



July 12, 2018

**VIA ELECTRONIC MAIL AND OVERNIGHT MAIL**

Melanie A. Bachman  
Executive Director  
State of Connecticut  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

**Petition No. 1218 – PSEG Power Connecticut LLC  
Bridgeport Harbor Station Unit 5 – Bridgeport, Connecticut  
Progress Report No. 12 – Second Quarter 2018**

Dear Ms. Bachman:

This is the Second Quarter 2018 progress report submittal to the Connecticut Siting Council (CSC) for the new combined cycle generating station designated by PSEG Power Connecticut LLC (PSEG) as the PSEG Bridgeport Harbor Station Unit 5 Combined Cycle Project (BHS 5, the Project or the Facility). This progress report documents compliance with the CSC conditions as set forth in the CSC Decision and Order, as well as the Development and Management Plan (D&MP) approvals.

The CSC Condition Compliance Matrix is included in this report as **Exhibit 1** and will continue to be included in future progress reports to track the CSC's requirements.

**Construction Status Summary**

Significant progress continued in the April to June 2018 period covered by this report. The project continues on schedule with site field construction progress at approximately 43%. The Commercial Operations Date remains June 1, 2019.

The Heat Recovery Steam Generator (HRSG) was delivered to the site by barge on May 16, 2018 and offloaded to its foundation on May 19, 2018. The three HRSG stack sections have been offloaded and two have been set. The final stack section is scheduled to be set within the next three weeks. Miscellaneous Air Cooled Condenser (ACC) sections and HRSG components have been delivered to the site. Additional deliveries are planned over the next three months.

Installation of foundations and underground utilities is essentially complete. The Gas Insulated Switchgear (GIS) building and the GIS equipment have been installed. Construction of the other Pre-Engineered Metal Buildings (PEMB), including the Turbine and Administration Buildings, is in progress. Steel for the Turbine Building is nearly complete and the Administration Building has been closed and interior finishes are in process.

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Equipment deliveries to site and offsite fabrication yards continued. All of the large rotating equipment, including the steam turbine, combustion turbine and both electric generators are in place and are being aligned. The two water tanks are structurally complete and the fabrication of the Ultra-Low Sulfur Distillate (ULSD) tank is in progress.

Approximately 99% of the planned concrete quantity has been installed. Site fill is approximately 90% complete. Underground utility construction continues with approximately 98% of the electrical conduit and 99% of the piping installed.

As previously reported, Soil Erosion and Sediment Control (SESC) Best Management Practice (BMP) installation is complete, required stormwater inspections are being conducted, and the SESC BMPs are being maintained.

Installation of utilities, including the 345 KV tie to the United Illuminating Singer Substation, Aquarion Water Company tie-ins, and the Southern Connecticut Gas feed to the site started in March on Henry and Russell Streets and off-site portion is nearing completion. The 345 KV work and cable pulls will continue in support of electrical backfeed to the site planned for September 30, 2018.

**Exhibit 2** provides construction status photographs depicting site developments during the second quarter of 2018.

### **Community Activities**

PSEG continues to work closely with the City of Bridgeport in the implementation of the Community Environmental Benefit Agreement (CEBA).

The PSEG Ready2Work Apprenticeship Readiness Training Program was started in conjunction with the City of Bridgeport, the Environmental Task Force (ETF), the local trade unions, the Connecticut AFL-CIO and the Connecticut Department of Labor. It represents a \$550,000 investment by PSEG and the BHS 5 Project in the Bridgeport community. The object of the program is for PSEG to work with the local unions to place Bridgeport residents in the local trade unions to provide them an opportunity for long term careers in a well-paying position.

As an update, after completion of two of the five classes, the first class has had 100 percent job placement and the second class, which graduated on July 2nd, has three job placements to date. Ready2Work fulfills and exceeds the commitments made in the CEBA with the City of Bridgeport. It is administered by Bridgeport's workforce development agency, The WorkPlace, who also handles outreach, with comprehensive training supplied by Building Pathways CT, an organization out of the Connecticut United Labor Agency and Connecticut AFL-CIO.

The next class begins at Bridgeport Harbor Station on July 16, 2018, with two more classes scheduled for October 2018 and January 2019. As part of the CEBA, PSEG has established a website with additional information (<https://bridgeportharborstation.com/home/>).

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**Remediation Status Summary**

The placement of Pollutant Mobility Criteria (PMC) soil under the foundations of the two water tanks and the ULSD tank is complete. The balance of the PMC soil (approximately 1200 cubic yards) did not have the suitable geo-physical characteristics necessary for use under the tanks. The remaining PMC soil was characterized and disposed of a licensed offsite facility with all of the soil removal completed on May 18, 2018. Disposal of a small quantity of Industrial Direct Exposure Criteria (IDEC) soil that could not be used on site was completed on May 22, 2018. Close-out reporting to the CT DEEP for the overall remediation in the area of BHS 5 is scheduled for the fourth quarter of 2018. Documentation will be completed when the underground utilities, all site fill, and orange warning fabric have all been installed, and after the Engineered Controls are completed for the laydown area near the east ramp.

PSEG is preparing to issue the Notice of Termination to the CT DEEP for the Construction Stormwater General Permit related to the Unit 3 Start-up Oil Tank project (CSC Exempt Modification EM-PSEG-015-160205). At that time PSEG will file a closure notice to the CSC for the Unit 3 Exempt Modification scope. The remediation scope is tracked in both the Exempt Modification and in Condition 1(f) of this Petition. The Exempt Modification closeout notice will request that tracking and reporting be continued under this BHS 5 petition only, for administrative efficiency.

**Engineering and Regulatory Status Summary**

Detailed design for the Project, and major construction and equipment supply contracting remains on schedule and is currently 95% complete. Engineering design and City of Bridgeport Building Permitting activities supporting ongoing site field work are continuing on schedule. Total City of Bridgeport Building Permitting is approximately 86% complete.

The following permit updates and / or applications were filed with CT DEEP during the second quarter of 2018. Copies of air and wastewater permits will be provided upon approval, including the General Permit (GP) noted below in item 2, in accordance with CSC Condition 4.

1. A minor modification to the New Source Review (NSR) air permit for the combustion turbine (Permit No. 015-299) was filed on May 29, 2018 to add an emissions unit for the PEMB gas space heaters. There was no increase in overall site emissions from this change. The CT DEEP approved the NSR revision on June 14, 2018. As reported in the 1Q2018 Progress Report, the other two NSR permits were revised previously by the CT DEEP. Therefore, PSEG is submitting all three modified NSR permits (Permit Nos. 015-299, 015-300, and 015-301) to the CSC for record purposes as **Exhibit 3**. CT DEEP issued a draft Title V Notice of Tentative Determination (NTD) on June 29, 2018 (published July 5, 2018). The NTD addresses the existing BHS Units 3 and 4, as well as incorporates the three NSR permit conditions.

2. A GP Registration for Miscellaneous Discharges of Sewer Compatible Wastewater (MISC GP) was filed on July 3, 2018 with the City of Bridgeport Water Pollution Control Agency (WPCA) for approval prior to submittal to the CT DEEP. This GP is applicable to start-up / commissioning wastewater disposal to the WPCA treatment facilities via the installed force main.

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3. Federal Aviation Administration (FAA) notices regarding onsite cranes were filed on May 11, 2018. The FAA notice regarding the initiation of HRSG stack construction was filed on April 5, 2018. An additional filing with the FAA for a revised crane height related to setting the final section of the stack was made on July 10, 2018. A copy of that determination will be provided to the CSC upon FAA approval. The FAA notice for the HRSG stack final section placement (i.e. when the stack will reach its design height) will be made at the time that last section is set in place.
4. Notices related to the HRSG and ACC delivery schedules and delivery barge transits were filed with the United States Coast Guard (USCG), City of Bridgeport Harbormaster, CT DEEP and the United States Army Corps of Engineers during the week of May 17, 2018.
5. The GP Registration for Remediation Dewatering Wastewater was submitted on April 13, 2018 with CT DEEP related to the Henry Street dewatering. Discharge Monitoring Reports (DMRs) have been filed as required.

**Storage, Offsite Fabrication and Barge Delivery of Equipment**

Delivery of the major components fabricated offsite, including the HRSG, ACC, and the stack sections, began on May 16, 2018 with the arrival of the HRSG delivery barge. Remaining equipment is scheduled for barge delivery through September 2018. The offloading plans have been reviewed with the CT DEEP, United States Army Corps of Engineers (USACE), USCG, and the City of Bridgeport Harbor Commission / Harbormaster. All USACE and CT DEEP General Permits in support of these activities have been issued.

Deliveries and staging of equipment to the PSEG site through the adjoining Remington property continued. PSEG-owned property near the plant continues to be used for warehousing and storage, consistent with historic uses. PSEG has leased City-owned storage and laydown areas in the vicinity of the plant and Bridgeport Harbor.

ACC fabrication is nearing completion at the Port of Coeymans facility in Coeymans, New York. The fabrication work is scheduled to complete in August 2018 in support of the final large component deliveries to the site.

**Development and Management Plan (D&MP) Updates**

PSEG filed D&MP Update No. 2 to the CSC on April 11, 2018, which was approved on April 16, 2018. This submittal included updated design drawings. On June 4, 2018 a revised EMF calculation was submitted to the CSC.

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**Construction Schedule Update**

There have been no significant changes in the schedule for major activities from the prior reporting period.

1.	Forward Capacity Auction No. 10	February 10, 2016 (A)
2.	Completion of City of Bridgeport Land Use Permitting	November 1, 2016 (A)
3.	Completion of Non-Air CT DEEP Permitting	February 2017 (A)
4.	Initial City of Bridgeport Building Permit Submittals	February 2017 (A)
5.	Receipt of CT DEEP Final Air Permit	April 11, 2017 (A)
6.	Initiation of Field Construction and Delivery Activities	April 12, 2017 (A)
a.	Temporary Construction Facilities	November 2016 (A)
b.	Site Work	April 12, 2017 (A)
c.	Foundations	June 2017 (A)
d.	Initial Equipment Deliveries	August 2017 (A)
e.	Major Equipment Delivery (Transformers)	November 2017 (A)
f.	Major Equipment Delivery (Turbines / Generators)	January 2018 (A)
f.	GIS and Transformer Foundation Installation	June 2017 (A)
g.	Gas Turbine Generator (GTG) Delivery and Set	January 2018 (A)
h.	HRSG Delivery	May 2018 (A)
i.	Start-up Testing and Commissioning	September 2018
7.	Operational Testing (first GTG operations)	January 2019
8.	Balance of Plant Initial Start-up	January 2019
9.	Performance and Reliability Testing	March 2019
10.	Target Completion	May 2019
11.	Commercial Operations	June 2019

Note: "(A)" refers to ACTUAL

**Status of CSC Conditions**

The changes and updates to the full listing of CSC conditions (**Exhibit 1**) for this reporting period include the following:

1. Clarification of the target dates for the submittal to the CSC of information related to fuel pipeline/system cleaning operations (requirements 6 through 8(iii), 17, and 18 is addressed in **Exhibit 1**).
2. Condition 1(f) related to the filing of closeout documentation with CT DEEP for the tank farm remediation has been rescheduled for the fourth quarter of 2018 based on construction status. This condition is expected to be closed out with the CSC via the Quarterly Progress Report for that period.
3. Condition 2 (FAA Determination Submittals) has been revised to reflect a recent filing for a crane height update. The FAA determination will be provided to the CSC upon approval.
4. An update to D&MP Phase 2 Condition 12/23/16-04 related to the potential use of waste heat has been revised. PSEG anticipates a resolution to the potential for waste heat reuse in the third quarter of 2018.

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5. The date for submitting a schedule for D&MP Phase 2 Condition 12/23/16-05 (Oil Dock Refurbishment Plans) remains October 5, 2018 (i.e. the target date for the 3Q2018 Quarterly Progress Report). PSEG is currently reviewing construction and design plans for that specific portion of the project.

If you have any questions or require clarification, please contact me at 973-856-0066 or the Project Senior Technical Director / Regulatory Lead, Jeff Pantazes at 856-359-7645.

Very truly yours



David Hinchey  
Manager – Environment Major Permits and Projects

PSEG Power LLC  
Fossil Environment, Health and Safety

**Enclosures - Exhibits:**

1. **Updated CSC Condition Compliance Matrix**
2. **Site Construction Photos**
3. **New Source Review Permit Nos. 015-299, 015-300, and 015-301**

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**Exhibit 1 – Updated CSC Condition Compliance Matrix**

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<b>CSC Requirement Number</b>	<b>CSC Requirement</b>	<b>D&amp;M Plan Phase 1 Construction Support Facilities</b>	<b>D&amp;M Plan Phase 2 BHS 5 Design</b>	<b>Subsequent Filing Report and Date Closure Status **</b>
1(a)	Final site plan showing roads, structures, and other improvements on the site	Partial: construction execution planning process summary included as Exhibit 1. A general update on Project Scope and Design is included as Exhibit 15.	Final structures and other improvements, including buildings, stack, power block, and balance of plant (Exhibits 1 and 2)	Completed; D&MP Update No. 1 was filed in June 2017 and approved in July 2017.
1(b)	Consideration of waste heat as supply for thermal loop or nearby industrial user	N/A	Included (Exhibit 9)	Completed; see CSC Requirement Number 12/23/16-04 below for follow-up requirements.
1(c)	Lighting plan and details to minimize impact on off-site properties	Partial: construction lighting only – Exhibit 9	Final lighting plans (Exhibits 1 and 2)	Completed
1(d)	Final fuel dock rehabilitation plan	Update on status included as Exhibit 7	Status unchanged since D&MP Phase 1 – PSEG will provide an update of this portion of the project by September 30, 2017 after design is completed. See Exhibit 10.	Completed; see CSC Requirement Number 12/23/16-05 below for follow-up actions.
1(e)	Water and sewer connection routes	Partial: temporary construction sewer line connection and other utilities included in Exhibit 9. Note that the status of the UI Exempt Modification request is included as Exhibit 11.	Permanent utility routing included (Exhibits 1 and 2)	Completed
1(f)	Status of site remediation in existing fuel tank area and remaining remediation work - Which areas of contamination will be inaccessible? - Layer showing contaminated soil locations	Remedial Action Plan Addendum included as Exhibit 6. Status of remediation implementation included as Exhibit 5.  Unit 3 tank and unloader status included as Exhibit 4.	Status for remaining work will be included to document final soil placement locations. (Exhibits 7 and 8)	Open – PSEG will submit final remediation status to the CT DEEP and CSC in the fourth quarter 2018 progress report.
1(g)	Natural gas interconnection plan and gas compressor building design and location	N/A	Included (Exhibit 2)	Completed
1(h)	Final Erosion and Sediment Control Plans	Soil Erosion and Sediment Control Plans included in Exhibit 9 as noted in Exhibit 14.  The USACE Jurisdictional Determination is included as Exhibit 13.	SESC plans included in Exhibit 2; they were previously provided in D&MP Phase 1 as well.	Completed

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1(i)	Final stormwater design	N/A	Included (Exhibit 2)	Completed. D&MP Update No. 1 was filed in June 2017 and approved in July 2017 that included stormwater design revisions.
1(j)	Stormwater Pollution Protection Plan	N/A	Included (Exhibit 15)	Completed
1(k)	Flood Mitigation Plan	N/A	Included (Exhibit 3)	Completed
1(l)	Final plans to demonstrate compliance with CT DEEP noise standards	N/A	Final Noise Study Report Included (Exhibit 14)	Completed
1(m)	Fuel storage and handling plan, including containment and spill protection measures	N/A	Spill Prevention Control and Countermeasures Plan included (Exhibit 18)	Completed
1(n)	Containment measures for step-up transformer dielectric fluids and ULSD storage tank	N/A	Included (Exhibit 3)	Completed
1(o)	Containment and/or protective measures for delivery and storage of hydrogen and aqueous ammonia	N/A	Included (Exhibits 3 and 20)	Completed
1(p)	Backup generator design and containment measures for fuel, oil, and coolant	N/A	Included (Exhibit 3)	Completed: Vendor data included in Exhibit 4 of the May 2017 Monthly Progress Report No. 5
1(q)	Dewatering plan to address groundwater issues during construction	N/A	Stormwater Pollution Control Plan for construction stormwater and dewatering included. (Exhibits 15 and 16)	Completed
1(r)	Detailed project schedules for all work activities and proposed typical construction days and hours	Partial: Schedule update Included as Exhibit 2 and permitting status included as Exhibit 3.	Work hours and schedule update included in Exhibits 3 and 6 respectively.	Completed
1(s)	Construction laydown area locations	Included in Exhibits 8 and 10 including access routings for high trucks.  In addition, the plans for barge delivery of equipment and unloading are included as Exhibit 12.	See Exhibit 3 for an update regarding a lease agreement for an adjoining property	Complete: Submitted information in D&MP Phases 1 and 2 was updated in May 2017 Monthly Progress Report No. 5.
1(t)	Site security measures	Partial: site security for construction discussed in Exhibit 1.	Partial: Site security measures (Exhibit 3)	Completed

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1(u)	Final FAA lighting design for the stack and any FAA crane determinations	N/A	Included (Exhibit 3)	Completed
1(v)	Decommissioning Plan as contingency plan, including infrastructure removal and site restoration plans	N/A	Included (Exhibit 19)	Completed
2	Submit FAA Determinations for temporary structures (cranes) and stack	N/A	N/A	Completed April 11, 2017 via memorandum to the CSC. A revised FAA determination for the HRSG Stack set crane will be provided upon FAA approval.
3	Submit local permits relative to the discharge of wastewater	N/A	N/A	Completed April 11, 2017 via memorandum to the CSC. Final permits related to discharge of start-up wastewater will be provided upon receipt.
4	Submit final CT DEEP air emissions and water discharge permits	N/A	N/A	Completed April 11, 2017 via memorandum to the CSC. Updated NSR permits are provided in Exhibit 3 of the 2Q2018 Progress Report No. 12. The Title V permit and Industrial Wastewater permit will be provided upon receipt.
5	The use of natural gas as a fuel pipeline / system cleaning medium for construction or any future facility modification shall be prohibited.	N/A	N/A	PSEG notes this condition and will retain it as "Open". The provisions of CSC Requirement Number 6 (below) address the specifics of compliance.
6	Submit the information included below in CSC requirement Numbers 6(i) to 6(viii) at least 15 days prior to fuel pipeline / system cleaning medium for construction or any future facility modification.*	N/A	N/A	Open – a target schedule for all of the Condition 6 through 8(iii), 17, and 18 will be provided per the Note at the bottom of this <b>Exhibit 1</b> and will be updated in each subsequent Progress Report.
6(i)*	Identification of cleaning media to be used	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
6(ii)*	Identification of any known hazards through use of selected cleaning media	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .

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6(iii)*	Description of how known hazards will be mitigated, including applicable state or federal regulations	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
6(iv)*	Identification and description of accepted industry practices or relevant regulations concerning proper use of such media	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
6(v)*	Detailed narratives/drawings showing location and procedures to be used during pipe cleaning process, including worker safety exclusion zones	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
6(vi)*	Identification of contractor or personnel performing work, including description of past project experience and level of training/qualifications necessary for work	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
6(vii)*	Contact information for special inspector (CT registered engineer with knowledge or experience with electric generating facilities) with written approval by local fire marshal and building inspector	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
6(viii)*	Certification of notice regarding pipe cleaning operations (Submitted to all state agencies listed in CGS §16-50j(g), Dept of Consumer Protection, Dept of Labor, Dept of Emergency Services and Public Protection, Dept of Construction Services, Dept of Emergency Management and Homeland Security, and local fire marshal)	N/A	Not currently available. An update will be provided one month prior to the start date for pipe cleaning.	See Note at the bottom of this <b>Exhibit 1</b> .

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7	Compliance with specific codes and standards for any fuel pipeline / system cleaning operations related to construction or any future facility modification, as applicable. (Note: the Codes and Standards are listed in the Decision and Order)	N/A	N/A	PSEG notes this condition and will retain it as "Open". The provisions of CSC Requirement Number 6 (above) address the specifics of compliance.  See Note at the bottom of this <b>Exhibit 1</b> .
8(i) <sup>†</sup>	Description of results of simulated emergency response activities	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
8(ii) <sup>†</sup>	Details of any facility site access system that accounts for all personnel entering and leaving the facility	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
8(iii) <sup>†</sup>	Establishment of emergency responder/local community notification system for onsite emergencies and planned construction-related activities	N/A	Not currently available.	See Note at the bottom of this <b>Exhibit 1</b> .
9	Unless otherwise approved by the Council, the facility must be constructed within five years of July 22, 2016 (by July 21, 2021) or re-approval by the Council is required.	N/A	N/A	Open: PSEG anticipates completion of BHS 5 by June 1, 2019.
10	Notify the Council within 45 days of the completion of construction.	N/A	N/A	Open
11	Maintain the facility in a reasonable physical and operational condition consistent with the Decision and Order and the approved D&MPs.	N/A	N/A	Noted
12	Provide the Council with a minimum of 30 days written notice when the facility will cease operations.	N/A	N/A	Noted
13	Remit timely payments associated with annual assessments and invoices submitted by the Council.	N/A	N/A	Noted

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14	Notify the Council of any change in ownership or contact information within 30 days of the sale and / or transfer.	N/A	N/A	Noted
15	Submit any request for extension as noted in CSC Requirement Number 9 (above) not later than 60 days prior to the expiration, including notice to specific parties and the service list.	N/A	N/A	Noted
16	The Declaratory Ruling may be transferred subject to being current with payments and an agreement to continue payments as required.	N/A	N/A	Noted
17	Retain a Special Inspector to assist the Fire Marshall to assure compliance with CGS §16-50ii	N/A	N/A	See Note at the bottom of this <b>Exhibit 1</b> .
18	Deposit a fee into the Code Training Fund in accordance with CGS § 29-251c.	N/A	N/A	Open. PSEG will provide a response to this condition by the end of the third quarter of 2018.  See Note at the bottom of this <b>Exhibit 1</b> .
	<b>D&amp;MP Phase 1 Conditions</b>			
10/31/16-01	Use of off-road construction equipment that meet the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including but not limited to retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel.			Completed: February 2017 Monthly Progress Report.

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10/31/16-02	Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the RCSA that limit the idling of mobile sources to 3 minutes.			Completed: February 2017 Monthly Progress Report.
10/31/16-03	The petitioner shall submit the specifications of the fill to the Council			Completed; December 2, 2016 response to Interrogatory CSC D&M-05.
	<b>D&amp;MP Phase 2 Conditions</b>			
12/23/16-01	Same as 10/31/16-01 above			Completed: February 2017 Monthly Progress Report.
12/23/16-02	Same as 10/31/2016-02 above			Completed: February 2017 Monthly Progress Report.
12/23/16-03	Compliance with the reporting requirements under Section 16-50j-62 of the RCSA			Ongoing Reporting to continue on a quarterly basis as approved by the CSC on September 6, 2017.
12/23/16-04	The final modifications of the plant to accommodate the use of waste heat, if applicable, shall be submitted to the Council for review and approval.			A response will be provided for this condition in the third quarter 2018 progress report.
12/23/16-05	The final fuel dock rehabilitation plan shall be submitted to the Council for review and approval.			PSEG will provide an update by October 5, 2018.
12/23/16-06	The containment measures for the backup generator engine oil and coolant shall be submitted to the Council.			Completed: Vendor data included in Exhibit 4 of the May 2017 Monthly Progress Report No. 5
12/23/16-07	Prior to testing of start-up of the plant, the Certificate Holder shall submit to the council its final plans to comply with the recommendation and conditions relative to Council Docket No. NT-2010 and conditions (6i through 8iii) Council's Decision and Order for Petition No. 1218 relative to plant safety.			See Note at the bottom of this <b>Exhibit 1</b> .

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12/23/16-undesignated	The Council recommends that PSEG consult with Council staff regarding dust control measures for materials delivered by barge.			Completed: June 2017 Monthly Progress Report.
* 15 days prior to fuel pipeline/system cleaning operations related to construction or any future facility modifications † Submittal of Emergency Response/Safety Plan developed in cooperation with all local public safety officials, DESPP, and other emergency response officials. ** Documents submitted to and from the CSC related to PE1218 are available on the CSC website at <a href="http://www.ct.gov/csc/cwp/view.asp?a=2397&amp;q=578006">http://www.ct.gov/csc/cwp/view.asp?a=2397&amp;q=578006</a>				

**NOTE:**

**Additional information related to submittal plans to address CSC conditions 6 (NT-2010 / pipeline cleaning), 7 (pipeline cleaning codes / standards), 8 (emergency response), 17 (fire marshal support), and 18 (training fee) is provided below:**

The initial planning for pipeline cleaning activities (CSC Conditions 6 and 7) is in process. PSEG anticipates, based upon the current schedule and contracting processes, that the 15 day notice to the CSC (and other required agencies) for the natural gas pipeline cleaning activities scope will be filed by October 1. The notice documentation will include the name and qualifications of the designated special inspector, the applicable codes, standards, procedures and drawings, contractor qualifications, and hazard identification and mitigation plans.

Emergency response procedures (CSC Condition 8) are in place for both BHS 5 and the existing station. PSEG expects to update these processes at the time that BHS 5 begins to transition from construction to operations. At that time, additional coordination with City of Bridgeport, other local, and state emergency services will be performed to assure that all contact and response information is appropriately updated. The revised procedures are expected to be submitted to the CSC, addressing all of the CSC Condition 8 requirements, by March 31, 2019.

PSEG will provide the qualifications and designation of the special inspector in accordance with CSC Condition 17 for inspections and reviews after submittal and approval by the City of Bridgeport. This is targeted for October 1, 2018.

The Code Training Fund fee (Condition 18) will be reconciled at the time building permit submittals are complete. Currently that is expected to be during the third quarter of 2018.

**Connecticut Siting Council  
Bridgeport Harbor Station Unit 5 – Bridgeport, Connecticut  
Progress Report No. 12 – Second Quarter 2018**

**Exhibit 2 – Site Construction Photos**

Progress Photos  
Site Progress Photo 4/19/2018



Site Progress Photo 4/26/2018



Progress Photos  
Site Progress Photo 5/31/2018



Site Progress Photo 6/7/2018



Progress Photos  
Site Progress Photo 6/28/2018



Site Progress Photo 7/05/2018





Turbine Building Erection



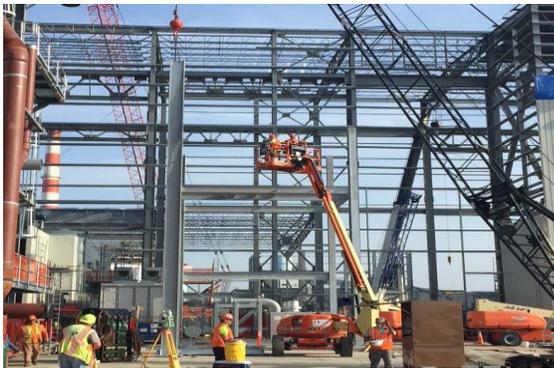
Turbine Exhaust Duct Installation



General Service Building Steel



Fuel Oil Building Erection



Pipe Rack Erection



Ammonia Foundation Mud Mat



Coeymans-HRSG Stack Section



Coeymans-TED-6 Horizontal Elbow Spool

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CT Construction



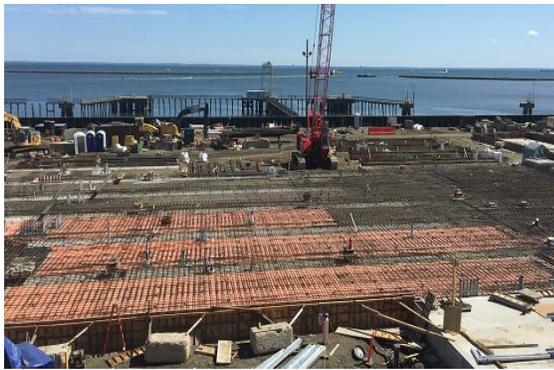
Setting Demin Tank Roof



Gen Services Foundation & Demin Trailer Area



Erecting Turbine Building Steel



ACC Foundation Rebar



ULSD Tank & Fuel Oil Area



Coeymans ACC Fan Module Fabrication Area



Coeymans ACC TED Fabrication Area

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ACC Turbine Exhaust Duct Installation



Turbine Building Siding Work



HRSG Pipe Rack



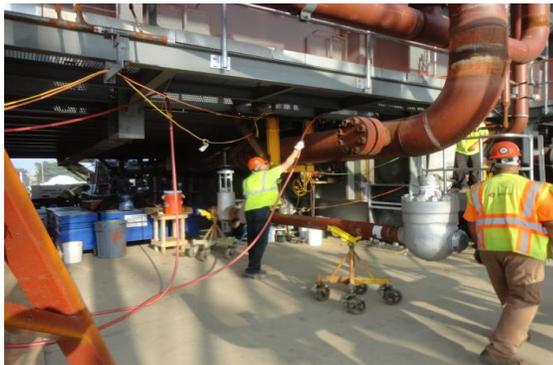
ULSD Tank-6<sup>th</sup> Inner Ring Installation



Aux Cooling Tower Foundation Rebar



Grouting Boiler Feed Pumps



HRSG Piping Installation



Coeymans- ACC Fabrication

**Connecticut Siting Council  
Bridgeport Harbor Station Unit 5 – Bridgeport, Connecticut  
Progress Report No. 12 – Second Quarter 2018**

**Exhibit 3 – New Source Review Permit Nos. 015-299, 015-300, and 015-301**



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

**BUREAU OF AIR MANAGEMENT  
NEW SOURCE REVIEW PERMIT  
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

<b>Owner/Operator</b>	PSEG Power Connecticut LLC – Bridgeport Harbor Station
<b>Address</b>	1 Atlantic Street, Bridgeport, CT 06604
<b>Equipment Location</b>	1 Atlantic Street, Bridgeport, CT 06604
<b>Equipment Description</b>	General Electric 7HA.02 dual fired Combustion Turbine, Duct Burner and Heat Recovery Steam Generator
<b>Town-Permit Numbers</b>	015-0299
<b>Premises Number</b>	045
<b>Stack Number</b>	17
<b>Collateral Conditions</b>	Part III.H: Green House Gases Emission Limitations for the Unit 5 Combined Cycle Project  Part VII: Collateral Conditions for the Emergency Fire Pump Engine (EU-53), Cooling Tower (EU-54) and HVAC/space heaters (GEU-1)  Part VIII: Collateral Conditions for NOx and VOC Offsets
<b>Prior Permit Issue Date</b>	April 11, 2017 March 27, 2018 (Minor Modification)
<b>Permit Issue Date</b>	June 14, 2018
<b>Expiration Date</b>	None

/s/Robert E. Kaliszewski  
Robert E. Kaliszewski  
Deputy Commissioner

June 14, 2018  
Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

## **PART I. DESIGN SPECIFICATIONS**

### **A. General Description**

PSEG Power Connecticut, LLC (PSEG) is an exempt wholesale electric generating facility with its principal place of business in Newark, New Jersey. Bridgeport Harbor Station (BHS) has been in operation as an electrical generation station since 1957.

PSEG's Unit 5 Combined Cycle Project includes the following equipment:

1. One dual-fuel-fired General Electric (GE) Model 7HA.02 combustion turbine with duct burner operating under Permit No. 015-0299;
2. One auxiliary boiler operating under Permit No. 015-0300;
3. One emergency generator operating under Permit No. 015-0301;
4. One emergency fire pump operating under collateral conditions in Part VII.A of Permit No. 015-0299;
5. One - three cell auxiliary evaporative cooling tower operating under collateral conditions in Part VII.B in Permit No. 015-0299;
6. Fuel oil tanks; and
7. Natural gas fired heating, ventilation, air conditioning (HVAC) units, make up air heaters and building space heaters (HVAC/space heaters) operating under collateral conditions in Part VII.C of Permit No. 015-0299.

The combined cycle unit would be constructed on a 1x1 configuration; that is, a single combustion turbine generator (CTG) exhausting to a single supplementary fired Heat Recovery Steam Generator (HRSG). Steam generated in the HRSG will drive a single steam turbine generator (STG).

### **B. Equipment Design Specifications**

1. Turbine
  - a. Natural Gas:
    - i. Maximum Natural Gas Firing Rate: 3.227 MMscf/hr
    - ii. Maximum Gross Heat Input: 3,292 MMBtu/hr
  - b. Ultra Low Sulfur Distillate (ULSD):
    - i. Maximum ULSD Firing Rate: 24,913 gal/hr
    - ii. Maximum Annual Fuel Usage: 16.7 MMgal
    - iii. Maximum Gross Heat Input: 3,439 MMBtu/hr
2. Duct Burner (Natural Gas)
  - a. Maximum Fuel Firing Rate: 0.262 MMscf/hr
  - b. Maximum Gross Heat Input: 267 MMBTU/hr

### **C. Control Equipment Design Specifications**

1. Water Injection for the Turbine (ULSD Operation)
2. Dry Low NO<sub>x</sub> Burners (Natural Gas Operation)
3. Selective Catalytic Reduction (SCR)
  - a. Make and Model: EnviroKinetics or equivalent
  - b. Catalyst Type: Titanium-Vanadium-Tungsten or equivalent
  - c. Collection Efficiency: 100%
  - d. Control Efficiency: 90%
  - e. Overall Control Efficiency: 90%
  - f. Pollutant Controlled: NO<sub>x</sub>
4. Oxidation Catalyst
  - a. Make and Model: EmeraChem or equivalent
  - b. Catalyst Type: Metal Honeycomb or equivalent
  - c. Collection Efficiency: 100%
  - d. Control Efficiency: 90%
  - e. Overall Control Efficiency: 90%
  - f. Pollutants Controlled: CO, VOC

### **D. Stack Parameters**

1. Minimum Stack Height (above grade): 300 ft
2. Minimum Exhaust Gas Flow Rate at 100% load: 980,000 acfm
3. Minimum Stack Exit Temperature at 100% load: 170 °F
4. Minimum Distance from Stack to Property Line: 199 ft

### **E. Definitions**

1. "Steady-state" operation shall be defined as operation of the turbine during all operating periods other than transient operation.
2. "Transient" operation shall be defined as operation of the combustion turbine during periods of startup, shutdown, fuel switching and equipment cleaning with turbine load less than the manufacturer's specified minimum operating load.
3. "Minimum Operating Load" shall be defined as the lowest value that the combustion turbine can operate while the Steady State emissions limits in Part III.A of this permit are being met at the HRSG stack exit.
4. "Malfunction" shall be defined as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment or a process to operate in accordance with the allowable limits in Part III.A of this permit. Failures that were caused in part by poor maintenance or careless operation are not malfunctions.

5. "Shakedown" shall be defined as turbine operations including, but not limited to, the first firing of the turbine, proof of interlocks, steam blowing, chemical cleaning and initial turbine roll. The shakedown period shall not extend beyond the required date for the initial performance tests.
6. "Commencement of commercial operation" shall mean to have begun to produce steam, gas or other heated medium used to generate electricity for sale or use.
7. "Oil-fired unit" shall mean the combustion of fuel oil for more than 10.0 percent of the average annual heat input during the previous three calendar years or for more than 15.0 percent of the annual heat input during any one of those calendar years. [40 CFR §72.2]
8. "Hot startup" shall be defined as startup when the turbine has been down for less than 8 hours.
9. "Warm startup" shall be defined as startup when the turbine has been down for more than 8 hours.
10. "Cold startup" shall be defined as startup when the turbine has been down for more than 24 hours.

## **PART II. OPERATIONAL CONDITIONS**

### **A. Equipment**

1. Turbine
  - a. Fuel Types: Natural Gas, ULSD
  - b. Maximum Heat Input over any Consecutive 12 Month Period:
    - i. Natural Gas: 25,885,944 MMBtu (HHV)
    - ii. ULSD: 2,309,684 MMBtu (HHV)
  - c. Maximum ULSD Sulfur Content: 0.0015 % by weight
  - d. Maximum Natural Gas Sulfur Content: 0.5 grains/100 scf
  - e. The Permittee shall only burn ULSD in the combined cycle turbine during hours when one or more of the conditions in subparagraphs (i) – (viii) below is true:
    - i. Independent System Operator – New England (ISONE) declares an Energy Emergency as defined in ISONE's Operating Procedure No. 21 – Energy Inventory Accounting and Actions during an Energy Emergency and requests the firing of ULSD.
    - ii. ISO-NE required audits of capacity.
    - iii. The natural gas supply is curtailed by the gas supplier. A curtailment begins when the Permittee receives a communication from the gas supplier stating that natural gas supply will be curtailed, and ends when the Permittee receives a communication from the gas supplier stating that the curtailment has ended.

- iv. There exists a physical blockage or breakage in the natural gas pipeline.
- v. The Permittee is commissioning the combined cycle turbine and, pursuant to the turbine manufacturer's written instructions, the Permittee is required by the manufacturer to fire ULSD during the commissioning process.
- vi. The firing of ULSD is required for emission testing purposes as specified in Part V of this permit.
- vii. Routine maintenance of any equipment that will require the Permittee to fire ULSD.
- viii. In order to maintain an appropriate turnover of the on-site fuel oil inventory, the Permittee may fire ULSD when the last delivery of the oil to the tank was more than six months ago.
- ix. The Permittee will be allowed to operate the duct burner on natural gas during ULSD operation of the turbine for up to 250 hours in a 12 consecutive month period.

2. Duct Burner

- a. Fuel Type: Natural Gas
- b. Maximum Heat Input over any Consecutive 12 Month Period: 849,934 MMBtu (HHV)

- B.** The Permittee shall operate and maintain the turbine, duct burner, air pollution control equipment and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including startup and shutdown.
- C.** The Permittee shall operate and maintain the turbine, duct burner, air pollution control equipment in accordance with the most recent specific and written recommendations supplied by the equipment manufacturer.
- D.** The Permittee shall immediately institute shutdown of the turbine in the event where emissions are in excess of a limit of Part III of this permit that cannot be corrected within three hours of when the emission exceedance was identified.
- E.** No period of Transient operation shall exceed 60 consecutive minutes.
- F.** The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints:
  - 1. Start the ammonia injection as soon as minimum catalyst temperature is reached;
  - 2. The oxidation catalyst shall not be bypassed during startup or shutdown; and
  - 3. Emissions during these periods shall be counted towards the annual emission limits stated herein.
- G.** The Permittee shall not exceed a total of 500 hours of cold startups, warm startups, hot startups and shutdown per calendar year.
- H.** The Permittee shall not exceed a maximum allowable rate of 6,612 Btu/kW-hr (HHV, net plant), corrected to ISO conditions, during the initial performance test while firing natural gas in the combustion turbine without duct firing.

### PART III. ALLOWABLE EMISSION LIMITS

Except during the initial shakedown period, the Permittee shall not cause or allow the turbine and duct burner to exceed the emission limits stated herein at any time during steady state operation.

An exceedance of either (i) the emission limits in the tables below, or (ii) the emissions limits developed for this permit due to an emergency, malfunction, or cleaning shall not be deemed a "Federally Permitted Release," as that term is used in 42 U.S.C. 9601(10).

#### A. Steady State Emission Limits

These short term emission limits do not apply during periods of startup and shutdown, unless otherwise noted.

Compliance with VOC emission limits in the tables below shall be determined by correlating the VOC emissions to the CO emissions using the results of the stack test required in Part V of this permit along with manufacturer's data and tracked using the CO CEMS.

##### 1. Turbine operating on natural gas without duct firing (Mode 1)

Pollutant	lb/hr	ppmvd @ 15% O <sub>2</sub>	lb/MMBtu <sup>1</sup>
PM/ PM <sub>10</sub> / PM <sub>2.5</sub>	11.9		0.007
SO <sub>2</sub>	5.5		0.002
NO <sub>x</sub>	25.1	2.0	
CO	6.9	0.9	
VOC	3.1	0.7	
Lead	0.0016		
Sulfuric Acid	3.6		
Ammonia		2.0	

##### 2. Turbine operating on natural gas with duct firing natural gas (Mode 2)

Pollutant	lb/hr	ppmvd @ 15% O <sub>2</sub>	lb/MMBtu <sup>1</sup>
PM/ PM <sub>10</sub> / PM <sub>2.5</sub>	14.6		0.005
SO <sub>2</sub>	5.6		0.002
NO <sub>x</sub>	25.7	2.0	
CO	13.3	1.7	
VOC	7.2	1.6	
Lead	0.0017		
Sulfuric Acid	3.6		
Ammonia		2.0	

3. Turbine operating on ULSD without duct firing (Mode 3)

Pollutant	lb/hr	ppmvd @ 15% O <sub>2</sub>	lb/MMBtu <sup>1</sup>
PM/PM <sub>10</sub> / PM <sub>2.5</sub>	60.0		0.030
SO <sub>2</sub>	6.6		0.002
NO <sub>x</sub>	56.1	4.0	
CO	17.1	2.0	
VOC	9.8	2.0	
Lead	0.05		
Sulfuric Acid	4.3		
Ammonia		5.0	

4. Turbine operating on ULSD with duct burner operating on natural gas (Mode 4)

Pollutant	lb/hr	ppmvd @ 15% O <sub>2</sub>	lb/MMBtu <sup>1</sup>
PM/ PM <sub>10</sub> / PM <sub>2.5</sub>	65.0		0.021
SO <sub>2</sub>	7.1		0.002
NO <sub>x</sub>	60.2	4.0	
CO	55.0	6.0	
VOC	20.9	4.0	
Lead	0.05		
Sulfuric Acid	4.6		
Ammonia		5.0	

<sup>1</sup> lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown.

**B. Transient Operation Emissions Rate**

Except during the initial shakedown period, the Permittee shall not cause or allow this equipment to exceed these limits during startup and shutdown events.

1. Cold Startup/Shutdown

	Startup		Shutdown	
	Natural Gas	ULSD	Natural Gas	ULSD
NO <sub>x</sub> (lb/event)	99	108	9.8	16
VOC (lb/event)	10.2	31	26	6.2
CO (lb/event)	129	284	124	42.0
Ammonia (NH <sub>3</sub> ) (ppmvd@15% O <sub>2</sub> )	5.0	5.0	5.0	5.0

2. Warm Startup/Shutdown

	Startup		Shutdown	
	Natural Gas	ULSD	Natural Gas	ULSD
NO <sub>x</sub> (lb/event)	99	108	9.8	16
VOC (lb/event)	9.6	31	26	6.2
CO (lb/event)	126	279	124	42.0
Ammonia (NH <sub>3</sub> ) (ppmvd@15% O <sub>2</sub> )	5.0	5.0	5.0	5.0

3. Hot Startup/Shutdown

	Startup		Shutdown	
	Natural Gas	ULSD	Natural Gas	ULSD
NOx (lb/event)	67	63	9.8	16
VOC (lb/event)	8.4	28	26	6.2
CO (lb/event)	120	261	124	42.0
Ammonia (NH <sub>3</sub> ) (ppmvd@15% O <sub>2</sub> )	5.0	5.0	5.0	5.0

**C. Total Allowable Emission Limits**

The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; heat recovery steam generator; and HVAC units, makeup air heaters and building space heaters (GEU-1) to exceed the emission limits stated herein at any time.

Pollutant	Tons per 12 consecutive months
PM/ PM <sub>10</sub> / PM <sub>2.5</sub>	71.8
SO <sub>2</sub>	22.7
NOx	126.8
VOC	29.5
CO	95.1
Lead	0.02
Sulfuric Acid	14.6
Ammonia	47.6

**D.** This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT]

**E. Opacity:**

1. This equipment shall not exceed 10% opacity during any six minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9.
2. A certified observer shall conduct visual observations once every 100 hours of oil firing operation using Reference Method 9. Monitoring and record keeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g. night time operation, weather conditions, unplanned dispatching, etc.) within the 100 hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of oil firing operation. If the visual observation occurs at a lesser frequency than every 100 hours of oil firing operation, the reason for monitoring at a lesser frequency shall also be recorded. Installation and operation of a Continuous Opacity Monitor (COM) on the turbine will be required in accordance with 40 CFR §75.10(a)(4) in the event ULSD use causes the turbine to be defined as an "oil-fired unit."

**F.** Demonstration of compliance with the above emission limits may be met by calculating the emission rates using the most recent approved stack test results for that pollutant, or if unavailable, emission factors from the following sources:

1. PM/PM10/PM2.5, VOC, H<sub>2</sub>SO<sub>4</sub>: stack testing data
2. SO<sub>2</sub>: Sulfur content in fuel

3. NO<sub>x</sub>, Ammonia & CO (steady state): CEM data
4. NO<sub>x</sub>, VOC, Ammonia & CO (transient): Manufacturer's recommended uncontrolled emission factors
5. HAP: AP-42, Fifth Edition, Volume I Chapter 3.1, April 2000 except for those HAP with required stack test found in Part V of this permit.

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

**G. Initial Shakedown Period**

1. The Permittee is not required to demonstrate compliance with the short-term emission limits stated herein during the initial shakedown period.
2. Emissions during the initial shakedown period shall be counted towards the annual emission limits stated herein.
3. The shakedown period shall not extend beyond the required date for the initial performance tests.

**H. Greenhouse Gas Emissions for the Unit 5 Combined Cycle Project**

The Permittee shall not cause or allow the equipment associated with the Unit 5 Combined Cycle Project to exceed the emission limits stated herein:

1. The Permittee shall not exceed a maximum allowable CO<sub>2</sub> for the combined cycle unit of 926 lb/MWh (net plant) on a consecutive 12 month operating rolling basis for the turbine and its associated duct burner including MWh from ULSD firing and the steam turbine.
2. CO<sub>2</sub> from the HRSG stack shall be monitored by a CEM system.
3. The following calculation method shall be used:
  - a. Determine total hourly CO<sub>2</sub> mass emission (lbs) for each hour of the operating month using CO<sub>2</sub> CEMs.
  - b. Determine total hourly net electrical output in terms of MWh for each hour of the operating month.
  - c. Sum the hourly CO<sub>2</sub> mass emissions calculated for the month.
  - d. Sum the total net output calculated for the operating month.
  - e. Divide the total CO<sub>2</sub> mass emissions calculated for the month by the total net output calculated for the operating month.
  - f. Add the quotient to the sum of the quotient of the previous 11 operating month and divide by 12 to determine the consecutive 12 month total (rolling 1 month basis).
4. The Permittee shall not exceed a combined CO<sub>2e</sub> emission limit of 1,671,463 TPY for the Unit 5 Combined Cycle Project. Compliance with this limitation shall be determined on a 12 month rolling basis and allocated according to the following table:

	Combustion turbine/duct burner	HVAC/Space Heaters	Auxiliary Boiler	Emergency Generator	Emergency Fire Pump Engine	Fugitive Emissions	Unit 5 Combined Cycle Project
	Permit No. 015-0299	Collateral Conditions in Permit No. 015-0299	Permit No. 015-0300	Permit No. 015-0301	Collateral Conditions in Permit Nos. 015-0299	SF <sub>6</sub> – Circuit breakers  CH <sub>4</sub> – natural gas pipeline and associated components	
CO <sub>2e</sub>	-----	117 lb/MMBtu	117 lb/MMBtu	163 lb/MMBtu	163 lb/MMBtu	----- -	-----
	1,620,616 TPY -----		41,031 TPY	468 TPY	63 TPY	9,285TPY	1,671,463 TPY

5. Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources:

- a. CO<sub>2</sub> emissions from the combustion turbine shall be determined by CO<sub>2</sub> CEM.
- b. CO<sub>2</sub> emissions from the auxiliary boiler, emergency generator, emergency fire pump engine and HVAC/space heaters shall be determined using the default emission factors from 40 CFR Part 98 Subpart C - General Stationary Fuel Combustion Sources, Table C-1: Default CO<sub>2</sub> Emission Factors and High Heat Values for Various Types of Fuel.
- c. Methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O) for all combustion sources shall be determined using the default emission factors found in 40 CFR Part 98 Subpart C - General Stationary Fuel Combustion Sources; Table C-2: Default CH<sub>4</sub> and N<sub>2</sub>O Emission Factors for Various Types of Fuel.
- d. Emissions of SF<sub>6</sub> from the electrical circuit breakers shall be determined using mass balance found in 40 CFR Part 98 Subpart DD - Electrical Transmission and Distribution Equipment; Equation DD-1.
- e. Emissions from CH<sub>4</sub> from the natural gas pipeline and associated components shall be determined using the default emission factors found in 40 CFR Part 98 Subpart W Petroleum and Natural Gas System; Table W-7: Default Methane Emission Factors for Natural Gas Distribution.
- f. Global Warming Potential used for all sources shall be those found in 40 CFR Part 98 Subpart A – Global Warming Potentials (100 year Time Horizon).

I. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

## PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

### A. Monitoring

1. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4 and 22a-174-22e, 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78, as applicable. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis:

Pollutant/Operational Parameter	Averaging Times	Emission Limit
CO <sub>2</sub>	1 hour block	See Part III.H Allowable Emissions Limits
NO <sub>x</sub>	1 hour block	See Part III.A Allowable Emissions Limits
CO	1 hour block	See Part III.A Allowable Emissions Limits
NH <sub>3</sub>	1 hour block	See Part III.A Allowable Emissions Limits
O <sub>2</sub>	1 hour block	
Fuel Flow	1 hour block	
Net Electrical Output	Continuous	

2. At least 60 days prior to the initial stack test, the Permittee shall submit a CEM monitoring plan to the commissioner in accordance with RCSA §22a-174-4(c)(3).
3. The Permittee shall use fuel flow meters, certified in accordance with 40 CFR Part 75 Appendix D to measure and record the fuel rate to the turbine and duct burner.
4. The Permittee shall continuously monitor and continuously record the water injection rate (lb/hr). The Permittee shall maintain this parameter within the range recommended by the manufacturer to achieve compliance with the emission limits in this permit.
5. The Permittee shall perform inspections of the SCR and oxidation catalysts as recommended by the manufacturer.
6. Prior to operation, the Permittee shall develop a written plan for the operation, inspection, maintenance, preventive and corrective measures for minimizing GHG emissions (CH<sub>4</sub> from the natural gas pipeline components and SF<sub>6</sub> emissions from the insulated electrical equipment). At a minimum the plan shall provide for:
  - a. Implementation of daily auditory/visual/olfactory inspections of the natural gas piping components supplying natural gas to the combustion turbine/duct burner;
  - b. An installed leak detection system to include audible alarms to identify SF<sub>6</sub> leakage from the circuit breakers;
  - c. Inspection for SF<sub>6</sub> emissions from the insulated electrical equipment on at least a monthly basis.

## **B. Record Keeping**

1. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for the turbine. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall keep records of monthly and consecutive 12 month natural gas consumption for the duct burner. The consecutive 12 month natural gas consumption shall be determined by adding the current month's natural gas consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall keep records of the monthly and consecutive 12 month heat input to the turbine for both natural gas and ULSD firing. The records shall include sample calculations.
4. The Permittee shall keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel.
5. The Permittee shall keep records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel specifying the maximum total sulfur content for the natural gas or periodic fuel sampling as allowed under 40 CFR §60.4370(c) to show compliance with the limit in Part II of this permit.
6. The Permittee shall keep records of the monthly and consecutive 12 month heat input to the duct burner. The record shall include sample calculations.
7. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, H<sub>2</sub>SO<sub>4</sub>, NH<sub>3</sub> and CO<sub>2e</sub> emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

Emissions during startup and shutdown shall be counted towards the annual emission limitation in Part III.C of this permit.

8. The Permittee shall keep records of the emissions of the turbine/duct burner during the initial shakedown period. Emissions during shakedown shall be calculated using good engineering judgement and the best data and methodology available for estimating such emissions.

Emissions during shakedown shall be counted towards the annual emission limitations in Part III.C of this permit.

9. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, H<sub>2</sub>SO<sub>4</sub>, NH<sub>3</sub> and CO<sub>2e</sub> emissions in units of tons from the turbine and HVAC/space heaters combined to show compliance with Part III.C of this permit. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

Emissions during startup and shutdown shall be counted towards the annual emission limitation in Part III.C of this permit.

10. The Permittee shall keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include:
  - a. the date and time of the exceedance;
  - b. a detailed description of the exceedance; and
  - c. the duration of the exceedance.
11. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbine/duct burner; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR §60.7(b)]

Such records shall contain the following information:

- a. type of event (startup, shutdown, or malfunction)
  - b. if a startup, then what kind (hot, warm, cold);
  - c. equipment affected;
  - d. date of event, start time and end time;
  - e. duration of event (minutes);
  - f. fuel being used during event; and
  - g. total NO<sub>x</sub>, CO, ammonia and VOC emissions emitted (lb) during the event.
12. The Permittee shall keep records of each delivery of aqueous ammonia. The records shall include:
    - a. the date of delivery;
    - b. the name of the supplier;
    - c. the quantity of aqueous ammonia delivered; and
    - d. the percentage of ammonia in solution, by weight.
  13. The Permittee shall keep records of the inspection and maintenance of the SCR and oxidation catalysts. The records shall include:
    - a. the name of the person;
    - b. the date;
    - c. the results or actions; and
    - d. the date the catalyst is replaced.
  14. The Permittee shall keep records of all repairs/replacement of parts and other maintenance activities for the equipment.
  15. The Permittee shall keep records of the electrical output of the plant (net).
  16. The Permittee shall keep records of the inspections, maintenance, preventive and corrective measures for minimizing GHG emissions from the natural gas pipeline components and the insulated electrical equipment. The records shall include:

- a. The name of the person conducting the inspection/maintenance;
  - b. The date that the inspection/maintenance was conducted;
  - c. The results and actions taken;
  - d. The leak detection method used; and
  - e. The amount of SF<sub>6</sub> added (if any) to the electrical equipment.
17. The Permittee shall keep monthly records of the audible alarms from the SF<sub>6</sub> leak detection system and inspections for the insulated electrical equipment. The records shall include:
- a. The name of the person conducting inspection/maintenance;
  - b. The date the inspection/maintenance took place; and
  - c. The results or actions taken.
18. The Permittee shall make and keep records of all occurrences of firing ULSD in the turbine. At a minimum these records shall contain the following information:
- a. The date the turbine operated on ULSD;
  - b. The duration of ULSD firing;
  - c. The reason for ULSD firing; and
  - d. The heat input to the turbine.
19. The Permittee shall make and keep records of all occurrences of firing ULSD in the turbine and natural gas in the duct burner. At a minimum these records shall contain the following information:
- a. The date the turbine operated firing ULSD/duct burner operated firing natural gas;
  - b. The duration of the turbine firing ULSD/duct burner firing natural gas occurrence,
  - c. The reason for the turbine firing ULSD/duct burner firing natural gas occurrence; and
  - d. The heat input to the turbine and duct burner.
20. The Permittee shall keep a certified copy of this permit on the premises at all times, and shall make it available upon request of the commissioner for the duration of this permit. This permit shall also be available for public inspection during regular business hours.
21. The Permittee shall keep records of the manufacturer written recommendations for operation and maintenance of the turbine/duct burner and air pollution control equipment.
22. The Permittee shall keep records of stack testing reports.
23. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

### **C. Reporting**

1. The Permittee shall notify the commissioner in writing of any exceedance of an emissions limitation or operating parameter, and shall identify the cause or likely cause of such exceedance, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:
  - a. For any hazardous air pollutant, no later than 24 hours after such exceedance commenced; and
  - b. For any other regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

2. The Permittee shall notify the commissioner in writing of any malfunction of the stationary gas turbine/duct burner, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following:
  - a. a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and
  - b. a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.
3. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and commencement of commercial operation of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event.
4. The Permittee shall submit the above notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

**PART V. STACK EMISSION TEST REQUIREMENTS**

**A.** Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website.

**B.** Initial stack testing shall be required for the following pollutant(s):

- |   |   |   |  |
|---|---|---|--|
| <input checked="" type="checkbox"/> PM/PM <sub>10</sub> /PM <sub>2.5</sub>                      | <input checked="" type="checkbox"/> SO <sub>2</sub> | <input checked="" type="checkbox"/> NO <sub>x</sub> | <input checked="" type="checkbox"/> CO |
| <input checked="" type="checkbox"/> VOC   | <input checked="" type="checkbox"/> Opacity         | <input checked="" type="checkbox"/> CO <sub>2</sub> |  |
| <input checked="" type="checkbox"/> Other (HAPs): Sulfuric Acid, Formaldehyde, Arsenic, Ammonia |   |   |  |

1. Stack emissions testing firing natural gas, without duct firing, for CO<sub>2</sub> shall only be required during the initial performance test to show compliance with an emissions limit of 773 lbs/MW-hr (net plant), corrected to ISO conditions, as defined in the approved stack test protocol.
2. For the purpose of determining maximum heat input of the turbine and including the duct burner as applicable during performance testing, the following equation may be used when the actual ambient temperature is not specified in Table 1:

$$MHI_T: Q_1 - [(T_{Act} - T_1)/(T_2 - T_1)] \times (Q_1 - Q_2)$$

Where:

MHI<sub>T</sub>: Turbine or duct burner maximum heat input at ambient temperature (°F)

T<sub>Act</sub>: Actual ambient temperature

T<sub>1</sub>: Temperature value from Table 1 that is below T<sub>Act</sub>

T<sub>2</sub>: Temperature value from Table 1 that is above T<sub>Act</sub>

Q<sub>1</sub>: Maximum Heat Input value from Table 1 at corresponding T<sub>1</sub>

Q<sub>2</sub>: Maximum Heat Input value from Table 1 at corresponding T<sub>2</sub>

Table 1: Maximum Heat Input Capacities at Given Ambient Temperatures for Natural Gas and ULSD

Actual Ambient Temperature (T <sub>Act</sub> )	Natural Gas		ULSD	
	Heat Input (Q) For Combustion Turbine without Duct Burner	Heat Input (Q) for Duct Burner	Heat Input (Q) For Combustion Turbine without Duct Burner	Heat Input (Q) for Duct Burner
0	3,292	73*	3,439	267
20	3,281	84*	3,422	267
35	3,245	120*	3,396	267
50	3,138	227*	3,348	267
59	3,128	237*	3,321	267
80	3,096	267	3,281	267
90	3,043	267	3,199	267
100	2,967	267	3,079	267

Note:

\* For natural gas firing, turbine/duct burner reaches a maximum total fuel consumption at 59 °F and is based on a maximum gas availability for the combustion turbine + the duct burner of 3,365 MMBtu/hr HHV. As the ambient temperature decreases below 59 °F, the total maximum heat input remains constant by burning less fuel in the duct burner while the combustion turbine burns more fuel. This is done so that the maximum amount of natural gas available to the site is utilized to produce electricity in the most efficient manner.

Units of measure are MMBtu/hr (HHV) for Heat Input and °F for temperature.

3. The Permittee shall perform one set of tests on this turbine for the following scenarios:
  - a. Mode 1: turbine on natural gas; no duct firing
  - b. Mode 2: turbine and duct burner on natural gas
  - c. Mode 3: turbine on ULSD; no duct firing
  - d. Mode 4: turbine on ULSD; duct firing on natural gas
  
4. The Permittee shall conduct initial stack emissions testing within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. The Permittee shall submit test results within 60 days after completion of testing.
  
- C. Recurrent stack testing of all pollutants listed in Part V.B of this permit shall be performed within five years from the date of the previous stack test. Testing shall be as described in Part V.B of this permit with the following exceptions:
  1. After the initial performance test, stack testing may not be required for pollutants requiring CEM.
  2. The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.
  
- D. Fuel oil analysis of the arsenic in the distillate oil may be substituted for stack testing while firing distillate oil. Arsenic testing is not required for natural gas firing.

- E. Stack emissions test results shall be reported as follows: all pollutants in units of lb/hr, NO<sub>x</sub>, CO, VOC, formaldehyde and ammonia in units of ppmvd at 15% O<sub>2</sub>.

**PART VI. SPECIAL REQUIREMENTS**

- A. The Permittee shall comply with all applicable sections of the following New Source Performance Standard at all times.

Title 40 CFR Part 60 Subpart A – General provisions

Title 40 CFR Part 60 Subparts KKKK – Standards of Performance for Stationary Combustion Turbines

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B. The Permittee shall comply with all applicable requirements of the Federal Acid Rain Program codified in Title 40 CFR Parts 72-78, inclusive, by the deadlines set forth with the aforementioned regulation.
- C. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA §§22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
- D. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner’s approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(i)(4)]

**PART VII. COLLATERAL CONDITIONS FOR EU-53, EU-54 and GEU-1**

- A. **EU-53:** 2.6 MMBtu/hr Cummins CFP9E-F60 emergency fire pump engine

**1. Operational Conditions**

- a. Fuel Type: ULSD
- b. Maximum Fuel Sulfur Content: 0.0015% by weight
- c. Maximum Hours of Operation over any Consecutive 12 Month Period: 295 hours

**2. Criteria and Non-Criteria Pollutants**

Pollutant	lb/hr	Other Units	TPY
PM/PM <sub>10</sub> / PM <sub>2.5</sub>	0.1	0.15 g/hp-hr	0.014
NO <sub>x</sub>	1.8		0.3
VOC	0.1		0.01
(NO <sub>x</sub> +NMHC)		3.0 g/hp-hr	
CO	1.1	2.6 g/hp-hr	0.17
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	0.0006		0.0001
CO <sub>2e</sub>	427	163 lb/MMBtu	63

Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>: Calculated from fuel sulfur content
- NO<sub>x</sub>, PM<sub>10/2.5</sub>, VOC, CO: EPA Certified Vendor Emissions Factor
- Pb: AP-42 Sec. 3.1 (April 2000)
- CO<sub>2</sub>: 40 CFR Part 98 Subpart C, Table C-1
- CO<sub>2e</sub>: 40 CFR Part 98, Subpart C, Table C-2

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

### **3. Monitoring and Record Keeping**

#### **a. Monitoring**

- The Permittee shall continuously monitor fuel consumption by this unit using a non-resettable totalizing fuel meter.
- The Permittee shall monitor the number of hours that this unit is in operation.

#### **b. Record Keeping**

- The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, H<sub>2</sub>SO<sub>4</sub>, CO<sub>2e</sub> and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
- The Permittee shall monitor and keep records of monthly and 12 consecutive months operating hours of the emergency fire pump. The 12 consecutive month time period shall be determined by adding the current month's operating hours to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
- The Permittee shall keep any of the records listed below to demonstrate the sulfur content of the fuel used.
  - A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or
  - A copy of the current contract with the fuel supplier supplying the fuel used by the unit that includes the applicable sulfur content of nongaseous fuel as a condition of each shipment.
- The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times.

Title 40 CFR Part 60 Subpart III – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Note: The emergency fire pump engine is subject to 40 CFR Part 63 Subpart ZZZZ and complies with the requirements by operating under 40 CFR Part 60 Subpart IIII.

- v. The Permittee shall keep records of the manufacturer's specifications and written recommendations.
- vi. The Permittee shall keep records on the premises indicating continual compliance with the above condition at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less.

**c. Reporting**

- i. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and commencement of operation of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event.
- ii. The Permittee shall submit the above notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

**B. EU-54: Auxiliary Cooling Tower**

**1. Criteria and Non-Criteria Pollutants**

Pollutant	lb/hr	TPY
PM/PM <sub>10</sub> / PM <sub>2.5</sub>	0.16	0.71

Demonstration of compliance with the above emission limits may be met by calculating the emission rates using the cooling tower flow rate (gallons/min), TDS content of the cooling water and drift rate from the manufacturer.

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

**2. Record Keeping**

- a. The Permittee shall calculate and record the monthly and consecutive 12 month PM/PM<sub>10</sub>/PM<sub>2.5</sub> in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
- b. The Permittee shall keep records of the manufacturer's specifications and written recommendations.
- c. The Permittee shall keep records on the premises indicating continual compliance with the above condition at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less.

### 3. Reporting

- a. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and commencement of operation of this equipment. Such written notifications shall be submitted no later than 30 days after the subject event.
- b. The Permittee shall submit the above notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

### C. GEU-1: HVAC/Space Heaters

Separate, small emission units consisting of: building space heaters, makeup air heaters, and heating ventilating and air conditioning (HVAC) units.

#### 1. Operational Conditions

- a. Fuel Type: Natural Gas

#### 2. Criteria and Non-Criteria Pollutants

Pollutant	TPY
PM/PM <sub>10</sub> / PM <sub>2.5</sub>	0.6
SO <sub>2</sub>	0.05
NO <sub>x</sub>	7.6
CO	6.4
VOC	0.4
Lead	0.00004
Sulfuric Acid	0.007
CO <sub>2e</sub>	9,061

Note: Permittee shall add emissions from GEU-1 to the emissions from relevant emission units to demonstrate compliance with emission limits set forth in Part III.C and Part III.H.4 of this permit.

Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- NO<sub>x</sub>, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, VOC, CO, SO<sub>2</sub>, Pb: AP-42 Sec. 1.4 (July 1998)
- H<sub>2</sub>SO<sub>4</sub>: Engineering estimate based on SO<sub>2</sub>
- CO<sub>2</sub>: 40 CFR Part 98 Subpart C, Table C-1

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

### 3. Monitoring and Record Keeping

#### a. Monitoring

The Permittee shall continuously monitor fuel consumption for GEU-1 using a single non-resettable totalizing fuel meter.

## **b. Record Keeping**

- i. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for GEU-1. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, VOC, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, lead, CO and CO<sub>2e</sub> emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
- iii. The Permittee shall make and maintain a list of all units included in GEU-1. The list shall include description and maximum rated capacity of the HVAC/space heaters. The Permittee shall update the list within 30 days of a change in the units.
- iv. The Permittee shall keep records on the premises indicating continual compliance with the above condition at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less.

## **PART VIII. COLLATERAL CONDITIONS FOR NO<sub>x</sub> AND VOC OFFSETS**

To comply with RCSA §22a-174-3a(l), the Permittee shall possess, at least 178 tons of external emission reduction (ERC) to offset the quantity of NO<sub>x</sub> and 41 tons of ERCs to offset the quantity of VOC emitted from the following sources:

- Dual fuel fired General Electric (GE) Model 7HA.02 combustion turbine with duct burner operating under Permit No. 015-0299
- One auxiliary boiler operating under Permit No. 015-0300
- One emergency generator operating under Permit No. 015-0301
- One emergency fire pump operating under collateral conditions in Part VII.A of Permit No. 015-0299
- One Cooling Tower operating under collateral conditions in Part VII.B of Permit No. 015-0299
- Three fuel storage tanks
- HVAC units, makeup air heaters and building space heaters (GEU-1) operating under collateral conditions in Part VII.C of Permit No. 015-0299

Such a quantity is sufficient to offset the emissions at a ratio of 1.3 to 1 ton of reduction for every ton of NO<sub>x</sub> and VOC emissions allowed under the permits listed above. Specifically, the reductions are real, quantifiable, surplus, permanent and enforceable as defined in RCSA 22a-174-3a(l)(5). The Permittee shall maintain sole ownership and possession of these emissions reductions for the duration of this permit and any subsequent changes to the permit.

Such offsets have been obtained from the following sources:

*NO<sub>x</sub> offsets:*

- The Permittee used 115 tons of Emission Reduction Credits (ERCs) from PSEG – Bridgeport Harbor Station. The ERCs have Serial Numbers: CT4NO<sub>x</sub>00-015-0045-7668-115.
- The Permittee acquired 63 tons of ERCs from the New York Power Authority: NY-DEC-2-6301-00084-63

*VOC Offset:*

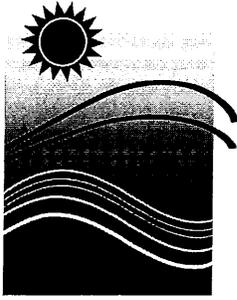
- The Permittee acquired 41 tons of ERCs from Element Markets, LLC: NY-DEC-2-6401-00042-41

The Permittee may be required to obtain additional NO<sub>x</sub> and VOC offsets and complete additional ambient air quality analysis to show that the National Air Ambient Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments have not been violated, if observed steady state or transient emissions exceed a limit specified in Parts III of this permit.

## **PART IX. ADDITIONAL TERMS AND CONDITIONS**

- A.** This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Any representative of the DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C.** This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D.** This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E.** Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

- F.** Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G.** Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- H.** The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I.** Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

**BUREAU OF AIR MANAGEMENT  
NEW SOURCE REVIEW PERMIT  
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

<b>Owner/Operator</b>	PSEG Power Connecticut LLC – Bridgeport Harbor Station
<b>Address</b>	1 Atlantic Street, Bridgeport, CT 06604
<b>Equipment Location</b>	1 Atlantic Street, Bridgeport, CT 06604
<b>Equipment Description</b>	80 MMBtu/hr Victory Energy Natural Gas Fired Boiler with Ultra Low NOx Burners and Flue Gas Recirculation
<b>Town-Permit Numbers</b>	015-0300
<b>Premises Number</b>	045
<b>Stack Number</b>	18
<b>Prior Permit Issue Date</b>	April 11, 2017
<b>Permit Issue Date</b>	<b>MAR 27 2018</b>
<b>Expiration Date</b>	None

  
Robert E. Kaliszewski  
Deputy Commissioner

3/27/18  
Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

## **PART I. DESIGN SPECIFICATIONS**

### **A. General Description**

The main purpose of the 80 MMBtu/hr (HHV) natural gas fired boiler is to produce auxiliary steam to provide certain heating functions prior to and during startups in order to allow shorter startup time durations.

### **B. Equipment Design Specifications**

1. Fuel Type: Natural gas
2. Maximum Fuel Firing Rate: 78,000 scf/hr
3. Maximum Gross Heat Input: 80 MMBtu/hr (HHV)
4. Maximum Steam Flow: 64,675 lb/hr (Gross, at 100% steam load)

### **C. Control Equipment Design Specifications**

1. Ultra Low NO<sub>x</sub> Burner/Flue Gas Recirculation
  - a. Make and Model: John Zink Hamworthy Combustion/C-RMB Burner

### **D. Stack Parameters**

1. Minimum Stack Height: 160 ft
2. Minimum Exhaust Gas Flow Rate: 22,768 acfm (At typical operation of 98% steam load)
3. Minimum Stack Exit Temperature: 299 °F (At typical operation of 98% steam load)
4. Minimum Distance from Stack to Property Line: 400 ft

## **PART II. OPERATIONAL CONDITIONS**

### **A. Equipment**

1. Maximum Fuel Consumption over any Consecutive 12 Month Period: 687 MMscf
2. Maximum Fuel Sulfur Content: 0.5 grains/100 scf
3. The Permittee shall operate and maintain the boiler/control equipment in accordance with manufacturer's specifications and written recommendations.
4. The Permittee shall properly operate the flue gas recirculation (FGR) system at all times that this equipment is in operation and emitting air pollutants.

### PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

#### A. Criteria and Non-Criteria Pollutants

Pollutant	lb/hr	Other Units	TPY
PM/ PM <sub>10</sub> / PM <sub>2.5</sub>	0.48		2.1
SO <sub>2</sub>	0.12		0.5
NO <sub>x</sub>	0.72	7.0 ppmvd@3% O <sub>2</sub>	3.2
VOC	0.32	0.004 lb/MMBtu	1.4
CO	2.88	50 ppmvd@3% O <sub>2</sub>	12.6
Pb	3.9 E-05		1.7E-4
H <sub>2</sub> SO <sub>4</sub>	0.02		0.08
CO <sub>2e</sub>	9,368	117 lb/MMBtu	41,031

#### B. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT]

#### C. Opacity

This equipment shall not exceed 10% opacity during any six minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

D. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using the most recent approved stack test results for that pollutant, or if unavailable, emission factors from the following sources:

- NO<sub>x</sub>, CO, VOC: stack testing data
- PM<sub>10</sub>: Guaranteed Vendor Emissions Factor
- Opacity: Stack Test Data
- SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>: Calculated from fuel sulfur content
- Pb: AP-42, Table 1.4-2, July 1998
- CO<sub>2e</sub>: 40 CFR Part 98, Tables A-1 (Dec 2014), C-1 and C-2 (Nov 2013)

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

### PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

#### A. Monitoring

1. The Permittee shall continuously monitor fuel consumption to the boiler using a non-resettable totalizing fuel meter.

2. The Permittee shall perform inspections of the low NOx burners and flue gas recirculation system as recommended by the manufacturer.

## **B. Record Keeping**

1. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO, Pb, H<sub>2</sub>SO<sub>4</sub> and CO<sub>2e</sub> emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall keep records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel specifying the maximum total sulfur content for the natural gas or periodic fuel sampling, to show compliance with the limit in Part II of this permit.
4. The Permittee shall make and keep records of all maintenance and tune-up activities for the boiler.
5. The Permittee shall make and keep records of all inspections of the low NOx burners and flue gas recirculation system.
6. The Permittee shall make and keep records of manufacturer written specifications and recommendations for operation and maintenance.
7. The Permittee shall keep records of stack testing reports.
8. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

## **C. Reporting**

The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and the date of initial startup of the boiler. Such written notification shall be submitted no later than 30 days after the subject event. The Permittee shall submit the above notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

## **PART V. STACK EMISSION TEST REQUIREMENTS**

Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website.

Initial stack testing shall be required for the following pollutant(s):

PM     PM<sub>10</sub>     PM<sub>2.5</sub>     SO<sub>2</sub>     NO<sub>x</sub>     CO  
 VOC     Opacity     Other (HAPs):

- A. The Permittee shall conduct initial stack testing within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. The Permittee shall submit test results within 30 days after completion of testing.
- B. Recurrent stack testing for the above pollutants shall be conducted within five years from the date of the previous stack test or when it was due.
- C. Stack test results shall be reported as follows:
  - 1. All pollutants in units of lb/hr.
  - 2. NO<sub>x</sub> and CO in ppmvd at 3% O<sub>2</sub>.
  - 3. Opacity: %.
  - 4. VOC: lb/MMBtu.

**PART VI. SPECIAL REQUIREMENTS**

- A. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60 Subpart A – General Provisions

Title 40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units

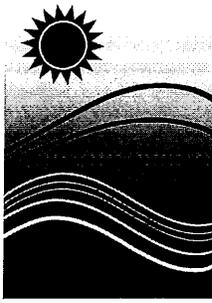
Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B. The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises that constitutes a nuisance as set forth in RCSA §22a-174-23. [STATE ONLY REQUIREMENT]
- C. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA §§22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
- D. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner’s approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(j)(4)]

**PART VII. ADDITIONAL TERMS AND CONDITIONS**

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

- B. Any representative of DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.



Connecticut Department of

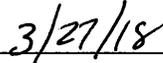
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

**BUREAU OF AIR MANAGEMENT  
NEW SOURCE REVIEW PERMIT  
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

<b>Owner/Operator</b>	PSEG Power Connecticut LLC – Bridgeport Harbor Station
<b>Address</b>	1 Atlantic Street, Bridgeport, CT 06604
<b>Equipment Location</b>	1 Atlantic Street, Bridgeport, CT 06604
<b>Equipment Description</b>	2,000 kW Caterpillar 3516C Diesel Fired Emergency Generator
<b>Town-Permit Numbers</b>	015-0301
<b>Premises Number</b>	045
<b>Stack Number</b>	19
<b>Prior Permit Issue Date</b>	April 11, 2017
<b>Permit Issue Date</b>	<b>MAR 27 2018</b>
<b>Expiration Date</b>	None

  
Robert E. Kaliszewski  
Deputy Commissioner

  
Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

## **PART I. DESIGN SPECIFICATIONS**

### **A. General Description**

The main purpose of the 2,000 kW Diesel fired emergency generator is to provide emergency back-up power to the Bridgeport Harbor Station Unit 5 Project. The emergency generator is not connected to the electrical grid.

### **B. Equipment Design Specifications**

1. Fuel Type: Ultra Low Sulfur Diesel (ULSD)
2. Maximum Fuel Firing Rate: 138 gal/hr
3. Maximum Gross Heat Input: 19.1 MMBTU/hr (HHV)

### **C. Stack Parameters**

1. Minimum Stack Height: 35 ft
2. Minimum Exhaust Gas Flow Rate: 15,293 acfm
3. Minimum Stack Exit Temperature: 752 °F
4. Minimum Distance from Stack to Property Line: 490 ft

## **PART II. OPERATIONAL CONDITIONS**

### **A. Equipment**

1. Maximum Fuel Consumption over any Consecutive 12 Month Period: 41,400 gallons
2. Maximum Hours of Operation over any Consecutive 12 Month Period: 300 hours
3. Maximum Fuel Sulfur Content: 0.0015% by weight
4. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
5. The Permittee shall operate and maintain this equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction.

**B. For Emergency Use**

1. The Permittee shall only operate this equipment in accordance with the definition of emergency engine as defined in RCSA §22a-174-1, et seq.
2. The Permittee shall not operate the subject engine for routine scheduled testing or maintenance during days when ambient ozone is forecasted by the commissioner to be "moderate unhealthy for sensitive groups" to "very unhealthy" anywhere in Connecticut.
  - a. Forecast Information

Official ambient ozone information can be obtained by calling:

- i. (860) 424-4167 Department's Bureau of Air Management Monitoring Section  
(Recorded Message Updated daily at 3:00 p.m.)
- ii. (860) 424-3027 Department's Bureau of Air Management Monitoring Section  
(For additional air quality information)

**PART III. ALLOWABLE EMISSION LIMITS**

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

**A. Criteria and Non-Criteria Pollutants**

Pollutant	lb/hr	Other Units	TPY
PM/ PM <sub>10</sub> / PM <sub>2.5</sub>	0.3	0.15 g/hp-hr	0.04
SO <sub>2</sub>	0.2		0.03
NO <sub>x</sub>	42.3		6.4
VOC	1.0		0.15
(NO <sub>x</sub> +NMHC)		4.8 g/hp-hr	
CO	3.5	2.6 g/hp-hr	0.52
Lead (Pb)	0.0003		0.00004
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	0.03		0.0043
CO <sub>2e</sub>	3,117	163 lb/MMBtu	468

**B. Hazardous Air Pollutants**

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT]

**C. Opacity**

Opacity resulting from operation of this engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

- D. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:

- SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>: Calculated from fuel sulfur content
- NO<sub>x</sub>, PM<sub>10/2.5</sub>, VOC, CO: EPA Certified Vendor Emissions Factor
- Pb: AP-42 Sec. 3.1 (April 2000)
- CO<sub>2e</sub>: 40 CFR Part 98 Subpart C, Table C-1 and Table C-2 (Nov 2013)

The Permittee is not required to demonstrate compliance with the short-term emission limits stated herein during the initial shakedown period. Emissions during the initial shakedown period shall be counted towards the annual emission limits stated herein.

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

#### **PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS**

##### **A. Monitoring**

1. The Permittee shall continuously monitor fuel consumption by this equipment using a non-resettable totalizing fuel meter.
2. The Permittee shall monitor the number of hours that this equipment is in operation.

##### **B. Record Keeping**

1. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall keep records of monthly and consecutive 12 month hours of operation. The consecutive 12 month hours of operation shall be determined by adding the current month's hours of operation to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall calculate and record the monthly and consecutive 12 month PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, Pb, H<sub>2</sub>SO<sub>4</sub>, CO<sub>2e</sub> and CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
4. The Permittee shall keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel.

5. The Permittee shall keep records of the inspection and maintenance for this equipment. The records shall include:
  - a. the name of the person conducting the inspection or maintenance;
  - b. the date of the inspection or maintenance; and
  - c. the results or actions taken.
6. The Permittee shall comply with the applicable record keeping requirements of RCSA §22a-174-22(l).
7. The Permittee shall keep records of the manufacturer's specifications and written recommendations.
8. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

### **C. Reporting**

1. The Permittee shall comply with the applicable reporting requirements of RCSA §22a-174-22(l).
2. The Permittee shall comply with the reporting requirements in 40 CFR §60.4214
3. The Permittee shall notify the commissioner, in writing, of the date of commencement of construction and the date of initial startup of the equipment. Such written notification shall be submitted no later than 30 days after the subject event. The Permittee shall submit the above notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

## **PART V. SPECIAL REQUIREMENTS**

- A.** The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60, Subparts: A and IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Note: the emergency generator is subject to 40 CFR Part 63 Subpart ZZZZ and complies with the requirements by operating under 40 CFR Part 60 Subpart IIII.

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B.** The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises that constitutes a nuisance as set forth in RCSA §22a-174-23. [STATE ONLY REQUIREMENT]
- C.** The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA §§22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]

- D. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner's approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(i)(4)]

## **PART VI. ADDITIONAL TERMS AND CONDITIONS**

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the

word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

- I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.