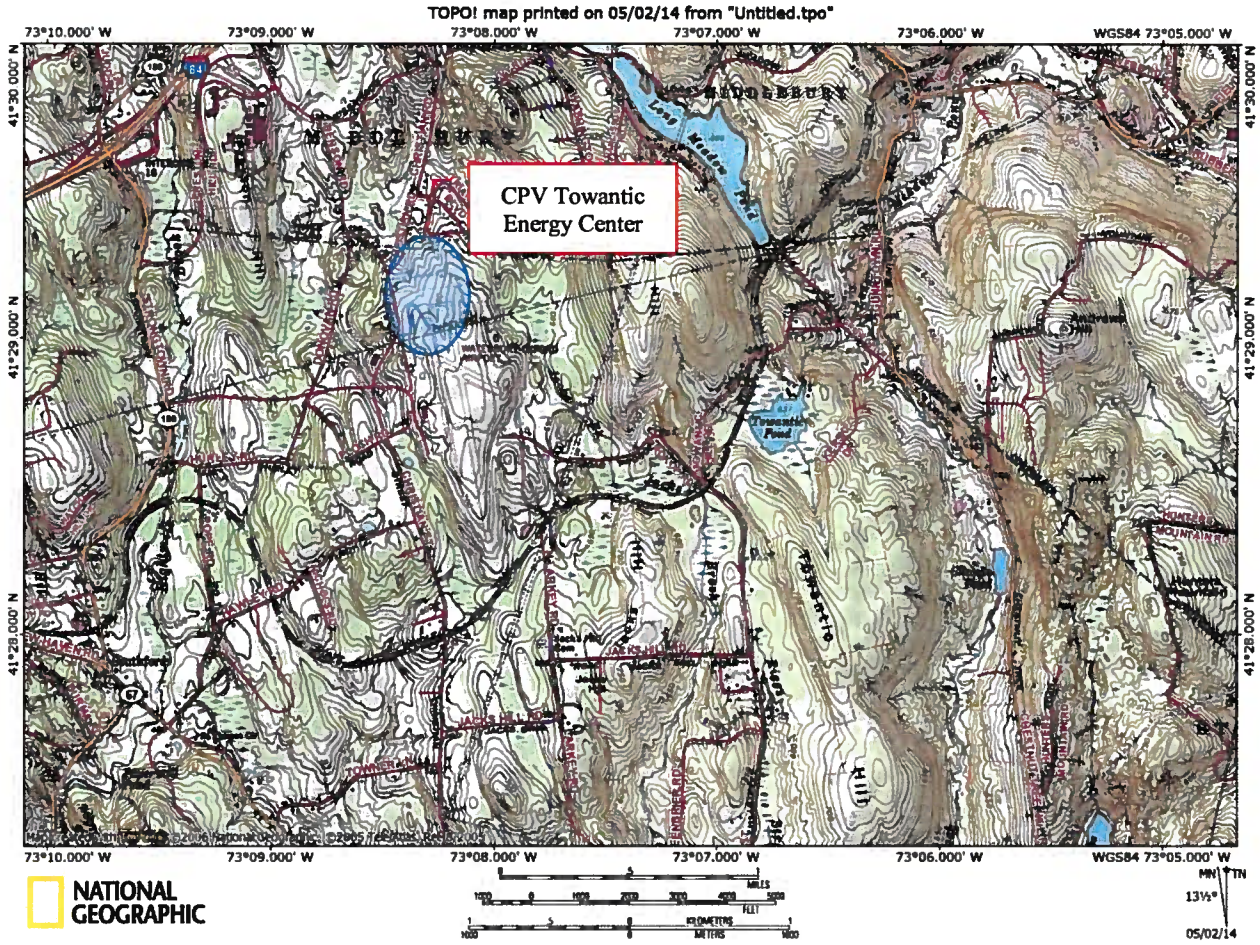

Figure 2

Site Location Photo

Figure 2. SITE LOCATION PHOTO

Figure 3

Site Plan

Figure 3. SITE PLAN

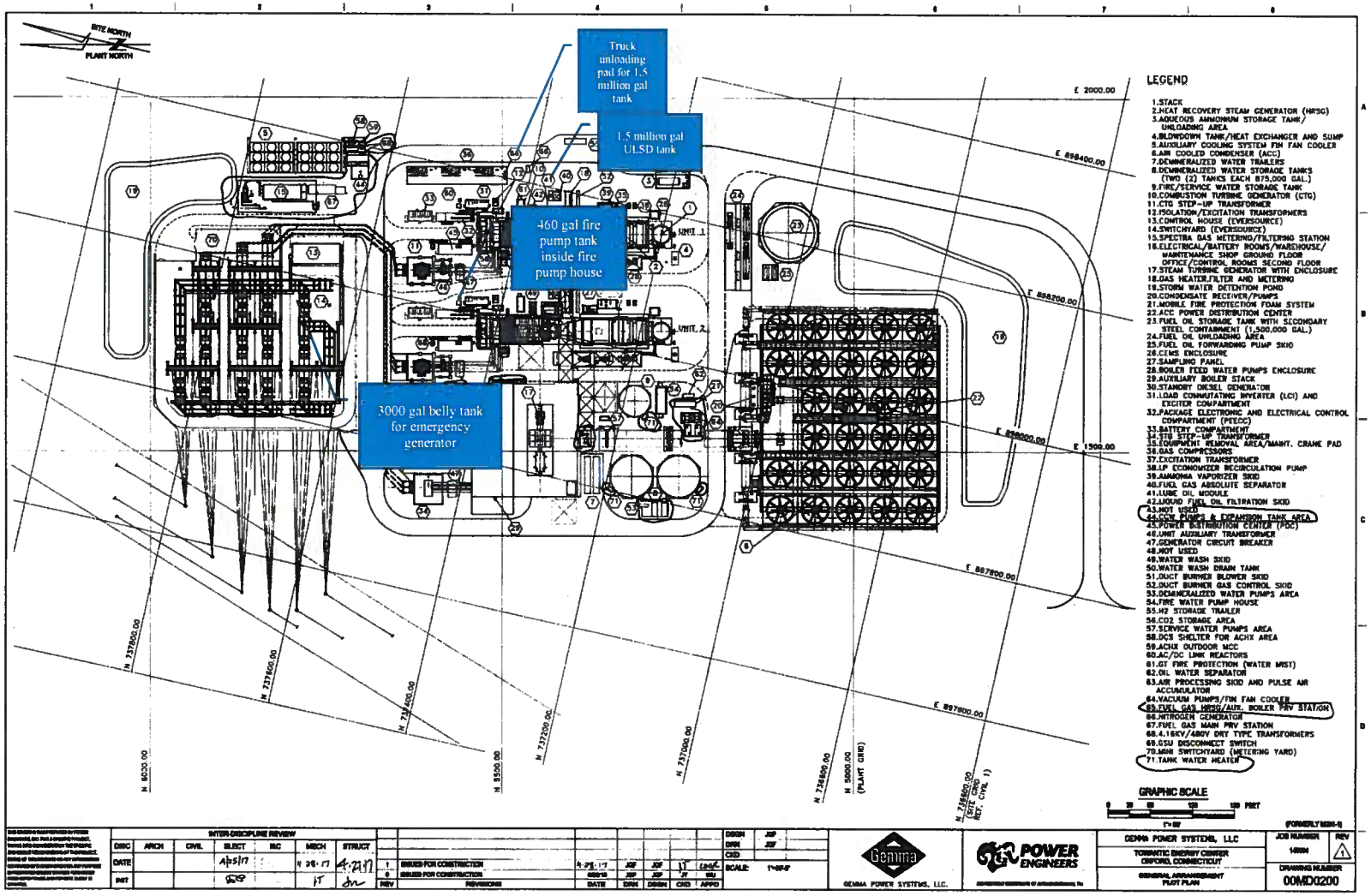

Figure 4

Stormwater Management & Grading Plan

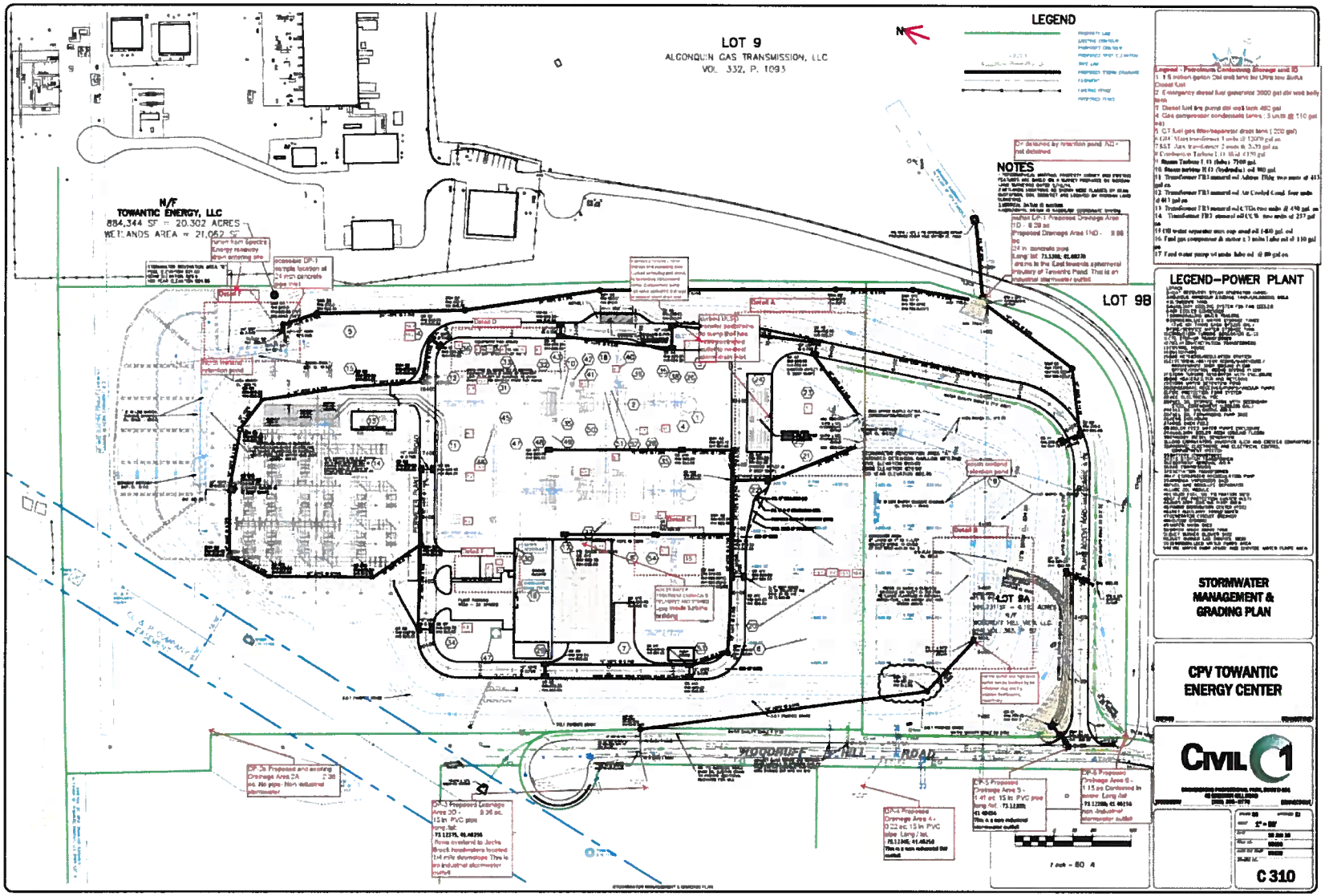
LOT 9
ALGONQUIN GAS TRANSMISSION, LLC
VOL. 332, P. 1093
N/F
TOWANTIC ENERGY, LLC
884,344 SF = 20.302 ACRES
WETLANDS AREA = 21,052 SF
LEGEND
NOTES
LOT 9B
LOT 9A
LEGEND–POWER PLANT
STORMWATER MANAGEMENT & GRADING PLAN
CPV TOWANTIC ENERGY CENTER
CIVIL 1
C 310

Figure 5

Southern Drainage Pond Detail

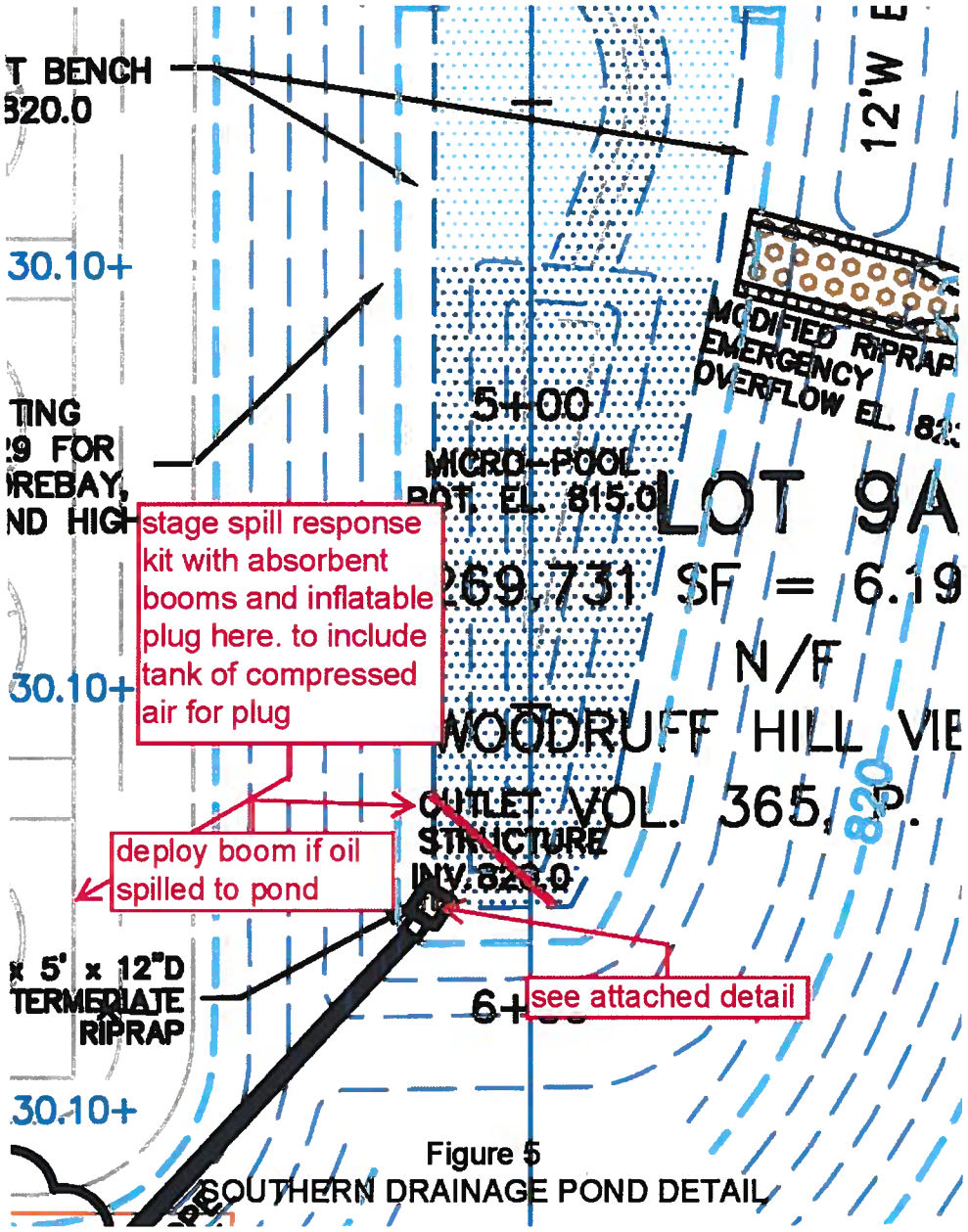

Figure 5
SOUTHERN DRAINAGE POND DETAIL

Figure 6

Northern Drainage Pond Detail

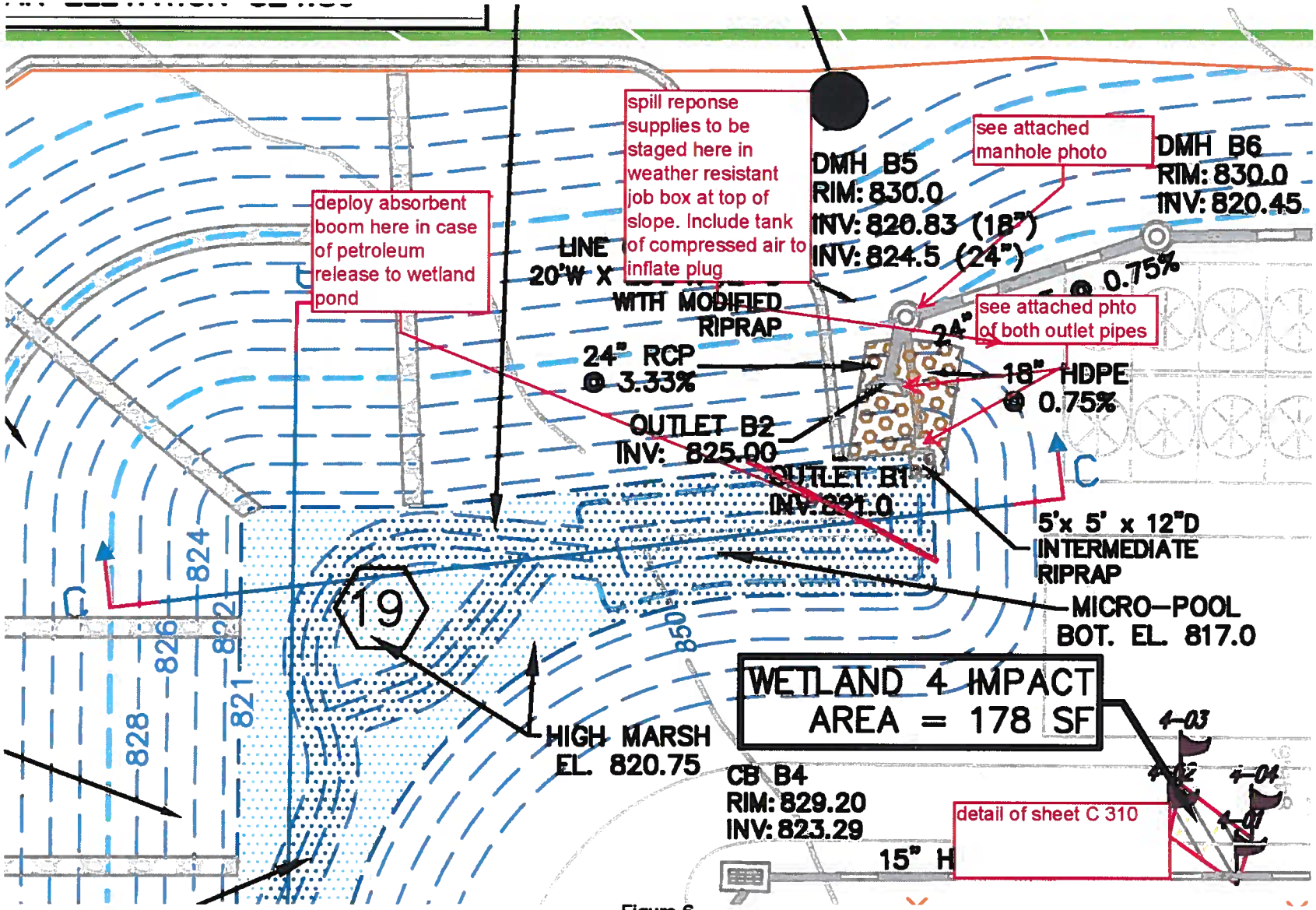

Figure 6
NORTHERN DRAINAGE POND DETAIL

Figure 7

Main Oil Off-Loading Area Detail

Figure 7 MARINE OIL OFF-LOADING AREA DETAIL

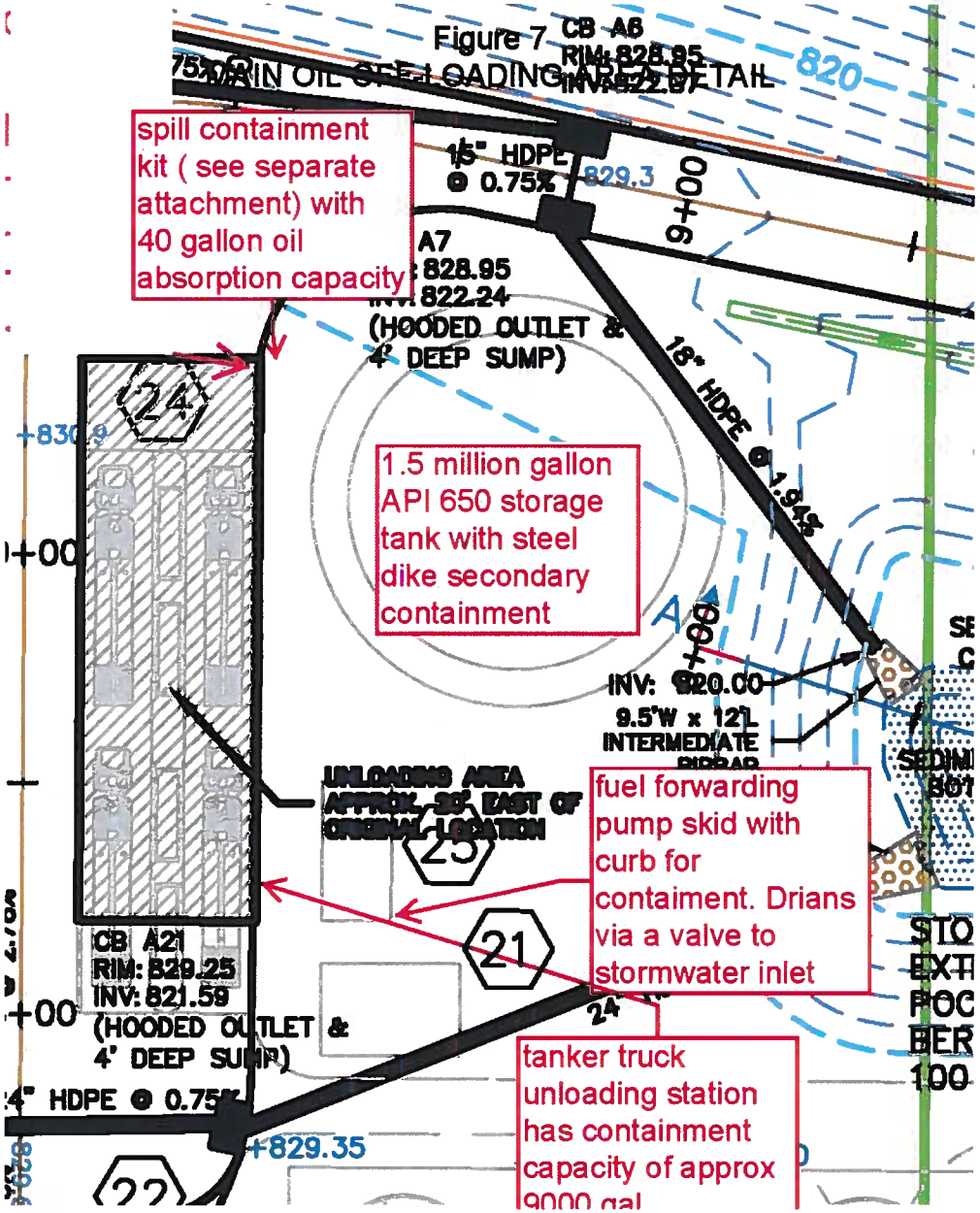

Figure 8

Fire Pump House &

Oil/Water Separator Area Detail

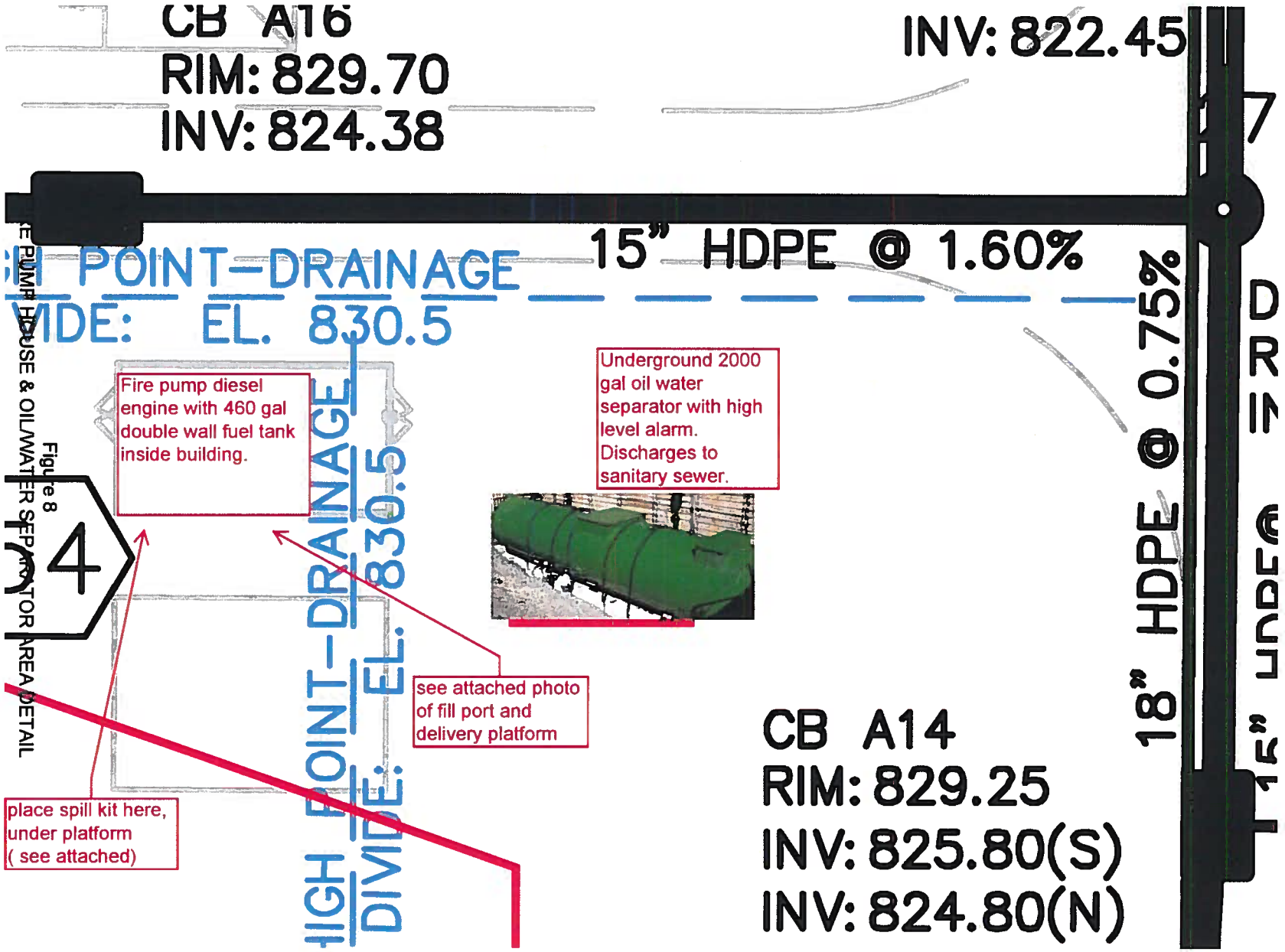
CB A16
RIM: 829.70
INV: 824.38
INV: 822.45
15" HDPE @ 1.60%
18" HDPE @ 0.75%
HIGH POINT-DRAINAGE DIVIDE: EL. 830.5
Fire pump diesel engine with 460 gal double wall fuel tank inside building.
Underground 2000 gal oil water separator with high level alarm. Discharges to sanitary sewer.
see attached photo of fill port and delivery platform
place spill kit here, under platform (see attached)
CB A14
RIM: 829.25
INV: 825.80(S)
INV: 824.80(N)
Figure 8
4

Figure 9

Gas Compressor Area Detail

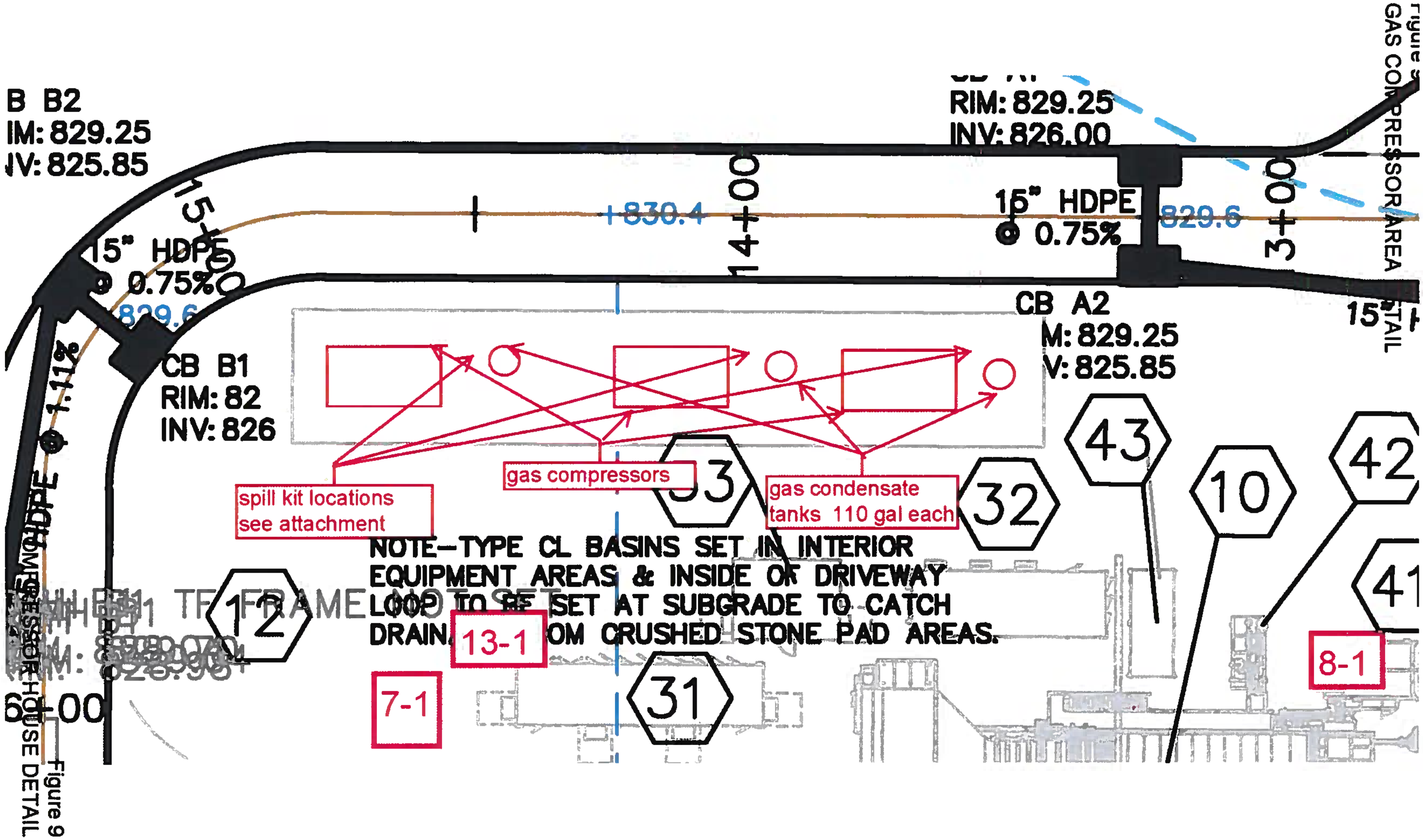

Figure 9
GAS COMPRESSOR AREA DETAIL

Figure 9
COMPRESSOR HOUSE DETAIL

Figure 10

Emergency Generator Area Detail

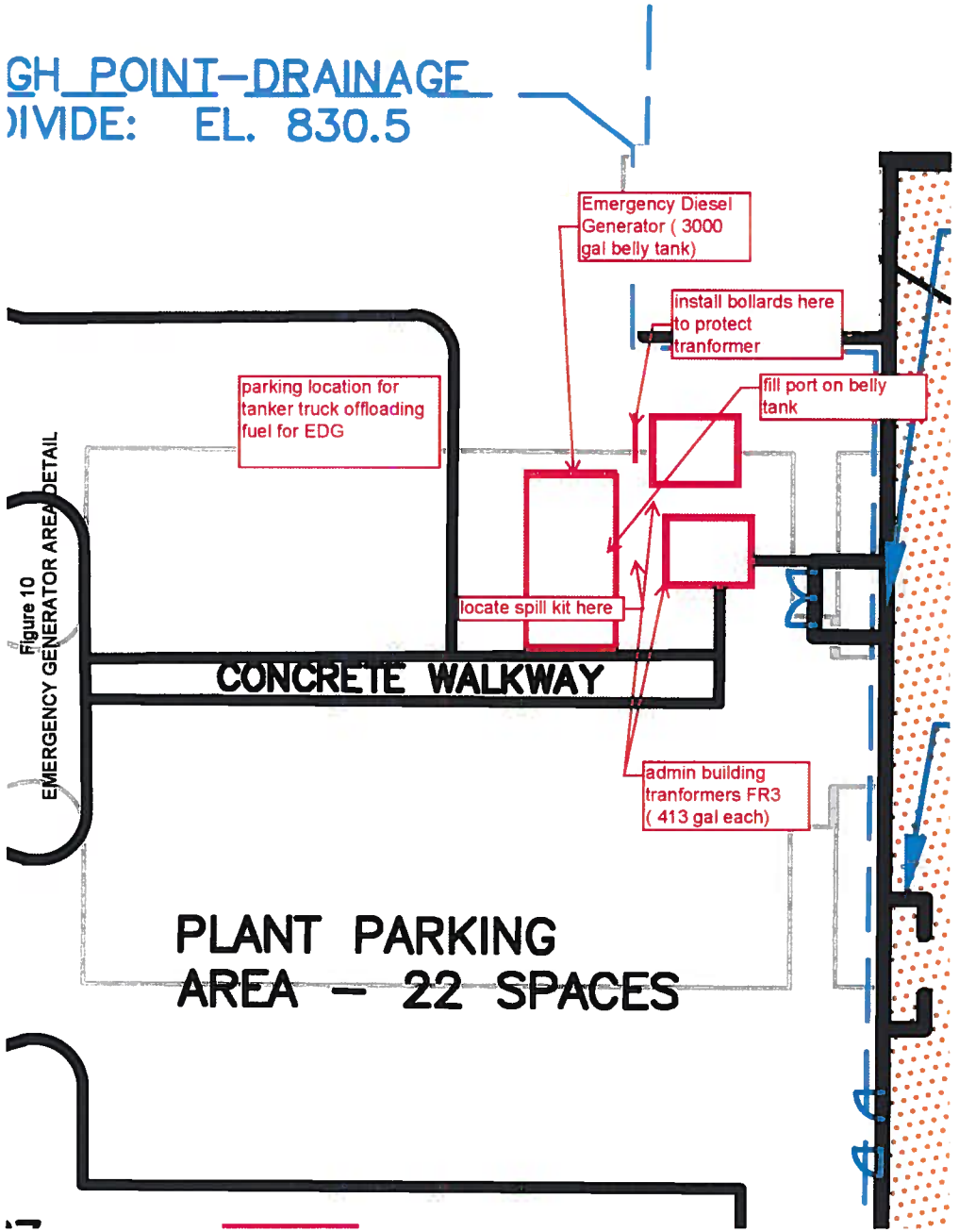
GH POINT-DRAINAGE
)IVIDE: EL. 830.5
Emergency Diesel Generator (3000 gal belly tank)
install bollards here to protect tranformer
fill port on belly tank
parking location for tanker truck offloading fuel for EDG
locate spill kit here
CONCRETE WALKWAY
admin building tranformers FR3 (413 gal each)
PLANT PARKING AREA – 22 SPACES
Figure 10
EMERGENCY GENERATOR AREA DETAIL

Table 1

List of Bulk Containers

NAES

Table 1. BULK STORAGE CONTAINERS/Miscellaneous Drum Storage

*represents item # on site plan

DESCRIPTION	CAPACITY (gallons)	CONTAINER TYPE	CONTENTS	POTENTIAL MEANS OF SPILL / RELEASE	DIRECTION OF FLOW	SECONDARY CONTAINMENT / DIVERSIONARY METHODS	SECONDARY CONTAINMENT CAPACITY (gallons)
Fuel Oil, steel tank *1	1,502,825	steel	Fuel Oil	Delivery, tank leak	South toward southern pond	secondary steel wall	1,681,925
Emergency Generator Diesel Fuel Oil Storage *2	3000	steel	Oil	Delivery, tank leak	North toward north pond	double walled tank	Double wall
Diesel Fire Pump Fuel Oil Storage *3	460	steel	Oil	Delivery, tank leak	North toward north pond	double walled tank	Double wall
Fuel Gas compressor oil sump (x3) *4	330	steel	Natural gas condensate	Tank leak	North toward north pond	General site containment	none
CT fuel gas filter/separator drain *5	200	steel	Natura gas condensate	Tank leak	North toward north pond	General site containment	none
Drums (55G) Admin/Mnt. & Turbine bldg.	2200	steel	Various oils	leak	various	pallets	pallets

Table 2

List of Oil-Filled Operational Equipment

NAES

Table 2. OIL-FILLED OPERATIONAL EQUIPMENT

DESCRIPTION	CAPACITY (gallons)	CONTAINER TYPE	CONTENTS	POTENTIAL MEANS OF SPILL / RELEASE	DIRECTION OF FLOW	SECONDARY CONTAINMENT / DIVERSIONARY METHODS	SECONDARY CONTAINMENT CAPACITY (gallons)
GSU Main transformer *6-1	12000	Steel	Mineral Oil FR3	leak	North toward north pond	Concrete Containment	Need to confirm
GSU Main transformer *6-2	12000	Steel	Mineral Oil FR3	leak	North toward north pond	Concrete Containment	Need to confirm
GSU Main transformer *6-3	12000	Steel	Mineral Oil FR3	leak	North toward north pond	Concrete Containment	Need to confirm
SST Aux. transformer *7-1	2630	Steel	Mineral Oil FR3	leak	North toward north pond	Concrete Containment	Need to confirm
SST Aux. transformer *7-2	2630	Steel	Mineral Oil FR3	leak	North toward north pond	Concrete Containment	Need to confirm
Combustion Turbine L.O. Skid *8-1	6150	Steel	Lube Oil	leak	North toward north pond	General site containment	Need to confirm
Combustion Turbine L.O. Skid *8-1	6150	Steel	Lube Oil	leak	North toward north pond	General site containment	Need to confirm
Steam Turbine L.O. (lube) *9	7100	Steel	Lube Oil	Transfer, leak	Inside building	Concrete Containment	Need to Confirm
Steam turbine H.O. (hydraulic) *10	300	Steel	Lube Oil	Transfer, leak	Inside building	Double Walled Tank	Double wall

DESCRIPTION	CAPACITY (gallons)	CONTAINER TYPE	CONTENTS	POTENTIAL MEANS OF SPILL / RELEASE	DIRECTION OF FLOW	SECONDARY CONTAINMENT / DIVERSIONARY METHODS	SECONDARY CONTAINMENT CAPACITY (gallons)
Transformer FR3 Admin *11-1	413	Steel	Mineral Oil FR3	leak	Admin to north	General site containment	none
Transformer FR3 Admin *11-2	413	Steel	Mineral Oil FR3	leak	Admin to north	General site containment	none
Transformer FR3 ACC *12-1	413	Steel	Mineral Oil FR3	leak	Admin to north	General site containment	none
Transformer FR3 ACC *12-2	413	Steel	Mineral Oil FR3	leak	ACC to south	General site containment	none
Transformer FR3 ACC *12-3	413	Steel	Mineral Oil FR3	leak	ACC to south	General site containment	none
Transformer FR3 ACC *12-4	413	Steel	Mineral Oil FR3	leak	ACC to south	General site containment	none
Transformer FR3 CTG *13-1	450	Steel	Mineral Oil FR3	leak	North toward north pond	General site containment	none
Transformer FR3 CTG *13-2	450	Steel	Mineral Oil FR3	leak	North toward north pond	General site containment	none
Transformer FR3 CCW *14-1	237	Steel	Mineral Oil FR3	leak	North toward north pond	General site containment	none
Transformer FR3 CCW *14-2	237	Steel	Mineral Oil FR3	leak	North toward north pond	General site containment	none

DESCRIPTION	CAPACITY (gallons)	CONTAINER TYPE	CONTENTS	POTENTIAL MEANS OF SPILL / RELEASE	DIRECTION OF FLOW	SECONDARY CONTAINMENT / DIVERSIONARY METHODS	SECONDARY CONTAINMENT CAPACITY (gallons)
Oil Water Separator *15	2000 total 1420 gal oil (maximum)	Steel	Oil/Water	leak	South toward south pond	General site containment	none
Fuel gas compressor & motor x3 *16	330 total	steel	Lube oil	leak	North toward north pond or east toward south pond	General site containment	none
Feed water pump x 4 *17	320 total	steel	Lube oil	leak	South toward south pond	General site containment	none
Gear Box Oil for 30 air cooled condenser fan motors *18	477 total	steel	Lube Oil gear box oil	leak	South toward south pond	General site containment	none

Appendix A

Spill History

NAES

Appendix A: SPILL HISTORY

Date	Material	Quantity (gallons)	Cause/Location	Remedial Action

Appendix B

Spill response Resources & Contacts

NAES

Appendix B: SPILL RESPONSE RESOURCES & PLANT EMERGENCY CONTACTS

CONTACT	Role	PHONE
John Klopp, Plant Manager	Emergency Coordinator and Qualified Individual	(203) 727-8405
Alexander Duran, Compliance Coordinator	Alt. Qualified Individual	**845 542 2356**
Operations Steve Sapienza	**Alt. Qualified individual**	978-987-7229
Maintenance Clifford Esmiol	**Alt Qualified Individual**	203-927-8683
CPV		
Spill Response Contractors		
To Be Evaluated and Determined for Operations		
Local / State / Federal Agencies		
USEPA National Response Center		(800) 424-8802
State Emergency Response Commission		(860) 424-3373
Local Emergency Response Commission (County) Scott Peletier, Fire Chief Oxford CT	Alt. Qualified Individual	203-881-5230
CT DEEP spill hotline		866 337-7745
Fire Department – Oxford Direct Dial #		(203) 888-9090
Fire / Police / Ambulance		911

;

Appendix C

Spill Report Form

NAES

Appendix C: SPILL REPORT FORM

TOWANTIC ENERGY CENTER

In the event of an oil or hazardous substance spill, the Spill Report Form must be completed to the extent information is available prior to contacting regulatory agencies and/or emergency response organizations.

Date of Spill: _____ Date of Spill Discovery: _____

Time of Spill: _____ Time of Spill Discovery: _____

Name and Title of Discoverer: _____

Type of material spilled and manufacturer's name: _____

Description of spill location: _____

Directions from nearest community: _____

Estimated volume of spill: _____

Weather conditions: _____

Topography and surface conditions of spill site: _____

Spill medium (pavement, sandy soil, water, etc.): _____

Proximity of spill to surface waters: _____

Did the spill reach a waterbody? _____ Yes _____ No

If so, was an oil sheen present? _____ Yes _____ No

Describe the causes and circumstances resulting in the spill: _____

_____

Describe the extent of observed contamination, both horizontal and vertical (*i.e.*, spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

_____

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

Current status of cleanup actions: _____

Name/Company/Address/Phone Number for the following:

Spill Coordinator: _____

Person Who Reported the Spill: _____

Environmental Contact: _____

Form completed by: _____ Date: _____

Appendix D

Response Equipment Inventory

NAES

Appendix D: RESPONSE EQUIPMENT INVENTORY FORM

Typical contents of oil spill kit:

10 - ext. dia. 3" x 48" L PIG® Blue Absorbent Sock (4048)

6 - ext. dia. 3" x 10' L PIG® Blue Absorbent Sock (PIG202)

40 - 15" W x 20" L PIG® Absorbent Mat Pad (MAT203)

6 - 17" W x 21" L x 2" H PIG® Absorbent Pillow (PIL201)

56 - 11.875" W x 13" L PIG® PR40 All-Purpose Wipers (WIP310)

10 - 36" W x 60" H Polyethylene Disposal Bags (BAG201-L)

6 - 2" W x 6" L Tamperproof Seal Label (LBL100)

1 – Instructions

Absorbent boom appropriate to response area where located

Inflatable plug of proper size for use in storm basin discharge pipe (at basin area response kit)

Appendix E

Monthly Spill Prevention Inspection Checklist

NAES

APPENDIX E: MONTHLY SPILL PREVENTION INSPECTION CHECKLIST

Date of Inspection:		***Follow Up Actions Required for This Month (Please designate)***
Inspected By:		*Yes* ☐ *No* ☐
Reviewed By:		

NAES

Tank ID, Tote ID, Drum ID	Plant Location	Material/ Activity (By Safety Data Sheet)	Storage Unit	Condition of Secondary Containment	Drainage/ Material Flow Concerns (Erosion Problems)	Potential Spills or Leaks	Are there visible signs of leaks or spills?	Signs of impact to storm water or erosion	Comments
				☐ Good ☐ Poor ☐ Debris	☐ Yes ☐ No	Tank Failure Valve Piping Pump failure Hose leak/fails Drum	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	☐ Yes ☐ No	
				☐ Good ☐ Poor ☐ Debris	☐ Yes ☐ No	Tank Failure Valve Piping Pump failure Hose leak/fails Drum	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	☐ Yes ☐ No	
				☐ Good ☐ Poor ☐ Debris	☐ Yes ☐ No	Tank Failure Valve Piping Pump failure Hose leak/fails Drum	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	☐ Yes ☐ No	
				☐ Good ☐ Poor ☐ Debris	☐ Yes ☐ No	Tank Failure Valve Piping Pump failure Hose leak/fails Drum	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	☐ Yes ☐ No	

Checklist for API 650 tank:

AST Checklist.pdf

Appendix F

Annual Spill Prevention Training Log

Appendix F: ANNUAL SPILL PREVENTION TRAINING LOG

NAES SAFE

Sign-In Sheet

Description:

	Name	Signature	Date
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
12			
13			
14			
15			
16			
17			
18			
19			

Appendix G

Facility Off-Loading Procedure

Appendix H

Containment Drainage Events

NAES

Appendix H: CONTAINMENT DRAINAGE EVENTS

Record of Containment Dike Drainage

This record must be completed when rainwater from diked areas is drained into a storm drain or into an open watercourse, lake, or pond, and bypasses the water treatment system. The bypass valve must normally be sealed in closed position. It must be opened and resealed following drainage under responsible supervision.

Date	Diked Area or Containment Area	Presence of Oil? Yes or No	Time Start Drainage	Time Stop Drainage	Signature of Operator

Appendix I

Certificate of Substantial Harm Criteria

NAES

Appendix I: Certification of the Applicability of the Substantial Harm Criteria

Facility Name: Towantic Energy Center
Facility Address: 16 Woodruff Hill Road Oxford, CT 06478

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?
Yes ----- No -**X**

2. Does the facility have a total oil storage capacity greater than or equal to 1 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?
Yes ----- No --**X**--

3. Does the facility have a total oil storage capacity greater than or equal to 1 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 formula1) such that a discharge from the facility could 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 Appendix E to 40 CFR Part 112, section 13, for availability) and the applicable Area Contingency Plan.
Yes --**X**-- No ----- (proximity to freshwater wetland areas)

4. Does the facility have a total oil storage capacity greater than or equal to 1 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 formula1) such that a discharge from the facility would shut down a public drinking water intake2? 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).
Yes ---- No --**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?
Yes ----- No --**X**--

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.

Signature

Barry Durham, CHMM
Name (please type or print)

Sr. Environmental Specialist
Title

11/30/2017
Date

Federal Airways & Airspace®

February 10, 2017

Federal Aviation Administration
Darin Clipper
Obstruction Evaluation Specialist, CT/RI/MA/NY/NJ
FAA Obstruction Evaluation Group (AJV-15)

Re: *Lighting Plan for the Towantic Energy Center (ASNs 2014-ANE-1770, 1771, 1908, 1910, 1911, and 1923 through 1926-OE)*

Dear Mr. Clipper:

Attached please find the summary of the proposed lighting plan for the Towantic Energy Center (the Project), with associated structures represented by Federal Aviation Administration (FAA) Aeronautical Study Numbers: 2014-ANE-1770, 1771, 1908, 1910, 1911, and 1923 through 1926-OE. Due to the number of structures and proximate penetrations to the horizontal surface, the goal of this plan is to optimize the lighting requirement placed upon the Project by the FAA.

Should you have any questions or concerns please feel free to contact me directly either by phone at (321) 777-1266 or by email Airspace@AirspaceUSA.com. I welcome the opportunity to discuss this matter in greater detail with you.

Respectfully,

Clyde Pittman
Director of Engineering
Federal Airways & Airspace, Inc.

Introduction

Competitive Power Ventures (CPV) is currently constructing the Towantic Energy Center (the Project) off Woodruff Hill Road in Oxford, Connecticut. Permitting activities, including coordination with the Federal Aviation Administration (FAA), occurred in 2014 and 2015, with pouring of the foundations in Spring of 2016.

As structures reach their final height, CPV is preparing to file the 7460-2 Part 2 Supplements, in accordance with the Determinations of No Hazard received from the FAA. CPV has prepared this Lighting Plan for the various Project structures for which the FAA has issued a determination.

History with the FAA

Due to the proximity to the nearby Waterbury-Oxford Airport (OXC) and the location and topography of the Project site, a detailed investigation was conducted by the FAA for structures associated with the Project. With OXC's Horizontal Surface set at 876 feet above mean sea level (AMSL) and a base site elevation of 830 feet AMSL, CPV filed notifications with the FAA for every Project structure taller than 46 feet above ground level (AGL). These structures included: the two heat recovery steam generator (HRSG) stacks, the auxiliary boiler stack, the gantry crane[1], the fuel oil storage tank, the air cooled-condenser, the switchyard tower[2], and the four corners of the administrative building. Each structure was assigned an FAA Aeronautical Study Number (ASN); ASNs for the Project include: 2014-ANE-1770; 1771; 1908 through 1911; and 1923 through 1926-OE, respectively.

In addition to these permanent structures, a notification was also filed with the FAA for a temporary crane associated with the construction of the Project. Table 1 summarizes each of the structures for which a notification was filed with the FAA.

Table 1: FAA ASN Summary

FAA ASN	Latitude	Longitude	Site Elevation (ft AMSL)	Structure Height (ft AGL)	Total Height (ft AMSL)
2014-ANE-1770-OE	41-29-01.44	73-07-17.91	830	150	980
2014-ANE-1771-OE	41-29-01.13	73-07-19.66	830	150	980
2014-ANE-1908-OE	41-29-02.91	73-07-23.40	830	62	892
2014-ANE-1910-OE	41-28-59.75	73-07-17.26	830	48	878
2014-ANE-1911-OE	41-28-59.28	73-07-22.57	830	62	892
2014-ANE-1923-OE	41-29-03.26	73-07-23.61	830	52	882
2014-ANE-1924-OE	41-29-02.69	73-07-23.43	830	52	882
2014-ANE-1925-OE	41-29-03.10	73-07-21.05	830	52	882
2014-ANE-1926-OE	41-29-03.67	73-07-21.22	830	52	882
2016-ANE-2664-OE	41-29-01.44	73-07-17.91	830	280	1110

[1] The gantry crane (2014-ANE-1909-OE) has subsequently been removed from the Project's design; therefore, it is not addressed in this Lighting Proposal.

[2] The switchyard tower (2014-ANE-1912-OE) construction and lighting will be the responsibility of Eversource; therefore, it is not addressed in the Lighting Proposal.

A final Determination of No Hazard to Air Navigation was issued for each Project ASN (2014-ANE-1770, 1771, 1908, 1910, 1911, and 1923 through 1926-OE) in September 2015. Additionally, a Determination of No Hazard to Air Navigation for Temporary Structure was issued for the temporary crane (2016-ANE-2664-OE) in October 2016. Included in the determinations were stipulations that the proposed structures be marked and/or lighted in accordance with FAA Advisory Circular 70/7460-1K, Change 2, *Obstruction Marking and Lighting*. Table 2 summarizes the lighting requirements outlined in the determinations.

Table 2: FAA Lighting Standards

FAA ASN	**Applicable Lighting Standards[1]**
2014-ANE-1770-OE	Paint/red lights – Chapters 3 (Marked), 4, 5 (Red), and 12
2014-ANE-1771-OE	Paint/red lights – Chapters 3 (Marked), 4, 5 (Red), and 12
2014-ANE-1908-OE	Paint/red lights – Chapters 3 (Marked), 4, 5 (Red), and 12
2014-ANE-1910-OE	Paint/red lights – Chapters 3 (Marked), 4, 5 (Red), and 12
2014-ANE-1911-OE	Med-dual system – Chapters 4, 8 (M-Dual), and 12
2014-ANE-1923-OE	Red lights – Chapters 4, 5 (Red), and 12
2014-ANE-1924-OE	Red lights – Chapters 4, 5 (Red), and 12
2014-ANE-1925-OE	Red lights – Chapters 4, 5 (Red), and 12
2014-ANE-1926-OE	Red lights – Chapters 4, 5 (Red), and 12
2016-ANE-2664-OE	Flags/red lights – Chapters 3 (Marked), 4, 5 (Red), and 12
[1] as outlined in the FAA determination	

Purpose

Since July 2015, the design of the Project has been updated and refined, and Project construction has commenced. A Lighting Plan was developed for the Project, FAA standards, as outlined in the applicable Advisory Circulars, have been incorporated where appropriate. For several structures, the Project's proposed Lighting Plan exceeds the lighting scheme identified in the FAA determination. Given the proximity and density of Project structures, CPV is seeking a reduction of the lighting requirements for several of the shorter structures.

The following sections outline existing conditions in vicinity of the Project Site, the Project's proposed Lighting Plan as it relates to FAA requirements, and lighting of key Project elements through various phases of the Project.

Existing Conditions

The local environment near OXC has significant variations in terrain elevation, such that the ground itself impacts the Horizontal Surface (set at an elevation of 876 feet AMSL). In addition to Project structures, there are several other documented manmade penetrations to the Horizontal Surface. Most of these have been filed with the FAA and are identified within recent Notices to Airmen (See Appendix 1) (NOTAMs).

As shown in Figure 1, terrain north and east of the Project site penetrates the Horizontal Surface and is of equal or greater height than several Project elements, including the Fuel Oil Storage Tank (2014-ANE-1910-OE), Auxiliary Boiler Stack (2014-ANE-1908-OE), and four corners of the Administrative Building (2014-ANE-1923 through 1926-OE). The terrain penetrates the Horizontal Surface with ground elevations ranging from 876 to 905 feet AMSL. If an average tree height is assumed, an additional 60 feet AGL should be added to the existing terrain penetrations. Application of FAA Order 7400-2K *Procedures for Handling Airspace Matters*, Paragraph 6-3-13 would lessen the burden of obstruction marking and/or lighting while maintaining the integrity of the aeronautical environment. FAA Order 7400-2K, Paragraph 6-3-13(c)(1) states that shielding can be provided by "existing natural terrain, topographic features or surface structures of equal or greater height than the structure under study." The basic principal is such that aircraft, when operating with due regard for shielding structure (trees on hill top), would not collide with that structure.

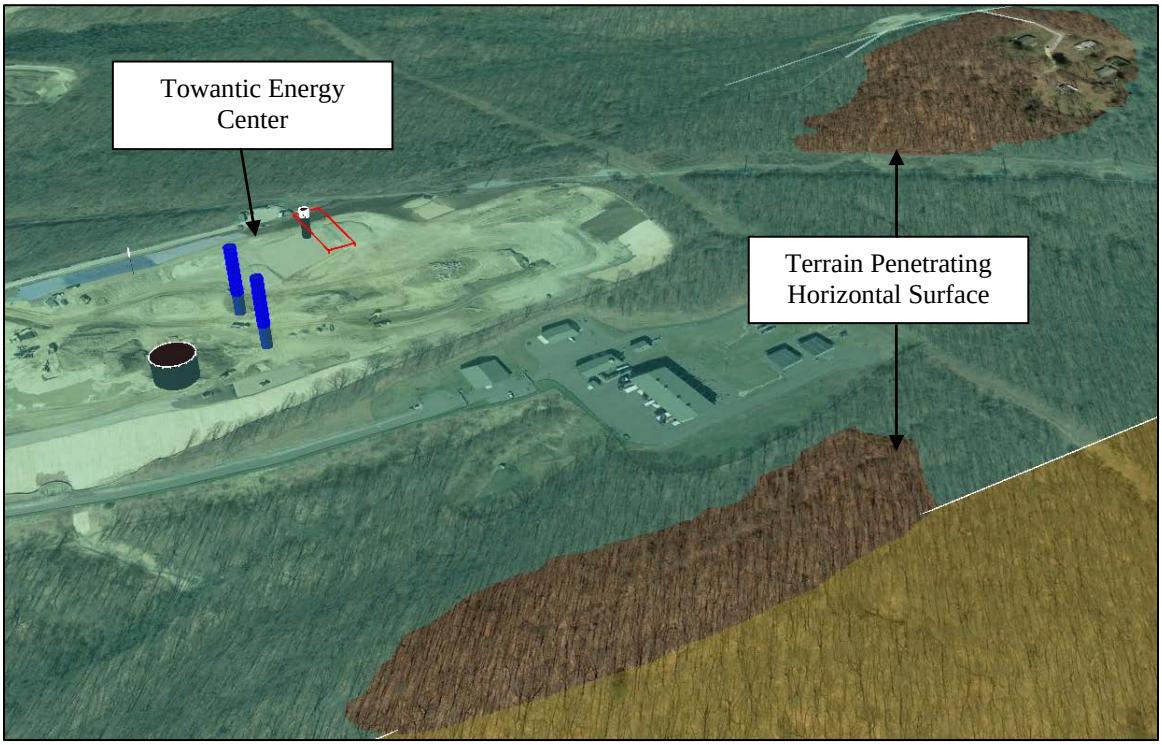

Figure 1: Towantic Energy Center Site & Terrain within OXC's Horizontal Surface.

According to the Aircraft Owners and Pilots Association (AOPA) website, and as shown in Figure 2, the Traffic Pattern Altitude (TPA) at OXC is 1,700 feet AMSL for Light aircraft (less than 12,500 pounds) and 2,200 feet AMSL for Heavy aircraft. At a minimum, this is 822 feet above the Fuel Oil Storage Tank (ASN 2014-ANE-1910-OE), 818 feet above the four corners of the Administrative Building (ASNs 2014-ANE-1923 through 1926-OE), and 808 feet above the Auxiliary Boiler Stack (ASN 2014-ANE-1908-OE). Aircraft circling OXC operating under Part 91 will maintain adequate altitude above this area, avoiding the structures and other existing horizontal penetrations, including the terrain and trees. In addition, certain Project elements will be illuminated, in accordance with (or in excess of) the applicable FAA standards. This proposed lighting of the HRSG Stacks (2014-ANE-1770 and 1771-OE), Auxiliary Boiler Stack (2014-ANE-1908-OE), and Air-Cooled Condenser (2014-ANE-1911-OE) should provide adequate illumination for pilots operating under Part 91 in the area surrounding the Project site.

Operations & More Information

Lat/Long:	N41 28.7133' / W73 8.1150'
Charts:	NACO: New York Sectional
Mag Var:	14W (1995)
ARTCC:	New York (ZNY)
FSS:	Bridgeport (BDR) 1-800-WX-BRIEF
NOTAM Facility:	OXC
Approach/Departure Control Facility	N90
Pattern Altitude:	Tpa for Acft Up to 12500 Lbs 973 Ft Agl; Acft Ovr 12500 Lbs 1473 Ft AGL
	Heavy Aircraft: 2200
	Light Aircraft: 1700

Figure 2: OXC Traffic Pattern Altitude Information

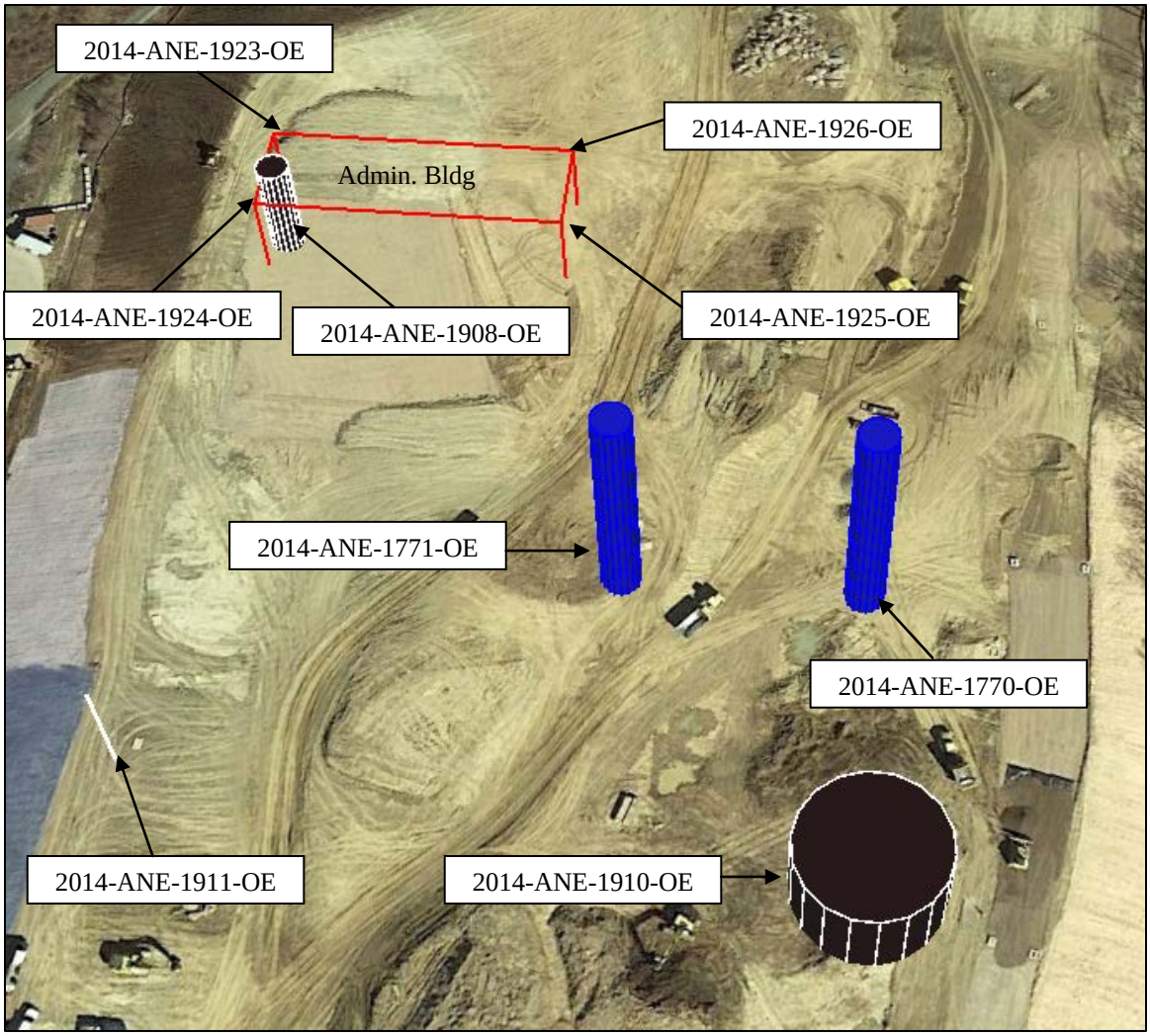

Figure 3: Site Structures with Corresponding ASNs.

The above figure indicates the structure locations within the Project site and their corresponding ASNs.

Lighting Plan

Stacks 1 & 2

It is requested that both HRSG Stacks (ASNs 2014-ANE-1770 and 1771-OE) be lit with Dual Medium Intensity Obstruction Lights. Lights will be placed 13' 5" of the top of the structure and oriented to allow for 360 degree visibility (Appendix 2). This proposed lighting scheme exceeds the standards outlined in the FAA determinations.

Fuel Oil Storage Tank

Due to its proximity to the HRSG stacks, specifically to stack 1 (ASN 2014-ANE-1770-OE), and the significantly lower height, CPV proposes not to place FAA lighting on the Fuel Oil Storage Tank (2014-ANE-1910-OE). HRSG stack lighting will be placed on the exterior of the stack (2014-ANE-1770-OE), which has a diameter of 22 feet, and the Fuel Oil Storage Tank (2014-ANE-1910-OE) has a diameter of 83 feet (including the secondary containment structure); therefore, a significant portion of the Fuel Oil Storage Tank will lie with the FAA precedent 150 foot shielding area. Additionally, the Fuel Oil Storage Tank is the shortest Project structure filed with the FAA at 48 feet tall. Stack 1 (2104-ANE-1770-OE), other Project structures (2014-ANE- 1771-OE; 2014-ANE-1908-OE; and 2014-ANE-1911-OE), and existing terrain penetrations should sufficiently shield this element without additional lighting. See figure 4 below.

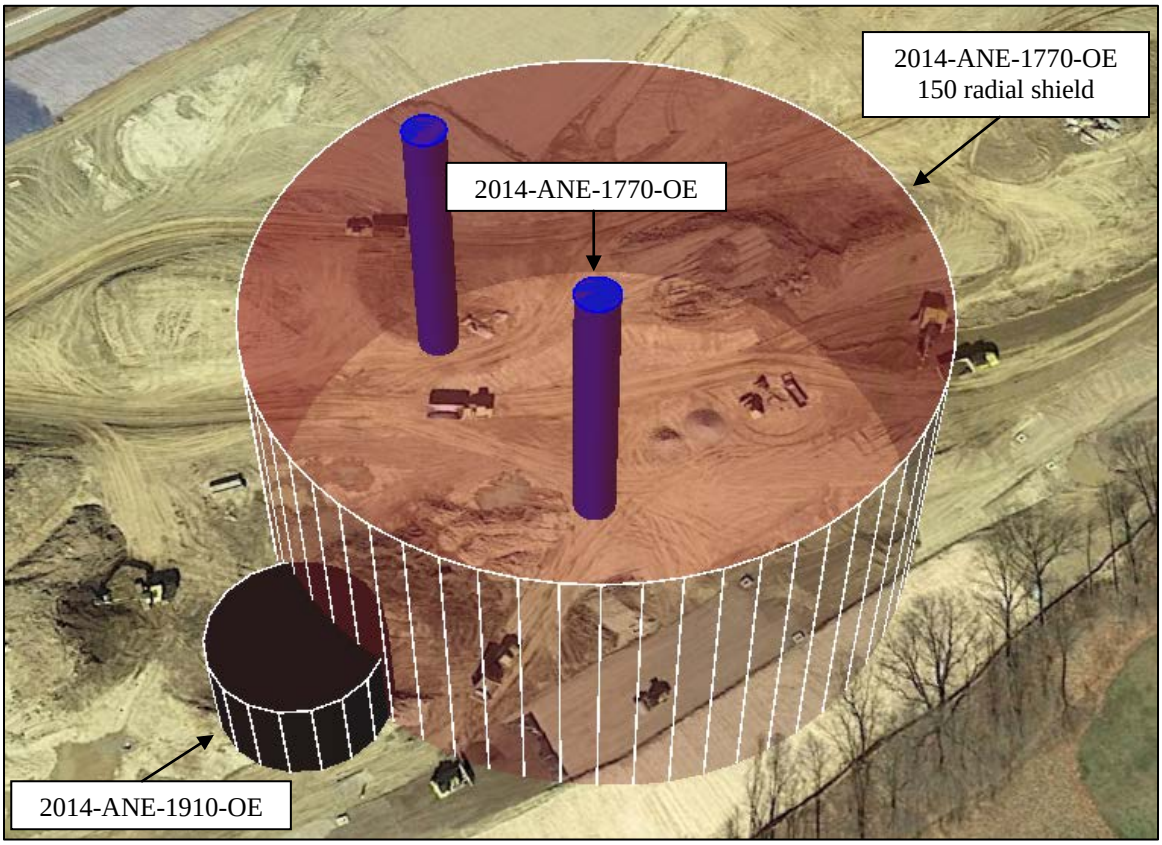

Figure 4: 2014-ANE-1910-OE shielded by 2014-ANE-1770-OE. All objects are drawn to scale. The 150' radius shielding circle is drawn from the location of the stack's obstruction light.

Auxiliary Boiler Stack

CPV proposes to modify the FAA Obstruction Lighting requirement to the Auxiliary Boiler Stack (ASN 2014-ANE-1908-OE). Dual Medium Intensity Obstruction Lights will be placed within the requirements specified in AC 70/7460-1L, Chapter 5, paragraph 5.5.2(3) of the top of the structure and oriented to allow for 360 degree visibility. These lights will shine white light during the daytime and flash red light during the nighttime. This proposed lighting scheme exceeds the standards outlined in the FAA determinations.

Administrative Building

Per FAA guidance, a notification was filed for each of the four corners of the Administrative Building (2014-ANE-1923 through 1926-OE). As the Auxiliary Boiler Stack (2014-ANE-1908-OE) is an element located within (on top of) the Administrative Building, and at a taller elevation, CPV believes it will effectively shield the Administrative Building. Therefore, CPV proposes to exceed the lighting standard for the Auxiliary Boiler Stack, as previously discussed, in lieu of additional lighting on the Administrative Building.

The Auxiliary Boiler Stack is situated in the southwestern portion of the Administrative Building. The northwest and southwest corners of the Administrative Building (ASNs 2014-ANE-1923 and 1924-OE) are within 40 feet of the Auxiliary Boiler Stack, well within the FAA's precedent 150-foot shielding radius.

The eastern half of the Administrative Building (ASNs 2014-ANE-1925 and 1926-OE) is approximately 180 feet away from the Auxiliary Boiler Stack. However, the proposed lighting of the Auxiliary Boiler Stack exceeds the FAA Standard and should provide sufficient illumination to shield the Administrative Building. Additionally, other Project structures (HRSG Stacks #1 and #2 and the Auxiliary Boiler Stack) would impede the effectiveness of additional lighting on the Administrative Building. Therefore, CPV proposes that the Auxiliary Boiler Stack lighting sufficiently shields all four corners of the Administrative Building and no further lighting is proposed.

Air-Cooled Condenser

The Air-Cooled Condenser (ASN 2014-ANE-1911-OE) will be lit with a Dual Medium Intensity Obstruction Light. A light will be placed on top of the structure of the structure and oriented to allow for 360 degree visibility. This light will shine white light during the daytime and flash red light during the nighttime. This proposed lighting scheme is in accordance with the standards outlined in the FAA determinations.

Phasing

The Lighting Plan summarized in this document represents operating conditions at the completion of construction. In the meantime, certain Project structures are reaching their terminal height in advance of others. Therefore, the client, CPV, has outlined the following phasing schedule to allow for sufficient lighting of the Project site and its elements during construction.

Construction of the Administrative Building and Auxiliary Boiler Stack is on-going. Upon completion, anticipated in March 2017, the Auxiliary Boiler Stack will be lit with Dual Medium Intensity Obstruction Lights, which should sufficiently shield the Administrative Building.

There is currently a temporary crane on the Project site with an authorized terminal height of 280 feet AMSL, significantly taller than any permanent Project structure filed with the FAA. In accordance with the 2016 determination, lighting of the Temporary Crane includes (Chapters 3 (Marked), 4, 5(Red) & 12). This crane is on the Project site to assist in the construction of the Project; it will remain lit, on-site until the two HRSG stacks reach their highest height and are lit in accordance with the FAA standards. Stack 1 is anticipated to reach its highest height in June 2017, and will be present and lit prior to the completion of the Fuel Oil Storage Tank (anticipated completion in October 2017) and Stack 2 (anticipated completion in September 2017).

Upon completion of construction of the Air-Cooled Condenser, lighting will be placed in accordance with the proposed FAA standard.

Conclusion

The proposed lighting plan for the Project, will consist of Dual Medium Intensity Obstruction Lights on the HRSG stacks (2014-ANE-1770 and 1771-OE), Auxiliary Boiler Stack (2014-ANE-1908-OE), and Air-Cooled Condenser (2014-ANE-1911-OE). This proposed lighting plan (see table 3 below), along with the existing penetrations and surrounding terrain should eliminate the need for additional obstruction lighting on the Fuel Oil Storage Tank and the Administrative Building (ASNs 2014-ANE-1923 through 1926-OE).

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Table 3: Proposed Lighting Plan

ASN	Structure Name	Latitude	Longitude	Ground Elevation AMSL	Structure Height AGL	Total AMSL	Proposed Lighting
2014-ANE-1770-OE	Stack #1	41-29-01.44N	73-07-17.91W	830	150	980	Dual Medium Intensity L-864 / L-865
2014-ANE-1771-OE	Stack #2	41-29-01.13N	73-07-19.66W	830	150	980	Dual Medium Intensity L-864 / L-865
2014-ANE-1908-OE	Aux Boiler Stack	41-29-02.91N	73-07-23.40W	830	62	892	Dual Medium Intensity
2014-ANE-1910-OE	Fuel Oil Storage Tank	41-28-59.75N	73-07-17.26W	830	48	878	Shielded by 2014-ANE-1770-OE
2014-ANE-1911-OE	Air-Cooled Condenser	41-28-59.28N	73-07-22.57W	830	85	915	Dual Medium Intensity
2014-ANE-1923-OE	NW Corner of Admin Bldg	41-29-03.26N	73-07-23.61W	830	52	882	Shielded by 2014-ANE-1908-OE
2014-ANE-1924-OE	SW Corner of Admin Bldg	41-29-02.69N	73-07-23.43W	830	52	882	Shielded by 2014-ANE-1908-OE
2014-ANE-1925-OE	SE Corner of Admin bldg	41-29-03.10N	73-07-21.05W	830	52	882	Shielded by 2014-ANE-1908-OE, surrounding terrain and structures lit with Dual Medium systems
2014-ANE-1926-OE	NE Corner of Admin Bldg	41-29-03.67N	73-07-21.22W	830	52	882	Shielded by 2014-ANE-1908-OE, surrounding terrain and structures lit with Dual Medium systems

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Appendix

1423 South Patrick Dr. • Satellite Beach, FL 32937 • Phone: 321-777-1266 • Fax: 321-777-8595 • www.airspaceusa.com • airspace@airspaceusa.com

Appendix 1:
NOTAMS

Federal Aviation Administration

Fri, 10 Feb 2017 13:34:12

Back Save

Selected NOTAMs

The following NOTAM list was selected by the user from a previous request. This list may not reflect all active NOTAMs for any of the below locations.

Data Current as of: Fri, 10 Feb 2017 13:32:00 UTC

OXC WATERBURY-OXFORD ()

!FDC 6/4621 OXC IAP WATERBURY-OXFORD, OXFORD, CT. ILS OR LOC RWY 36, AMDT 14A... CIRCLING MDA 1420/694 ALL CATS. VIS CAT C 2, CAT D 2 1/4. HUMOM FIX MINIMUMS CIRCLING MDA 1420/694 ALL CATS. VIS CAT C 2, CAT D 2 1/4. TEMP CRANE 1110 MSL 4267 FT E OF RWY 18 (2016-ANE-2664-OE). 1610210405-1706020405EST

!FDC 6/4620 OXC IAP WATERBURY-OXFORD, OXFORD, CT. RNAV (GPS) RWY 18, AMDT 2... LNAV/VNAV DA 1223/HAT 498, VIS 1 3/4 ALL CATS. LNAV MDA 1320/HAT 595 ALL CATS. VIS CATS C/D 1 3/4. CIRCLING MDA 1420/694 ALL CATS. VIS CAT C 2, CAT D 2 1/4. VDP 1.72 NM TO RW18. TEMP CRANE 1110 MSL 4267 FT E OF RWY 18 (2016-ANE-2664-OE). 1610210405-1706020405EST

!FDC 6/4615 OXC IAP WATERBURY-OXFORD, OXFORD, CT. RNAV (GPS) RWY 36, AMDT 2A... LNAV/VNAV DA 1115/HAT 429, VIS 1 3/8 ALL CATS. LNAV MDA 1220/HAT 534 ALL CATS. VIS CATS C/D 1 1/2. CIRCLING MDA 1420/694 ALL CATS. VIS CAT C 2, CAT D 2 1/4. VDP NA. TEMP CRANE 1110 MSL 4267 FT E OF RWY 18 (2016-ANE-2664-OE). 1610210405-1706020405EST

Number of NOTAMs selected: 3 **End of Report**

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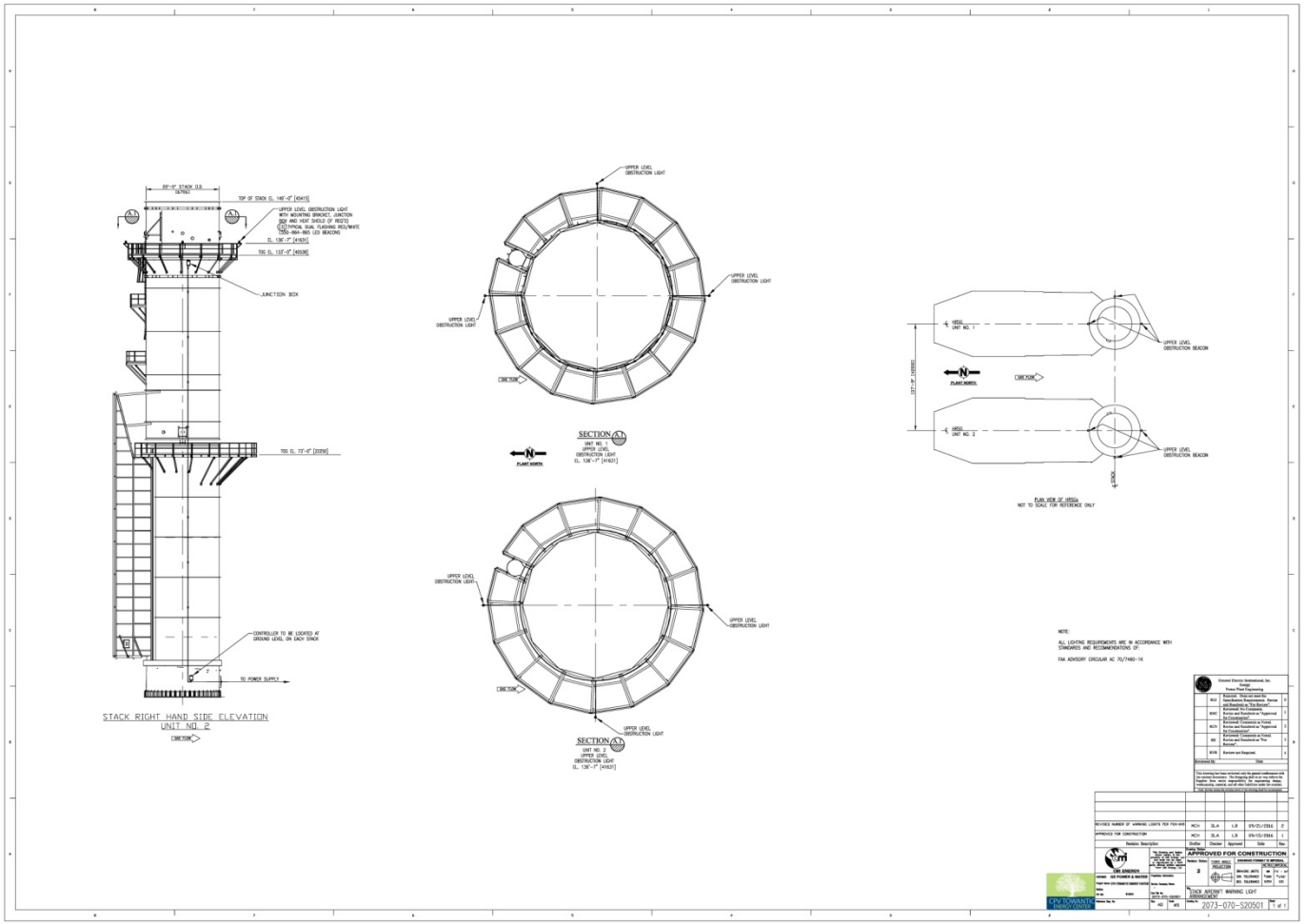
Appendix 2
2014-ANE-1770-1771-OE Lighting Plan



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-402-OE
Prior Study No.
2014-ANE-1911-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Air-Cooled Condenser
Location:	Oxford, CT
Latitude:	41-28-59.28N NAD 83
Longitude:	73-07-22.57W
Heights:	830 feet site elevation (SE) 85 feet above ground level (AGL) 915 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 1 , Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-402-OE.

Signature Control No: 321948629-322281783 (MAL)
Darin Clipper
Specialist

Attachment(s)
Additional Information

cc: FCC

Updating to current marking and lighting advisory circular.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-404-OE
Prior Study No.
2014-ANE-1926-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Administrative Building NE Corner
Location:	Oxford, CT
Latitude:	41-29-03.67N NAD 83
Longitude:	73-07-21.22W
Heights:	830 feet site elevation (SE) 52 feet above ground level (AGL) 882 feet above mean sea level (AMSL)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory Circular 70/7460-1 L Change 1.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-404-OE.

Signature Control No: 321948631-322275465 (MAL)
Darin Clipper
Specialist

Attachment(s)

Case Description

cc: FCC

Case Description for ASN 2017-ANE-404-OE

Remove lighting requirement due to shielding from dual medium intensity lights of Auxiliary Boiler Stack (2014-ANE-1908-OE) located on roof of admin bldg.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-407-OE
Prior Study No.
2014-ANE-1923-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Administrative Building NW Corner
Location:	Oxford, CT
Latitude:	41-29-03.26N NAD 83
Longitude:	73-07-23.61W
Heights:	830 feet site elevation (SE) 52 feet above ground level (AGL) 882 feet above mean sea level (AMSL)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory Circular 70/7460-1 L Change 1.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-407-OE.

Signature Control No: 321948634-322275462 (MAL)
Darin Clipper
Specialist

Attachment(s)

Case Description

cc: FCC

Case Description for ASN 2017-ANE-407-OE

Remove lighting requirement due to shielding from dual medium intensity lights of Auxiliary Boiler Stack (2014-ANE-1908-OE) located on roof of admin bldg.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-405-OE
Prior Study No.
2014-ANE-1925-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Administrative Building SE Corner
Location:	Oxford, CT
Latitude:	41-29-03.10N NAD 83
Longitude:	73-07-21.05W
Heights:	830 feet site elevation (SE)
	52 feet above ground level (AGL)
	882 feet above mean sea level (AMSL)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory Circular 70/7460-1 L Change 1.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-405-OE.

Signature Control No: 321948632-322275464 (MAL)
Darin Clipper
Specialist

Attachment(s)

Case Description

cc: FCC

Case Description for ASN 2017-ANE-405-OE

Remove lighting requirement due to shielding from dual medium intensity lights of Auxiliary Boiler Stack (2014-ANE-1908-OE) located on roof of admin bldg.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-406-OE
Prior Study No.
2014-ANE-1924-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Administrative Building SW Corner
Location:	Oxford, CT
Latitude:	41-29-02.69N NAD 83
Longitude:	73-07-23.43W
Heights:	830 feet site elevation (SE) 52 feet above ground level (AGL) 882 feet above mean sea level (AMSL)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory Circular 70/7460-1 L Change 1.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-406-OE.

Signature Control No: 321948633-322275463 (MAL)
Darin Clipper
Specialist

Attachment(s)

Case Description

cc: FCC

Case Description for ASN 2017-ANE-406-OE

Remove lighting requirement due to shielding from dual medium intensity lights of Auxiliary Boiler Stack (2014-ANE-1908-OE) located on roof of admin bldg.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-403-OE
Prior Study No.
2014-ANE-1908-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Auxiliary Boiler Stack
Location:	Oxford, CT
Latitude:	41-29-02.91N NAD 83
Longitude:	73-07-23.40W
Heights:	830 feet site elevation (SE) 62 feet above ground level (AGL) 892 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 1 , Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-403-OE.

Signature Control No: 321948630-322280773 (MAL)
Darin Clipper
Specialist

cc: FCC

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-400-OE
Prior Study No.
2014-ANE-1910-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Fuel Oil Storage Tank
Location:	Oxford, CT
Latitude:	41-28-59.75N NAD 83
Longitude:	73-07-17.26W
Heights:	830 feet site elevation (SE)
	48 feet above ground level (AGL)
	878 feet above mean sea level (AMSL)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory Circular 70/7460-1 L Change 1.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-400-OE.

Signature Control No: 321948627-322276579 (MAL)
Darin Clipper
Specialist

cc: FCC

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-399-OE
Prior Study No.
2014-ANE-1770-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Stack #1
Location:	Oxford, CT
Latitude:	41-29-01.44N NAD 83
Longitude:	73-07-17.91W
Heights:	830 feet site elevation (SE)
	150 feet above ground level (AGL)
	980 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 1 , Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-399-OE.

Signature Control No: 321948626-322280774 (MAL)
Darin Clipper
Specialist

cc: FCC

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-401-OE
Prior Study No.
2014-ANE-1771-OE

Issued Date: 02/15/2017

Ryan Lockhart
CPV Towantic
50 Braintree Hill Office Park
Braintree, MA 02184

**** MARKING & LIGHTING RECOMMENDATION ****

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study Stack #2
Location:	Oxford, CT
Latitude:	41-29-01.13N NAD 83
Longitude:	73-07-19.66W
Heights:	830 feet site elevation (SE) 150 feet above ground level (AGL) 980 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 1 , Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

If this structure is subject to the authority of the Federal Communications Commission a copy of this letter will be forwarded to them and application should be made for permission to change the marking/lighting as requested.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-401-OE.

Signature Control No: 321948628-322280772 (MAL)
Darin Clipper
Specialist

cc: FCC

Approved for use by:

TABLE OF CONTENTS

REFERENCES

None

SUB-SECTIONS

None

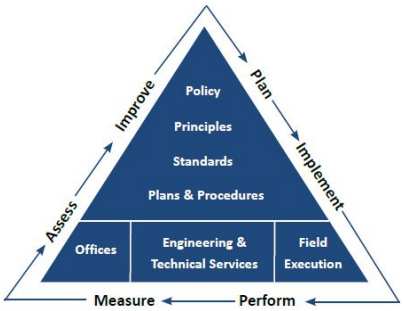
DOCUMENT REVISION HISTORY

Rev	Rev Date	Description of Changes / Comments
R0	03 Nov 17	Rev. 0

1. PURPOSE OF SAFETY MANAGEMENT

This Safety Manual Procedure (SMP-01) defines the NAES Safety Management System (SMS) that integrates safety into the work planning and design process to execute work safely throughout the corporation and on NAES job sites. This Safety Manual and its SMPs are the policies, procedures, and practices that implement the NAES Safety Policy and Safety Guiding Principles and are necessary to develop an effective plant Safety and Health Management Plan.

A. NAES SAFETY MANAGEMENT SYSTEM



The NAES Safety Management System (SMS) is illustrated by a triangle logo. The NAES Corporate Safety Policy is at the top and Principles, Standards and Safety Plans & Procedures descend to support the three service levels of the company. Surrounding the SMS Triangle is a Continuous Improvement Cycle which incorporates Planning, Implementation, Performance, Measurement, Assessment and Improvement which are all key elements in maintaining safety and high standards of safe work performance.

B. NAES SAFETY POLICY

The Safety Policy is to be displayed in the main building at all NAES plant sites. The Corporate Safety Policy, CP-10 is our value statement.
The Safety Policy is to be communicated and reviewed annually with employees through training and management briefings.

NAES SAFETY POLICY STATEMENT

Safety is a core value of NAES and it is the policy of NAES to provide its employees, visitors, and contractors with a safe and healthy site of employment.

The acceptable standard of performance in Safety matters is to promote safe work practices, achieve zero accidents or injuries in all aspects of our operations, and fully comply with all applicable rules, regulations, laws, contractual requirements, and "best practices." Additionally, we will continually seek opportunities to improve safety including an aggressive "Lessons Learned" process and will provide all applicable information to our employees and customers.

In achieving this objective, all NAES organizations, divisions, and subsidiaries shall develop, implement, and ensure compliance with effective safety procedures applicable to their specific environment. In these actions, the Company will emphasize that each employee is responsible for his or her own safety, the safety of fellow employees, and the safety of the public.

Employees are expected to be mentally alert and work safely as a condition of employment. Employees shall adhere to all safety warnings and posted safety signs whenever they are on company property. NAES shall meet all applicable regulations and provide accurate and timely safety monitoring and reporting. We will be responsive to the safety concerns of our employees, communities, and the public.

Contractors are expected to adhere to all NAES rules and procedures in addition to their own rules and procedures plus any local, state, and federal regulations pertinent to their work. Whenever there are differences in work rules, it is expected that the rule resulting in the greatest safety to employees and the public will be followed. Deviations from NAES rules and procedures shall be discussed in advance with NAES management.

NAES will audit and monitor our compliance with all applicable laws, permits, agreements, and the objectives of this policy. We will take appropriate action to correct noted deficient areas, keep accurate and complete information, and make regular reports to NAES Management.

The Plant Manager (with oversight responsibility for this Safety Program in its entirety) shall delegate various Program Coordinator functions to selected personnel as needed to effectively manage and monitor the Program. These delegated functions may be assigned to anyone and may be rotated to different personnel at any time. The assigned Coordinator roles will include the Special-Duties Job Titles listed below (and/or others) which are assigned various Safety Program responsibilities throughout this Safety Manual:

Safety Coordinator
HazMat Communications Coordinator
Emergency Coordinator
Evacuation Coordinator

This Safety Policy shall be disseminated and explained to each of our employees and customers.

C. NAES SAFE GUIDING PRINCIPLES

The NAES Safety Management System is comprised of six Guiding Principles. These Principles are attributes that govern and guide decision-making and define roles and responsibilities for safety throughout the NAES organization. From the

Office of the President to every teammate on the job site, the NAES Safe Guiding Principles define commitment and accountability.

The Guiding Principles are to be displayed on NAES jobsites and reviewed with employees annually through training and management briefing.

D. NAES SAFETY GUIDING PRINCIPLES

1. Management is responsible and accountable for the protection of workers, clients, the public and the environment

2. Employee commitment and involvement is essential in our safety culture

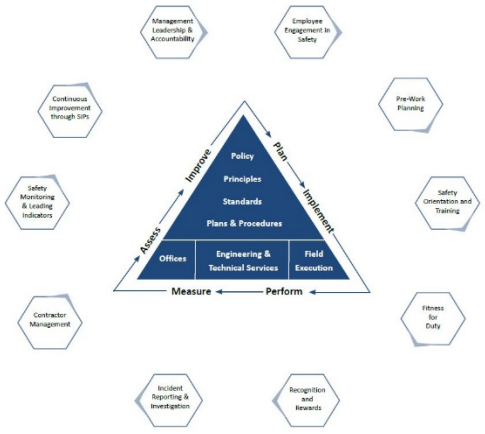
3. All injuries and incidents are preventable

4. Working safely is a condition of employment

5. All employees have the right and responsibility to stop unsafe work

6. Safety lessons learned and best practices are captured and shared throughout the organization

E. NAES SMS 10-CORE ELEMENTS



The NAES SMS is implemented through NAES SMPs, procedures and practices that implement the 10-Core Elements. The 10-Core Elements are proven high-impact injury and incident reduction techniques designed to achieve the high safety performance expectations of NAES. The 10-Core Elements implement a NAES Safety program that goes beyond compliance with regulations and establishes the foundation for zero injury performance.

Appendix A defines the 10-Core Elements and provides a matrix to assist in their implementation.

2. OCCUPATIONAL SAFETY AND HEALTH HAZARDS

A. At this NAES operated facility, the system for identifying, evaluating, and preventing occupational safety and health hazards shall include the following:

1. Review and implementation of applicable general industry standards, other safety standards and industry best practices that apply to the operation of our facility;

2. Performing job hazard analysis and PPE assessments;

3. Review of lessons learned and accident investigation results shared within the NAES Fleet;

4. Review of industry and general information on potential occupational safety and health hazards including safety data sheets for chemicals on site;

5. Investigation of all accidents, injuries, and unusual events that have occurred at the facility;

6. Safety observations conducted by management and employees of work being performed at the facility;

7. Workplace monitoring through periodic and scheduled inspections of general work areas and specific workstations; and

8. Exposure monitoring for chemical and physical agents, as appropriate, such as noise, dust, heat stress, etc.;

9. Evaluation of the information in the safety manual by employees.

B. Correction of safety hazards includes the following:

1. If the discovered hazard may cause a serious injury or illness, then it shall be corrected immediately, or remove employees from the area, source of exposure, or equipment.

2. If the hazard is one that is easily abated, then it shall be corrected immediately.

3. Other hazards shall be documented and corrected in a timely manner.

4. Hazard should be identified early in the planning phase of work and proactively corrected through elimination in the work design, installing engineering controls, or administrative barriers. PPE should be considered only after these controls are evaluated and not feasible.

C. PPE hazard evaluations shall be performed for general and specific workstations located throughout the plant. The PPE hazard evaluation shall be completed using SMP-05 Appendix A.

D. The Occupational Safety and Health hazards at this facility shall be identified and documented through any one or more of the following processes:

1. Through regular training and continuous adherence to the requirements of the NAES standard Safety Program in effect at this facility.

2. Through written procedures or work instructions that define how to eliminate or protect employees from the hazards and safely perform the work task.

3. Through the development, training and continuing use of Job Safety Analysis (also known as Job Hazard Analysis) processes which are explained in OSHA Publication 3071 (http://www.osha.gov/Publications/osha3071.html). SMP-1A Job Hazard Analysis should be used to perform these Job Hazard Analysis in a way that is consistent with OSHA recommendations.

4. Through the implementation process of completing the PPE Hazard Assessment for each area at this facility.

3. CODE OF SAFE PRACTICES

A. Identification of safe practices

1. Safe working conditions, work practices, and protective equipment requirements are communicated through this plant Safety Manual.

2. Copies of this plant Safety Manual are maintained throughout the plant.

3. Special conditions, such as capital projects, outages and other situations that involve contractors or an increase in work force, shall be evaluated and planned into a safety plan to ensure adequate resources, training and work practices are addressed.

4. This facility promotes safe work habits by establishing safety goals annually in the plant's Safety Improvement Plan and by presenting recognition awards for employee involvement and accomplishments in safety related improvement activities.

4. SAFETY GOALS, METRICS AND RECOGNITION

A. SAFETY GOALS

NAES utilizes a Safety Improvement Plan (SIP) as a tool to set annual goals and objectives to continuously improve workplace safety. Annually the NAES site will develop and submit a SIP to their NAES Operations Director for approval. The SIP will define facility safety improvement goals, objectives and activities to increase employee involvement, reduce injuries and unwanted incidents in the workplace, and promote a positive safety culture.

Annually, NAES will issue safety focus topics and guidance for SIP development to NAES projects and facilities.

B. SAFETY METRICS

1. Safety and health performance is traditionally measured by “trailing metrics” that measure injuries and illnesses after they occur. NAES uses these standard metrics and is also increasingly focused on tracking safety and health performance through "leading metrics" that are instrumental in preventing incidents or illnesses from occurring.

2. Metrics reported monthly by the plant and used by NAES are as follows:

   a. Recordable Incident Rate

   b. *Housekeeping/Safety Inspections performed

   c. *Workplace Safety Observations Performed by All Plant Personnel

   d. Required Safety Training Complete

   e. Safety designated work orders, tracked days to closure

   *Referenced to a baseline

3. Leading Indicators are a proactive way to maintain a safe jobsite and involve employees in safety activities. When looking for additional leading indicators, look for activities, accomplishments and behaviors that can be measured. Some leading metrics include:

   a. Audits

   b. Near Miss Reports and Responses

   c. Participation in Safety Communication

   d. Participation on Safety Committee Activities

e. Development/Review of Job Hazard Analysis

f. Housekeeping and Safety Inspection Scores

g. #days to Close Out Safety Related Work Orders

h. #days to Close Out Inspection Findings

i. First Aid Cases (Can be used as a leading indicator towards more serious incidents)

j. Safety Suggestions

k. Safety Meeting Attendance

l. Safety Training Participation (Conducting training sessions)

C. REWARDS AND RECOGNITION

NAES recognizes and rewards employees for demonstrating safe work behaviors and participating in safety related work activities, such as safety observations, inspections and reporting near misses. The best safety recognition and reward programs are timely, meaningful and promote a positive safety culture. Involvement of the workforce and supervision in the design and implementation of a safety recognition program is essential, and should be promoted at the jobsite.

5. SAFETY COMMITTEE

A. SAFETY COMMITTEE PURPOSE

1. The Safety Committee is an advisory body to the Plant Manager and, as such, does not relieve the Plant Manager of the overall responsibility for providing a safe work environment.

2. The Safety Committee does not relieve individuals of their responsibility to perform their work in a safe and healthful work environment.

3. The Safety Committee shall make recommendations to the Plant Manager concerning actions required to ensure a safe and healthful work environment. The recommendations shall be submitted in writing and logged in the minutes of the committee meetings.

4. The Safety Committee should actively devise and promote solutions to safety hazards that can be done with existing resources while long-term corrective action is pursued.

5. The Safety Committee should be involved in identifying and promoting safety related work activities and programs that reduce at-risk behaviors,

reinforce safe work practices and positively promote the plant safety culture.

6. The Plant Manager should work with the Safety Committee in establishing the goals and objectives to the annual Safety Improvement Plan.

7. The Safety Committee should review, trend and recommend corrective actions on information reported on safety observations, near misses, stop works, inspections and safety work orders.

B. SAFETY COMMITTEE MEMBERSHIP

The Safety Committee shall be comprised of a minimum of one representative from each department. Membership on the safety committee should be on an annual basis. An attempt will always be made to keep the members knowledge diversified as to create as much depth in the group as possible. The chairperson of the committee shall be elected by the committee.

C. SAFETY COMMITTEE MEETINGS

The Safety Committee shall meet once per month.

Minutes shall be taken at the meetings, along with a list of members in attendance, and kept on file for one year. As a minimum, each safety committee meeting shall address:

1. A review of the safety inspections and audits performed since the last meeting; including follow-up reports to assist in correction of identified unsafe conditions or practices.

2. An evaluation of the near misses and accident investigations conducted since the last meeting to determine if the cause of the unsafe acts or unsafe condition involved was properly identified and corrected.

3. An evaluation of safety procedures with a discussion of recommendations for improvement.

4. A recommendation of safety topics and a schedule for the next plant safety meeting.

D. SPECIAL NOTE ABOUT CONNECTICUT

Regulations of Connecticut State Agencies sections 31-40v-1 to 31-40v-11 require that employers with 25 or more employees at any single work site in the state, or those with fewer employees whose work-related injury and illness exceeds the average incidence rate, establish a safety and health committee. These regulations also stipulate such things as how the committee is to be selected, its duties, and how often it is to meet. As CPV Towantic Energy Center has fewer

than 25 employees, it would be subject to these requirements only if the work-related injury or illness rate exceeded the average incidence rate, as it is defined in the regulation.

6. PERIODIC INSPECTIONS, INVESTIGATIONS, AND DEFICIENCY CORRECTION

A. Inspections are conducted to:

1. Verify compliance with codes of safe practices,

2. Verify compliance with other safety requirements,

3. Identify any additional hazards, and

4. Investigate accident, injury, and illness cases and unusual occurrences.

B. Frequency and responsibility for inspections are listed in SMP-06, Safety Inspections, Surveys, and Audits.

C. Incident and Injury/Illness Reporting and Investigation:

1. Inspections (investigations) are conducted as soon as possible after an incident. This type of inspection extends to any injury, illness, or unusual hazardous occurrences.

2. Investigations shall be conducted in accordance with SMP-14, Injury Response and Reporting, and AMP-108 Incident Reporting.

7. EMPLOYEE TRAINING

Federal OSHA requires that safety and health training be properly documented. This documentation is subject to audit at any time and therefore must always remain current.

Appendix B of this procedure summarizes the training requirements established by OSHA and their frequency. Other training requirements beyond those required by OSHA are also listed in Appendix B. Note that Appendix B is only a brief summary of the requirements.

Tests shall be given to the staff to ensure full comprehension. The Plant Manager, or assigned Training Coordinator, will maintain a written question/answer “bank” for the safety program tests.

The Plant Manager, or assigned Safety Coordinator, shall ensure that the plant runs periodic drills on emergency response. These drills should cover emergency response to fires, medical emergencies, Confined Space rescue, hazardous materials release or spills or other emergencies as deemed necessary by the Plant Manager. These drills may be coordinated with drills for operational emergencies (plant upsets, steam leaks, etc.). Local

emergency response agencies such as the fire department shall be involved in these drills periodically.

A written drill response summary shall be made to provide feedback to the plant staff on their performance and areas that need improvement. These drill summaries shall be filed in the plant safety training files.

A. Employee safety training is provided in the following circumstances:

1. Upon initial employee hiring as part of new employee orientation before assignment.

2. Employees are provided training when assigned to a new task for which training has not been received.

3. Supervisors are trained on hazards and safe practices in their area of responsibility.

4. Training includes general area safety and specific assignment or job safety class training, the potential occupational safety and health hazards, and the Code of Safe Practices for the area.

5. Refresher training is provided as required or when events/activities necessitate re-training.

Documentation of training is maintained on individual records for individual initial training. Group sessions will be documented on training accountability forms.

8. SAFETY COMMUNICATION

This facility provides a system for communicating with its workers on safety and health matters described in this Safety Manual and elsewhere. The system is as follows:

A. Safety Meetings

1. Safety meetings shall be conducted at least once a month. The safety meetings will be conducted by the Plant Manager or designee.

2. A Safety Meeting Report Form (Appendix C) documenting all personnel in attendance, will be completed at each Safety Meeting. During the meeting, the Plant Manager or his designee will keep safety meeting minutes to document the subject discussed and any action to be taken. The staff should be encouraged to discuss their concerns with plant safety.

B. Safety Suggestions

Employees are expected to immediately report any safety hazard to their supervisor. Additionally, employees are encouraged to provide any safety

suggestions that they may have. Appendix D, Employee Safety Suggestion & Unsafe Practice Report, shall be used to document their report.

C. Work Orders/Job Orders

1. Safety hazards are communicated to facility personnel using safety work/job orders and are tracked to completion.

D. Operations Shift Turnover

1. During turnover, all operating conditions, including safety issues, are relayed to arriving personnel before the oncoming shift assumes responsibility for the plant.

9. RECORDKEEPING REQUIREMENTS

Records shall be maintained as outlined in the following table:

Table 1. Retention Period for Safety Records

Type of Record	Retention Period
OSHA Log 300 form	5 years
Safety inspection forms	1 years
Safety investigation forms	5 years
Personnel safety records	Term of Employment
Employee safety training attendance record	Term of Employment
Safety meeting attendance record	Previous + Current year
Safety suggestions, questions, and responses	Until final resolution
Employee medical records (including audiometric)	Term of Employment Plus 30 years
Employee exposure records and SDS's	Term of Employment Plus 30 years
Other safety records	Previous + Current year

Sample Safety File System Index, provides a basis for maintaining safety documents.

10. SAFETY PROGRAM EVALUATION

Plant management should periodically evaluate the effectiveness of the safety and training programs. This is accomplished by soliciting opinions from plant personnel and management, conducting periodic inspections and audits, and noting workplace safety improvements and awareness. The plant safety metrics also gauge the effectiveness of the safety program.

All plant management personnel are required to be familiar with OSHA regulations. They shall ensure that any changes to systems, processes, procedures, or chemicals used at

the plant are reviewed to ensure compliance is maintained after the change is implemented.

The Plant Manager, or designee, will conduct an annual audit of the plant safety program to ensure that the program is being effectively implemented. This audit is detailed in SMP-06.

11. CONTRACTOR AND VISITOR ORIENTATION AND TRAINING

Contractor and visitor orientation and training ensures that the safety of both facility and contractor personnel is maintained and helps protect the environment and facility property. Guidelines within this section do not supersede or replace OSHA, Environmental Protection Agency, state, or local regulations. All work shall be done in compliance with 29 CFR 1910 and 1926 and applicable environmental regulations.

A. RESPONSIBILITIES

1. It is the responsibility of this facility to inform any contractor or visitor that their actions must conform to the facility safety program and and environmental requirements.

2. The contractor or visitor is responsible for assuring that any of their actions conform to the facility safety program and and environmental requirements.

3. The contractor or visitor is responsible for supplying, communicating, and enforcing both their own and this plant's safety policies and procedures and environmental requirements before beginning any work.

B. ORIENTATION

1. All contractors, sub-contractors, and visitors must successfully complete an appropriate general orientation to familiarize themselves with facility standards and procedures.

   a. The general orientation for contractors shall include the topics in the Contractor Orientation form in Appendix E.

2. Visitors shall be educated on facility rules, regulations, and potential hazards.

   a. The general orientation for visitors shall include the topics in the Visitor Orientation form in Appendix E.

3. All persons attending orientations will be required to sign the appropriate orientation forms. Records of general safety orientation attendance shall be kept at the facility at all times.

4. Re-orientation shall be conducted for all contractors or visitors annually.

C. SPECIFIC REQUIREMENTS

1. Entering and Leaving the Plant

Contractors and visitors entering the facility are required to sign in and sign out, with the appropriate office.

2. Smoking, Eating, and Substance Abuse

a. Smoking is limited to designated and posted areas.

b. Eating is allowed only in designated areas.

c. The possession or consumption of alcohol or illegal substances is strictly forbidden inside the facility boundaries.

3. Personal Protective Clothing

Contractors and visitors entering the plant shall be required to wear the appropriate PPE as required by the plant.

4. Fire Protection

a. Federal, state, and local fire regulations shall be observed at all times. NAES SMP0-4 shall be used to comply with site fire protection requirements.

b. Contractor personnel will comply with all provisions in the established work permit and hot work permit procedure. The contractor shall provide sufficient fire extinguishers of the proper type to adequately cover welding, cutting, and other hot work. The hot work permit must be filled out before work can begin.

c. The Plant Manager or designee shall approve temporary heating devices before being placed into service. Refueling will be in accordance with recognized safe practices.

d. Temporary enclosures will be of flame resistant tarpaulins or materials of equivalent fire-resistive characteristics and will be fastened so that they cannot be blown against space heaters.

5. Confined Space Entry Procedures

Contractor personnel will comply with all provisions of SMP-07, Confined Space Entry.

6. Hazardous Energy Control Procedure

a. SMP-03, Hazardous Energy Control Program (LOTO) shall be used whenever there is a possibility of receiving injury from electrical circuits, machinery, or where equipment may become energized and then result in injury or property damage.

b. Contractor personnel will comply with all provisions of the Lockout/tagout procedure and receive permission from plant authorities before working on power driven equipment. The lockout permit must be filled out before work can begin.

7. Electrical Wiring and Tools

a. All electrical equipment must be properly insulated and/or grounded to ensure safe operation. All electric tools and cords shall be protected with a GFCI device. Use of non-explosion-proof or spark producing tools and equipment in flammables handling areas is subject to the provisions of the hot work permit.

8. Housekeeping

a. The contractor shall be responsible for keeping the work site clear of debris and for leaving the site clean when the project is completed. All waste material shall be removed. Any unused contractor/visitor materials brought into the facility must be removed by that contractor/visitor.

9. Emergency Procedures

a. Contractor supervisors are responsible for instructing employees as to the location and operation of the nearest emergency exit(s), fire extinguisher(s), and fire emergency procedures.

b. A contractor representative shall immediately inform the on-duty Control Room Operator of any emergency at the facility.

c. All injuries sustained by contractor personnel on the site will be reported to the Control Room Operator or other designated person and recorded.

10. Training

a. This facility requires that all contractor personnel be trained in the applicable OSHA standards before working at the facility.

11. Materials and Waste Management

- All chemicals and petroleum-based products shall be labeled in accordance with OSHA labeling requirements while on-site.

- All chemicals and petroleum-based materials shall be staged and/or stored so as to prevent the possibility of spills (i.e. on portable containment skids) and potential ignition sources as applicable.

- Any outside storage shall consider exposure to the elements and secondary containment.

- Arrangements for the final disposition of surplus materials shall be made with facility personnel prior to being brought on site.

- Contractors shall coordinate all waste disposal needs with facility personnel prior to beginning work. Roles and resources must be established for properly characterizing and managing wastes, identifying properly permitted waste hauling vendors and disposal sites, and addressing all required paperwork and pre-transportation requirements prior to shipment of waste off site,

- All waste (hazardous and non-hazardous) shall be properly contained, protected from the elements if outdoors and handled, staged and stored in such a manner as to minimize the potential for release.

- Any contractor vehicles or equipment that will be staged on-site for any extended period of time should be monitored for leaks, drips or spills that may pose a threat to the environment. Any necessary containment actions must be taken to alleviate any site contamination.

12. Spill Prevention

- All work activities by contractors shall be conducted in such a manner as to prevent the possibility of a spill to the ground or waterways.

- When staging and/or storing equipment on-site, consideration shall be given to the fuels, oils and other liquids that may be contained therein, and steps taken to prevent spillage of such materials.

- All fluids shall be removed from decommissioned equipment prior to removal from the facility and properly managed.

13. Site Drainage, Erosion and Sediment Control

- Contractors shall be made aware of the facility drainage systems so that proper precautions can be taken when working in areas where drainage conveys surface runoff offsite.

- Any and all discharges into the facility drainage system must be pre-approved by facility personnel. Any unauthorized discharges are strictly prohibited. Should one occur, IMMEDIATELY report the incident to the facility contact.

- Contractors shall conduct their work activities to prevent the release of any liquid or solid materials from entering any facility drainage system unless previously authorized by facility personnel.

- Any construction and/or land disturbing work shall be conducted so as to prevent erosion and control the generation and movement of sediments. Site health and safety considerations should be reviewed for site specific subsurface hazards.

14. Fugitive Air Emissions

- Contractors shall coordinate with facility personnel prior to beginning work if any work activities could produce dust and/or any other type of fugitive air emissions.

- All work activities shall be conducted in such a manner as to prevent or minimize the generation of any type of fugitive air emissions such as smoke or dust.

Appendix A: NAES Safe Core Elements

Core Element	Description	Corporate Implementing Mechanism
	Management's commitment to safety is visibly demonstrated at the job site. Supervisors actively promote safety in the workplace, conduct safety training, perform inspections and observations, and implement corrective actions. Management encourages employees to report safety concerns and supports the use of Stop Work to prevent incidents. Managers allot time for employees to engage in safety-related activities and are held accountable for site safety during annual performance reviews.	PMP-20, SMP-05 Annual Performance Objectives
	Employees are responsible for following safety rules, using safe work practices and exhibiting safe work behavior. Employees participate in safety programs and processes, serve on safety committees, perform safety inspections and observations. Employees actively promote workplace safety and take part in developing safe work practices, job hazard analyses (JHAs), PPE assessments and work plans.	SMP-01, SMP-01A
	Safety is planned into work. During work scope development, hazards and safety requirements are identified and controls selected for the safe execution of work. Safe work practices are incorporated into work instructions, JHAs prepared, safe work permits completed. Employees attend a pre-job brief on safe performance of the task. Contractor selections are based on ability to accomplish the work scope safely. Work is authorized prior to being performed and then reviewed in the field to ensure it is executed according to plan.	SMP-01, SMP-01A, SMP-17, SMP-22, SMP-26
	Safety training begins with a site-specific safety orientation delivered to new employees, contractors and visitors at all job sites. Safety training is continuous: required annual training, SMP training, hazard-awareness briefings and job-safety briefings. New employees are qualified through training to perform their tasks safely, maintain regulatory compliance and identify hazards and correct them in the workplace. Employees are trained in the proper inspection, storage, use and limitations of PPE. Managers, supervisors and employees in safety roles are trained in their responsibilities for safety.	SMP-01, SMP-02, SMP-26 TMP-02
	Employees must be able to perform the duties of their jobs in a safe, secure and productive manner without posing a hazard to themselves, other employees or the public. The Fitness for Duty program will be implemented on the job site, including pre-employment, post-incident and suspicion-based drug testing. The requirement extends through the contract to contractors conducting work on site.	HRPPM-108, HRPPM-109

	Safety incentives are in place that recognize and reward employees for safe and healthful work practices. Safety-related activities such as housekeeping inspections, safety observations, near-miss reporting, suggestions/concerns and voluntary safety assignments receive recognition. Individuals and groups are recognized to reinforce safe work behaviors and team ownership.	SMP-01, PMP-603
	A reporting culture exists wherein employees can report incidents and injuries without fear of reprisal. An active near-miss reporting process exists for reporting, correcting and learning from minor incidents. Employees are to report injuries no matter how minor. Incidents and injuries are investigated and a root-cause analysis conducted as necessary to determine cause and corrective measures. Corrective measures are tracked to completion and lessons learned shared across the fleet.	SMP-14, AMP-108, AMP-108A, PMP-602
	Contractor safety performance is managed on the job site to ensure that only contractors that share the NAES value of safety perform work. Contractors are pre-qualified to ensure they meet safety criteria. Contractors obtain site-specific safety orientation, adhere to site safety requirements, perform daily safety briefing and inspection of their work site and correct any deficiencies. The site oversees and inspects contractor work activities and locations. Contractor performance is documented and evaluated for future contracting.	SMP-26, SMP-16, SMP-17
	Worksite analysis processes are in place to routinely monitor the workplace and observe work being performed. Safety leading indicators are selected and reported to identify and correct unsafe conditions and reduce at-risk behavior. Results of inspections and observations are reported, deficiencies corrected and the lessons used as a source of mentoring, training and safety communication. Employee participation in work monitoring is encouraged and recognized.	SMP-01, SMP06 Safety Leading Indicators Definitions & Guidance (NAEShare)
	Safety excellence is accomplished through continuous improvement of the safety program and by monitoring and maintaining barriers that prevent injuries and unwanted events. The site will develop and execute a Safety Improvement Plan (SIP) that incorporates corporate and plant goals for achieving and maintaining high standards in safety and promoting a NAES SAFE zero-injury culture.	SMP-01 SIP Template (NAEShare)

Appendix B: Safety Improvement Plan

Plant:
Year:

Safety Improvement Initiatives shall be Specific, Measurable, Accountable, Realistic and Timely

Improvement Initiative #1

Identify Safety Improvement Initiative:

Identify Core Element(s) Impacted				Action Item Objectives		Person(s) Responsible	Completion Date (Est.)	Q1 Review	Q2 Review	Q3 Review	Q4/EOY Review
	1. Management Leadership & Accountability		6. Recognition & Rewards	1							
	2. Employee Engagement		7. Incident Reporting & Investigation	2							
	3. Pe-Work Planning		8. Contractor Management	3							
	4. Safety Orientation & Training		9. Safety Monitoring & Leading Indicators								
	5. Fitness for Duty		10. Continuous Improvement								

Improvement Initiative #2

Identify Safety Improvement Initiative:

Identify Core Element(s) Impacted				Action Item Objectives		Person(s) Responsible	Completion Date (Est.)	Q1 Review	Q2 Review	Q3 Review	Q4/EOY Review
	1. Management Leadership & Accountability		6. Recognition & Rewards	1							
	2. Employee Engagement		7. Incident Reporting & Investigation	2							
	3. Pe-Work Planning		8. Contractor Management	3							
	4. Safety Orientation & Training		9. Safety Monitoring & Leading Indicators								
	5. Fitness for Duty		10. Continuous Improvement								

Improvement Initiative #3

Identify Safety Improvement Initiative:

Identify Core Element(s) Impacted					Action Item Objectives		Person(s) Responsible	Completion Date (Est.)	Q1 Review	Q2 Review	Q3 Review	Q4/EOY Review
	1. Management Leadership & Accountability		6. Recognition & Rewards		1							
	2. Employee Engagement		7. Incident Reporting & Investigation		2							
	3. Pe-Work Planning		8. Contractor Management		3							
	4. Safety Orientation & Training		9. Safety Monitoring & Leading Indicators									
	5. Fitness for Duty		10. Continuous Improvement									

Improvement Initiative #4

Identify Safety Improvement Initiative:

Identify Core Element(s) Impacted					Action Item Objectives		Person(s) Responsible	Completion Date (Est.)	Q1 Review	Q2 Review	Q3 Review	Q4/EOY Review
	1. Management Leadership & Accountability		6. Recognition & Rewards		1							
	2. Employee Engagement		7. Incident Reporting & Investigation		2							
	3. Pe-Work Planning		8. Contractor Management		3							
	4. Safety Orientation & Training		9. Safety Monitoring & Leading Indicators									
	5. Fitness for Duty		10. Continuous Improvement									

Improvement Initiative #5

Identify Safety Improvement Initiative:

Identify Core Element(s) Impacted					Action Item Objectives		Person(s) Responsible	Completion Date (Est.)	Q1 Review	Q2 Review	Q3 Review	Q4/EOY Review
	1. Management Leadership & Accountability		6. Recognition & Rewards		1							
	2. Employee Engagement		7. Incident Reporting & Investigation		2							
	3. Pe-Work Planning		8. Contractor Management		3							
	4. Safety Orientation & Training		9. Safety Monitoring & Leading Indicators									
	5. Fitness for Duty		10. Continuous Improvement									

Improvement Initiative #6

Identify Safety Improvement Initiative:

Identify Core Element(s) Impacted					Action Item Objectives		Person(s) Responsible	Completion Date (Est.)	Q1 Review	Q2 Review	Q3 Review	Q4/EOY Review
	1. Management Leadership & Accountability		6. Recognition & Rewards		1							
	2. Employee Engagement		7. Incident Reporting & Investigation		2							
	3. Pe-Work Planning		8. Contractor Management		3							
	4. Safety Orientation & Training		9. Safety Monitoring & Leading Indicators									
	5. Fitness for Duty		10. Continuous Improvement									

Appendix C: Summary of Required Safety Training

Subject	Frequency	References
Safety Management Plan	Upon initial hire	SMP-1 1910.119
	Annually	SMP-1
Employee Emergency Plan	Upon initial hire	SMP-2 1910.38(a)
	Annually	1910.38(a)
	When the emergency plan changes	
	When an emergency plan change affects employee responsibilities	
HAZWOPER	Upon initial hire	1910.120(q)
	Annually	
Lockout/Tagout	Upon initial hire	SMP-3 1910.269(d)(2)(vi) 1910.147(c)(7)
	Annually	SMP-3
	Retraining when:	1910.147(c)(7)(iii)
	Change in job assignment	1910.269(d)(2)(viii)
	Change in particular plant hazard	
	Change in energy control procedure	
	An inspection determines that retraining is necessary	
	An inadequacy is discovered	
Fire Prevention Plan	Upon initial hire	1910.38(b)(4)
	Annually	SMP-4
	Change in hazards	
Portable Fire Extinguishers	Upon initial hire	1910.157(g)
	Annually	SMP-4
Fire Extinguishing Systems	Upon initial hire	SMP-4 1910.160(b)(10)
	Annually	1910.160(b)(10)
Basic Fire Fighting	Upon initial hire	SMP-4
	Annually	SMP-4 1910.157(g) 1910.38

Subject	Frequency	References
General Safety Practices	Upon initial hire	SMP-5 1910.132 1910.269
	As required	SMP-5
Powered Industrial Trucks	Before use Every 3 years	SMP-18 1910.178(4)(iii) 1910.178(l) 1910.67(c)(2)(ii)
Personal Protective Equipment (PPE)	Upon initial hire	SMP-5 1910.132(f)
	Change in PPE	SMP-5 1910.269(a)(2)
	Change in hazards	SMP-5
	Safety performance requirement	SMP-5
Fall Protection	Before exposure to fall hazards	SMP-5A 1926.502
	Annually	SMP-5A
	Changes in workplace	
	Changes in systems or equipment	
	An inadequacy is discovered	SMP-5
Forklifts	Before use	SMP-18 1910.178(l)(iii)(4)
	Every three years	
	Change in equipment	
	Change in forklift safety conditions	
	Demonstrated unsafe operation	
	Forklift accident or near miss	
	An inadequacy is discovered	
Confined Space Entry	Before being assigned any duty outlined in the Confined Space and enclosed space procedure	SMP-7 1910.146(g)(2)(i)
	Annually	SMP-7
	Before a change in Confined Space duties	SMP-7 1910.146(g)(2)(ii)
	Change in Confined Space procedure	SMP-7 1910.146(g)(2)(iii)
	An inspection determines that retraining is necessary	SMP-7 1910.146(g)(2)(iv)
	An inadequacy is discovered	SMP-7 1910.146(g)(2)(iv)
	Anytime management determines necessity	SMP-7 1910.146(g)(2)(iv)

Subject	Frequency	References
Hazard Communication	Upon initial hire	SMP-8 1910.1200(h)(2)
	Annually	SMP-8
	Change in hazardous materials at plant	
Ammonia Handling	Before use	SMP-8 1910.111(b)(10)(i) 1910.111(b)(13)(ii)
	Change in system	SMP-8 8 CCR 5215
Electrical Equipment	Before assignment of maintenance duties on electrical equipment	SMP-9 1910.269(a)(2)(i) 1910.332(b) 1910.333(b)
	Annually	SMP-9
	Employee non-compliance discovered	1910.269(a)(2)(iv)
	Change in technology	1910.269(a)(2)(iv)
	Change in procedure	1910.269(a)(2)(iv)
Welding, Cutting, Brazing	Before welding	1910.252(a)(2)(xiii)(c) SMP-10
Basic First Aid / CPR	Upon initial hire	SMP-11 1910.269(b) 1910.151(b)
	Every two years\Annual for QEW	SMP-11
Respirator Protection	Upon initial hire	SMP-12 1910.134(k)
	Annually	SMP-12
Hearing Conservation	Upon initial hire	SMP-13 1910.95(k) 1910.95(l)
	Annually	1910.95(k)(2)
Process Safety Management	Upon initial hire	SMP-16 1910.119(g)
	Every 3 years	1910.119(g)(2)
Work Permit	Upon Initial Hire	SMP-17 1910.269, 1910.1200, 1910.146, 1910.252, 1910.147, 1910.262
	Annually	SMP-17
Mobile Equipment	Upon initial hire	SMP-18 1910.178(1)
	Every three years	1910.178(1)(4)(iii)

Subject	Frequency	References
Chemical Handling	Upon initial hire Annually Change in hazardous materials at plant	SMP-19 1910.1200(h)(2)
Pandemic Influenza	Upon initial hire	SMP-20 Federal Register (16): 3904-3916, January 26, 1989
Accident and Injury Reporting	Upon initial hire Annually for Management	SMP-14 1904.5 1904.7 1910.1030 SMP-14
Bloodborne Pathogen Exposure Control	Upon initial hire Annually Change in procedure that could affect exposure New task that could affect exposure	SMP-15 1910.1030(g)(2)(ii) 1910.1030(g)(2)(v) 1910.1030(g)(2)(v)

Appendix D: SMP Training Planning Guide

SMP	Classroom	Computer Training	Safety Tool Box Meeting	Required Reading	Other Requirements	Periodicity
SMP 1 Safety Management Plan	X	X	X	X		Annual
SMP 1A JHA	X	X	X	X		Semi Annual
SMP 2 Emergency Response Plan	X	X			Annual Drill Annual Hazwoper	Annual
SMP 3 Lockout/Tagout	X	X		X		Annual
SMP 4 Fire Safety	X	X			Hands On Fire Extinguisher	Annual
SMP 5 General Safety	X	X	X	X		Annual
SMP 5A Fall Protection	X	X			Demonstration of harness and lanyard use	Annual
SMP 5B Scaffolding	X	X				As Required
SMP 6 Inspections	X		X	X		As Required
SMP 7 Confined Space	X	X				Annual
SMP 8 HazCom	X	X				Annual
SMP 9 Electrical	X	X			Demonstration for QEW	Annual

SMP	Classroom	Computer Training	Safety Tool Box Meeting	Required Reading	Other Requirements	Periodicity
SMP 10 Welding/Cutting	X	X	X	X		Prior to welding
SMP 11 First Aid	X	X			Annual for QEW	Semi Annual
SMP 12 Respiratory	X	X			Fit Test	Annual
SMP 13 Hearing	X	X			Audiometric Testing	Annual
SMP 14 Injury Reporting	X		X	X		Annual for Management
SMP 15 Bloodborne Pathogen	X	X				Annual
SMP 16 Process Safety (If Applicable)	X				Annual Hazwoper	Every 3 year
SMP 17 Safe Work Permit	X	X	X	X		Annual
SMP 18 Heavy Equipment	X	X				Every 3 years
SMP 18A Cranes	X	X				Annual
SMP 19 Chemical Handling	X		X			Annual
SMP 20 Pandemic	X		X	X		As required
SMP 21 Combustible Dust (If Applicable)	X	X	X	X		As required

SMP	Classroom	Computer Training	Safety Tool Box Meeting	Required Reading	Other Requirements	Periodicity
SMP 22 Gas Venting	X	X	X	X		As required
SMP 23 Heat Stress	X	X	X	X		Annual
SMP 24 Excavation	X	X				As Required
SMP 25 Nuclear Source	X					Annual
SMP 26 Contractor Safety	X		X	X		As required
SMP 27 Hot Work	X	X	X	X		Annual
SMP 28 Working Alone	X		X	X		Annual

All Training Subjects Are Upon Initial Hire - Any CBT Training Must Be Followed With Plant Specific Training As Required

Appendix E: Sample Forms

The following example forms and guidance documents can be found on the NAEShare:

1. Visitor Orientation Sheet
2. Contractor Orientation Sheet
3. Safety Meeting Form
4. Employee Safety Suggestion Form
5. Sample Safety File System Index

DRAFT

EMERGENCY RESPONSE PLAN

CPV TOWANTIC ENERGY CENTER

PLEASE NOTE THAT RED-LINED EDITS REFLECT INFORMATION THAT HAS BEEN ADDED OR WILL BE ADDED TO THE EMERGENCY RESPONSE PLAN AS REQUESTED BY STATE AND LOCAL OFFICIALS DURING MEETING WITH CPV TOWANTIC, LLC.

[Insert Logo]

June 2015

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Tables

Appendices

1.0 INTRODUCTION

This Emergency Response Plan (ERP or Plan) has been developed to direct response actions at the CPV Towantic Energy Center (the Facility) in the event of an emergency in accordance with condition number 1h and item number 2, Development and Management Plan (D&M Plan), of the Connecticut Siting Council's (CSC) final Decision and Order (D&O) for Docket 192B dated May 14, 2015. The Facility is located within the Town of Oxford in New Haven County, just south of the Middlebury, Connecticut town line. The Facility footprint is situated along the eastern side of Woodruff Hill Road, just south of an Algonquin Gas Transmission right of way. Figure 1-1 in Appendix A presents the Towantic Site Location Map.

The ERP covers responses to natural phenomena, fires, medical emergencies, oil and hazardous material (OHM) spills/releases, and any other reasonably foreseeable incidents that would affect the health and safety of the plant personnel and/or the general public.

1.1 Purpose

The purpose of this ERP is to establish the responsibility for handling emergency situations promptly, minimizing hazards, and disseminating information to all plant personnel and regulatory authorities (as required). This program will be annually reviewed and updated as appropriate by CPV Towantic's Plant Manager and Compliance Coordinator after seeking input from local public safety officials, Waterbury-Oxford Airport (OXA) and the Department of Emergency Services and Public Protection (DESPP).

Plant personnel will review this ERP at least annually during routine health and safety training.

After an actual emergency or drill, a critique of the emergency response will be conducted to evaluate and improve this plan, as needed.

1.2 Companion Plans & Procedures

This ERP is designed to be utilized in conjunction with current versions of the following CPV Towantic plans:

- *Spill Prevention Control and Countermeasure Plan*.
- *Stormwater Pollution Prevention Plan.*
- *Site Emergency Response Procedures*.

These Plans and Procedures will be fully developed and implemented in accordance with condition number 1h and item number 2 of the final D&O for Docket 192B prior the commencement of commercial operation.

The following figures are attached to this Plan.

Comment [KK1]: Figures to be finalized and submitted to council in accordance with D&O condition 1.h.

- Figure 1-1, Towantic Site Location Map.
- Figure 1-2, Project Location Map.

- Figure 1-3, Aerial Photograph.
- Figure 1-4, Facility Layout (as provided in item A of CPV Towantic D&M Plan).
- Figure 1-5, Stormwater Management Plan
  (as provided in items E, I, J, O and R of the CPV Towantic D&M Plan).
- Figure 1-6, Emergency Response Site Plan - Emergency Equipment, Emergency Exit Routes, Emergency Evacuation Meeting Point.

Comment [KK2]: To include color-coded spill routing, per request from Oxford Fire Department.

1.3 Facility Organization, Trained Staff, Security

The Facility will be manned 24 hours per day, 7 days per week. The operational labor force will consist of trained employees who will be on-site at all times that will be available to provide initial emergency response support.

The perimeter of the Facility site will be secured with a chain link fence, sliding gates and surveillance equipment so as to permit only authorized access to the facility's service drive, structures and operations. One gate would provide access into the project site, thereby restricting access to this area. The gate would be locked during normal operations with access provided by facility personnel. Normal plant lighting and emergency temporary lighting would be provided throughout the facility. The Facility security will be controlled by the Facility's operators in the control room 24 hours per day, 7 days per week, and 365 days per year. All site security personnel will be equipped with communication equipment to maintain contact with construction and operations management personnel and/or the Oxford Police and Fire Departments, OXA, the DESPP and [INSERT OTHER RELEVANT PARTIES].

Table 1-1: Preliminary Operations Staffing Plan			
Job Title/ Staff	**Emergency Response Job Function**	**Training**	**Total**
Plant Manager	**Alternate Emergency Coordinator**	40-hour OSHA, 8-hour Site Supervisor	1
Compliance Coordinator	**Emergency Coordinator**, Training	40-hour OSHA, 8-hour Site Supervisor	1
Production Manager	**Alternate Emergency Coordinator**	40-hour OSHA, 8-hour Facility Hazard Awareness	1
Plant Engineer	None	40-hour OSHA, 8-hour Facility Hazard Awareness	1
Business Manager	None	8-hour Facility Hazard Awareness	1
Control Room Operators	**Alternate Emergency Coordinator**	40-hour OSHA, 8-hour Site Supervisor	4
Operators	Response Team Member	24-Hour OSHA	8
Maintenance and I&C Technicians	Response Team Member	24-Hour OSHA	4
Administrative Support	None	8-hour Facility Hazard Awareness	1
Totals			22

40-hour OSHA: Training designed for workers who are involved in clean-up operations, voluntary clean-up operations, emergency response operations, and storage, disposal, or treatment of hazardous substances or uncontrolled hazardous waste sites in accordance with 29 CFR 1910.120.
24-hour OSHA: Training designed for personnel that may approach a spill in an emergency response with intentions of stopping the spill and containing the spread of the material.
8-hour Supervisor: Specialized training in safety management and facility specific safety programs.
8-hour Facility Hazard Awareness: Training designed for personnel that may be present at an initial incident who will not take direct action to contain or control the incident.

1.3 ERP Distribution

At a minimum, this ERP shall be located in the following locations:

- Facility Emergency Evacuation Meeting Point
- Facility Administration Office

In addition, this Plan will be provided to:

- Connecticut Siting Council
- Department of Emergency Services and Public Protection
- Waterbury-Oxford Airport
- Oxford Fire Department
- Oxford Police Department

- Oxford First Selectman
- [INSERT OTHER PARTIES AS NEEDED]

1.4 Plan Updates

This Plan will be updated as necessary and reviewed annually, at a minimum, by the Facility's Plant Manager and Compliance Coordinator after seeking input from local public safety officials, Waterbury-Oxford Airport (OXA) and the Department of Emergency Services and Public Protection (DESPP), however each agency that receives the plan will be requested to provide input on subsequent updates to the plan. The Oxford Fire and Police Departments will have "hands on" input during annual training exercises planned at the Facility. A record of all revisions and amendments will be documented in subsequent revisions to this Plan.

2.0 GENERAL FACILITY INFORMATION

2.1 Existing Site and Surrounding Conditions

The CPV Towantic Energy Center is located in the northern portion of the Town of Oxford, near the boundary with the Town of Middlebury. The Facility is bounded by Woodruff Hill road and a Connecticut Light and Power transmission right-of-way to the west; the Algonquin interstate natural gas pipeline system owned by Spectra to the north; a Spectra-owned gas compression station to the east and lot 9B and Spectra's gas compression station access road to the south. Figure 2-1 shows the site boundary on the United States Geological Survey (USGS) map for the general area. Figure 2-2 provides the site boundary and area on an aerial photograph. Figure 2-3 illustrates the general facility information described in this section.

2.2 Facility Description

All Facility equipment described in this section is presented on the Site Plan, Figure 2-3.

The combined-cycle facility can generate a peak of 785 megawatts (MW) of electricity. On an average ambient day (59°F ambient dry bulb temperature) approximately 524.5 MW of this power is produced using two combustion turbine generator sets. Exhaust heat from the combustion turbines is sent to a heat recovery steam generators (HRSGs) to produce steam to drive a steam turbine generator. The steam turbine generator provides approximately 280.5 MW, the balance of the Facility's gross output. Approximately 20 MW are consumed within the Facility to power necessary Facility systems, which leaves a net Facility electric output of 785 MW.

The HRSGs include a natural gas-fired "duct burner" (supplemental firing system). The duct burners would allow for additional electrical production during select periods. For environmental purposes, the Facility is equipped with state of the art emissions control technology. This equipment includes selective catalytic reduction technology (SCR) and an oxidation catalyst would be used to control oxides of nitrogen (NO_x) and carbon monoxide (CO) emissions, respectively. Exhaust steam from the steam turbine is cooled and condensed and then returned to the HRSG using an air-cooled condenser.

2.3 Structures

The Generation Building contains the following equipment:

- Steam turbine and the steam turbine generator;
- Other mechanical equipment, such as pumps, piping and electrical equipment needed for plant operation.

The plant site has overhead gantry cranes to facilitate major equipment maintenance activities. Elevated platforms are installed to provide for access to equipment and piping. The roof of the structure is designed to support metal decking and insulating panels. The walls are insulated

metal siding supported on a steel frame. Also enclosed within the main generation building are office space, a meeting room, a kitchen, storage areas and restroom facilities.

The two (2) gas turbines and associated generators are installed directly adjacent to the Generation Building.

Approximate building dimensions and heights for major Facility components are as follows:

- Generation Building 161 feet by 92 feet by 37 feet height
- Admin/Control/Electrical Building 186 feet by 59 feet by 52 feet height
- Steam Turbine Generator Enclosure 110 feet by 44 feet by 27 feet height
- Gas Turbine Generator Enclosure 129 feet by 37 feet by 37 feet height
- HRSG 138 feet by 48 feet by 110 feet height
- HRSG Stack 22 foot diameter with 150 foot height
- Glycol Fin Fan Cooler 100 feet by 60 feet by 20 feet height
- Gas Compression Area TBD
- Generator Step Up Transformers 48 feet by 30 feet by 20 feet height
- Ammonia Storage Tank 13 foot diameter by 25 foot height
- Maintenance/Warehouse Building included inside Admin/Control Building
- Gas Meter Enclosure 100 feet by 50 feet by 10 feet height
- Air Cooled Condenser 268 feet by 250 feet by 85 feet height
- Demin Water Storage Tank(s) 60 foot diameter with 42 foot height
- Service/Fire Water Storage Tank 40 foot diameter with 40 foot height
- Fuel Oil Storage Tank 73 foot diameter with 48 foot height
- Fuel Oil Delivery Facilities 125 feet by 38 feet by 16 foot height

2.4 Power Generation Equipment

The major pieces of equipment include two combustion turbine generators with an evaporative inlet air cooler, two HRSGs with duct burner, a steam turbine, an air-cooled condenser (main cooling system), a fin-fan cooler (auxiliary cooling system), an electric and emergency diesel fire pumps, and a combustion turbine exhaust stack. Additional support systems and equipment include, but are not limited to, the following:

- Feed-water systems;
- Condensate system;
- Water treatment system comprised of demineralized water trailers;
- Selective catalytic reduction (SCR) system;
- Oxidation (CO) catalyst;
- Chemical storage and injection system;
- Sanitary waste collection and discharge system;
- Fire protection system (including detection and alarm system);
- Domestic (potable) water distribution system;
- Instrument and service air systems;
- Heating, ventilating and air conditioning systems;

- Wastewater collection, treatment and discharge systems;
- Oil-water separators;
- On-site natural gas interconnection;
- On-site natural gas compressor and conditioning station;
- 115 kV overhead electrical transmission line;
- 115 kV switchyard; and
- Controls and instrumentation.

2.5 Auxiliary Equipment

Auxiliary equipment at the Facility includes the following:

- Combustion turbine inlet air evaporative cooler;
- Power transformers;
- Water demineralization system;
- Electric fire pump; and,
- Emergency diesel fire pump (back-up power to the electric fire pump)
- Emergency diesel generator
- Auxiliary Boiler

2.6 Fuel

Natural gas is the primary fuel with ultra-ultra-low sulfur distillate oil serving as a back-up fuel. Storage for the back-up fuel is in a 1,500,000-gallon fuel oil storage tank. The storage tank is equipped with secondary containment capable of retaining 110 percent of the storage tank capacity. Fuel delivery piping outside of the containment area is double walled with interstitial monitoring for leak detection. The fuel off-loading facilities would be capable of handling four tanker trucks simultaneously and has its own containment.

2.7 Key Facility Components

2.7.1 Combustion Turbine Generator

The two combustion turbine generators are internal combustion engines that operate with rotary motion (rotates a shaft to generate electricity). The turbines are composed of three major components: the compressor, combustor, and power turbine. In the compressor section, ambient air is drawn in and compressed up to 21 times ambient pressure and directed to the combustor section where fuel is introduced, ignited, and burned. Hot gases from the combustion section are diluted with additional air from the compressor section and directed to the power turbine section at high temperature. Energy from the hot exhaust gases, which expand in the power turbine section, is then recovered in the form of shaft horsepower (i.e., horsepower present at turbine shaft). More than 50 percent of the shaft horsepower is needed to drive the internal compressor and the balance of recovered shaft horsepower is available to drive the turbine and generate electricity.

Additional auxiliary systems provided with the combustion turbine generator package include: static excitation system, electric starting system, inlet silencer, evaporative inlet air cooler, packaged electrical/control systems, carbon dioxide fire protection systems, vibration monitoring, compressor water wash skids, and engine lubricating oil systems.

2.7.2 Heat Recovery Steam Generators (HRSGS)

High temperature exhaust gases exit the combustion turbine generators and are routed to the two HRSGs via ductwork. In the HRSGs, the heat from the exhaust gases is transferred to water/steam tubes that are immersed in the HRSG gas flow, first to boil the water into steam and then to superheat the steam for use in the steam turbine. The exhaust gases from the HRSG are routed to the stack.

The HRSGs would have supplemental fuel firing provided by an approximately 315 x 10^6 Btu/hr natural gas-fired duct burner.

2.7.3 Steam Turbine Generator

Steam generated in the HRSGs is expanded through a steam turbine coupled with a generator (steam turbine generator) to generate additional electricity. The steam turbine generator is a multi-stage, reheat, condensing turbine and that produces approximately 263 MW of electric power at an average ambient temperature of 59º F, in the non-duct fired mode of operation. The steam turbine generator is designed to exhaust to an air-cooled condenser. The steam turbine generator would be designed to run continuously, but is also be capable of operating as a cycling unit. The steam turbine generator is located in the generation building.

Provisions have been made in the design to minimize thermal expansion, stresses, distortion and vibration. The steam turbine is designed to shut down under any of the following conditions: overspeed, high vibration, high thrust, high differential expansion, low lube oil pressure and high back pressure. A 100 percent high pressure/low pressure turbine steam bypass system is provided to dump steam to the condenser, if necessary. The turbine bypass system would is utilized for temperature matching on warm and hot starts in addition to keeping the gas turbine in operation in the event of a steam turbine trip.

2.7.4 Gas Compression System

Transmission-pressure gas (390 to 750 psig) will be supplied by a lateral off of the Algonquin Gas Transmission line owned and operated by Spectra Energy. The lateral enters the metering and regulation (M&R) station where gas is first filtered, then metered, heated and regulated. Gas compression facilities are also provided inside the power plant fence line to boost gas pressure in the event that inlet pressure is lower than required for the power plant gas turbines. The M&R station will be designed for a maximum flow rate of 132,000 dekatherms/day (5,400 Mscfh), with a maximum allowable operating pressure (MAOP) of 750 psig.

The Gas Compression System will be comprised of 3 gas compression skids, each capable of supporting 50% of the Facility's maximum flow rate of 132,000 dekatherms/day.

2.7.5 Main System Cooling (Air-Cooled Condenser)

An air-cooled condenser is located adjacent to the generation building to provide cooling for the steam exhausted from the steam turbine. The air-cooled condenser is designed to operate with ambient air as a direct steam-cycle heat sink. Steam is routed from the steam turbine exhaust through ducts to a series of fin tube heat exchangers. The steam flows through the tubes and condenses inside the tubes forming condensate while air flows over the outer tube surface. Condensate is discharged from the air-cooled condenser and returned to the HRSG after the latent heat of vaporization is transferred from the turbine steam directly to the air stream. Air is moved through the air-cooled condensers by a series of fans, with ambient air drawn from below the condenser and the heated warmer air discharged from the top of the condenser.

2.7.6 Auxiliary System Cooling (Fin-Fan Cooler)

A fin-fan cooler (auxiliary cooling system), separate and distinct of the air-cooled condenser, would be provided for cooling of plant equipment and sub-systems. The fin-fan cooler is an air-cooled heat exchanger that rejects heat from a fluid directly to ambient air using a series of tubes, fins and fans similar to an automobile radiator. Propylene glycol / water mixture is used as a coolant. The fin-fan cooling system is designed to support base load capability of the plant up to an ambient temperature of 105º F. This system would be controlled remotely from the plant control room.

The following equipment and sub-systems are served by the fin-fan cooler:

- Steam Turbine Generator (STG) Coolers;
- Combustion Turbine Generator (CTG) Coolers;
- STG and CTG Lube Oil Coolers;
- STG and CTG Auxiliaries;
- STG Hydraulic Power Unit Coolers
- Sample Coolers;
- Service and Instrument Air Compressors and Aftercoolers (if water-cooled); and
- HRSG Feed Pump Oil Coolers;

2.7.7 Evaporative Cooler

The inlet air cooler operates when temperatures exceed approximately 59º F in order to maximize plant efficiency and output. Water is pumped into the evaporative cooling media, which is a cellulose-based material. It is mounted at the inlet of the inlet filter house. The water trickles down and soaks the media, while inlet air is passed through. This causes evaporation of water, causing cooling of the air passing through.

2.7.8 Emergency Diesel Fire Pump

An emergency diesel fuel pump is used only to maintain on-site firefighting capability if electric power was not available from the utility grid.

2.7.9 Stack

Exhaust gas from the HRSGs flow into the two, above grade, stacks located south of the gas turbine generator enclosures.

2.7.10 Aqueous Ammonia Storage

The selective catalytic reduction requires aqueous ammonia injection for NO_x emissions control. A 19 percent aqueous ammonia solution is stored in a 20,000-gallon tank. The 13 foot diameter by 25 foot high tank is a welded of steel construction. The tank is located within a concrete containment area capable of storing 110 percent of the tank contents. The tank has a leak detection system with an audible alarm in the control room. The storage tank and containment design would include provisions for overfill detection and prevention.

2.7.11 Water Tanks

The primary source of water for fire protection is the 500,000 gallon raw water that contains a dedicated capacity of 300,000 gallons specific for the fire protection system. The plant personnel are trained as an on-site fire brigade, working cooperatively with the Oxford Fire Department, to function as the first line of defense in the event of a fire at the plant.

The two (2) demineralized water tanks will both store approximately 875,000 gallons of treated water and both tanks are approximately 60 feet in diameter and 42 feet high. The tanks are located on the south side of the demineralized water treatment area.

A 500 gallon off-line turbine/compressor wash water holdup tank would be installed on-site to manage wastewater generated during off-line CT washes. The waste stream is trucked off-site for appropriate treatment and disposal at a licensed treatment facility.

2.7.12 Indoor Material Storage Areas

Facility operations require limited amounts of lubricating oils and certain other industrial chemicals, stored in specially designed, covered containment areas. All on-site chemical storage areas are situated indoors with appropriate containment.

The combustion and steam turbine generator sets contain lube oil. The oil is stored in steel tanks. The lube oil reservoirs have secondary containment designed to contain 110 percent of the oil volume in the unlikely event of a catastrophic failure. Visual and automated leak detection would be provided by the level and pressure indicating control system.

Chemicals, used oils and lubricants are stored in designated areas with secondary containment. Any incompatible materials (e.g., acid and caustic) are separate containment areas. The portable containers within the storage enclosure would not be stacked more than two high without using a properly designed storage rack for that purpose.

3.0 HAZARD ANALYSIS

This section analyzes the hazards at the Facility and details actions Facility personnel should take in the event of an incident. This analysis is not intended to detail every emergency response procedures, rather, potential hazards were identified that required detailed analysis. Potential resources and receptors categories were selected and analyzed in Section 3.1 and specific hazard analysis was completed for the following categories:

- Section 3.2, Fires and Explosions;
- Section 3.3, Spills;
- Section 3.4, Aqueous Ammonia;
- Section 3.5, Natural Gas;
- Section 3.6, Oil and Hazardous Materials Delivery
- Section 3.7, Blood-Borne Pathogens; and,
- Section 3.8, Severe Storms.

3.1 Resources and Receptors

The potential resources and receptors requiring analysis include:

- Facility personnel;
- Delivery personnel;
- Visitors and contractors;
- Adjacent community; and,
- Surface water and wetlands.

During hazard analysis, these resources and receptors will be addressed, as necessary. A brief summary of each is described below.

3.1.1 Personnel, Visitors, and Contractors

The Facility personnel shall be trained to respond to an event at the Facility. All employees, visitors, and contractors must sign-in/sign-out in the logbook at the Administration/Control Building during routine workdays. Visitors may be asked to read a brief description of the facility and understand the evacuation procedure. During an emergency, the Emergency Coordinator is responsible for obtaining this logbook directly or via a designated individual (e.g., office personnel). This will allow for all personnel to be accounted for in an emergency.

3.1.2 Adjacent Land Uses

Existing adjacent land uses are presented on Figure 3-1-2 and are described below.

The northwestern quadrant of the 1-mile study area consists of developed and undeveloped commercial/industrial parcels, OXA and some residential areas. The northeastern quadrant includes Spectra's gas compression station and primarily undeveloped commercial/industrial and residential areas. The southeastern quadrant consists of primarily commercial/industrial undeveloped land and residential areas, including portions of the fifty-five plus golf course community of Oxford Greens. The southwest quadrant is nearly entirely commercial/industrial property and OXA.

3.1.3 Wetlands and Ecological Resources

Existing wetland features occurring on or near the project site are depicted in Figure 3-1-3 and described below.

Wetland 1 (±10,322 SF) is a dense glacial till hillside seep wetland meadow wetland system with scattered shrubs characterized by a relatively narrow clearing surrounded to the north and south by mature upland forest located in the central-west portion of the Site. Water is conveyed west, originating at a stone wall at the edge of a large open field. This wetland feature terminates as it approaches the Woodruff Hill cul-de-sac. Evidence of mechanical compaction in the form of tire ruts is prevalent throughout this wetland seep system along with disturbed wetland soil profiles.

The majority of Wetland 2 (±10,561 SF on site) is off-site, with only its western edge located in the northwest corner of the Site. Wetland 2 is a complex of forested, scrub/shrub, and emergent seep wetland habitats formed in dense glacial till. An overhead electrical distribution ROW running north/south along the Site's western property boundary, north of the CL&P ROW, bisects the eastern upper reaches of this wetland system. Evidence of mechanical compaction in the form of tire ruts and gravel surfaces is prevalent throughout this utility ROW resulting in shallow ponding water at the time of inspection. Wetland 2 generally drains east to west across a moderately west-facing slope, formed in dense glacial till.

Wetland 3, located entirely off Site along the west property boundary and connected to Wetland 2 further off Site to the west, is a small hillside seep wetland system that has experienced high levels of anthropogenic activity. Wetland 3 is generally located at the confluence of a CL&P ROW and Woodruff Hill Road cul-de-sac. As such, the hydrology and nature of Wetland 3 has been highly altered from previous filling activities associated with CL&P maintenance and upgrading of this electrical transmission ROW, resulting in disturbed wetland soil profiles, surface compaction and altered vegetation communities. This wetland system receives hydrology from the surrounding uplands to the north and east via seasonal overland flow and groundwater exfiltration, as well as a PVC pipe conveying flows from a dug drainage swale located along the east side of Woodruff Hill Road on the Site.

Wetland 4 (±178 SF) is a very small, isolated man-made depressional wetland feature located in a generally flat, forested upland area located in the central-north portion of the Site. This depression was artificially created in dense well drained glacial till soils, apparently the result of a dug test pit that was improperly backfilled. This anthropogenic feature has formed a small depression that intercepts the seasonally high groundwater table as evident by a review of disturbed hydric soil profiles.

3.2 Fires and Explosions

The use of flammable materials at the Facility results in the potential for fires and/or explosions. As a result, fire prevention systems have been designed into the facility and are detailed below.

3.2.1 Fire Incident Prevention

Good housekeeping is an essential element of fire prevention. Waste paper, rags, and other combustible material shall not be allowed to accumulate. Emergency exits and passageways shall be free of obstructions at all times. Employees shall eliminate such hazards if possible and in any event, report them to supervisors.

All employees will be informed of the following:

1) Smoking is allowed only in designated areas within the Facility;
2) Where the nearest fire exit is located in regard to the work area;
3) What to do when a fire alarm sounds;
4) How to sound a fire alarm;
5) The location of fire extinguishers nearest the work area;
6) The meaning of identification markings on fire extinguishers; and
7) The emergency evacuation site meeting point location and evacuation routes.

3.2.2 Fire Protection Equipment

This section describes the onsite equipment and systems to be provided to prevent or handle fire emergencies and hazardous substance incidents during operation.

The Facility shall have multiple safety systems, including on-Site fire protection systems and onsite emergency response equipment. These systems will include pull boxes, on-Site fire hydrants, fire suppression systems, portable fire extinguishers, an internal public address system, emergency lighting, first-aid kits, spill response kits, eyewashes, safety showers, and personal protective equipment such as hard hats, safety shoes, and safety glasses. On-site Facility personnel shall be trained in fire safety.

The Facility fire protection system shall be designed in accordance with the State Fire Safety Code, and the NFPA Standard 101 Life Safety Code, latest edition. A complete onsite fire protection system shall be installed for emergency use. The source of fire suppression water will be from onsite storage supplied by an interconnection to the Heritage Village Water Company potable water system.

This fire protection system will be highly protective of the Facility workers and, as a result, is also protective of the neighborhood. Component specific fire safety systems are described below.

3.2.3 Combustion Turbine Generating Sets

The combustion turbine generator will include controls to detect fire, unsafe temperatures, or explosive atmospheres in the equipment. The enclosure will be equipped with pre-engineered carbon dioxide (CO_2) fire suppression systems controlled by fire and heat detectors.

3.2.4 Gas Compressor Building

The enclosure will be provided with smoke and gas detectors, hand-held fire extinguishers, and a remote shutoff of the gas feed.

3.2.5 Fuel Tank Area

A foam deluge system will be provided at the ultra-low sulfur diesel fuel storage tank and unloading area.

3.2.6 Main Step-up Transformer

Fire walls will be provided for protection of structures.

3.2.7 Yard Fire Hydrants and Fire Water Supply

Hydrants will be provided throughout the Facility, including a hydrant at the Facility's primary response entrance.

3.3 Spills

Spill prediction, prevention, and control shall be achieved through the use of proper unloading procedures, the use of spill control devices, and the practice of regular maintenance and inspections of the tanks and/or the storage systems.

Implementation of the standard fueling procedures, spill control devices, inspections and security measures at the Facility shall minimize the potential for a spill or release associated with storage tanks, chemical storage areas, and oil storage systems.

The potential chemical hazards at the Facility are associated with the various oil/petroleum products and chemical materials used at the Facility. In the event of an oil or chemical spill, only appropriately trained Facility personnel are allowed to provide emergency response. Potential Facility worker exposure to these chemicals could occur through inhalation, ingestion, or absorption.

Ingestion and absorption will be controlled through the use of personal protective clothing and decontamination procedures. Inhalation hazards will be controlled through the use of respiratory protection. Skin and eye contact of all media containing contaminants shall be avoided.

A summary of chemical hazards and safety information is provided on Table 3-3. A detailed presentation of chemical hazards and safety information is presented on the material safety data sheets provided in Appendix B.

Table 3-3:
Oil and Hazardous Material Response and Safety Information

Chemical Name	Federal RQs 40 CFR 302 TPQ/ CERCLA National Response Center		Exposure Controls	Physical Properties	Exposure Symptom/ First Aid
Bearing Oil	None/None. (Report to NRC if release reaches surface water).	Any quantity.	TLV= 5 mg/ m3 Use NIOSH respirator if mist is involved.	UEL: ND LEL: ND F.P.: 300 □F B.P.: 600 □F S.G.: ND Amber color, sweet odor.	Mild irritant to eyes, skin. Irrigate immediately with water.
Transformer and Auxiliary Transformer Oil	None/None. (Report to NRC if release reaches surface water).	Any quantity.	TLV = ND Stay upwind; use NIOSH respirator	UEL: ND LEL: ND F.P.: >295 □F B.P.: >300 □F S.G.: 0.88 White liquid with petroleum odor.	Irritation to eyes, skin. Irrigate immediately with water.
Generator and Gas Compressor Lube Oil	None/None. (Report to NRC if release reaches surface water).	Any quantity.	PEL: 5 ppm TLV: 5 ppm (as oil mist) Use NIOSH respirator if mist is present	UEL: ND LEL: ND F.P.: 300 □F B.P.: 425 □F S.G.: 0.89 Clear and Bright liquid.	Mild irritation to skin. Irrigate immediately with water.
Turbine Lube Oil	None/None. (Report to NRC if release reaches surface water).	Any quantity.	PEL: 5 ppm TLV: 5 ppm (as oil mist) Use NIOSH respirator if mist is present	UEL: ND LEL: ND F.P.: >392 □F B.P.: >527 □F S.G.: 0.953 Brown oily liquid with petroleum odor.	Mild irritant to eyes, skin. Irrigate immediately with water.
Fuel Oil	None/None (Report to NRC if release reaches surface water).	Any quantity.	Use NIOSH respirator if mist is present.	UEL: 5 % LEL: 0.7% F.P.: 100-162□F B.P.: 347-617□F S.G.: ND Colorless to yellowish, oily liquid with a strong odor.	Irritation to eyes, skin, respiratory system; nausea, headache. Irrigate immediately with water.

Table 3-3:
Oil and Hazardous Material Response and Safety Information

Chemical Name	Federal RQs 40 CFR 302 TPQ/ CERCLA National Response Center		Exposure Controls	Physical Properties	Exposure Symptom/ First Aid
Aqueous Ammonia (19 percent)/1336-21-6	None/1,000 lbs (110 gallons) report to NRC.	1,000 lbs (110 gallons) to air or 100 lbs (11 Gallons) to land.	PEL: 50 ppm TLV: 25ppm IDLH: 300 ppm With SCBA only at >250 ppm	UEL: 25% LEL: 16% F.P.: Autoignition 1204°F B.P.: 97 □F S.G.: 0.9 Colorless solution, offgasses with pungent, suffocating odor.	Irritation to eyes, skin, respiratory system; potentially toxic if ingested. Irrigate immediately with water.
Dielectric Fluid	None/None (Report to NRC if release reaches surface water).	Any quantity.	Use NIOSH respirator if mist is present	UEL: ND LEL: ND F.P.: 370 □F B.P.: 644 □F S.G.: ND Clear liquid with a mild sweet odor.	None
Natural Gas	Report significant incident to NRC.	None.	TLV: simple asphyxiant	UEL: 15% LEL: 5% F.P.: unknown, autoignition >1,000°F Colorless gas, lighter than air.	Absorb/inhalation risk. Can lower oxygen content in confined area. Rapid evaporation may cause frostbite. Move to fresh air.

3.4 Aqueous Ammonia

Aqueous ammonia will be stored on site for use in the Selective Catalytic Reduction (SCR) emissions control system for nitrogen oxides. An aqueous ammonia solution containing less than 20 percent ammonia by weight will be stored in a 20,000-gallon tank. The tank will be an approximate diameter of 13 feet and an approximate height of 25 feet.

The tank will be located within an impermeable concrete containment area. The containment area will be approximately 50 feet long and 20 feet wide. The containment basin is designed to contain 110% of the tank contents in the event of a total tank failure that would release the tank contents.

Facilities such as the CPV Towantic Energy Center that store aqueous ammonia solutions containing less than 20 percent ammonia by weight are not subject to the United States Environmental Protection Agency (EPA) Risk Management Planning (RMP) Rule.

3.5 Natural Gas

The Facility utilizes clean burning natural gas as its primary source of fuel. Fuel gas handling and use shall comply with the safety measures mandated in the wake of i) the Final Report entitled "Governor's Commission Re: Kleen Energy Explosion – Final Report" issued by the Nevas Commission on June 3, 2010; and ii) the Executive Report issued by the Thomas Commission on September 21, 2010.

The following standard operating procedures will be incorporated to minimize the risk associated with natural gas use:

- The pipeline interconnection operation and management will be performed in accordance with the Office Pipeline Safety standards;
- Equipment will be cathodically protected to reduce corrosion;
- Natural gas systems will be operated with direct monitoring sensors;
- Monitoring data will be collected in the Control Room and alarms shall be set to alert the operator of possible safety concerns and alerts;
- The Control Room shall be able to notify the Fire Department of the site conditions and provide guidance on response, if needed;
- Monitoring instruments and sensors shall be placed on a preventative maintenance schedule that includes calibration and alarm testing;
- Site alarms shall notify workers of an emergency condition. These shall be tested periodically to verify operation;

- The operator shall be monitoring onsite gas usage and conditions and initiate shut down during an unusual event; and

- Routine training of personnel shall be conducted and coordinated with the Fire Department in order to provide effective response during emergencies.

All procedures shall conform to the Office of Pipeline Safety, OSHA, and NFPA standards. Programs and systems shall be reviewed and updated in the Facility Operating Procedures as part of the Facility's "Management of Change" program, if new procedures or equipment are introduced.

3.6 Oil and Hazardous Materials Delivery

All operators of heavy equipment shall maintain appropriate licenses for the use of heavy equipment. The operation of all vehicles shall be performed in accordance with State and Federal Department of Transportation requirements. Vehicles entering the Facility will be visually inspected by the Technician overseeing the intended operation. Any visible safety defect shall prevent the vehicle from entering the Facility until it is repaired.

Drivers transporting hazardous materials must have a current Commercial Driver's License and completed (up-to-date) log books. The vehicles must be properly placarded. It is the responsibility of all drivers to comply with all transportation regulations including obeying posted speed limits, covering loads and utilizing designated transportation routes.

The potential for an OHM release from a vehicle at the Facility exists during routine operation of the Facility. All unloading procedures shall be completed in areas of secondary containment. Any release of OHM due to a vehicle accident shall require immediate notification and spill response outlined herein.

3.7 Blood-Borne Pathogens

"Blood-borne pathogens" refers to pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B virus, Human Immunodeficiency Virus, Clostridium tetani (tetanus), and Clostridium perfringens (gas gangrene).

The only Facility personnel who might be exposed to this hazard under normal conditions is the initial emergency responder, in the event he or she is required to render first aid to an injured worker while waiting for emergency personnel. First aid kits shall be available throughout the Facility and contain gloves, surgical mask, and safety goggles to be used whenever contact with bodily fluids is possible. The kits shall also be equipped with a CPR mask that has a one-way valve in the event mouth-to-mouth resuscitation of a worker is required. Antibiotic cleansers shall be included in the kit, as will special bags for the containment of medical waste.

3.8 Severe Storms

In order to ensure adequate coverage in the event of a severe storm, such as a hurricane or blizzard, the Plant Manager or Compliance Coordinator will determine a list of essential personnel required regardless of the operating status of the units. All employees scheduled to work will be expected to arrive for work as scheduled unless previous arrangements have been made with their supervisor. Non-essential personnel will be released from duty well in advance of the storm's arrival. All essential personnel will be expected to report to work early enough to avoid being detained by the arrival of storm conditions. Essential personnel should come prepared to stay at the plant for a period as long as two days in the event that a severe storm prevents other employees from returning to work as scheduled.

4.0 EMERGENCY RESPONSE

This section details emergency response actions Facility personnel shall conduct in the event of an incident. Any incident will be recorded on an Incident Report Form. These actions are presented in the following subsections:

- Section 4.1, Discovery, which includes Key Personnel and Job Functions, Spill Reporting and Documentation, and Activation of the On-Site Emergency Operations Center;
- Section 4.2, Facility Evacuation Plan;
- Section 4.3, Initial Response Actions, which includes procedures for a Medical Emergency, Power Outages, OHM Spill, Natural Gas Release, Severe Weather, Hostile Threats, and Vehicular Accidents;
- Section 4.4, Sustained Actions; and
- Section 4.5, Termination, Decontamination, Waste Management, and Follow-up Actions.

4.1 Discovery

The Emergency Coordinator (or Alternate) is responsible for determining the proper response to an incident at the Facility. If an employee discovers a fire, spill, malfunctioning equipment, or other emergency, immediately contact the Control Room or Emergency Coordinator (see Table 4-1). Prior to the completion of construction and mobilization of operations personnel to the site, the Engineering Procurement and Construction Contractor (EPC Contractor) will hold primary responsibility for compliance with this Plan in the event of an emergency. Construction phase emergency contacts can be found in Table 4-1(a).

A release or threat of release of OHM to the environment, including a release to a secondary containment structure, is considered a potential emergency. Facility personnel should be able to recognize when a situation evolves beyond his or her ability to control or mitigate the spill, leak, or other emergency incident without help.

The following information should be provided to the Control Room or Emergency Coordinator:

- Nature of emergency;
- Location of emergency;
- Size and extent of emergency;
- Materials involved; and
- Extent of injuries to personnel, if any.

For situations where there is a release of OHM to the environment, the Control Room or Emergency Coordinator shall be contacted **as soon as possible**. The Emergency Coordinator has command authority until relieved by management and shall direct the appropriate emergency response. If emergency services arrive at the Facility in the event of an incident, the Emergency Coordinator will transfer command to the emergency services lead.

CPV Towantic shall implement a Code Red (or similar) notification system to ensure timely notification of local agencies and other organizations. Notification, and the resulting mobilization of resources, **will not be delayed** pending collection of all information. Missing information shall be supplied during follow-up calls to the agencies.

In the event of a fire or discharge of oil or other hazardous material, rapid notification of responsible Facility personnel, oil spill and/or hazardous material removal organizations, and federal, State, and local regulatory agencies or emergency response personnel is essential to protecting the environment. Table 4-1 provides the contact telephone numbers of all persons or groups that may require notification.

Table 4-1:
Contacts

Contact	Name	Phone Number	Secondary Info
Plant Manager	TBD	TBD	TBD
Compliance Coordinator	TBD	TBD	TBD
Production Manager	TBD	TBD	TBD
Control Room	TBD	TBD	TBD
Key Air / Waterbury-Oxford Airport	TBD	TBD	TBD
Oxford Fire Department	TBD	TBD	TBD
Oxford Hazardous Materials Response Team	TBD	TBD	TBD
Oxford Police Department	TBD	TBD	TBD
Connecticut State Troopers	TBD	TBD	TBD
National Response Center	TBD	TBD	TBD
CT DEEP Spill Hotline	TBD	TBD	TBD
Regional Medical Center Emergency Department	TBD	TBD	TBD
State Emergency Response Commission	TBD	TBD	TBD
EPA Region I – After Hours Emergencies	TBD	TBD	TBD

Table 4-1(a):
Contacts

Contact	Name	Phone Number	Secondary Info
EPC Project Manager (Title TBD)	TBD	TBD	TBD
EPC Safety Manager (Title TBD)	TBD	TBD	TBD
CPV Asset Manager (Title TBD)	TBD	TBD	TBD
Key Air / Waterbury-Oxford Airport	TBD	TBD	TBD
Oxford Fire Department	TBD	TBD	TBD
Oxford Hazardous Materials Response Team	TBD	TBD	TBD
Oxford Police Department	TBD	TBD	TBD

Table 4-1(a): Contacts			
Contact	**Name**	**Phone Number**	**Secondary Info**
Connecticut State Troopers	TBD	TBD	TBD
National Response Center	TBD	TBD	TBD
CT DEEP Spill Hotline	TBD	TBD	TBD
Regional Medical Center Emergency Department	TBD	TBD	TBD
State Emergency Response Commission	TBD	TBD	TBD
EPA Region I – After Hours Emergencies	TBD	TBD	TBD

4.1.1 Key Personnel and Job Functions

The Plant Manager or Compliance Coordinator is responsible for ensuring implementation of the following:

- Emergency command center management;
- Communications;
- Fire fighting;
- Site Security;
- Rescue operations;
- Emergency medical services;
- Damage assessment;
- Mitigation and investigation;
- Corporate notification for public information;
- On-scene safety functions at the emergency site;
- Warning and evacuation of plant;
- Sheltering, feeding, and counseling functions;
- Accounting for personnel;
- Securing entrance gates; and
- Issuing the "ALL CLEAR."

During a large scale response effort, multiple response coordination is proposed to be organized among Facility management and/or staff, the federal government, local officials, and emergency response officials, state representatives and other organizations, as necessary. Appropriate officials from each organization and the Facility shall participate in a coordinated decision-making process during the response.

This system, based on the national incident command system, uses the basic principles of planning, directing, organizing, coordinating, communicating, delegating and evaluating during a response. This system assigns these tasks to five functional areas under the direction of this joint command staff. The functional areas include: *Command, Operations, Planning, Logistics, and Finance*, presented and described below. The Compliance Coordinator (Table 4-2) shall assign

individuals to roles described below as they become necessary. It is not necessary to assign a separate individual to each role. One person may assume two or more roles as necessary. Response actions will be managed by the following corporate organizational structure:

Table 4-2: Individual Roles	
Command and Control:	Plant Manager, Compliance Coordinator or designated representative
Liaison with Government:	Plant Manager
Safety:	Compliance Coordinator or designated representative
Spill Operations:	Compliance Coordinator or designated representative
Planning:	Compliance Coordinator or designated representative
Public Information:	Plant Manager or designated representative
Logistics:	Plant Manager
Finance:	Plant Manager

4.1.2 Spill Reporting and Documentation

In the event of a release of OHM, rapid notification of responsible facility personnel, oil spill removal organizations and state and federal regulatory agencies may be essential to protecting the environment in the vicinity of the Facility. Each employee shall be trained to recognize emergency situations and shall understand when and how to make the appropriate notifications.

CPV Towantic shall be responsible for all reporting and documenting reportable quantities of spilled oil and/or hazardous materials. The following actions are to be taken by the Compliance Coordinator in the event of a reportable quantity release:

- ***National Response Center*** (NRC) will be notified by calling (800) 424-8802 in accordance with the requirements of 40 CFR Part 117 and 40 CFR Part 302 as soon as they have knowledge of the release.

- ***State of Connecticut,*** under CGS Chapter 446k, Section 22a-450, requires that all releases and spills of petroleum and most hazardous materials be reported to the following:

  CT DEEP Emergency Response Unit (Spill Hotline)

  1-866-DEP-SPIL (1-866-337-7745) toll free

  Or

  1-860-424-3338

Local authorities (e.g., fire department) will be notified of any major spills. Prompt reporting allows quick response, which may reduce any adverse impacts to human health and the environment.

Under CGS Ch. 446k, Sec. 22a-450, the person in charge of any terminal for the loading of any oil or petroleum or chemical liquids or solid, liquid or gaseous products or hazardous wastes, which by accident, negligence or otherwise causes the discharge, spillage, uncontrolled loss, seepage or filtration of oil or petroleum or chemical liquids or solid, liquid or gaseous products or hazardous wastes, shall immediately report facts such as:

- the location;
- the quantity and type of substance, material or waste;
- the date and the cause of the incident;
- the name and address of the owner; and
- the name and address of the person making the report and his relationship to the owner.

In the unlikely event that a spill has reached navigable waters in "harmful quantities" (40 CFR Section 110.6), the Emergency Coordinator or person with any knowledge of such conditions must immediately notify the federal NRC at:

National Response Center
(800) 424-8802 (24 hours per day)

When contacting the NRC, the following information should be provided:

- time, location, and source of the spill;
- type and quantity of material spilled;
- cause and circumstances of the spill;
- hazards associated with the spill;
- personal injuries;
- corrective action taken or planned to be taken;
- name and telephone number of individual reporting the spill; and
- any additional pertinent information.

In addition, the EPA Region I Response Center should be contacted immediately for any spill that reaches navigable waters (per 40 CFR Section 110.6) at the following number:

EPA Region I Hotline
(888) 372-7341 (24 hours per day)

4.1.3 Activation of the On-Site Emergency Operations Center

The location designated for the on-site Emergency Operations Center is the Control Room or other designated area within the Facility. In the event of an incident in the Control Room, the remote Emergency Operation Center shall be at the Emergency Evacuation Meeting Point.

The Plant Manager or Compliance Coordinator will decide on the activation of the Emergency Operations Center. The Emergency Operations Center includes detailed drawings of the Facility, standard and emergency communication equipment, contact information, and this Plan.

4.1.4 List of Emergency Equipment

Facility personnel shall act as first responders, with a primary function to identify the source and control where possible. Spill kits shall be located throughout the Facility and specifically in areas of oil and/or hazardous material use to support this first response. In each spill kit, a Department of Transportation, *Emergency Response Guidebook*, shall be placed on top. This guidebook shall be designed to support first responders during the initial phase of the hazardous materials incident.

At minimum, each spill kit will be designed to respond to at least a 20-gallon spill for oil, water, coolant, non-aggressive chemical, and will be contained in a water proof container with the following:

- 4- 10 foot absorbent socks;
- 10-Mat pads;
- Temporary disposal bags;
- labels;
- Emergency Response Guidebook;
- 1-Nitrile suit; and
- 2-pairs Nitrile gloves.

Additional personnel protective equipment shall be available in the Warehouse.

4.1.5 Onsite Medical Equipment and Supplies

First aid/CPR kits shall be located at the following locations:

- Emergency Evacuation Meeting Point;
- Control Room;
- Maintenance Building;
- Turbine Building; and
- Water Treatment Building.

AED stations shall be located throughout the Facility at the following locations:

- Location 1 TBD;
- Location 2 TBD; and
- Location 3 TBD.

4.2 Evacuation Plan

~~*4.1.6*~~*4.2.1 Facility Evacuation Plan*

In all emergencies, the Compliance Coordinator will remain in direct charge, unless superseded by the alternate.

Emergency notifications and/or instructions will be relayed over the Facility public address system.

All personnel, visitors, and contractors must safely make their way to the **Emergency Evacuation Meeting Point: [INSERT MEETING POINT TBD]** All must wait for an accountability check and release by the Compliance Coordinator.

The Facility shall be equipped with distinct audible and visual emergency signaling devices (flashing lights and audible steady or intermittent tone) as follows: [INSERT SIGNALING DEVICES AS NEEDED]

- **Steady tone –** alert employees to immediately evacuate the building; and
- **Flashing warning lights** – alert employees of an emergency in high noise level areas.

The emergency signal (siren) will alarm for a minimum of five (5) minutes.

Any time the alarm system has been activated, the Compliance Coordinator will record a "Fire/Alarm Report" in the Control Room Logbook and a notice will be forwarded to the Facility personnel.

Employees can activate the alarm system by 1) pulling a manual fire alarm station; or, 2) contacting the control room and asking that the alarm be sounded.

NOTE:

Any employees can report an emergency to the Fire Department via a Facility phone by dialing 911, then notifying the Compliance Coordinator as to the extent of the emergency.

~~*4.1.6.1*~~*4.2.1.1 Responsibilities*

Facility personnel, visitors, and contractors who are ordered to evacuate shall be responsible for following directions given by management, supervisors or the Compliance Coordinator and for reporting to the Emergency Evacuation Meeting Point. The route map to the Emergency Evacuation Meeting Point shall be posted at the Emergency Exits of all Facility buildings.

Supervisors shall be responsible for evacuating personnel and visitors and knowing the location of all individuals evacuated.

The Plant Manager or Compliance Coordinator will be responsible for determining that an evacuation is required, performing the head count and accounting for all personnel, and for directing the evacuation.

If there is potential for off-site impacts (i.e., smoke) which may pose a nuisance to the public, the Fire Department will become the lead for any community notification/evacuation plan. CPV Towantic will support the Fire Department with pre-incident planning as part of routine site familiarization and training with key Fire Department staff.

~~4.1.6.2~~4.2.1.2 *Precautions and Requirements*

Facility personnel who have been ordered to evacuate must report to the Emergency Evacuation Meeting Point. If this is not done, unnecessary risks may be imposed on those designated to conduct searches for those persons that remain unaccounted.

Facility personnel should escort visitors and private contractors during an evacuation. Equipment operators should ensure all equipment is in a safe (i.e., shut down) condition prior to evacuation, if conditions allow.

If emergency conditions threaten the Emergency Evacuation Meeting Point, the Compliance Coordinator must designate an appropriate alternate area.

~~4.1.6.3~~4.2.1.3 *Accountability*

Accountability is the process whereby the location and status of all site personnel, visitors, and contractors is determined during an emergency. This is necessary to determine if anyone is missing or in trouble. It may also prevent a search effort being made for an employee believed to be missing onsite who is actually safely away from the hazard area. All employees, visitors, and contractors must sign-in/-sign-out of the logbook at the Administration and Control Room Building during routine workdays. During an emergency, the Compliance Coordinator is responsible for obtaining this logbook directly or via a designated individual (e.g. office personnel).

Upon receipt of an order to evacuate, personnel will follow the evacuation procedures for the building to the Emergency Evacuation Meeting Point. Based on information obtained regarding potential threats, personnel will select the appropriate evacuation route at the time of the incident.

Once the evacuation is complete, the Compliance Coordinator will account for personnel. Arrangements will be made with the Oxford Fire Department for search and rescue, if it becomes necessary.

~~4.1.7~~4.2.2 ***Local Area Evacuation Plan***

In the event of an emergency that may require evacuation of the nearby areas surrounding the Facility, the Compliance Coordinator shall immediately contact the Oxford Fire Department to provide notification of:

- Time and nature of emergency;
- Health risks resulting from emergency;
- [Placeholder - TBD INFORMATION REQUIRED]; and

- [Placeholder - TBD INFORMATION REQUIRED].

~~4.2~~4.3 Initial Response Actions

Upon being notified of the emergency situation, the Compliance Coordinator will determine the following:

- Hazards involved;
- Extent of the incident;
- Resources threatened;
- Exclusion zones needed;
- Facility evacuation required; and
- Outside emergency response assistance needed.

More detailed information is provided below. It is understood that modification to these procedures may be instituted during an emergency if the Compliance Coordinator determines a better response action.

~~4.2.1~~4.3.1 *Medical Emergency*

The response actions to be taken by Facility personnel in the event of a medical emergency, personal injury, industrial accident, exposure to hazardous materials, and/or fire are as follows:

1. Identify the nature of the medical emergency, determine the cause if possible, and take precautionary measures to protect other Facility personnel from further injury;

2. If time allows, notify or designate a person to notify the Emergency Coordinator. If the situation is life threatening any personnel may contact emergency aid from outside the Facility;

3. The Compliance Coordinator will summon emergency aid from outside the Facility, as necessary;

4. Only professional medical response personnel should move victims of head, neck, or back injuries unless the situation is life threatening. Facility personnel are not required to administer first aid. Any employee who does administer first aid does so at his/her own risk;

5. Facility response personnel will eliminate and continue to restrict any medical hazard;

6. In the event of a chemical exposure, the Emergency Coordinator will immediately forward the appropriate Material Safety Data Sheet to on-site emergency response personnel and to the appropriate hospital;

7. Facility personnel will not enter confined spaces during emergencies at any time. Such entry will not be completed until the Compliance Coordinator has cleared the area via the confined space entry requirements of 29 CFR 1910.146 or the trained confined space

officials of the Fire Department and/or the Facility's Emergency Response Contractor have given the all clear signal; and

8. The Compliance Coordinator will complete a follow-up incident report.

~~4.2.2~~4.3.2 *Emergency Procedures for Power Outages*

In the event of a power outage at the Facility, personnel should contact the Control Room begin shutdown procedures in accordance with the operations manual.

The Compliance Coordinator will directly notify personnel of specific procedures over the Facility intercom system (battery backup) of the status of the outage and incident specific procedural tasks.

~~4.2.3~~4.3.3 *Emergency Procedures for Oil and/or Hazardous Materials Spills*

All spills due to container failure must be reported to the Compliance Coordinator. All non-container failure spills of 1 gallon or less that cannot be cleaned up within 30 minutes must be reported to the Compliance Coordinator.

Specifically, should a Facility employee observe a release from an aboveground storage tank, petroleum storage system, or associated tank truck unloading activities, the employee will immediately notify the control room and the Compliance Coordinator.

If the individual identifying the release is a trained emergency responder and the individual can control the spill at the time of the release without endangering themselves or any other person in any way, then the individual shall take action to mitigate the release. However, in most circumstances, the release shall be fully evaluated by the Compliance Coordinator prior to implementing response actions.

~~4.2.3.1~~4.3.3.1 *Oil and/or Hazardous Material Spill Response*

In the event of an oil and/or hazardous (OHM) materials spill, personnel should take the following steps:

1. If an immediate threat to acute exposure or life is involved, personnel must immediately evacuate the area;

2. If it can be completed safely, attempt to control or stop the source of the spill. Satellite spill kits are located in every building using or storing OHM.

3. If possible, attempt to control the migration of the spill;

4. Prevent other personnel from entering the area of the spill, unless they are trained in emergency response and are present to assist;

5. Contact the Compliance Coordinator;

6. The Compliance Coordinator is responsible for identifying the extent of the incident and notifying the local officials and regulatory authorities; and

7. The Compliance Coordinator will determine if the Facility trained response team should be mobilized to the area and/or if the Facility's 24-hour emergency response contractor should be contacted. The Compliance Coordinator will determine if the Fire Department should be notified. The Compliance Coordinator will determine the method of response for the team (e.g., level of PPE, shutting off of feed systems, shutting off of electrical power to the area).

For a spill or leak of OHM which is small enough to be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area or by maintenance personnel, and which does not pose an adverse exposure hazard to employees, then the spill will be handled in the following manner:

1. Make sure all unnecessary persons are removed from the hazard area. Workers involved in the cleanup shall put on protective clothing and equipment;

2. If flammable material is involved, remove all ignition sources, and use spark and explosion proof equipment and clothing;

3. If possible, try to stop the leak;

4. Use absorbent pads, booms, earth, bagged absorbent to contain, divert, neutralize and clean up the spill. Prevent the spilled material from leaving the containment area and reaching a storm drain;

5. Following source and release control, place all containment and cleanup materials in drums for proper disposal; and

6. Place all recovered liquid wastes in drums for removal to an approved disposal facility.

Following cleanup, all emergency equipment and spill containment equipment shall be returned to ready status (restocked).

If the OHM spill is large, the Facility's emergency response contractor and/or the Fire Department will be delegated the authority for directing the locations of the following:

- Exclusion Zone;
- Contaminant Reduction Zone;
- Support Zone; and
- Staging Area.

During this activity, the Compliance Coordinator will provide site security and qualified Facility staff to support the Emergency Response Contractor and/or the Fire Department.

~~*4.2.3.2*~~*4.3.3.2 Aqueous Ammonia Spill Response*

For a release of aqueous ammonia, stay up wind, close transfer valves if possible, keep others out of the area, and notify the Compliance Coordinator.

If the source of the aqueous ammonia release has not been controlled or the release is greater than 1 gallon, or the incident is accompanied by a fire at any quantity, the Compliance Coordinator will immediately contact the Fire Department and the Facility's Emergency Response Contractor.

If the source of aqueous ammonia is controlled and the total released is 1 gallon or less, and fire does not accompany the incident, the Facility emergency response team should do the following:

1. Prepare an exclusion zone and allow the area to ventilate;

2. Approach the exclusion zone with full face respirators fitted with ammonia/ methylamine cartridges and neoprene and nitrile protective equipment. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres;

3. Monitor air concentrations of ammonia with a portable ammonia detector;

4. No personnel will advance into the area;

5. Contain and recover the liquid where possible. Do not flush to sewer system. Containerize, closed lid tightly, label, and place in the hazardous waste storage area; and

6. Absorb as necessary with clay or other bagged inert absorbent in the spill kit, and containerize, close lid tightly, label, and place in the hazardous waste storage area.

~~*4.2.4*~~*4.3.4 Emergency Procedures for Natural Gas*

Possible signs of a natural gas leak at the Facility include the following:

- A blowing or hissing sound;
- Dust blowing from a hole in the ground;
- A gaseous or hydrocarbon odor;
- A spot of dead or discolored vegetation in an otherwise green area;
- Abnormally dry or hardened soil; and
- Flames, if a leak has ignited.

In the event an employee suspects a natural gas leak, complete the following:

- Avoid any open flames or other sources of ignition;

- Do not start up or shut down motor vehicles or electrical equipment;

- Evacuate the area and try to prevent unsuspecting people from entering;
- Abandon any equipment being used in or near the area. Your personal safety should be your first concern;
- Notify the Control Room and the Compliance Coordinator immediately so the leak can be verified and necessary corrective measures taken;
- Do not attempt to extinguish a natural gas fire; and
- Do not attempt to operate any pipeline valves without explicit direction from the Control Room Operator.

If a natural gas leak monitor, sensor, or operating parameter indicates a potential natural gas leak and/or if an employee notifies the Control Room of a leak, the Operator or Technician will immediately attempt to isolate the leak area and will contact the Compliance Coordinator. If necessary based on site conditions, this may include system shutdown.

If fire accompanies the leak detection, the Compliance Coordinator or the Control Room will immediately contact the Fire Department.

If the source of the leak cannot be identified or controlled by the Operator or Technician, the Compliance Coordinator or the Control Room will immediately contact the Fire Department and automatic shut down of the interconnection.

~~*4.2.5*~~*4.3.5 Emergency Procedures for Severe Weather*

During a severe storm (e.g., hurricane, blizzard, etc.), a site-specific emergency may be realized. General emergency response procedures required as a result of the severe weather are addressed in other sections of this plan (e.g., spill, power outage). In the event of severe weather, Facility personnel shall initiate the following procedures.

1. Notify the Plant Manager and Compliance Coordinator as soon as a severe weather warning has been announced.
2. The Compliance Coordinator will monitor the severe storm warning and alert the Facility personnel of the situation.
3. The Compliance Coordinator will request all loose equipment be secured to minimize damage from high winds.
4. As time permits and as determined by the Compliance Coordinator for the specific situations, tanks will be filled to design capacity to reduce lift load.
5. Exterior storage of materials will be relocated to interior locations where possible, and as needed.
6. A decision for key staff only operations will be made at least 12 hours in advance when possible.

7. The Compliance Coordinator will coordinate any required shut down procedures necessary based on a key staff only schedule.
8. The Compliance Coordinator will perform a safety inspection following the implementation of this plan.
9. Once complete, the Compliance Coordinator will notify the Facility personnel of the status of this operation.
10. Following the severe weather emergency, the Compliance Coordinator will complete a safety inspection of the Facility and implement and direct any necessary remedial actions.

~~*4.2.6*~~*4.3.6 Emergency Procedures for Hostile Threat*

The Facility shall be designed to prevent unauthorized access. However, a hostile threat may be delivered via in-person, off-site, by telephone, package delivery, or internet.

A hostile threat constitutes a site-specific emergency. In the event of a hostile threat, Facility personnel will respond as follows:

1. Get detailed information on the source of the threat as may be available, including the description of the suspicious items, markings, or identifying addresses, **BUT DO NOT TOUCH OR MOVE ANY SUSPICIOUS PACKAGE OR ITEM**. Save any e-mail threat;
2. Notify the Plant Manager and Compliance Coordinator;
3. The Compliance Coordinator will immediately contact the Fire Department and the State Troopers;
4. The Plant Manager or Compliance Coordinator will make the decision whether to evacuate all or a portion of the Facility and immediately inform Facility personnel via the in-plant public address system. This response action will be coordinated with the Fire Department and the State Troopers. All employees will follow the Emergency Evacuation Procedures outlined in Section 4.2 and proceed to the Emergency Evacuation Meeting Point;
5. At this point, the primary responsibility for the situation will be delegated to the Fire Department and the State Troopers;
6. The Compliance Coordinator will be in direct contact with the emergency responders; and,
7. Facility personnel will not re-enter the Facility unless directed by the Compliance Coordinator. The Compliance Coordinator will not allow Facility personnel to re-enter the Facility until the Fire Department and/or the State Troopers give the all clear signal.

~~*4.2.7*~~*4.3.7 Vehicular Accidents*

Vehicles transporting OHM will only be unloaded in areas designed for OHM unloading, with secondary containment systems.

In the event of a release in or out of the unloading area, but on the Facility property, Facility personnel will immediately contact the Control Room and Compliance Coordinator. The Compliance Coordinator will manage the spill in accordance with the spill control procedures outline above in Section 4.3.

~~4.3~~4.4 Sustained Actions

If sustained response actions are required, CPV Towantic will contract the activity to the Emergency Response Contractor. The Facility staff will support the sustained response action by providing the following:

- **Personnel.** Facility response team members will be directed by the Compliance Coordinator to complete 8-hour oversight shifts. Due to the limited size of the Facility response team, alternating 8-hour shifts may be required;

- **Equipment and Supplies.** The Emergency Response Contractor shall have sufficient equipment and supplies for a sustained response. The Compliance Coordinator will coordinate with Facility staff to provide equipment laydown areas and to integrate site security;

- **Financial.** The Compliance Coordinator will involve the Plant Manager for funding to support the sustained response action;

- **Business Interruption.** The Compliance Coordinator will identify any impacts to day-to-day operations and report to the Plant Manager. Any impacts to staff schedule will be directed by the Plant Manager; and

- **Public Relations.** The Plant Manager will provide information to the local press and will be regularly updated by the Compliance Coordinator.

~~4.4~~4.5 Termination, Decontamination, Waste Management, and Follow-up Actions

Following completion of the response action, the Compliance Coordinator will direct the completion of the following activities:

1. Ensure proper characterization and temporary storage of any containerized waste material.

2. Arrange for waste disposal.

3. Ensure Facility workers following the decontamination procedures for personnel equipment and tools. The Emergency Response Contractor will follow their company specific decontamination plan

4. Replace and restock response equipment;

5. Confirm all officials have been contacted, as required;

6. Review the response action with the Facility's Emergency Response Team, file meeting notes, modify this Plan as necessary;

7. Completion of an internal Incident Report form and maintain these reports on file.

8. As needed, prepare the required OSHA documentation, including the OSHA 300 log if personal injury was part of the incident;

9. Review the response action with the Plant Manager and area supervisor(s); and

10. Notify all response team members that they are entitled to seek a medical examination anytime there is a possibility of exposure resulting from the response to an incident.

5.0 TRAINING AND EXERCISES

CPV Towantic will complete OSHA emergency response training of its emergency response team members and will continue working with the Fire Department to develop an understanding of Facility processes, OHM storage, and confined space entry.

CPV Towantic will provide emergency response training (minimum of 24 hours) to all new (non-administrative) employees, job specific training, and annual emergency response refresher training. Additionally, training will be provided whenever the following occurs:

- There are changes to materials or equipment within the Facility;
- When the this Plan is updated;
- When Employee's responsibility or designated actions under this plan change; and
- Whenever exercises and drills indicate that employees do not understand their responsibilities.

The Compliance Coordinator, Plant Manager, and Operators will be trained to OSHA 40 hour level and will undergo 8-hour Site Supervisor Training.

All trained emergency response employees will be provided with 8-hours of annual refresher training.

CPV Towantic shall make AED training available to all employees who desire to be certified. At least one AED-certified employee will be on-site at all times.

CPV Towantic will complete specific emergency response exercises to test, enforce, and refine the procedures outlined in this Plan. CPV Towantic will also conduct annual on-site exercises with the Oxford Fire Department as part of pre-incident planning and Facility awareness training.

6.0 MEDICAL SURVEILLANCE

Facility Response Team members will receive a baseline physical examination and undergo routine medical surveillance.

6.1 Employees Included in the Medical Surveillance Program

The medical surveillance program shall be instituted for the following employees:

- All employees who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year;
- All employees who wear a respirator for 30 days or more a year or as required by 1910.134;
- All employees who are injured, become ill or develop signs or symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation; and
- Designated employees expected to perform work to handle and control actual or potential leaks or spills of hazardous substances requiring possible close approach to the substance.

6.2 Frequency of Medical Examinations and Consultations

Medical examinations and consultations shall be made available to each employee designated as an emergency responder on the following schedules:

- Prior to assignment;
- At least once every twelve months for each employee covered unless the attending physician believes a longer interval (not greater than biennially) is appropriate;
- At termination of employment or reassignment to an area where the employee would not be covered if the employee has not had an examination within the last six months;
- As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards, or that the employee has been injured or exposed above the permissible exposure limits or published exposure levels in an emergency situation during the course of an emergency incident; and
- At more frequent times, if the examining physician determines that an increased frequency of examination is medically necessary.

6.3 Physicians Opinion

Each employee designated as an emergency responder shall be furnished with a copy of a written opinion from the attending physician containing the following:

- The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from work in hazardous waste operations or emergency response, or from respirator use;
- The physician's recommended limitations upon the employee's assigned work;
- The results of the medical examination and tests if requested by the employee; and
- A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions, which require further examination or treatment.

The written opinion obtained by the employer shall not reveal specific findings or diagnoses unrelated to occupational exposures.

6.4 Recordkeeping

An accurate record of the medical surveillance shall be retained. This record shall be retained for the period specified and meet the criteria of 29 CFR 1910.20. This shall include at least the following information:

- The name and social security number of the employee;
- Physician's written opinions, recommended limitations, and results of examinations and tests;
- Any employee medical complaints related to exposure to hazardous substances; and
- A copy of the information provided to the examining physician by the employer, with the exception of the standard and its appendices.

7.0 PLAN CRITIQUE AND MODIFICATIONS

After any event which requires activation of this Plan, a formal critique will be performed. At a minimum, the Compliance Coordinator will evaluate the effectiveness of this Plan and the employee's actions.

Additionally, the Facility will offer each outside agency which was involved in the event, to take part in this critique. The results of the critique will be formalized and submitted to the Plant Manager with any recommendation for improvement. Improvement areas will be incorporated into the formal plan review and modification process.

A documented review and evaluation of this Plan, including a Facility walk through, shall be completed at least once per year from the date of commercial operation. As a result of this review and evaluation, the owner or operator shall amend this Plan to include more effective prevention and control technologies if existing practices are determined to be insufficient in controlling or minimizing risk. The Compliance Coordinator will maintain results of the annual site evaluation.

Based on the annual comprehensive evaluation, any necessary changes to the measures implemented at the Facility will be incorporated into this Plan. If the evaluation indicates that changes in good housekeeping or materials management practices are necessary, they will be implemented in a timely manner but not more that six months from the date the evaluation was completed.

APPENDIX A

FIGURES

Comment [KK3]: Figures to be finalized and submitted to council in accordance with D&O condition 1.h.

APPENDIX B

OHM STORAGE AND MATERIAL SAFETY DATA SHEETS

Comment [KK4]: Figures to be finalized and submitted to council in accordance with D&O condition 1.h.

STORMWATER POLLUTION AND PREVENTION PLAN

CPV- Towantic Energy Center
16 Woodruff Hill Road
Oxford, CT 06478

November 2017

Preliminary Draft – Rev 0

NAES

NAES

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TABLES .....

APPENDICES

1. Record of Plan Revisions

DATE	REVISION DESCRIPTION	REVISED SECTIONS / PAGES	PE CERTIFICATION REQUIRED? (YES / NO)	MANAGEMENT SIGNATURE
	Rev 0 Initial Plan Development	*All*	*Yes, or Certified Hazardous Materials Manager (Must Sign)*	

2. PLAN CERTIFICATIONS

Stormwater Pollution Prevention Plan

The following certification shall be signed by a professional engineer licensed to practice in Connecticut or a Certified Hazardous Materials Manager:

"I certify that I have thoroughly and completely reviewed the Stormwater Pollution Prevention Plan prepared for this site. I further certify, based on such review and site visit by myself or my agent and on my professional judgment, that the Stormwater Pollution Prevention Plan meets the criteria set forth in the General Permit for the Discharge of Stormwater Associated with Industrial Activity issued on October 1, 2016. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

_____ _____

Signature Date

_____ _____

Name Title

_____

P.E. Number (if applicable)

This plan has been authorized on behalf of Towantic Energy Center by:

Signature Date

Name Title

Must be signed by responsible corporate officer or a duly authorized representative with the statement of authorization included within the plan

3. INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared consistent with the requirements of the State Pollutant Discharge Elimination System (SPDES) General Permit for the Discharge of Stormwater Associated with Industrial Activity (General Permit), issued by the State of Connecticut Department of Environmental Protection (CT DEP) modified on October 1, 2016 (attachment A). The CT DEEP General Permit will expire September 30, 2018. As a new facility, the completion of a Stormwater Pollution Plan is required prior to obtaining coverage under the General Permit. During pre-commercial construction period, the facility operates under a Construction General Permit.

Compliance with the industrial activity General Permit requires that the Permittee carry out activities to ensure that the objectives of the General Permit are achieved. Electrical power generating facilities classified as Standard Industrial Classification 4911 are required to obtain permit coverage. In accordance with Section 5(b) a SWPPP must be submitted to the CT DEEP. The SWPPP is designed to address pollution caused by activities and materials at the site.

The responsibilities for carrying out the provisions of the SWPPP are outlined below. CPV - Towantic Energy Center (TEC) will perform the following items as appropriate:

A. Prepare and File a Registration Form(s), applicable fees and Stormwater Pollution Prevention Plan (SWPPP) with the CT DEP at least 60 (sixty) days before the initiation of activities covered by the General Permit.

B. Implement the SWPPP to prevent stormwater pollution and to control stormwater runoff.

C. Obtain the signatures required by the various certifications included in the SWPPP.

D. Allow access by CT DEEP and the local agency approving sediment and erosion plans, grading plans, or stormwater management plans, and the local office responsible for enforcement of such plan to the construction site, the Construction SWPP Plan, and a copy of the Registration for the purpose of inspections.

E. Implement the stormwater pollution prevention controls for on-site activities that may contribute to stormwater pollution, and in compliance with the General Permit Guidelines.

F. Prepare and maintain inspection reports with authorized signatures.

G. Maintain stormwater pollution prevention controls.

H. Update/prepare revisions to the SWPPP to accurately reflect changes to contractors or subcontractors at the site, or a change in design, construction, operation, or maintenance at the site which has the potential for the discharge of pollutants to waters of the state and which has not otherwise been addressed in the SWPPP. Other occurrences which may require plan amendments include: 1) if it is determined that the SWPPP fails to prevent pollution, or 2) in response to a Reportable Quantity (RQ) release (as referenced, Chapter 446K, Section 22a-450

of the Connecticut General Statutes and 40 CFR 110, 40 CFR 117, 40 CFR 302 and 49 CFR).

I. Notify the CT DEP Emergency Response Unit by calling **860-424-3338 or toll free 1-866-DEP-SPIL (1-866-337-7745)**, 24 hours/day as soon as knowledge of a discharge equal to or greater than a Reportable Quantity (RQ) or standard for oil or a hazardous substance is reached. Should these numbers become unavailable for any reason, call **(860) 424-3333**. Any such report shall include, but not be limited to, the location, the quantity and the type of substance, material or waste, the date and the cause of the discharge, spillage, uncontrolled loss, seepage or filtration, the name and address of the owner of the ship, boat, barge or other vessel, terminal, establishment, vehicle, trailer or machine, and the name and address of the person making the report and his relationship to the owner.

J. Notify the National Response Center by calling **1-800-424-8802** as soon as knowledge of a discharge equal to or greater than a Reportable Quantity (RQ) or standard for oil or a hazardous substance is reached.

K. Notify the local community emergency coordinator as soon as knowledge of a discharge equal to or greater than a Reportable Quantity (RQ) or standard for oil or a hazardous substance is reached.

L. Report in writing a violation of any condition of the General Permit and immediately take all reasonable action to determine the cause of such violation, correct and mitigate the results of such violation, and prevent further violations. Corrective actions must be implemented within five (5) days of learning of a violation.

M. A copy of the updated SWPPP and all pertinent records shall be maintained at the site from the date activities are initiated at the site.

4. GENERAL INFORMATION

TEC is located in the northern portion of the town of Oxford near the boundary with the Town of Middlebury. The Facility is bounded by Woodruff Hill road and a Connecticut Light and Power transmission right-of-way to the west; the Algonquin interstate natural gas pipeline system owned by Spectra to the north; additionally, a Spectra-owned gas compression station is located in the northern portion of the Town of Oxford, near the east and lot 9B and Spectra's gas compression station access road to the south.

Figure 1 shows the site boundary on the United States Geological Survey (USGS) map for the general area. Figure 2 provides the site boundary and area on an aerial photograph.

A. FACILITY DESCRIPTION

All Facility equipment described in this section is presented on the Site Plan, Figure 3.

The combined-cycle facility can generate a peak of 785 megawatts (MW) of electricity. On an average ambient day (59°F ambient dry bulb temperature) approximately 524.5 MW of this power is produced using two combustion turbine generator sets. Exhaust heat from the combustion turbines is sent to a heat

recovery steam generators (HRSGs) to produce steam to drive a steam turbine generator. The steam turbine generator provides approximately 280.5 MW, the balance of the Facility's gross output. Approximately 20 MW are consumed within the Facility to power necessary Facility systems, which leaves a net Facility electric output of 785 MW.

The HRSGs include a natural gas-fired "duct burner" (supplemental firing system). The duct burners allow for additional electrical production during select periods. For environmental purposes, the Facility is equipped with state of the art emissions control technology. This equipment includes selective catalytic reduction technology (SCR) and an oxidation catalyst is used to control oxides of nitrogen (NOx) and carbon monoxide (CO) emissions, respectively. Exhaust steam from the steam turbine is cooled and condensed and then returned to the HRSG using an air-cooled condenser.

The facility employs approximately 25 employees, is staffed 24-hour a day, 7 days a week and generates electricity on an as needed basis per market demands and energy usage.

The plant utilizes natural gas to generate power using two combustion gas turbine generators and a steam turbine generator and is capable of burning fuel oil (ultra-low sulfur diesel) when natural gas is unavailable or uneconomic for the project. The plant handles, stores and uses petroleum products in the form of fuel oil, diesel fuel and lubricating (lube) oil. Oil filled electrical transformers are utilized for the production and distribution of electricity. There is a 21,770-gallon tank of 19.5% aqueous ammonia used for the Selective Catalytic Reduction (SCR) of Nitrogen Oxides (NOx). There are also smaller quantities of a variety of water treatment chemicals used to condition boiler feed water and cooling tower water to support the power generation operations.

The following is general information about the facility:

Facility Name:	Towantic Energy Center (TEC)
Facility Type:	Electric Generating Facility, SIC Code 4911, NAICS Code 221112
Location / Address:	16 Woodruff Hill Road, Oxford, CT 06478
Latitude / Longitude:	41º 28' 58" N / 73º 07' 21" W
Owner Name:	CPV Towantic, LLC c/o Competitive Power Ventures, Inc.
Owner Address:	50 Braintree Hill Office Park, Suite 300, Braintree, MA 02184

The facility is located on two adjacent lots totaling 26.5 acres at the northern end of Woodruff Hill Road in Oxford. The property is bordered to the east and south by the Algonquin Gas Transmission Facility (Lot 9 of the Woodruff Hill Industrial Park Subdivision), to the west by Woodruff Hill Road and Lots 6, 7 and 8 of the Woodruff Hill Industrial Park Subdivision and to the north by Open Space of the Woodruff Hill

Industrial Park Subdivision. There is an Algonquin Gas Transmission Company easement along the northern border of the property as well as a CL&P easement for three existing 115-kV overhead transmission lines which run through the property.

There are no 100-year flood plains located on the site as defined by FEMA Flood Insurance Rate Mapping.

The facility site is located within the Little River Watershed Drainage Basin Number 6920. This watershed is located within the Naugatuck Regional Basin within the Housatonic Major Basin, identified on the Connecticut Department of Environmental Protection Atlas of Public Water Supply Sources and Drainage Basins.

The site is located approximately 0.4 mile from the headwater drainage of Jacks Brook. Two storm water detention ponds have been incorporated into the design of the facility, one located on the northeast corner of the site and another located on the southeast corner, to contain and control rainwater runoff. All storm water drainage within the power block of the site is routed to collection basins which route the water to one of the ponds. Generally, the topography of the power block area has been designed to direct flow from the northern half of the site to the northeastern pond and flow from the southern half of the site to the southeastern pond. As such, these ponds can also provide protection for emergency spills that could occur on-site. Should a significant discharge of petroleum product be directed to either pond, immediate measures will be taken to stop potential releases from the ponds by the installation of pre-fabricated pipe plugs or caps. This action will provide an ultimate collection area for significant petroleum spill events, providing a means of containment prior to release from the site.

A copy of this Plan shall be maintained at the Site as required by Section 5(b) (3) of the General Permit. Copies of this Plan and associated documents shall be made available to the City of Oxford upon request.

This Stormwater Pollution Prevention Plan (SWPPP) has been developed for the Towantic Energy Center (TEC) Facility located on Woodruff Hill Road, Oxford Connecticut. The SWPPP was prepared in accordance with sound engineering practices to comply with conditions for coverage under the General Permit for the Discharge of Stormwater Associated with Industrial Activities (General Permit), issued by the State of Connecticut Department of Environmental Protection (CT DEP) modified on October 1, 2016.

This SWPPP describes the controls and Best Management Practices (BMPs) that will be used during Facility operations to minimize the potential for pollutants in stormwater runoff including, but not limited to, parking lots, roadways and the maintenance of grassed areas.

The personnel listed in Table 1 are designated as members of the Stormwater Pollution Prevention Team. The team members, their responsibilities and contact phone numbers are provided in the table. The Stormwater Pollution Prevention Team is responsible for completing the tasks listed in Table 1 which include: implementing the Plan (site inspections, sampling), maintaining the site stormwater

management controls and revising the Plan as needed. All personnel will be stationed at the facility. This list will be revised as changes to the Site and personnel occur.

5. STORMWATER POLLUTION PREVENTION TEAM

Towantic Energy Center
16 Woodruff Hill Road
Oxford, Connecticut 06478

SWPP Plan Manager:
Title:
Phone:

Responsibilities: Management Approval and Designated Person accountable for Oil Spill Prevention and hazardous/toxic substance Spill Prevention Control at the facility, authority to commit necessary resources to implement this plan. Initiate and coordinate all required reviews and revisions to the Plan.

Team Member	Job Title	Phone	Duties Related to SWPPP
John Klopp	Plant Manager	203 727-8405	
Alexander Duran	Compliance Coordinator	845 542-2356	
Steve Sapienza	Operations Manager	978-987-7229	
Clifford Esmiol	Maintenance Manager	203-927-8683	
	Control Room Operator		

6. SITE DESCRIPTION

The facility is located on two adjacent lots totaling 26.5 acres at the northern end of Woodruff Hill Road in Oxford. The property is bordered to the east and south by the Algonquin Gas Transmission Facility (Lot 9 of the Woodruff Hill Industrial Park Subdivision), to the west by Woodruff Hill Road and Lots 6, 7 and 8 of the Woodruff Hill Industrial Park Subdivision and to the north by Open Space of the Woodruff Hill Industrial Park Subdivision.

There is an Algonquin Gas Transmission Company easement along the northern border of the property as well as a CL&P easement for three existing 115-kV overhead transmission lines which run through the property.

There are no 100 year floodplains located on the site as defined by FEMA Flood Insurance Rate Mapping.

The facility site is located within the Little River Watershed Drainage Basin Number 6920. This watershed is located within the Naugatuck Regional Basin within the Housatonic Major Basin, identified on the Connecticut Department of Environmental Protection Atlas of Public Water Supply Sources and Drainage Basins.

The site is located approximately 0.4 mile from the headwater drainage of Jacks Brook. Two storm water detention ponds have been incorporated into the design of the facility, one located on the northeast corner of the site and another located on the southeast corner, to contain and control rainwater runoff. All storm water drainage within the power block of the site is routed to collection basins which route the water to one of the ponds. Generally, the topography of the power block area has been designed to direct flow from the northern half of the site to the northeastern pond and flow from the southern half of the site to the southeastern pond. As such, these ponds can also provide protection for emergency spills that could occur on-site. Should a significant discharge of petroleum product be directed to either pond, immediate measures will be taken to stop potential releases from the ponds by the installation of pre-fabricated pipe plugs or caps. This action will provide an ultimate collection area for significant petroleum spill events, providing a means of containment prior to release from the site.

7. POTENTIAL POLLUTANT SOURCES

A. SITE MAP

The Plan delineates drainage areas to each stormwater outfall. The General Arrangement Overall Site Plan (Figure 3) identifies the general site arrangement. The Site Drainage Plan (Figure 4) identifies the general flow and outfalls related to management of stormwater on the property.

A SWPPP Mgt. Plan Map (Figure 4) identifies the following as required by CT DEEP:

Existing structural control measures installed to reduce pollutants in stormwater runoff, and locations where each of the following activities are exposed to precipitation:

- Fueling stations,
- Vehicle and equipment maintenance and/or cleaning areas,
- Loading/unloading area,
- Locations use for the treatment, storage or disposal of wastes,
- Liquid Storage Tanks and Totes
- Processing areas and storage areas

This Site Plan identifies all potential pollutant sources at the main power block area.

B. INVENTORY OF EXPOSED MATERIALS AND SUMMARY OF POTENTIAL POLLUTANT SOURCES

Potential impacts to surface water runoff and water quality were assessed for the project site. An inventory of Exposed Materials and Summary of Potential Pollutant Sources has been developed and can be found in Appendix A of the Plan.

Note: Need to develop the inventory of materials based upon final installation and configuration, placement of totes, tanks, equipment, etc.; to complete Appendix A.

Additional inventory requirements specific to the Steam Electric Generating Sector (See Section 5(f) of the general permit) stipulates that the following must also be included in the inventory if present at the facility :

- Storage tanks
- Scrap yards/outside equipment storage/lay-down areas
- General refuse areas
- Short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides)
- Landfills and construction sites
- Stock pile areas (e.g., coal or limestone piles)

The project's permanent stormwater management controls include a project site storm drainage system that consists of curbing of the plant roadway, catch basins and sump areas, storm drain piping, culverts, riprap lined open channels, sedimentation areas and control structures, wet ponds/ detention basins, and water quality improvement devices (oil/water separators).

Catch basins and grading of the site are designed to direct stormwater flow to one of the two detention areas located on the facility. Catch basins in the power block operating area of the plant are directed to one of the two detention basins located either to the north of the power block or to the southeast of the power block.

Note: Need to confirm details and include description of how drainage to detention areas upon completion of construction will impact SWPPP if there are differences since initial site evaluation

The stormwater system for the plant access roadway will direct collected runoff onto slopes for overland flow, and the roadside channels will convey and discharge stormwater to sedimentation areas.

C. SPILLS AND LEAKS

This is a new facility. There have not been any significant spills or leaks of hazardous materials, oils, or chemicals at this facility.

In accordance with the General Permit, Spill records are required to be maintained that include:

- Dates of any incidences of significant spills, leaks, or other releases that resulted in a discharge of pollutants,
- the circumstances leading to the release,
- Actions taken in response to the release, and
- Measures taken to prevent the recurrence of a release.

A log to record and document spill records as required, can be found in Appendix B of the Plan.

D. PRESENCE OF NON-STORMWATER DISCHARGES

Presence of Non-Stormwater Discharges (Section 5(c) (2) (F)) of the General Permit.

The plant is required to evaluate the site for the presence of non-stormwater discharges and certify that the evaluation has been completed. Nothing but stormwater, allowable non-stormwater discharges or wastewater authorized by an effective discharge permit issued under section 22a430 or 22a-430b of the Connecticut General Statutes is permitted for discharge.

The allowable non-stormwater discharges are present **Yes** or **No** at the site:

Yes	No	Allowable Non-Stormwater Discharges
		▪ Landscape irrigation or lawn watering
		▪ Uncontaminated groundwater discharges such as pumped groundwater, foundation drains, water from crawl space pumps and footing drains
		▪ Discharges of uncontaminated air conditioner or refrigeration condensate
		▪ Water sprayed for dust control or at a truck load wet-down station
		▪ Naturally occurring discharges such as rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20)), springs, and flows from riparian habitats and wetlands.

E. IMPAIRED WATERS

There are currently zero impaired waterways on the most current 303(d) listing of impaired waterways within the vicinity of the project site.

8. STORMWATER CONTROL MEASURES

Control measures are the best management practices (BMPs) or other structural or non-structural practices that are used to prevent or minimize the discharge of pollutants in stormwater. Typically, a combination of management procedures, structural controls, and employee training provides the most effective means of stormwater management. The general permit contains a list of control measures and inspection frequencies that are expected to be in place at the plant to minimize the discharge of pollutants in stormwater runoff from the site. The following stormwater management controls are in place for the operations at the facility:

A. GOOD HOUSEKEEPING

The following best management practices will be followed:

1. The site will be kept clear of debris and litter at all times.

2. All material stored on-site will be stored in a neat, orderly manner in appropriate containers and, if reasonably possible, under a roof or other enclosure.

3. Products will be kept in their original containers with the original manufacturer's label, unless the containers are not re-sealable.

4. Original labels and Safety Data Sheets will be retained for the period of time that the product is being utilized on-site in accordance with all applicable Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1926.33).

5. Manufacturer's recommendations for proper use and disposal will be followed.

B. VEHICLE OR EQUIPMENT WASHING

Any washing of equipment or floors within the plant buildings will be directed to the floor drains which all drain to the oil water separator for treatment prior to ultimate discharge to the Oxford sewage treatment system in accordance with the site's Industrial User permit. Any cleaning activities outside will be contained for proper offsite treatment. No vehicle washing will take place on site.

C. FLOOR DRAINS

The general permit does not authorize or allow discharges from interior floor drains to storm sewers or surface waters. All floor drains within the buildings at the site are directed to an oil water separator for treatment prior to ultimate discharge to the Oxford sewage treatment system in accordance with the site's Industrial User permit.

D. ROOF AREAS

The general permit requires that the plant identify roof areas that may be subject to drippage, dust or particulates from exhausts or vents or other sources of pollution.

[Need to Define and Describe the configuration and the isolation of roof vents, stack vents or other.] don't forget drains from HVAC units

E. MINIMIZE EXPOSURE

An effective way to minimize stormwater pollution is to eliminate opportunities for stormwater to come into contact with industrial activities and polluting materials. In Appendix A of the Plan, potential stormwater pollutants have been identified and the appropriate pollutant controls associated with these activities are noted. The plant shall work to minimize exposure of those potential pollutants to rain, snow, snowmelt, and runoff. Also, continue to look for opportunities to relocate industrial activities and materials inside or to covered and contained areas, and to properly store and transport any accumulated scrap or waste material. All waste dumpsters will be located to minimize exposure and will have closed lids when not being filled or emptied.

F. SEDIMENT AND EROSION CONTROLS

Given the existing and post-development topography of the site, a number of storm drainage conveyance and treatment mechanisms have been implemented. Erosion and sedimentation controls have been installed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* in the locations presented on the project plans. These

controls have been installed and maintained to protect the waters of the state. In addition, good housekeeping and management practices aimed at reducing stormwater pollution have been implemented and will be maintained at the facility.

Steep slopes have been well protected with vegetation or stone and have been designed per the 2002 Guidelines to convey stormwater runoff safely and effectively to proposed sedimentation basins and stormwater conveyance swales/piping. An Oil/water separator servicing the power block building interiors will provide an additional level of protection to the site's stormwater runoff.

In addition, future construction activities on site must be conducted in accordance with the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities, the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, and the 2004 Connecticut Stormwater Quality Manual.

G. MANAGEMENT OF RUNOFF

The following controls are in place to assist in the management of runoff from the facility.

Refueling Secondary Containment – All activities associated with fuel oil storage tanks and the fuel oil truck unloading station shall be conducted in accordance with the SPCC Plan and the plant's unloading procedures. The concrete pad near the fuel oil storage tanks is sloped towards a center trench that flows into a concrete sump equipped with an overflow pipe and main drain pipe. Additional containment procedures are detailed in the SPCC Plan.

Oil Water Separator

All floor drains within the buildings at the site are directed to an oil water separator for treatment prior to ultimate discharge to the Oxford sewage treatment system in accordance with the site's Industrial User permit

Catch Basins

Checked twice per year (spring and fall) and cleaned as necessary. Inspected for damage or blocking prior to and after major storms.

Storm Drain Piping

No periodic inspection is required; however, when possible, piping should be inspected for damage or blockage prior to and after major storms.

Culverts

Installed to assist in the transport of stormwater in the areas surrounding the plant. These areas will be inspected for signs of blockage, damage, or

erosion. Also inspect for damage or blockage prior to and after major storms. These should be inspected at least annually

Open Channels

Configured to allow for surface run-off and direction of stormwater. Inspect stability of channel semiannually (fall and spring). Note signs of erosion, sloughing slopes, sediment or debris accumulation, or other damage.

Sedimentation Areas, Wet Ponds, and Stilling Basins

Inspect and maintain annually. Monitor the depth of accumulated sediment and record in a log. When depth of sediment reaches 50% of the depth of the designed wet storage volume of the sedimentation area, the accumulation should be removed. Also inspect for stability of slope and signs of erosion.

Proper Disposal of Waste Material

Material removed from catch basins and sediment areas shall be disposed of in accordance with the applicable federal, state, and local regulations governing the handling and disposal of such materials.

TEC will be responsible for implementing maintenance and monitoring requirements.

H. PREVENTIVE MAINTENANCE

A preventive maintenance program is intended to ensure that structural control measures and industrial equipment are kept in good operating condition and to prevent or minimize leaks and other releases of pollutants resulting in discharges of pollutants to surface waters. The plant's planned program will **include regular inspections on at least a monthly basis,** testing, and maintenance and repair of industrial equipment and stormwater management devices.

Additionally, preventive maintenance includes the inspection and maintenance of stormwater management devices, oil storage areas and engineered containment features on the site. The SWPPP Control Checklist shall be utilized at least monthly to evaluate the condition and effectiveness of both the structural controls and best management practices to minimize impact to stormwater. This inspection checklist can be found in Appendix D of the plan.

Note: Need to confirm final installation of all structural controls; complete material inventory and develop the site-specific inspection checklist to ensure the effectiveness of controls in place. Inspections at least monthly

I. N

NON-STORMWATER DISCHARGES

As outlined in Section 6, D. Non-Stormwater Discharges.

Presence of Non-Stormwater Discharges (Section 5(c) (2) (F)) of the General Permit.

The plant is required to evaluate the site for the presence of non-stormwater discharges and certify that the evaluation has been completed. Nothing but stormwater, allowable non-stormwater discharges or wastewater authorized by an effective discharge permit issued under section 22a430 or 22a-430b of the Connecticut General Statutes is permitted for discharge.

J. SOLID DEICING MATERIAL STORAGE

A contractor will supply and perform salt applications on the roadways during winter weather events as needed for deicing. No stockpile of deicing material will be maintained on site except for small quantities used by site personnel for walkway maintenance. These materials will be stored inside..

K. ADDITIONAL CONTROL MEASURES BY SECTOR

CT DEEP General Permit requires that additional measures must be implemented for specific industrial sectors. The control measures for Electric Generating Facilities include measures that apply to coal and oil-fired facilities. The following controls are required at the site where relevant:

- Fugitive dust emissions
- Management of land-based fuel oil unloading areas (SPCC Plan) & SMP-19
- Bulk fuel oil storage tanks (SPCC Plan) & SMP-19
- Oil-bearing equipment (SPCC Plan)

9. SPILL PREVENTION AND RESPONSE PROCEDURES

The site's SPCC Plan and Safety Management Procedure, SMP – 2 (Emergency Response Procedure) addresses required items such as:

1. Areas where potential spills can occur and their accompanying drainage points

2. Procedures for cleaning up spills

3. The necessary equipment to implement a cleanup

A copy of both SMP-2 and the SPCC Plan can be found in Appendix E and F Respectively.

In the event of a spill or material release, on-site personnel will attempt to contain the release using sorbent pads or other media. The plant manager will be contacted to determine the appropriate course of action. The plant manager or designee will be responsible for contacting DEP as well as local emergency management officials as required.

10. EMPLOYEE TRAINING

Training in stormwater management is required for the members of the Pollution Prevention Team ***and*** for all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of the general permit.

At TEC, all operational and maintenance employees will be trained in stormwater management.

- Initial stormwater management training is required within 90-days of employment.
- Recurrent stormwater management training is required annually.

Training expectations from CTDEEP stipulate that electronic or web based training may be conducted but must be documented for each employee in attendance. Training shall be conducted or supervised by a member of the Pollution Prevention Team or other qualified person. Utilize a sign in/sign out sheet at each training class to document that employees have participated, and maintain this written record in your Plan. Employee training records are routinely reviewed by Department staff during site inspections.

11. INSPECTIONS

The general permit requires two (2) types of inspections, semi-annual comprehensive site inspections and routine inspections that must be conducted *at least monthly*. The focus of a site inspection is to ensure that management practices and control measures documented in the Plan are being implemented correctly and effectively, and to help determine if changes to stormwater management at the plant need to be made.

A. SEMI-ANNUAL

Qualified personnel shall conduct site compliance evaluations at appropriate intervals, but in no event less frequently than twice a year. Such evaluations shall include:

1. Structural stormwater management measures

2. Erosion Control measures

3. Visual inspection of spill response equipment

4. Inspections should be made during rainfall events.

In addition, the inspector shall prepare a written report summarizing the scope of the inspection, the personnel making the inspection, the date(s) of the inspection, major observations relating to the Plan, and actions taken. The report shall be signed by an appropriate representative of TEC.

B. ROUTINE

At least monthly, one member of the Pollution Prevention team is required to conduct a routine SWPPP Inspection. These inspections should be completed during rain events where possible. An inspection form to document these monthly events has been developed and can be found in Appendix D. Copies of all inspections are to be maintained with the SWPPP.

During the inspection, the inspector will be looking for:

- condition of stormwater outfalls (trash accumulation, staining, evidence of unauthorized non-stormwater discharges, etc.);
- overall good housekeeping (dumpster covers, staining in vehicle/equipment maintenance areas, litter);
- accumulated material in secondary containment areas; and
- the condition of installed control measures (do any need to be maintained or replaced?).

12. SCHEDULES AND PROCEDURES FOR MONITORING

The general permit requires both a visual assessment and analytical testing of stormwater discharges. The intent of this monitoring is to provide a qualitative and quantitative indicator of how well the stormwater control efforts are working.

A. VISUAL MONITORING (SECTION 5(E) (A) (I))

Visual monitoring is to be conducted quarterly on samples taken during a storm event, and requires that the nature of the discharge is assessed based on several visual parameters. The purpose of conducting visual assessments is to make sure that stormwater discharges are free from objectionable characteristics that may indicate that existing control measures are not adequate or not being properly operated and maintained. These samples are taken at the same locations as the samples taken for laboratory analysis.

The assessment will be conducted by a member of the stormwater pollution prevention team.

The assessment frequency will be once each quarter during the entire permit term. Quarters begin on January 1, April 1, July 1, and October 1. These monitoring assessments are in addition to the inspection schedule described in section 11.

The outfall sampling location will be the discharge point of the sedimentation basin located at the southern area of the site and the discharge point of the sedimentation located at the northern area of the site.

Assessment Evaluation

The following items will be evaluated during the assessment:

1. Color odor clarity
2. Floating solids settled solids
3. Suspended solids foam
4. Oil sheen
5. Other obvious indicators of stormwater pollution

Samples must be representative of the stormwater discharge. Samples must be collected in a clean, clear glass or plastic container, and evaluated in a well-lit area.

Visual assessment monitoring records must be kept in the Plan but are not required to be submitted to DEP unless requested. Provide the following information:

- The names and titles of individuals collecting the sample and performing the assessment Sample locations

- Sample collection and visual assessment date and time for each sample and nature of the discharge (i.e., runoff or snowmelt)
- Results of observations
- Probable sources of any observed stormwater contamination. Actions taken to eliminate sources of stormwater contamination. Document reasons if unable to collect a representative sample.

B. GENERAL MONITORING REQUIREMENTS (SECTION 5(E) (A) (II))

TEC is required to collect stormwater samples for laboratory analysis at least ***twice per year,*** once between October 1 and March 31 and once between April 1 and September 30.

Standard Monitoring Parameters

Table 1. Standard Monitoring Parameters

PARAMETER	UNITS	LEVELS
Total Oil and Grease	mg/L	5
Chemical Oxygen Demand	mg/L	75
Sample pH	S.U.	5-9
Total Suspended Solids	mg/L	90
Total Phosphorous	mg/L	0.40
Total Kjeldahl Nitrogen	mg/L	2.30
Nitrate as Nitrogen	mg/L	1.10
Total Copper	mg/L	0.059
Total Lead	mg/L	0.076
Total Zinc	mg/L	0.160

C. ADDITIONAL QUARTERLY MONITORING

As an electric generating facility, TEC is also required to sample for Total Iron on a quarterly basis at the time of the visual assessment. The benchmark level for Total Iron is 1.0 mg/L.

D. ANNUAL MONITORING

In addition to the semiannual sampling, monitoring for Aquatic Toxicity must be conducted once per year during the first two years following authorization of discharges under this permit in accordance with section 5, subsection e, subpart c of the general permit. This parameter shall be included in one of the regularly scheduled semiannual samples. There is no benchmark for aquatic toxicity.

E. SAMPLING AND REPORTING

Monitoring and sampling is conducted by taking one grab sample from each outfall starting within the first thirty (30) minutes of flow at the sampling location during a storm event that occurs at least 72 hours after any previous storm

event that generated a stormwater discharge. A state certified laboratory will be used to analyze stormwater samples.

The Stormwater Monitoring Report (SMR) will be utilized for submittal of the sampling results to the Department. Results **must** be submitted on the SMR to the Department within 90 days of sample collection.

The site is responsible for submitting the SMR. If the laboratory fails to submit the SMR, the site will be in violation of the general permit.

If stormwater runoff from the site was retained and infiltrated in a stormwater basin without a discharge during a given semi-annual period without discharge, the site may forgo sampling from the basin for that period and submit a Stormwater Monitoring Report saying "No Discharge". In such a case, it must be documented that the basin had absolutely no discharge during that period.

F. EVALUATION OF BENCHMARK MONITORING RESULTS SECTION 5(E) (1) (B)

Does the average of the four quarterly benchmark samples for any pollutant exceed the applicable benchmark concentration? **OR** **If the site has not yet completed four quarterly benchmark samples, does the total value of the samples already make an exceedance of the benchmark mathematically certain (e.g., the sum of the concentration of the samples exceeds four times (4X) the benchmark concentration)?**	
Yes	**No**
Within 120 days … • Evaluate whether modifications to the stormwater control measures used at the site are necessary. Consider whether there is a problem in the selection, design, installation, and/or operation of applicable control measures. • Follow the evaluation and corrective action process in Section 5(e)(1)(B). • If applicable, submit documentation of the evaluation to the Department *	**The site may discontinue monitoring for that parameter for the duration of the permit.** Sample results below benchmark limits provide an indication that the control measures are working as intended to minimize the discharge of pollutants. The site is still required to meet all requirements in the permit affecting the implementation and maintenance of control measures,

• Update the Plan as required by Section 5(c)(5). ---------- An exceedance of a benchmark is not, in itself, a violation of the general permit.	despite the good results of the benchmark sampling

Parameters without benchmarks must be sampled throughout the permit term, unless specifically noted.

FIGURE 1 SITE LOCATION USGS

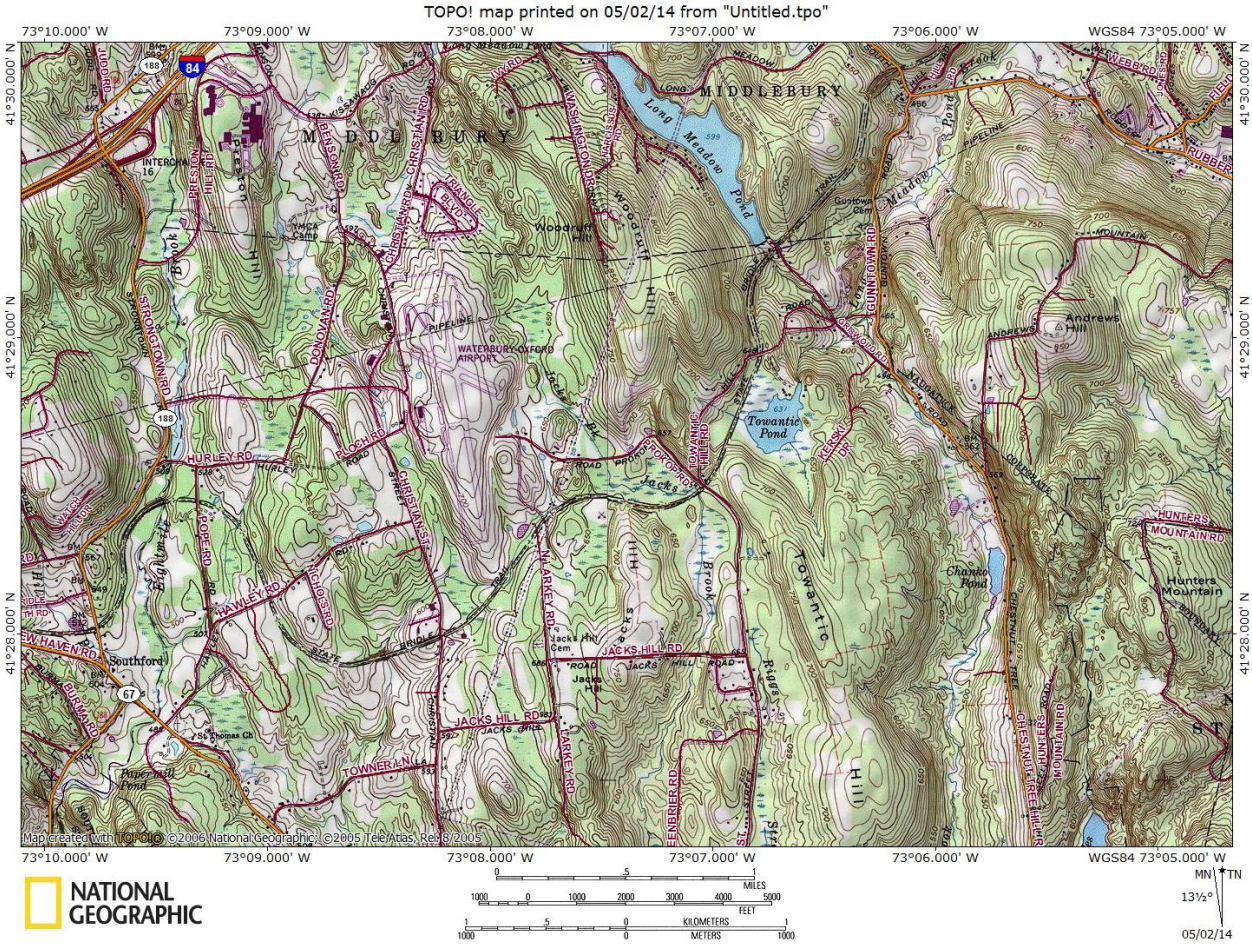


FIGURE 2 SITE LOCATION PHOTO

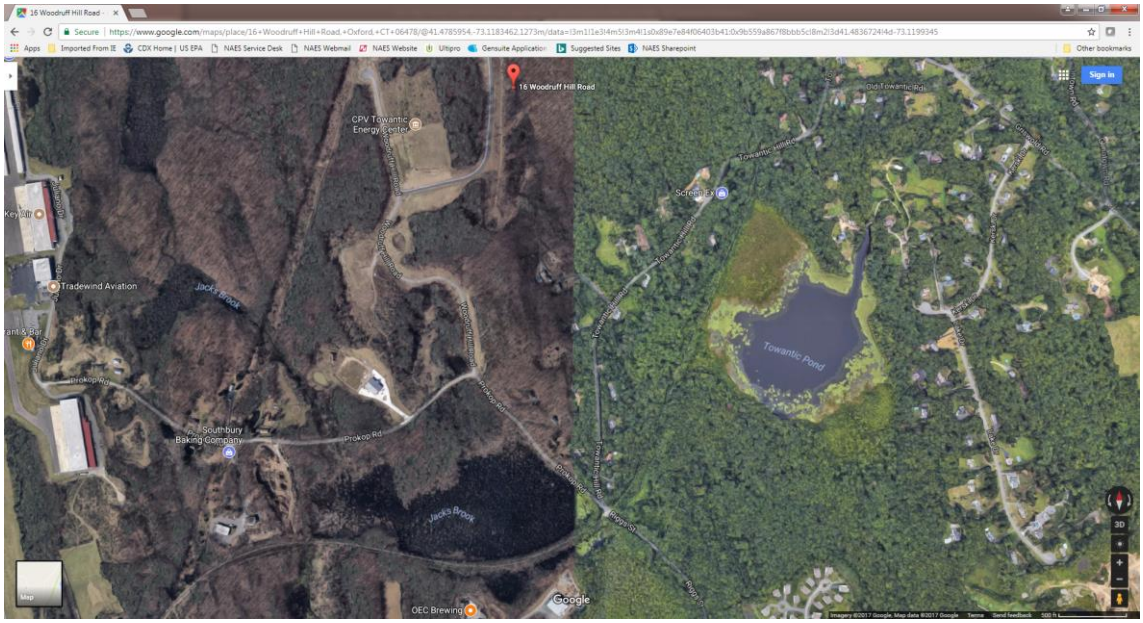


FIGURE 3 SITE PLAN

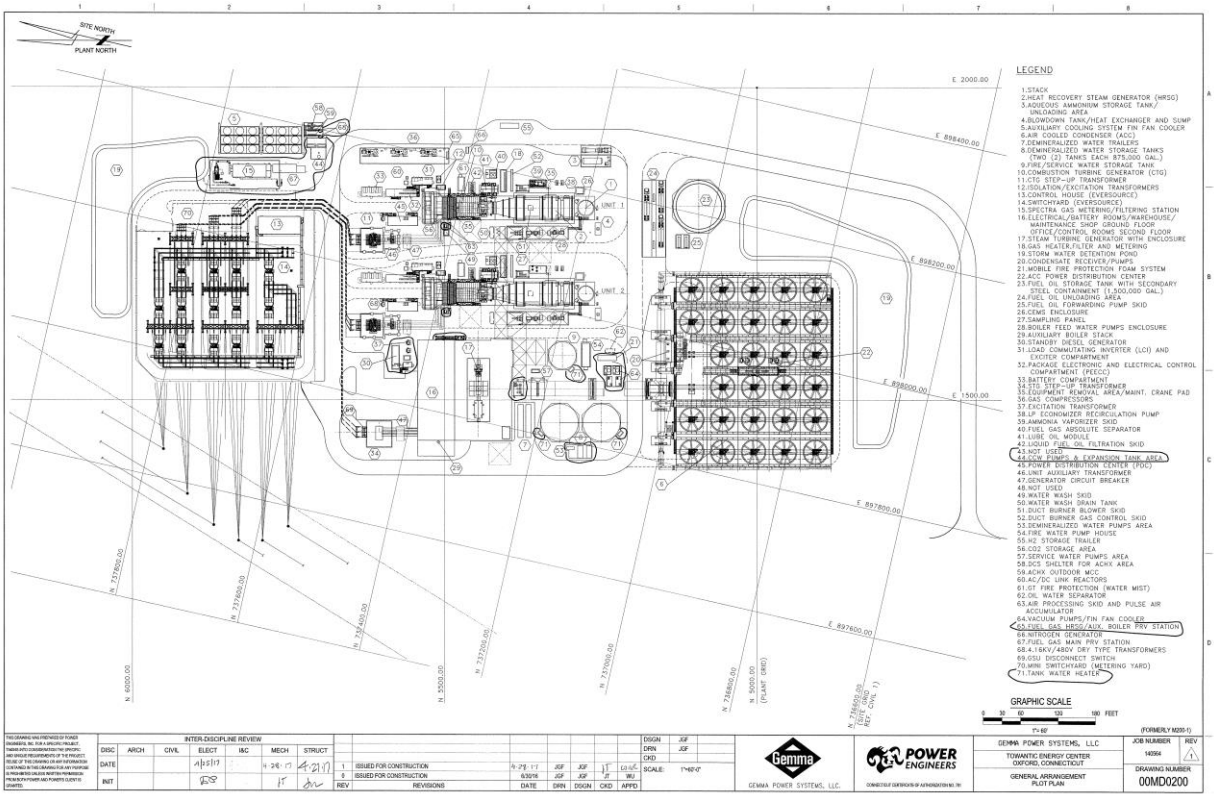
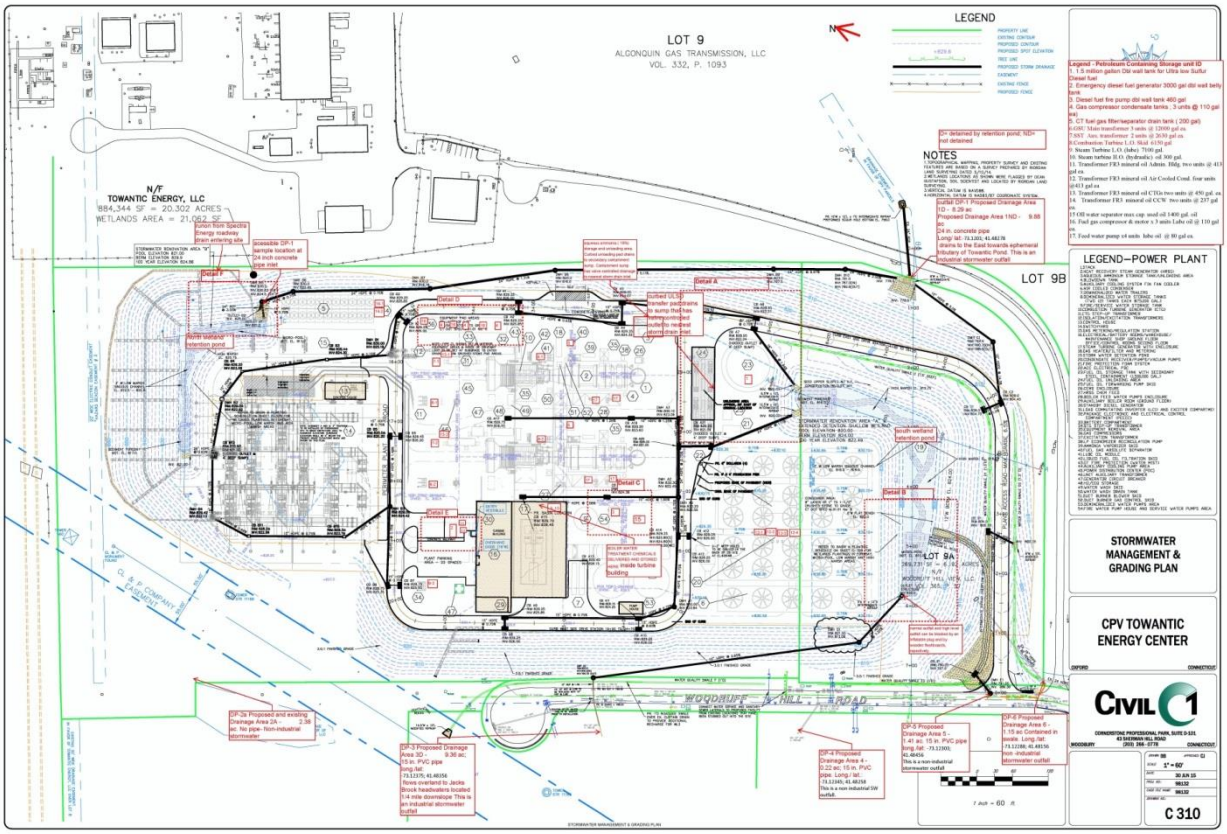


FIGURE 4 DRAINAGE PLAN



Appendix A: Material Inventory & Potential Pollutants

Activity/Exposed Material	On-site Location of Activity or Material	Associated Outfall Number	Associated Pollutants	Method of Storage/ Extent of Exposure	Description of Storage Tank or Tote (Type)	Control Measures Used to Minimize Exposure	Location and description of structural or non-structural measures to control pollutants/ treatment devices installed to treat stormwater runoff

Material Inventory & Sources of Potential Pollutants: Roof Drainage; Chemical Storage Areas; Petroleum Storage Areas; Dusting or Fugitive Emission Sources; Offloading/Unloading Areas; Storage or Process Areas should be included.
Steam Electric Generating Facilities must also identify specifically: Storage tanks, Scrap yards, General refuse areas, Short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides), Landfills and construction sites, Stock pile areas (e.g., coal or limestone piles)

Appendix B: List of Significant (> 5 gallons) Spills and Leaks (3 years prior to date of certification of the Plan)

As a new facility in 2017. This list will be developed as incidents may occur.

	Mark One			Description of Incident				Actions Taken	
Date	**Spill**	**Leak**	**Location (Use Facility Map)**	**Type of Material**	**Quantity**	**Source**	**Reason**	**Response Procedures**	**Corrective Measures to Prevent Recurrence**

Appendix C: Evaluation of Non-Stormwater Discharges

Towantic Energy Center

Evaluation for Unauthorized Discharges for Storm Water Discharge

Permit: CT General Permit for the Discharge of Stormwater from Industrial Facilities
Effective Date of Coverage: xx Permit Expiration: xx

Evaluation for Unauthorized Discharges (Non-Storm Water Discharges) Method: Conducted by Visual Inspection of Outfalls, SWPPP Plan Components	Completed by: _____ Title: _____ Date: _____

Date of Evaluation	**Outfall**	**Describe Observation** Note – Dry Outfall no discharge; or describe discharge as found and present weather conditions and classification of non-stormwater allowable discharge.	**Identify Potential Significant Source** And Issue Work Order for Corrective Action Note Work Order if issued here; or if no Corrective Action Required - NONE

CERTIFICATION

"I certify that in my professional judgment, the stormwater discharge from the site consists only of stormwater, or of stormwater combined with wastewater authorized by an effective permit issued under section 22a-430 or section 22a-430b of the Connecticut General Statutes, including the provisions of this general permit, or of stormwater combined with any of the following discharges provided they do not contribute to a violation of water quality standards: · landscape irrigation or lawn watering; · uncontaminated groundwater discharges such as pumped groundwater, foundation drains, water from crawl space pumps and footing drains; · discharges of uncontaminated air conditioner or refrigeration condensate; · water sprayed for dust control or at a truck load wet-down station; · naturally occurring discharges such as rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20)), springs, and flows from riparian habitats and wetlands. This certification is based on testing and/or evaluation of the stormwater discharge from the site. I further certify that all potential sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test have been described in detail in the Stormwater Pollution Prevention Plan prepared for the site. I further certify that no interior building floor drains exist unless such floor drain connection has been approved and permitted by the commissioner or otherwise authorized by a local authority for discharge as domestic sewage to sanitary sewer. I am aware that there may be significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

Name & Official Title (type or print)	**Area Code and Telephone No.**

Signature:	**Date Signed:**

Certification by State of CT PE or Certified Hazardous Materials Manager Ensure that there are no additional discharges entering into outfalls. All other non-stormwater discharges are not authorized and shall be eliminated or covered under a separate VPDES permit.

Appendix D: SWPPP Monthly Inspection of Structural Controls and BMPS

[to be developed]

Appendix E: SWPPP Quarterly Visual Monitoring/ Inspection Form

SAMPLE EXAMINATION DATE:		**SAMPLE EXAMINATION TIME:**	
SAMPLE EXAMINATION PERSONNEL:		**NATURE OF DISCHARGE/Precipitation (RUNOFF OR SNOW (MELT):**	

Permit (Part I, A.1.a.)	**Outfall XYZ**	
VISUAL PARAMETER	**OBSERVATION**	**PROBABLE SOURCE OF ANY OBSERVED CONTAMINATION**
COLOR Does the water appear to be colored in any way?	**Yes □ or No □** **If Yes,** **Color**_____	
ODOR Does the sample have an odor? Sulfur, raw eggs, gasoline, solvent, etc;	**Yes □ or No □** **If yes, Describe:**	
CLARITY Is the water clear or transparent, meaning can you see through it?	**Yes □ or No □** **Select One:** **□ Clear** **□ Milky** **□ Opaque**	
FLOATING SOLIDS Is there something floating on the surface of the sample?	**Yes □ or No □** **If yes, Describe:**	
SETTLED SOLIDS Is there something settled at the bottom of the sample?	**Yes □ or No □** **If yes, Describe:**	
SUSPENDED SOLIDS Is there something suspended in the water column or sample?	**Yes □ or No □** **If yes, Describe:**	
FOAM	Is there foam or material forming on top of the water? **Yes □ or No □**	
OIL SHEEN Can you see a rainbow effect or sheen on the water surface?	**Yes □ or No □** Can you see a rainbow effect or sheen on the water/ surface? **If yes, w**hich of the following best describes the water sheen? **Oily□ Silver □ Iridescent □**	
OTHER INDICATORS OF POLLUTANTS		
COMMENTS:		

To be completed by Member of SWPPP Team from available Meteorological Data:

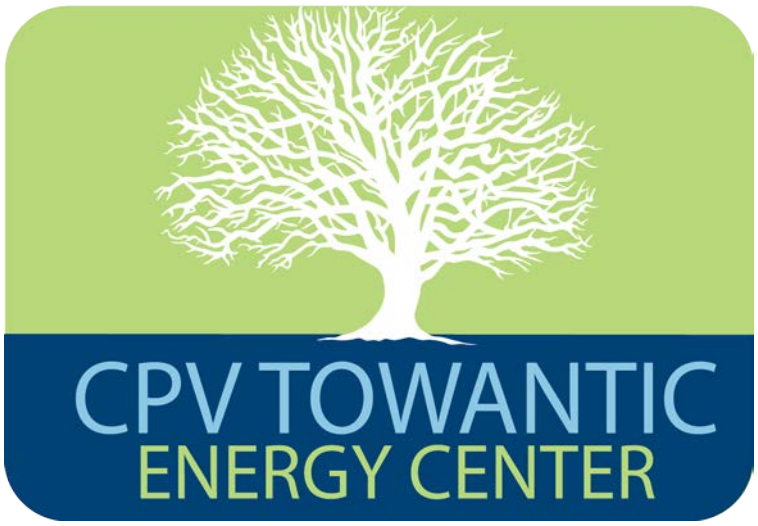
Date of Rainfall Event:		**N/A**
Duration in Hours of the storm event sample:		**Attach relevant data to this form**
Rainfall total (inches): **For the event that generated the sample;**		**Attach relevant data to this form**
Duration between the storm event sampled and the previous measurable storm event.		**Attach relevant data to this form**
For snowmelt record date of sampling event only		**N/A**

Notes for quarterly visual inspection sampling:

- The visual examination reports shall be maintained on-site with the Storm Water Pollution Prevention Plan (SWPPP).

CPV TOWANTIC, LLC

OPERATIONS PLAN



Submitted to Connecticut Siting Council

February 23, 2018

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INTRODUCTION

In accordance with Section 3 of the Decision and Order in Docket 192B issued by the Connecticut Siting Council (CSC), CPV Towantic, LLC (Towantic) has prepared this Operations Plan (the Plan) reflecting the planned operation of the CPV Towantic Energy Center (the Facility) for consideration and approval by the CSC. The information contained within the Plan is prescribed in Section 3 of the Decision and Order for Docket 192B and, as required, includes:

> *…base line testing, performance objectives, post-construction operations monitoring, enforcement protocol and the development of mitigation measures to ensure compliance with regulatory requirements and/or performance objectives for each of the following components:*
>
> *a) noise emissions;*
>
> *b) water usage;*
>
> *c) water discharges;*
>
> *d) air and water vapor emissions;*
>
> *e) odors;*
>
> *f) plant lighting;*
>
> *g) traffic management; and*
>
> *h) physical plant and site management.*

Additionally, the Plan is intended to provide useful and necessary information and procedures to guide Facility personnel in the sound and safe operation of the Facility.

This introduction provides an overview of key characteristics of the Facility and describes its proposed operating framework as a context for the specific topical narratives that follow.

FACILITY OVERVIEW

The Facility is located in Oxford, Connecticut (as shown in Figures 1 and 2).

Figure 1: Location of Oxford, CT

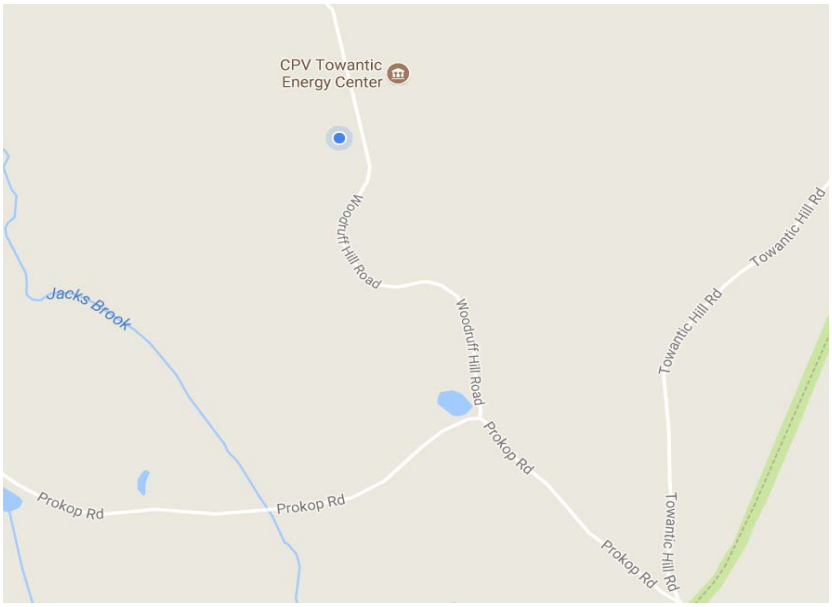

Figure 2: Location of CPV Towantic Energy Center

The Facility, as shown in Figure 3, consists of two General Electric (GE) 7HA.01 dual fuel combustion turbines (CTs), two heat recovery steam generators (HRSGs) equipped with natural gas-fired duct burners, and a single steam turbine (ST). As reflected in the approved design, individual enclosures have

been utilized for the CTs and ST in order to minimize visibility. Also, the Facility incorporates a low profile air-cooled condenser (ACC) to minimize visibility while significantly reducing water demand.

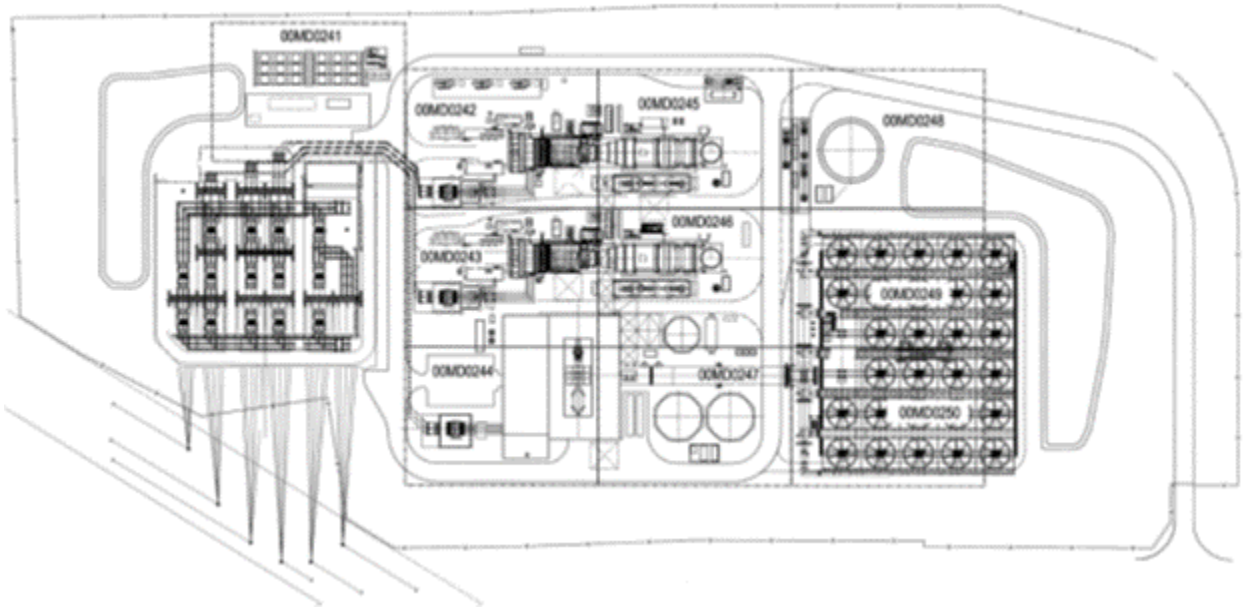

Figure 3: Layout Drawing

The Facility is designed and has been constructed to operate primarily on natural gas, with ultra-low-sulfur distillate (ULSD) utilized as a backup fuel. The Facility is equipped with state-of-the-art pollution controls, including selective catalytic reduction (SCR) with dry low nitrogen oxide (NO_X) burners when operating on natural gas and water injection (when using ULSD) and catalytic oxidation systems. Each HRSG has a dedicated 150-foot stack. Appropriate safety lighting meeting the requirements of the Federal Aviation Administration (FAA) has been installed on the stacks and other structures.

FACILITY OWNERSHIP AND OPERATIONS

Towantic remains responsible for Facility operations and compliance under its various permits, approvals, and contracts. In order to support day-to-day operations, Towantic has retained NAES Corporation (NAES) as the third-party provider of operations and maintenance (O&M) services for the Facility under an agreement effective March 11, 2016 through December 31, 2021. Towantic has appointed an Asset Manager who has the authority to direct the work of NAES. NAES has appointed an

Operations Director, from its home office personnel, who is authorized to represent NAES with Towantic concerning NAES's performance of the operating services. The Operations Director shall also coordinate the home office personnel in supporting the site personnel's performance of the operating services. Additionally, NAES has appointed a Plant Manager, who directs and manages NAES's Site Personnel in the performance of the operating services. For issues arising out of the day-to-day administration of the operating services, the Plant Manager may communicate directly with Towantic or the Asset Manager.

NAES has extensive experience providing power plant operations service focused on the fundamentals – safety, compliance, reliability and cost. With a cumulative resume of 250 plants across the United States and in 12 other countries, NAES has a demonstrated track record of successful facility operation that brings both performance know-how and financial insight. Among its operating fleet, NAES has responsibility for six other facilities in Connecticut with a total of 1,448 megawatt (MW) of generating capacity.

NAES received Notice to Proceed on January 4, 2017 and, therefore, has been participating in the completion of construction and commissioning of the Facility. Various pre-commercial operation services provided by NAES include: recruiting and hiring permanent Facility personnel; developing required safety and environmental programs and procedures; training O&M staff; identifying and purchasing spare parts; supporting commissioning activities as required; implementing required accounting procedures; and any other O&M activities that are required prior to the Facility commencing commercial operations.

Operational staff for the Facility will consist of 22 positions, as reflected in the organizational chart in Figure 4. The six management and administration positions will include a Plant Manager, Operations Manager, Maintenance Manager, Plant Engineer, Compliance Coordinator, and Administrative Manager. Management and administrative staff will work 8-hour shifts Monday through Friday.

Operations support will be provided by one Lead Control Room Operator, with five other Control Room Operators and five O&M technicians reporting to that position. Maintenance staff will consist of three Instrumentation, Controls and Electrical (IC&E) Technicians and two Maintenance Technicians. The Shift Operators will continually staff the Facility with 12-hour shifts. The Facility will employ a full time Compliance Coordinator, as shown in Figure 4, to ensure Facility compliance with relevant regulations,

permits and other applicable requirements. This person will provide oversight for all required permit reporting to ensure it is accurate and timely, and for addressing day-to-day environmental issues. The Compliance Coordinator and Plant Manager have contributed to development of this Plan and will work closely with Towantic in its implementation.

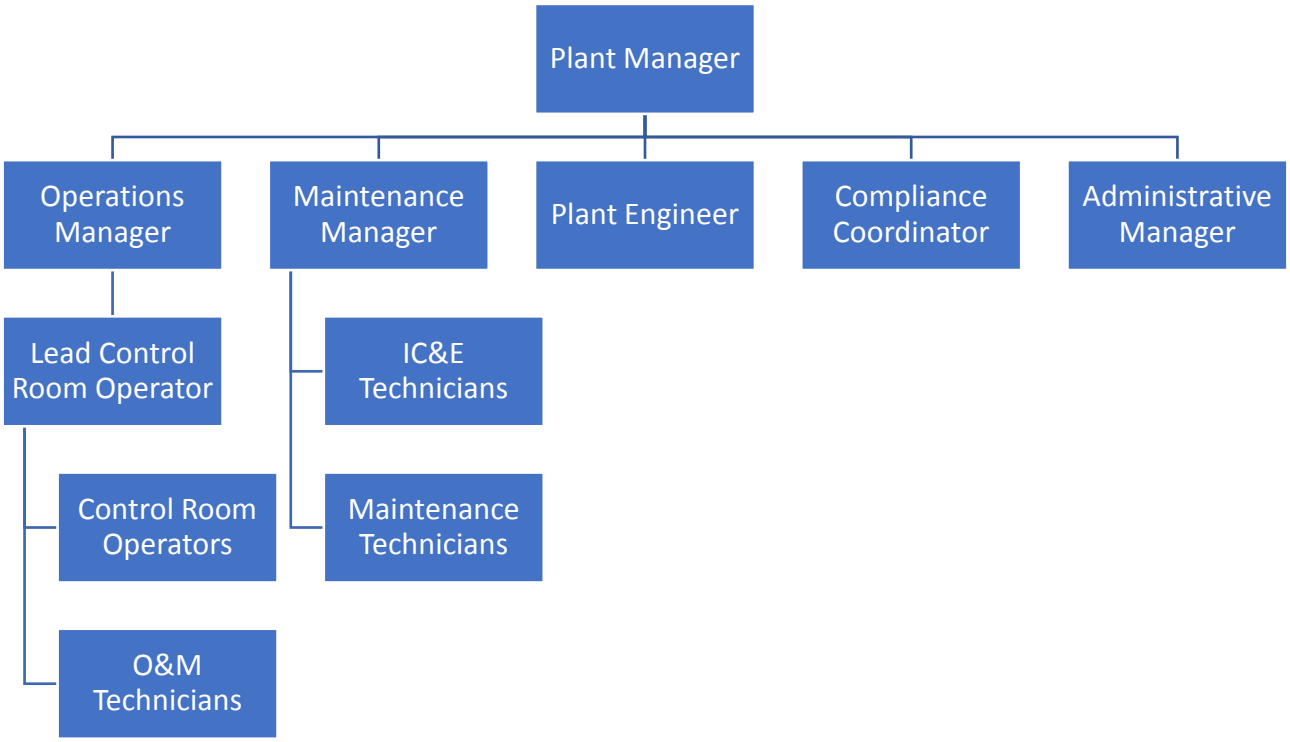

Figure 4: Organizational Chart

A. NOISE EMISSIONS

The Facility was designed to incorporate noise mitigation measures that comply with the Connecticut Department of Energy and Environmental Protection (CT DEEP) and Town of Oxford noise standards. Initial modeling identified conceptual mitigation strategies that were refined during the Facility's final design. Confirmatory modeling will document that appropriate design and mitigation was incorporated to meet the performance objectives. Ongoing issues, if any, will be addressed through the implementation of a compliance procedure. Additional detail is provided in the following sections.

PERFORMANCE OBJECTIVES

As an industrial land use (Class C, as defined by CT DEEP and Town of Oxford regulations), the Facility is obligated to meet the daytime and nighttime noise level limits at receiving land use types categorized as industrial, commercial/retail and residential/sensitive areas, as shown in Table 1. The Facility's normal operational conditions, therefore, can contribute no more than 70 A-weighted decibels (dBA) of sound at the nearest industrial property boundaries (i.e., at the Facility property boundary) and no more than 51 dBA sound level at residential property boundaries. The nearest residential property boundary is located 523 feet to the north of the Facility property boundary, in the Town of Middlebury.

Table 1: CT DEEP and Town of Oxford Noise Limits

Emitter	Receptor (dBA)			
	Class C	**Class B**	**Class A Daytime (7:00 am – 10:00 pm)**	**Class A Nighttime (10:00 pm – 7:00 am)**
Class C – Industrial	***70***	***66***	***61***	***51***
Class B – Commercial and Retail Trade	62	62	55	45
Class A – Residential Areas and other sensitive areas	62	55	55	45

Compliance with these performance objectives were incorporated in the contract established with the Engineering, Procurement, and Construction (EPC) Contractor to ensure that final design optimization

continues to reflect the appropriate sound levels. Verification through testing is required prior to release of the EPC contractor from its obligation to meet noise performance guarantees.

DEVELOPMENT OF MITIGATION MEASURES

The Facility employs noise mitigation measures from/in various Facility sources in order to meet these standards. The mitigation design developed during the permitting process incorporated: combustion turbine air inlet silencers; a low noise ACC design; low noise transformers; turbine exhaust stack silencers; a low noise fin fan cooler; sound enclosures for the gas compressors and boiler feed water pumps; and silencers for the turbine compartment ventilation fans.

BASE LINE TESTING

Once construction is completed, and prior to release of the EPC contractor from its obligation to meet its noise performance guarantees, a compliance test will be undertaken to verify that these guarantees have been met and that resulting Facility contributions meet the Facility's performance objectives (which adhere to CT DEEP and local standards and were approved by the CSC). The contractor will ensure completion of noise testing by a qualified sub-contractor in accordance with the reference test methods for measurement of far field sound pressure levels.

Under this protocol, noise levels will be measured at three residential boundaries and one industrial property line (as shown in Figure 5). The measurements will be conducted when the Facility is operating at a load of 90 percent (%) capacity or greater. At each location, the sound level measurements will be conducted for a minimum duration of 5 minutes. The measurements will collect A-weighted sound levels reflective of sound exceeded 90% of the time (L_{90} sound levels), which will be used to determine compliance. For informational purposes, unweighted L_{90} one-third octave band sound pressure levels in frequency bands centered from 25 Hertz (Hz) to 12,500 Hz will be documented, plus other associated statistical metrics reflecting the sound exceeded 1%, 10% and 50% of the time (L_1, L_{10}, and L_{50} sound levels), the equivalent sound level over time (L_{eq} sound level), A-weighted sound levels and one-third octave band sound pressure levels. The measurements will be conducted to exclude non-Facility sound levels.

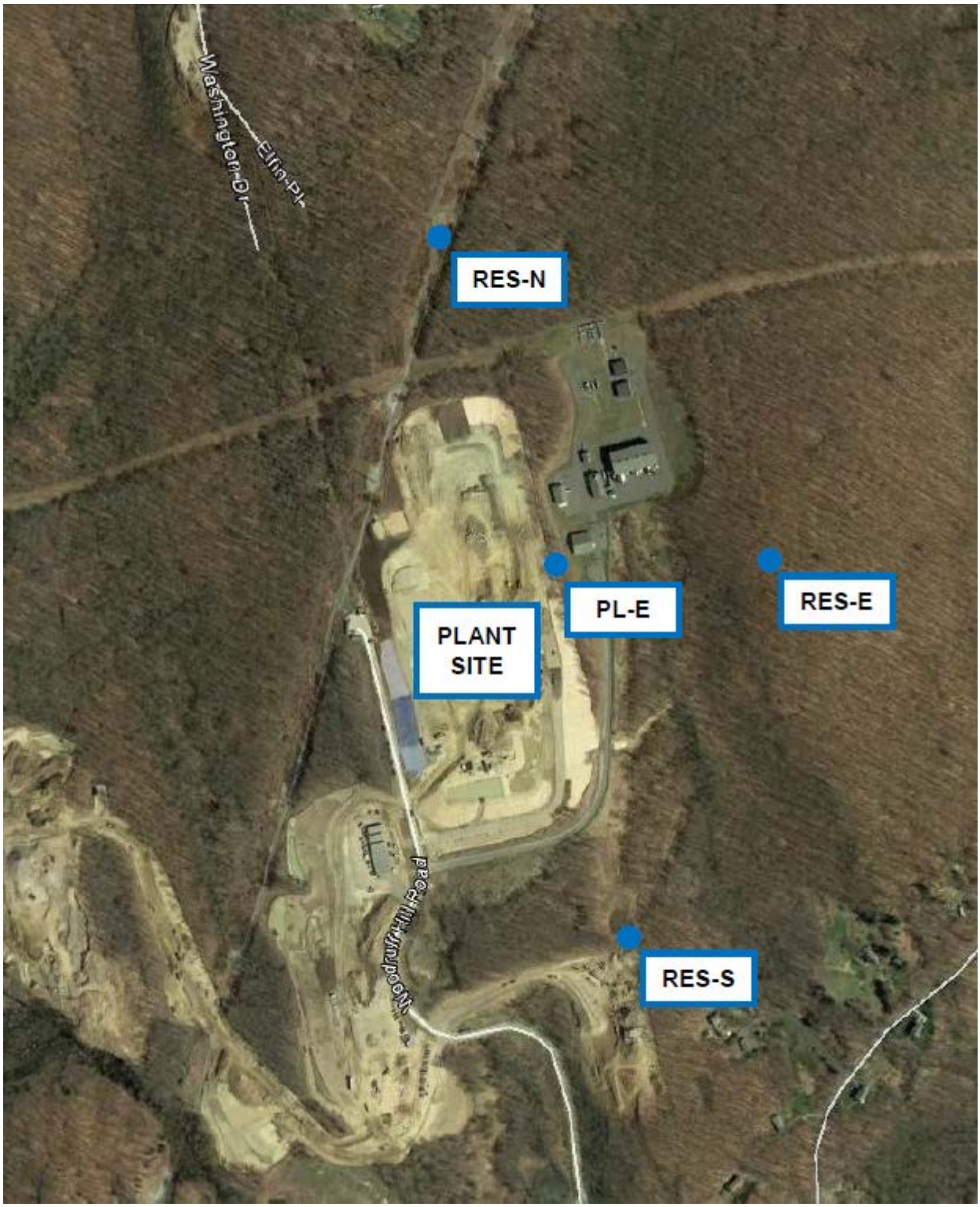

Figure 5: Noise Monitoring Locations

A report will be generated presenting the results of the measurements for submittal to the CSC. If the resultant overall A-weighted L_{90} sound levels (dBA) does not exceed the noise levels in Table 1, then the Facility will be deemed to be in compliance.

If the resultant sound levels exceed CT DEEP and Town of Oxford noise regulations, Towantic and its EPC contractor will develop a mitigation plan in order to achieve the appropriate sound levels, and the Facility will be tested again.

POST-CONSTRUCTION OPERATIONS MONITORING

Once confirmation of compliance is achieved through baseline testing, as described above, no additional post-construction operations monitoring of the Facility is planned or necessary. Towantic will inform the Town of Oxford of any anticipated unusual events that may be expected to affect Facility sound levels.

ENFORCEMENT PROTOCOL

To address ongoing compliance with noise limits, a Complaint Resolution Procedure (CRP) will be implemented (as presented in Appendix A). The following process will be implemented under the CRP:

- If a complaint is received, it will be logged, with appropriate documentation gathered by personnel at the Facility utilizing a Complaint Resolution Form, as reflected in the CRP.
- The Plant Manager or Compliance Coordinator will attempt to contact the person(s) making the noise complaint within 24 hours, or within 72 hours if the complaint is made over the weekend, to gather any additional information and to affirm to the complainant that appropriate consideration is being given.
- Facility personnel will conduct an investigation to determine the source of the noise related to the complaint and its root cause, documenting the results in the Facility logbook.
- Facility personnel will take all feasible measures to reduce the noise at its source, if the noise is Facility-related. Other measures, including communication with the complainant will be undertaken, as appropriate.

- A report will be prepared documenting the complaint and the actions taken. The report will summarize the complaint, including final results of noise reduction efforts. The Plant Manager will initial the report, which will then be filed and maintained at the Facility for a period of at least five years.

B. WATER USAGE

The Facility uses a potable water supply connection located on Woodruff Hill Rd. The water main and the primary supply source is owned by Heritage Village Water Company ("HVWC"), a subsidiary of Connecticut Water Service, Inc. ("CT-Water") and will provide the Facility with all water for both process and domestic uses.

PERFORMANCE OBJECTIVES

Towantic's performance objectives related to water usage focus on (1) maximizing the reliability and availability of water supply while (2) minimizing the impact of the Facility's demand on the Pomperaug River Aquifer. In that regard, Towantic has limited its daily quantities in accordance with Table 2 below. Further, the Facility has incorporated 2.25 million gallons of water storage capacity on-site to facilitate these daily limits. Also, the incorporation of air cooled condensing for the plant's steam cycle and the recycling of all process waste streams for reuse in its process greatly reduces the Facility's overall use of water. Lastly, in addition to the design components noted, Towantic continues to maintain an open dialogue with HVWC and CT-Water related to the possibility of utilizing the Judd Hill interconnection on HVWC's system for a portion of the year. Use of this interconnection would directly offset water draws from the Pomperaug River Aquifer during the most sensitive rearing and growth bioperiod for the Pomperaug River albeit at a substantially increased cost to Towantic.

Table 2: Facility Water Supply

Time Period	**Max Daily Quantity****
January 1 – April 15	218,000 gallons/day
April 16 – October 15	150,000 gallons/day
October 16 – December 31	218,000 gallons/day

**Towantic may request additional supply above the stated MDQs; supply of any amounts in excess of the stated quantities is strictly at HVWC's discretion and relies on (i) sufficient quantities relative to HVWC's diversion rights being available and (ii) the supply of the additional quantities is not otherwise prohibited.

DEVELOPMENT OF MITIGATION MEASURES

As mentioned above, Towantic and HVWC and CT-Water are discussing the utilization of the Judd Hill interconnection on HVWC's system for a portion of the year. The interconnection accesses water from different supply basins and, therefore, use of this interconnection would directly offset water draws from the Pomperaug River Aquifer. The discussion centers on utilizing the interconnection during the most sensitive rearing and growth bioperiod for the Pomperaug.

BASE LINE TESTING

All water supply systems will be tested and fully operational by the time the Facility begins commissioning. No other testing is needed or expected.

POST-CONSTRUCTION OPERATIONS MONITORING

All water quantities supplied to the Facility will be continuously metered and equipped with SCADA capability and are subject to the daily caps as described in Table 2 above. An 8" water main connects the Facility to the Woodruff Hill Road tie-in point. The water main stubs up within the steam turbine building where it then tees off to 2" and 8" flow meters. The 2" flow meter measures the potable water that will feed the Administrative Building's sanitary facilities.

ENFORCEMENT PROTOCOL

Enforcement of the maximum daily quantities will be facilitated by the SCADA equipped metering which has been installed and will be supervised by HVWC. Exceptions will exist if HVWC has sufficient water quantity available, and in its discretion, decides to sell Towantic water above the stated maximum daily quantities and such sale is not otherwise prohibited.

C. WATER DISCHARGES

Water discharge from the Facility is limited to: (i) domestic uses discharged to the Town of Oxford sanitary sewer system; (ii) stormwater discharge to the Town of Oxford's stormwater collection drain system via two onsite detention ponds and regulated by the state's General Permit for the Discharge of Stormwater Associated with Industrial Activity (General Permit) program; (iii) plant and equipment floor drains directed through an oil/water separator and conveyed to the Town of Oxford sanitary sewer system; and (iv) combustion turbine wash water which will be captured in onsite storage tanks, pumped and trucked off site for disposal. Discharge flows from the Facility have been minimized through the incorporation of recycling and reuse system for all process wastewaters.

PERFORMANCE OBJECTIVES

Towantic will operate the Facility in accordance with the approvals granted for discharges as described below.

DEVELOPMENT OF MITIGATION MEASURES

During the development phase and CSC approval process, the quantity of water to be discharged was greatly reduced from the initial conceptual design. No further mitigation measures are required.

BASE LINE TESTING

All testing associated with discharge to the sanitary sewer system will be in accordance with the CT DEEP Pretreatment Permit (Permit ID: SP0002363) and the Naugatuck Water Pollution Control Authority Engineering Report (dated 4-7-15). All testing associated with discharges to the onsite stormwater ponds will be in accordance with the CT General Permit.

POST-CONSTRUCTION OPERATIONS MONITORING

All monitoring associated with discharge to the sanitary sewer system and stormwater discharges will be in accordance with the aforementioned permit approvals.

ENFORCEMENT PROTOCOL

Enforcement protocol associated with discharge to the sanitary sewer system and stormwater discharges will be in accordance with the aforementioned permit approvals.

D. AIR AND WATER VAPOR EMISSIONS

The Facility utilizes state-of-the-art technology that was affirmed by CT DEEP to reflect the implementation of Lowest Achievable Emission Rates (LAER) and Best Available Control Technology (BACT), and to be protective of public health and the environment through issuance of air permits. Detailed analysis and dispersion modeling was completed by Towantic and was then reviewed and approved by CT DEEP to support the permit issuance, and stringent controls and reporting requirements have been imposed on the Facility. CT DEEP has authority to oversee and enforce compliance associated with air emissions.

The two combustion turbines at the Facility were each issued a New Source Review Permit to Construct and Operate A Stationary Source (Permit Numbers 144-0023 and 144-0024; "the Permits") on November 30, 2015. The Permits were modified on November 13, 2017 to lower the firing capacity of the duct burners based upon final equipment design. This Operations Plan is largely based upon the requirements of the Permits and the applications for the Permits. Additional regulatory requirements that are expected to be incorporated into the Facility's initial Title V Operating Permit are also addressed to the extent possible. The application for the initial Title V Operating Permit is due no later than 12 months after initial operation of the Facility.

The Facility will use an ACC, rather than a mechanical draft wet cooling tower, thereby eliminating a material source of water vapor. Although the exhaust from the CTGs will contain water vapor as a result of combustion of the fuels, the water vapor plume was thoroughly addressed in the CSC process.

PERFORMANCE OBJECTIVES

The Facility is required to implement LAER controls for NO_X emissions and BACT controls on the CTGs for emissions of NO_X, carbon monoxide (CO), particulate matter (PM), PM with an aerodynamic

diameter of 10 micrometers or less (PM_{10}), PM with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), volatile organic compounds (VOC), sulfur dioxide (SO_2), greenhouse gases (GHGs), sulfuric acid, and ammonia (NH_3). The Facility was also required to ensure compliance with CT DEEP's maximum allowable stack concentration (MASC) limits for emissions of lead, arsenic, and formaldehyde.

The LAER controls for NO_X emissions consist of dry-low-NO_X combustion in conjunction with selective catalytic reduction (SCR) when firing natural gas and water injection with SCR when firing ULSD in the CTGs. BACT for CO and VOC emissions consists of an oxidation catalyst when firing both fuels (natural gas and ULSD). BACT controls for all other regulated pollutants consist of firing natural gas as the primary fuel in each CTG, natural gas as the sole fuel for the duct burners and firing of ULSD in the CTGs only as authorized by Part II.A.1.d of the Permits.

In addition to the LAER and BACT controls, the Facility is subject to several operating limitations to ensure air emissions regulatory requirements compliance. These operating limitations include limiting ULSD firing in the CTGs to no more than 1.72×10^6 million British thermal units (MMBtu) of heat input per rolling 12 month period (equivalent to 720 hours at full operating load); natural gas firing in the duct burners to no more than 9.69×10^5 MMBtu of heat input per rolling 12 month period; concurrent runtime of the CTGs and auxiliary boiler to no more than 500 hours per calendar year; and no more than 250 CTG starts during any calendar year.

The application of LAER controls, BACT controls, and operating limits, along with the associated exhaust stack design and equipment layout, will ensure compliance with the Connecticut Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) based upon the air dispersion modeling analysis in the application for the Permits. These controls and operating limits will also ensure compliance with the annual pollutant emission limits in Part III.C of the Permits.

To comply with the Regulations of Connecticut State Agencies (RCSA) Section 22a-174-3a(l), the Facility is required to possess at least 235 tons of external NO_X emission offsets to cover the potential NO_X emissions from the Facility at a ratio of 1.2 tons of emission offsets per ton of potential emissions, thereby resulting in a reduction in actual NO_X emissions greater than the increase in potential NO_X

emissions from the Facility. In compliance with this requirement, Towantic has secured these emission offsets.

In addition to the emission controls, operating restrictions, and emission limits in the Permits, there are a number of state and federal regulations that the Facility will be subject to once it commences operation. These regulations include the following:

- New Source Performance Standard (NSPS) KKKK (Standards Of Performance For Stationary Combustion Turbines),
- NSPS Subpart TTTT (Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units)
- Federal Acid Rain Program
- Regional Greenhouse Gas Initiative (RGGI)

NSPS Subpart KKKK imposes limits on emissions of NO_X and SO_2 that are far less stringent than the approved LAER and BACT limits in the Permits. NSPS Subpart TTTT imposes a limit on emissions of GHGs that are far less stringent than the approved LAER and BACT limits in the Permits. Therefore, compliance with the limits in the Permits will demonstrate compliance with the limits in NSPS Subparts KKKK and TTTT.

The Federal Acid Rain Program requires subject facilities to obtain an Acid Rain permit prior to operation and purchase an acid rain allowance for each ton of actual SO_2 emitted in each calendar year. The Facility received their Acid Rain permit from CT DEEP on April 17, 2017. As the Facility will fire only low sulfur fuels, potential SO_2 emissions from each CTG is only 19.7 tons per 12 consecutive months.

The RGGI requires subject facilities to secure a RGGI allowance for each ton of carbon dioxide (CO_2) emitted each year. Subject facilities in Connecticut must purchase the required RGGI allowances in auctions that are held each year. Towantic will purchase RGGI allowances in compliance with this requirement.

DEVELOPMENT OF MITIGATION MEASURES

The pollution control mitigation measures associated with air emission reduction are specified in the Facility's design and specifically incorporated in the performance objectives, as noted above. All such specified measures have been incorporated into the final Facility design.

BASE LINE TESTING

The Permittee is required to demonstrate compliance with the LAER and BACT emission limits in Part III.A of the Permits after the completion of the "shakedown period," as defined in Part I.D.3 of the Permits. Emissions prior to the completion of the shakedown period will, however, be counted towards the annual emission limits in Part III.C of the Permits.

Initial baseline performance testing of the CTGs must be completed and the report submitted to CT DEEP no later than 60 days after achieving the maximum production rate of each CTG, but not later than 180 days after initial startup of each CTG. The initial performance testing will be conducted for emissions of NO_X, PM/PM_{10}/$PM_{2.5}$, CO, VOC, SO_2, NH_3, sulfuric acid, formaldehyde, arsenic, opacity, and CO_2. Testing for these pollutants will be conducted on each CTG during natural gas firing without duct firing, natural gas firing with duct firing, and ULSD firing. All testing will be conducted with the CTG and duct burners operating at or above 90% of full load in accordance with CT DEEP stack test guidelines[1]. Prior to the completion of the initial performance testing, initial certification of the continuous emissions monitoring systems (CEMS) for NOx, CO, and NH_3 will be completed. The continuous fuel flow monitors for natural gas to the CTG and duct burners and ULSD to the CTG will also be certified prior to completion of the initial performance testing.

The initial performance testing will be conducted in accordance with a Test Protocol detailing the test procedures to be used to demonstrate compliance with the applicable emission limits. An Intent-to-Test Transmittal Form and Test Protocol was submitted to CT DEEP in November 2017. The final scheduled test dates will be confirmed with CT DEEP's Source Emissions Monitoring (SEM) group prior to the start of testing.

[1] http://www.ct.gov/deep/lib/deep/air/compliance_monitoring/emission_test/emission_test_guidelines.pdf

The NO_x, CO, and NH_3 CEMS certifications will be conducted in accordance with the CEMS Monitoring Plan, which was also submitted to CT DEEP in November 2017.

The fuel meter certifications for both natural gas and ULSD will be completed in accordance with 40 Code of Federal Regulations (CFR) 75, Appendix D, Section 2.1.5 of the Federal Acid Rain Program. The fuel meters will continuously measure and record fuel flow to the CTGs and duct burners. This data will be used to quantify mass emission rates of all pollutants.

POST-CONSTRUCTION OPERATIONS MONITORING

After completion of the initial performance testing, recurrent performance testing on the CTGs and duct burners will be conducted every 5 years for emissions of NO_X, $PM/PM_{10}/PM_{2.5}$, CO, SO_2, NH_3, sulfuric acid, formaldehyde, arsenic, and opacity. Recurrent performance testing on the CTGs and duct burners for VOC emissions will be conducted every 18 months.

The CEMS will continuously monitor and record emissions of NO_x, CO, and NH_3. The CEMS will be used to continuously verify compliance with the BACT and LAER limits in Parts III.A and III.B of the Permits. The continuous fuel flow meters will be used to continuously calculate emissions of SO_2 and CO_2. Fuel sulfur sampling, annually for natural gas and for each ULSD delivery, will be used for the SO_2 emissions calculations. The procedures under 40 CFR 75, Appendix G, Equation G-4 will be used to calculate CO_2 emissions from fuel throughput. A continuous net electrical output monitoring system will be used verify compliance with the Facility's net heat rate limit in Part II.G of the permits and the CO_2 emission limit under NSPS Subpart TTTT.

Towantic will submit quarterly Electronic Data Reports (EDR) for the Facility to the United States Environmental Protection Agency (USEPA) Clean Air Markets Database within 30 days after the end of each quarter. The EDR report will document emissions of NO_X, SO_2, and CO_2 from the CEMS. Quarterly reports will also be submitted to CT DEEP within 30 days after the end of each quarter summarizing the performance of each CEMS including excess emissions occurrences, monitor malfunctions, and monitor downtime.

An annual emission statement will be submitted to CT DEEP by March 1st each year documenting the prior year's actual emissions of all pollutants listed in the Permits. Annual reports of CO_2 emissions will be submitted in accordance with the RGGI program and USEPA's Mandatory Greenhouse Gas Reporting pursuant to 40 CFR 98 by March 1st each year.

Each CEMS will be subject to ongoing quality assurance (QA) activities including quarterly cylinder gas audits and annual relative accuracy test audits. The CEMS Monitoring Plan contains the details of the CEMS ongoing QA activities.

Towantic will operate, inspect, and maintain the combustion turbine generators, duct burners, oxidation catalyst and SCR systems in accordance with the manufacturer's specifications and written recommendations. Towantic will also keep records of all inspections and maintenance of the CTGs, duct burners, SCR systems, and oxidation catalysts. During periods of startup and shutdown of the CTGs, Towantic will start ammonia injection as soon as the SCR manufacturer's recommended minimum catalyst temperature is reached. Towantic will maintain copies of the manufacturer's written specifications and recommendations onsite.

In addition to recurrent stack testing and CEMS emissions monitoring and reporting, Towantic will maintain additional records to support the information contained in the various reports. These additional records for each CTG will include the following:

- Records of monthly and consecutive 12-month fuel consumption in each CTG and duct burner, for each fuel. The rolling 12-month fuel use records will be updated no later than 30 days after month's end.
- For each occurrence of ULSD firing in the CTGs, documentation that natural gas was unavailable in accordance with the Permits.
- Calculations and records of the monthly and consecutive 12-month emissions of NO_X, $PM/PM_{10}/PM_{2.5}$, CO, VOC, SO_2, NH_3, sulfuric acid, CO_2, and GHGs in units of tons emitted for each fuel.
- Records of the number and duration of each of startup and shutdown event and the total number of startup events for each CTG per calendar year.

- Records of any malfunction of the oxidation catalyst and/or SCR systems that results in an exceedance of any emission limitation found in Part Ill of the Permits.
- Records of any periods during which a CEMS is inoperative.
- Records of the operation, inspection, maintenance, and preventive and corrective measures for minimizing fugitive GHG emissions from the natural gas pipeline components and sulfur hexafluoride emissions from the insulated electrical equipment. These records shall be kept in accordance with the leak detection and repair (LDAR) plan prepared by the Facility prior to commencement of operation.

In accordance with the RCSA 22a-174-6(d)(2) through (d)(5), Towantic is required to prepare and submit a written Standby Plan for reducing the emissions of air pollutants during each of the four stages of an industrial air pollution emergency episode. The Standby Plan identifies the source of air pollutants, contains a commitment as to the amount of reduction to be achieved during an emergency episode, and describes the manner in which the reductions will be achieved. The written Standby Plan was submitted to CT DEEP in January 2018.

ENFORCEMENT PROTOCOL

The Facility will notify CT DEEP in writing of all exceedances of an emissions limitation and will identify the cause or likely cause of such exceedance, all corrective actions and preventive measures taken, and the dates of such actions. This notification will be made within 24 hours of the exceedance for all hazardous air pollutants and within 10 days of the exceedance for all other pollutants.

After issuance of the initial Title V Operating Permit, the Facility will submit to CT DEEP annual Compliance Certifications by January 30th each year, and semi-annual Monitoring Reports by January 30th and July 30th each year. These reports will identify each occurrence of noncompliance with an air quality applicable requirement that occurred during the reporting period.

Any representative of CT DEEP may enter the Facility in accordance with constitutional limitations at any reasonable times without prior notice, for the purposes of inspecting, monitoring, and enforcing the terms and conditions of the Permits and applicable state law.

In accordance with the Permits, the Facility will immediately shut down the CTGs if emissions of an air pollutant exceed a LAER or BACT limit in Part III of the Permits and cannot be corrected within three hours of when the emissions exceedance was identified.

E. ODORS

Odors are not expected to be experienced in the local community as a result of the Facility. Although materials and chemicals which have the potential to cause odors are used, proper containment and use of the materials and chemicals, as well as the distance between the Facility and nearby neighbors, is expected to avoid odor impacts. Performance objectives and measures to assure appropriate use, storage, and handling of such materials are outlined in the sections below.

PERFORMANCE OBJECTIVES

The use of materials and chemicals at the Facility have some potential for generation of odors, but only if not properly delivered, stored, handled, and used. The on-site chemicals with the greatest potential for producing odors are aqueous ammonia (used in the NO_X emissions control process), natural gas, and ULSD.

In the case of ammonia, the chemical is delivered, stored, and consumed in the aqueous form, at a 19% concentration. The single on-site storage tank is equipped with pressure and vacuum relief valves that virtually eliminate vapor emissions from the tank. The ammonia remains fully contained within system piping and other components to the point of use in the NO_X emissions control equipment. During offloading of ammonia delivery trucks, the tanker and Facility tank connect with each other in a sealed system to prevent release of vapors.

Natural gas is delivered to the Facility by pipeline and remains sealed within piping and other system components to the point of combustion in the CTGs, the auxiliary boiler, and the boilers' duct burners. Any observable natural gas odor would indicate a leak requiring immediate resolution. The air permits for the CTGs include requirements to, among other things, perform daily auditory and olfactory inspections, which would serve to identify any such leakage.

ULSD is trucked to the Facility and will be delivered to on-site storage tanks within special areas that will contain an accidental spill and allow for prompt clean-up. During deliveries, equipment operators will observe the transfer of ULSD, and any leak or spill will be immediately addressed.

Miscellaneous other chemicals used at the Facility have some potential to produce odors, but these chemicals are present in only small volumes and stored in sealed containers; therefore, they are not expected to be a significant source of odor.

Towantic will operate the Facility in compliance with RCSA 22a-174-23 Control of Odors. As required in the Facility's air permits for the auxiliary boiler, emergency diesel generator, and fire pump (Part VII.B), the Facility will not cause or permit the emission of any substance or combination of substances that creates or contributes to an odor that constitutes a nuisance. As also required in Part IV.A.6.i of the Facility's air permit for the CTGs and duct burner, natural gas piping components supplying natural gas to the CTGs/duct burners will be inspected daily to affirm no leaks are present. In addition, the Facility will utilize a Spill Prevention Control and Countermeasures Plan (SPCC Plan) and Stormwater Pollution Prevention Plan (SWPPP) that will establish best management practices and training to prevent the spill or release of any ULSD or other on-site chemical; by limiting the opportunities for accidental spills and establishing protocol for rapidly addressing such unanticipated incidents, the exposure to sources of odor will be appropriately limited.

DEVELOPMENT OF MITIGATION MEASURES

Mitigation is integrated into the design of the Facility by utilizing design of tanks, valves, and piping that control and contain the materials, including allowance for secondary containment in the event of an accidental release. Details of containment and control measures are outlined in the Facility's SPCC Plan (Appendix B).

BASE LINE TESTING

No baseline testing will be performed; rather, equipment will be installed and operated in accordance with the established specifications, as noted above. The EPC contractor is required to appropriately install equipment consistent with the design plans and other applicable requirements. Towantic will

affirm, through acceptance of the Facility from the EPC contractor, that the equipment meets the design requirements, and will ensure that appropriate training and use of the equipment is reflected in the operating procedures for the Facility.

POST-CONSTRUCTION OPERATIONS MONITORING

Towantic will ensure that all requirements of the Facility's air permit, SPCC Plan, SWPPP and materials handling plans are implemented, including daily inspections to confirm that natural gas system leaks are not occurring.

ENFORCEMENT PROTOCOL

Elements of odor control incorporated in the Facility's air permit are subject to the enforcements noted for air emissions, discussed above.

In addition, the Facility's CRP (as presented in Appendix A) will be utilized to address any complaints received regarding odors. As specified under the CRP:

- If a complaint is received, it will be logged, with appropriate documentation gathered by personnel at the Facility utilizing a Complaint Resolution Form, as reflected in the CRP.
- The Plant Manager or Compliance Coordinator will attempt to contact the person(s) making the complaint within 24 hours, or within 72 hours if the complaint is made over the weekend, to gather any additional information and to affirm to the complainant that appropriate consideration is being given.
- Facility personnel will conduct an investigation to determine the source of odor related to the complaint and its root cause, documenting the results in the logbook.
- Facility personnel will take all feasible measures to prevent such future incidents. Other measures, including communication with the complainant will be undertaken, as appropriate.
- A report will be prepared documenting the complaint and the actions taken. The report will summarize the complaint, including final results of the investigation. The Plant Manager will initial the report, which will then be filed and maintained at the Facility for a period of at least five years.

F. PLANT LIGHTING

The Facility has been designed to incorporate lighting that is sufficient to support its safe operation while minimizing the influence of lighting off-site. In addition to stack lighting at the Facility, a number of structures are sufficiently tall as to require navigation lighting in accordance with FAA requirements. In all instances, a careful balance of safety and lighting needs has been applied for the Facility design and operations, as discussed below.

PERFORMANCE OBJECTIVES

The latest edition and published addenda of the following publications were utilized for the lighting design/installation at the Facility:

- American National Standards Institute (ANSI)
  - ANSI C78.379 – "Classification of the Beam Patterns of Reflector Lamps"
  - ANSI C82.4 – "For Lamp Ballasts – Ballasts for High-Intensity-Discharge and Low-Pressure Sodium Lamps (Multiple-Supply Type)"
  - ANSI O5.1 – "Specifications and Dimension for Steel Pole"
  - ANSI/National Fire Prevention Authority (NFPA) 70 – "National Electrical Code"
  - ANSI/IES (Illuminating Society of America) RP-7 – "Lighting Industrial Facilities"
  - ANSI/IES RP-8 – "Roadway Lighting"
  - ANSI/IES RP-20 – "Lighting for Parking Facilities"
- Illuminating Society of America (IES) – "IES Lighting Handbook"
- National Electric Safety Code (NESC)
- FAA Advisory Circular 70/7460-1L, Change 1

In employing these design standards, Towantic also worked to minimize the need for lighting and to incorporate measures that would minimize visual effect and dark-sky lighting in accordance with the requirements of the International Dark Skies Association.

DEVELOPMENT OF MITIGATION MEASURES

Detailed mitigation of unnecessary exterior lighting is incorporated into the design of the Facility. Exterior lighting at the Facility includes:

- Roadway lighting fixtures – These will be LED photocell triggered 1-foot candle power lights, designed to be downward facing, and located at intervals along the Facility access road and ring road to allow for safe driving during nighttime conditions.
- Area lighting – Lighting fixtures installed on the ACC, combustion turbine, steam turbine, HRSGs, HRSG stacks, tanks, pipe bridge, air inlet filters, generator circuit breakers, equipment platforms, walkways, stairs, emergency ladders, and at-grade equipment areas are high pressure sodium, outdoor low wattage, stanchion mounted fixtures with prismatic closed bottom glass reflector. Lighting along platforms, stairs, as well as around ground level equipment are 2 to 5-foot candle power lights. Area lighting will be operated from dusk till dawn to ensure site safety and security.
- FAA air navigation safety lights – As specifically required by the FAA, in accordance with Advisory Circular 70/7460-1L, Change 1, dated October 8, 2016, the installations will be red lights (L-864) for nighttime operation and medium intensity flashing white lights (L-865) for daytime and twilight operation. The approach to Facility lighting was to install high quality lighting systems on the tallest elements of the Project in order to minimize the need for lighting of shorter structures. Key elements of the Lighting Plan included the installation of Dual Medium Intensity Obstruction Lights on: Stacks #1 and #2; the Auxiliary Boiler Stack; and the Air-Cooled Condenser. In accordance with FAA Advisory Circular 70/7460-1L, the Dual Medium Intensity Obstruction Lights, which shine white light during the daytime and flash red light during the nighttime, will be installed along the top of each structure to allow for 360 degrees of visibility. Due to the compact Facility layout, the proposed lighting systems atop these taller structures will provide sufficient illumination of the Facility for aviation safety, and additional aviation lighting (of the Fuel Oil Storage Tank and Administrative Building) is

not required. The FAA approved Towantic's Lighting Plan on February 15, 2017, the Lighting Plan and associated approvals are included as Appendix C.

BASE LINE TESTING

No baseline testing will be performed to evaluate the lighting; rather, lighting will be installed and operated in accordance with the established specifications, as noted above. The EPC contractor is required to appropriately install lighting consistent with the design plans and other applicable requirements, such as those imposed by the FAA. Towantic will affirm, through acceptance of the Facility from the EPC contractor, that the lighting meets the design requirements.

POST-CONSTRUCTION OPERATIONS MONITORING

Upon completion of construction, Towantic filed 7460-2 Part 2 Supplemental forms with the FAA to indicate that each structure had reached its highest height and been lit in accordance with FAA regulations. Should any malfunction or failure result in an outage lasting more than 30 minutes, Towantic will notify the FAA (877-487-6867) so that a Notice to Airmen (NOTAM) can be issued. Upon resolution to normal lighting operation, the FAA will be notified.

Once the Facility has been accepted by Towantic as having conformed to lighting requirements, Facility lighting will be included among the workplace safety inspections driven by NAES standard procedure. These inspections are to be conducted monthly, with roughly one third of the facility addressed at each inspection. A work order will be created and tracked to completion in the plant's Computerized Maintenance Management System (CMMS) for any lighting deficiencies discovered during these planned inspections or in the course of daily operational rounds or other activities. The facility's FAA lighting will be inspected for proper functioning during each 12-hour operational shift – once each in daylight and darkness, reflecting the daytime (white) and nighttime (red) lighting requirements. Oxford Airport will be promptly notified of any FAA lighting deficiencies, and a priority work order created in the CMMS to track progress to resolution. Towantic will inform the Town of Oxford of any anticipated unusual events, such enhanced lighting during outages, that may be expected to alter Facility lighting visibility.

ENFORCEMENT PROTOCOL

The Facility's CRP (as presented in Appendix A) will be utilized to address any complaints received regarding lighting. As specified under the CRP:

- If a complaint is received, it will be logged, with appropriate documentation gathered by personnel at the Facility utilizing a Complaint Resolution Form, as reflected in the CRP.
- The Plant Manager or Compliance Coordinator will attempt to contact the person(s) making the complaint within 24 hours, or within 72 hours if the complaint is made over the weekend, to gather any additional information and to affirm to the complainant that appropriate consideration is being given.
- Facility personnel will conduct an investigation to determine the source of lighting related to the complaint and its root cause, documenting the results in the logbook.
- If the lighting was inconsistent with Facility design practices, Facility personnel will take all feasible measures to prevent such future incidents. Other measures, including communication with the complainant will be undertaken, as appropriate, particularly if the lighting experienced is necessary and planned.
- A report will be prepared documenting the complaint and the actions taken. The report will summarize the complaint, including final results of the investigation. The Plant Manager will initial the report, which will then be filed and maintained at the Facility for a period of at least five years.

G. TRAFFIC MANAGEMENT

Access to the Facility is provided via an access road located along Woodruff Hill Road. The access road will provide one entering lane and one exiting lane. Access through the Facility entrance's motorized gate will be secured through use of a code or card reader and use of a security camera. Towantic has provided a transportation benefit to the community through creating the E Commerce Drive through connection between Woodruff Hill Road and Juliano Drive. This was particularly beneficial for reducing Facility impacts during the construction period, but following completion of construction, traffic volumes

associated with normal Facility operation will be greatly reduced. E Commerce Drive will continue to be utilized by other industrial park traffic to minimize effect on residential roads, including for Facility deliveries of ULSD and other materials.

PERFORMANCE OBJECTIVES

Towantic's objectives are to minimize heavy traffic on local residential roadways to the greatest extent possible. During normal operation, the Facility will "…not substantially affect state highway traffic operations in the area" as noted in Administrative Decision No. 336 issued by the Office of State Traffic Administration on September 23, 2015. However, in the unlikely event of ULSD use requiring continual deliveries, more significant traffic will utilize routing via E Commerce Drive and other measures to reduce potential community impact.

DEVELOPMENT OF MITIGATION MEASURES

Mitigation of traffic during the vehicle-intensive construction phase included construction and use of E Commerce Drive in order to direct traffic away from local residential roadways. Normal operational traffic levels associated with the Facility will be very low and will not require special considerations. However, use of E Commerce Drive will continue under certain circumstances, such as continual deliveries of ULSD to the Facility.

BASE LINE TESTING

No baseline testing will be performed to evaluate traffic issues, as substantial roadway upgrades have already been made that successfully accommodated construction traffic, and normal operational traffic levels will comparatively be greatly reduced, as only approximately 15 workers are anticipated at the Facility Monday thru Friday on the day shift, fewer on nights and weekends.

POST-CONSTRUCTION OPERATIONS MONITORING

No post-construction operations monitoring is planned or necessary. Towantic will inform the Town of Oxford of any anticipated unusual events, such as the need for intensive delivery of ULSD, that may be expected to alter traffic associated with the Facility.

ENFORCEMENT PROTOCOL

The Facility's CRP (as presented in Appendix A) will be utilized to address any complaints received regarding traffic. As specified under the CRP:

- If a complaint is received, it will be logged, with appropriate documentation gathered by personnel at the Facility utilizing a Complaint Resolution Form, as reflected in the CRP.
- The Plant Manager or Compliance Coordinator will attempt to contact the person(s) making the complaint within 24 hours, or within 72 hours if the complaint is made over the weekend, to gather any additional information and to affirm to the complainant that appropriate consideration is being given.
- Facility personnel will conduct an investigation to determine specifics related to the complaint and its root cause, documenting the results in the logbook.
- A report will be prepared documenting the complaint and the actions taken. The report will summarize the complaint, including final results of the investigation. The Plant Manager will initial the report, which will then be filed and maintained at the Facility for a period of at least five years.

H. PHYSICAL PLANT AND SITE MANAGEMENT

NAES, the operating company selected for day-to-day operation of the Facility, has a long history and track record of safe and efficient operation of similar facilities in a manner that is consistent with its permit obligations and stringent environmental, health, and safety procedures. Regular coordination with and reporting to Towantic and compliance with agency reporting requirements will document effective operations on an ongoing basis and allow for response to any issues that may arise. The following sections outline physical and site management issues not previously addressed in the sections above.

PERFORMANCE OBJECTIVES

Operation and maintenance of the Facility in a safe, efficient manner that is fully consistent with its obligations under its permits and agreements and that provides flexible and responsive electricity to meet the needs of Connecticut and the region will meet the Facility's performance objectives.

DEVELOPMENT OF MITIGATION MEASURES

In addition to the specific plans and measures described above, a Safety Manual (Appendix D) has been developed for the Facility. This incorporates specific information from the equipment manufacturers as well as operational protocols for inspections, procedures, and training that will be regularly implemented. The Safety Manual is frequently reviewed and kept up-to-date with current regulations and guidelines concern personnel and process safety. Training for First Aid, CPR, Blood Borne Pathogens, Forklift Operation, Hearing Protection, and all other Occupational Safety and Health Administration (OSHA) requirements applicable to expected or foreseeable activities are kept current for the entire Facility staff.

Safety Committee Meetings are held on a monthly basis for the purpose of covering safety-related training topics, sharing lessons learned from incidents within NAES and elsewhere that include injuries and near misses, reviewing safety housekeeping audits, employee suggestions, and the generation of new action items. Minutes are published and distributed to all Facility personnel. Among the topics that have received significant attention are Lockout/Tagout, Confined Space Entry, and Hot Work Permitting.

As part of its overall Assessment Program, NAES utilizes a Safety Assessment Program to evaluate the Facility on a regular basis for compliance with the Safety Management Procedures. An annual safety assessment is typically conducted by NAES corporate safety personnel to verify compliance with the Safety Management Procedures. Although the Facility must be in commercial operations for approximately three years before OSHA will audit the Facility for designation as a Voluntary Protection Programs (VPP) “STAR” site, Towantic anticipates pursuing this designation.

Preventive maintenance, predictive maintenance, corrective maintenance, and surveillance checks by all Facility personnel form the basis of a successful maintenance management program. All maintenance activities will be managed through a CMMS Work Order process. Industry standards, equipment manufacturer requirements and recommendations, federal and state regulations, national codes, and actual Facility experience will all be utilized to ensure Facility equipment is properly maintained.

The Preventive Maintenance (PM) module in the CMMS will be used extensively to ensure that the most effective set of PMs are in place and being performed. Predictive maintenance technologies that will be used include the following: lubricating oil analysis, motor circuit analysis, thermography (both for electrical equipment and for fluid systems), borescope inspections, high voltage relay testing, transformer oil analysis, vibration analysis, pump performance testing, plant thermal performance, high voltage motors and generator monitoring, Plant Information system trending and graphics, and Distributed Control System trending and graphics. To the extent that new techniques and applications are identified, they will be added to the program. Additionally, the NAES Maintenance Manual will provide further guidance and direction for the O&M staff.

The services of outside contractors will be used for specialty work, when increased levels of manpower are required, or where dictated by contract. A Contractual Service Agreement (CSA) has been executed under which GE will provide for long-term maintenance and inspection of key equipment including both combustion turbines, all three electric generators, and the distributed control system.

Plant spare parts and consumables are stored at the Facility warehouse; inventory is managed using the CMMS. Annual counts of the full inventory will be supplemented with monthly “spot checks” to ensure accuracy of these records. Occasional obsolescence reviews will be conducted to ensure that the proper parts are on hand, and to cull unneeded items.

The Facility has also developed a draft Emergency Response Plan (Appendix E) consistent with the requirements of Condition 1.h of the CSC’s Decision and Order in Docket 192B that outlines training and response measures, in coordination with nearby emergency response teams, in the event of unlikely but possible natural and other disasters. Preparation for such eventualities will ensure that the Facility has on hand all potentially required response resources in order to safeguard the staff, Facility, and the community.

The Facility will also operate utilizing a Stormwater Pollution Prevention Plan (SWPPP) (Appendix F) and, as mentioned above, an SPCC Plan. Both plans include regular inspections to verify that systems are appropriately operating and incorporate training for events such as intensive rainfall or unanticipated releases of materials.

Establishing these preemptive mitigation programs is intended to avoid and/or greatly minimize the potential for unforeseen adverse consequences from the Facility.

BASE LINE TESTING

The EPC contractor has conducted base line testing to evaluate the performance of the equipment installed at the Facility to verify it has been appropriately installed and is operating for the range of conditions as anticipated. Towantic will affirm, through acceptance of the Facility from the EPC contractor, that the equipment has been installed safely, with appropriate security, and is anticipated to allow for operation within all required parameters.

POST-CONSTRUCTION OPERATIONS MONITORING

Operations monitoring is integral to the Facility's operation. Continuous observation of a broad range of operating metrics will occur at all times when the Facility is operational. Should the Facility be operating in any way that is not anticipated, immediate investigation and response will occur. The additional procedures set forth in such documents as the Safety Manual, Emergency Response Plan, SWPPP, and SPCC Plan incorporate the requirements for training and ongoing regular inspections in order to anticipate and prevent issues that could be further exacerbated and lead to broader consequences. Routine inspections and training will be appropriately documented. Towantic will continue to coordinate closely with the Town of Oxford, particularly for/during any unusual events to ensure appropriate response efforts.

ENFORCEMENT PROTOCOL

The Facility's CRP (as presented in Appendix A) will be utilized to address any miscellaneous complaints received regarding Facility operation. As specified under the CRP:

- If a complaint is received, it will be logged, with appropriate documentation gathered by personnel at the Facility utilizing a Complaint Resolution Form, as reflected in the CRP.
- The Plant Manager or Compliance Coordinator will attempt to contact the person(s) making the complaint within 24 hours, or within 72 hours if the complaint is made over the weekend,

to gather any additional information and to affirm to the complainant that appropriate consideration is being given.

- Facility personnel will conduct an investigation to determine specifics related to the complaint and its root cause, documenting the results in the logbook.
- A report will be prepared documenting the complaint and the actions taken. The report will summarize the complaint, including final results of the investigation. The Plant Manager will initial the report, which will then be filed and maintained at the Facility for a period of at least five years.