PSEG Power Connecticut LLC
Bridgeport Harbor Station, 1 Atlantic Street, Bridgeport, CT 06604-5513

October 10, 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. 13 – Third Quarter 2018

Dear Ms. Bachman:

This is the Third 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 (D&O), 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 July to September 2018 period covered by this report. The project continues on schedule with site field construction progress at approximately 56%. The Commercial Operations Date remains June 1, 2019.

The Heat Recovery Steam Generator (HRSG) stack has been erected and the required aircraft warning lighting energized. Miscellaneous Air Cooled Condenser (ACC) sections and HRSG components continue to be delivered to the site, with 14 of 20 ACC modules set in place. Sections of the ACC risers, steam trunks, and headers have also been installed. The remaining marine / barge deliveries are schedule to be completed in October.

Installation of foundations and underground utilities is essentially complete, excepting the stormwater system tie-in to the outfall, which is pending completion of site finishes in the second quarter of 2019. The Gas Insulated Switchgear (GIS) building and associated GIS equipment have been installed. The 345 kilovolt tie-in to the United Illuminating Company Singer Substation has been completed, with backfeed currently scheduled in October. Construction of the other Pre-Engineered Metal Buildings (PEMB), including the Turbine and Administration Buildings, is nearing completion. The Turbine Building siding installation is in process, and the Administration / Control Building is expected to be placed in initial service during November.

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, along with many of the equipment skids. Electrical and piping within the site buildings and on the pipe racks is in progress. The two water tanks (Fire / Service and Demineralized Water) were completed and successfully hydro-tested. The fabrication of the Ultra-Low Sulfur Distillate (ULSD) tank continues, with filling and hydro-testing scheduled for October.

Excepting minor grout and miscellaneous pads, all of the planned concrete quantity has been installed. Site fill is approximately 99% complete. 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 offsite utilities, including the 345 KV tie to the United Illuminating Singer Substation as noted above, Aquarion Water Company tie-ins, and the Southern Connecticut Gas feed to the site on Henry and Russell Streets were completed during 3Q2018. Dewatering activities to support the utility construction were successfully completed and the dewatering equipment has been demobilized.

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

Community Activities

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

The $550,000 PSEG Ready2Work Apprenticeship Readiness Training Program (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) continues. The program is focused on training Bridgeport residents in the skills needed to work with the local trade unions.

Three of the five classes have been completed. The first two classes had 100 percent placement and the third class, which graduated on September 5, 2018, has approximately 40% job placements to date. Ready2Work is administered by Bridgeport's workforce development agency, The WorkPlace.

The next class begins at Bridgeport Harbor Station on October 22, 2018, with the final class scheduled for January 2019. As part of the CEBA, PSEG has established a website with additional information (https://bridgeportharborstation.com/home/).

PSEG continued discussions with NuPower related to energy projects in the City of Bridgeport. With regard to CSC Conditions 1(b) and 12/23/16-04, PSEG and NuPower continue to explore viable opportunities. An update will be provided in the 4Q2018 quarterly report.

Remediation Status Summary

Site fill and remediation activities are essentially complete. PSEG plans to document remediation closure with the CT DEEP at the time site finishes are installed (currently targeted for early in the second quarter of 2019). Previously this had been scheduled for submittal

during the fourth quarter of 2018. Documentation related to fill depths and the orange warning fabric elevation is being prepared, but the final grading / finishes need to be part of the closure documentation. In addition, upon completion of marine / barge deliveries and the release from construction use of the area with Engineered Controls (EC) in the laydown near the east ramp, the final EC documentation will be submitted to CT DEEP. This is also expected in the second quarter of 2019. An update on the schedule will be provided with subsequent quarterly reports.

PSEG filed 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) on July 16, 2018. Shortly thereafter, on July 25, 2018, PSEG filed a closure notice to the CSC for the Unit 3 Exempt Modification scope to request transitioning all remediation reporting for the BHS5 area to PE1218 Condition 1(f). The CSC approved this request on July 30, 2018.

Engineering and Regulatory Status Summary

Detailed design for the Project has been completed. Construction and equipment supply contracting remains on schedule and is approximately 90% complete. City of Bridgeport building permitting in support of ongoing site field work is continuing on schedule. City of Bridgeport building permitting activity is approximately 95% complete, exclusive of closeouts.

A permitting update, including applications filed with CT DEEP during the second quarter of 2018, is provided below. Copies of air and wastewater permits will be provided upon approval, in accordance with CSC D&O Condition No. 4.

1. CT DEEP issued a draft Title V Notice of Tentative Determination (NTD) on June 29, 2018 (published July 5, 2018). A public information hearing was held on August 8, 2018. On August 31, 2018 the CT DEEP issued the final Title V Air Operating Permit for the Bridgeport Harbor Station, for operation of the existing BHS Units 3 and 4, as well as BHS 5. Per D&O Condition No. 4, a copy of the Title V Permit is included as **Exhibit 3**.

2. A GP Registration for Miscellaneous Discharges of Sewer Compatible Wastewater (MISC GP) was filed with CT DEEP on July 17, 2018 after City of Bridgeport Water Pollution Control Agency (WPCA) approval. This GP is applicable to start-up / commissioning wastewater disposal to the WPCA treatment facilities via the installed force main. Discharges under the GP in accordance with the GP terms and the submittal were authorized by CT DEEP on September 26, 2018.

3. A Comprehensive GP Registration for Discharges to Surface Water and Groundwater was filed on July 16, 2018 with the CT DEEP. The GP addresses hydrostatic testing water discharge for the ULSD Tank. Discharges under the GP in accordance with the GP terms and the submittal were authorized by CT DEEP on September 26, 2018. Hydrostatic testing water from the two smaller (nominally 1 million gallons each) demineralized and service / fire water tanks is being held for re-use during the hydrostatic pressure testing of the 5.5 million gallon ULSD tank.

4. Federal Aviation Administration (FAA) notices regarding various onsite cranes were filed as required during 3Q2018. The FAA notice regarding the HRSG stack reaching its maximum height was filed on August 6, 2018. The FAA issued a Notice to Airmen (NOTAM) on August 7, 2018 for 30 days until the stack aircraft warning lighting was energized; this work was

completed in accordance with the NOTAM on September 6, 2018. Additional determinations were filed with the FAA for revised crane heights related to setting the final section of the stack, extensions, and an additional roving crane. Copies of the updated Determinations are included as **Exhibit 4** per Condition 1(u).

5. Notices related to the ACC and other deliveries and 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 as required. Deliveries to-date have been completed with no issues.

6. The remaining permitting activities associated with the construction of BHS5 include:

a. Receipt of the Individual Pre-treatment Permit for discharge of industrial wastewater to the City of Bridgeport WPCA. Issue of the Notice of Tentative Determination is anticipated in October 2018.

b. Transition from the CT DEEP construction stormwater GP to the existing site operating stormwater GP. This will occur when site finishes are completed and the Mechanical Treatment Device is placed in service.

c. Updates of the BHS site Stormwater Pollution Prevention Plan (SWPPP), and Spill Prevention, Control and Countermeasures Plan (SPCC) for incorporation of BHS5 into the existing site plans. These updates will be re-submitted to the CSC per Conditions 1(j) and 1(m) through 1(p).

d. Update of the currently inactive BHS site Facility Response Plan (FRP) upon reaching the petroleum product inventory of 1,000,000 gallons. This update will be re-submitted to the CSC per Conditions 1(m) through 1(p).

e. Permit closeouts upon completion of construction and start-up / commissioning.

f. Building permit closeouts upon City of Bridgeport acceptance of work.

Storage, Offsite Fabrication and Barge Delivery of Equipment

As previously reported, 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 into October 2018. 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.

All fabrication work at the Port of Coeymans facility in Coeymans, New York has been completed, and PSEG has demobilized at that site.

Development and Management Plan (D&MP) and Other CSC Updates

PSEG is preparing a minor D&MP Update No. 3 to the CSC with an expected filing date in November 2018. The D&MP Update will include minor changes to the ammonia containment footprint from that previously submitted.

Construction Schedule Update

There have been no significant changes in the schedule for major activities from the prior reporting period. Initial Start-up, Commissioning and Testing activities will begin in October 2018.

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	October 2018
7.	Operational Testing (first GTG operations)	February 2019
8.	Balance of Plant Initial Start-up Testing	January 2019
9.	Performance and Reliability Testing	March 2019
10.	Target Completion	May 2019
11.	Commercial Operations	June 1, 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. An update of the target dates for the submittal to the CSC of information related to fuel pipeline/system cleaning operations (requirements 6 through 8(iii) 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 re-scheduled for the second quarter of 2019 based on site finishing schedule. 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 revised Determination related to the stack set crane height and general updates and extensions for the other site cranes. The revised FAA determinations are included as **Exhibit 4**.

4. An update to D&MP Phase 2 Condition 12/23/16-04 related to the potential use of waste heat has been revised to reflect current evaluations.

5. The date for submitting a schedule for D&MP Phase 2 Condition 12/23/16-05 (Oil Dock Refurbishment Plans) has been modified to April 12, 2019 (i.e. the target date for the 1Q2019 Quarterly Progress Report).

6. PSEG will submit a closure request for Condition 18 (Code Training Fund) under separate cover in November 2018.

7. Other minor updates and refinements are as noted in **Exhibit 1** below.

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. **Final Title V Air Operating Permit No. 015-0217-TV**

4. **Updated FAA Determinations for HRSG Stack and Various Cranes**

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Exhibit 1 – Updated CSC Condition Compliance Matrix

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
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 2Q2019 Quarterly Progress Report. This condition also addresses remediation reporting related to CSC Exempt Modification EM-PSEG-015-160205 as noted in the 3Q2018 Quarterly 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

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
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; an update will be provided after incorporation of BHS5 into the existing site SWPPP.
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; an update will be provided after incorporation of BHS5 into the existing site SPCC Plan
1(n)	Containment measures for step-up transformer dielectric fluids and ULSD storage tank	N/A	Included (Exhibit 3)	Completed; an update will be provided after incorporation of BHS5 into the existing site SPCC Plan
1(o)	Containment and/or protective measures for delivery and storage of hydrogen and aqueous ammonia	N/A	Included (Exhibits 3 and 20)	Completed; Note that D&MP Update No. 3 is planned for submittal in November 2018. In addition, an update will be provided after incorporation of BHS5 into the existing site SPCC Plan
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

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
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
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. Updated Determinations are included as Exhibit 4 of the 3Q2018 Quarterly Progress Report.
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 industrial 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 Industrial Wastewater permit will be provided upon receipt. The Title V Air Permit is included as Exhibit 3 of the 3Q2018 Quarterly Progress Report.
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.

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
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) will be provided per the Note at the bottom of this **Exhibit 1** 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 **Exhibit 1.**
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 **Exhibit 1.**
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 **Exhibit 1.**
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 **Exhibit 1.**
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 **Exhibit 1.**
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 **Exhibit 1.**
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 **Exhibit 1.**

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
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 **Exhibit 1.**
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 **Exhibit 1.**
8(i)†	Description of results of simulated emergency response activities	N/A	Not currently available.	See Note at the bottom of this **Exhibit 1.**
8(ii)†	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 **Exhibit 1.**
8(iii)†	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 **Exhibit 1.**
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

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
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
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 **Exhibit 1.**
18	Deposit a fee into the Code Training Fund in accordance with CGS § 29-251c.	N/A	N/A	Open. PSEG will submit a closure notice under separate cover during November 2018.

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
	D&MP Phase 1 Conditions			
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.
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.
	D&MP Phase 2 Conditions			
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.			PSEG will provide an update in the 4Q2018 Quarterly 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 April 12, 2019.

CSC Requirement Number	CSC Requirement	D&M Plan Phase 1 Construction Support Facilities	D&M Plan Phase 2 BHS 5 Design	Subsequent Filing Report and Date Closure Status **
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 or 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 **Exhibit 1.**
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 http://www.ct.gov/csc/cwp/view.asp?a=2397&q=578006				

NOTE:

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

The planning for natural gas fuel 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 fuel pipeline cleaning activities scope will be filed on or about October 31, 2018. 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 May 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 also targeted for October 31, 2018 submittal to the CSC.

Exhibit 2 – Site Construction Photos

Progress Photos
Site Progress Photo 6/28/2018

Site Progress Photo 7/05/2018

Progress Photos

Site Progress Photo 9/20/2018

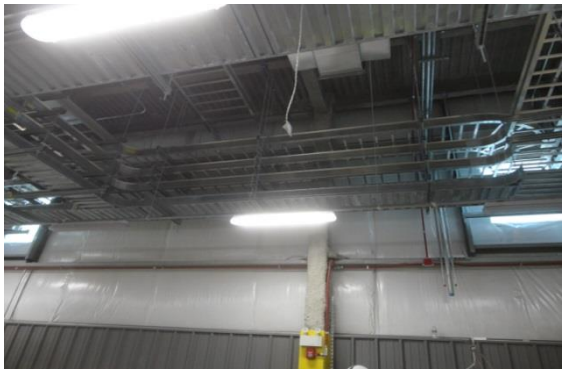
Site Progress Photo 9/27/2018

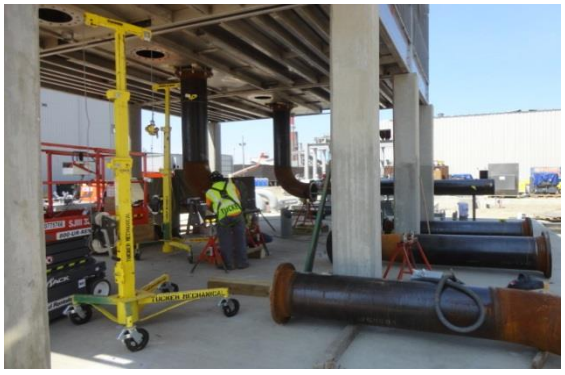

Setting 2nd ACC Riser


Installing Condensate Piping

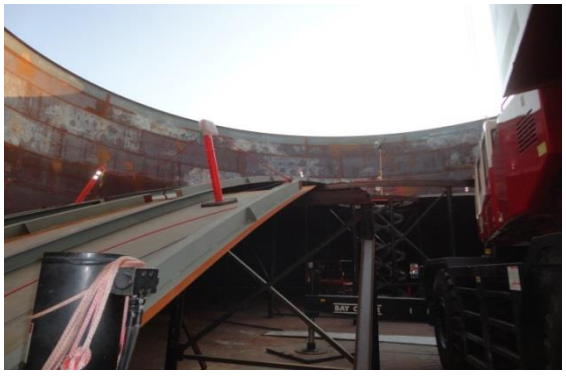

Installing Drains to the HRSG Blowdown Tank


Switchgear in General Service Building


Cable Tray Installation in Admin Building


Piping at Aux Cooling Tower


Setting Elevator in Admin Building


ULSD Tank Roof Erection

Setting 3rd ACC Riser (Street #2)

Setting HRSG Silencer

Set Vacuum Pumps

Switchgear in Admin Building

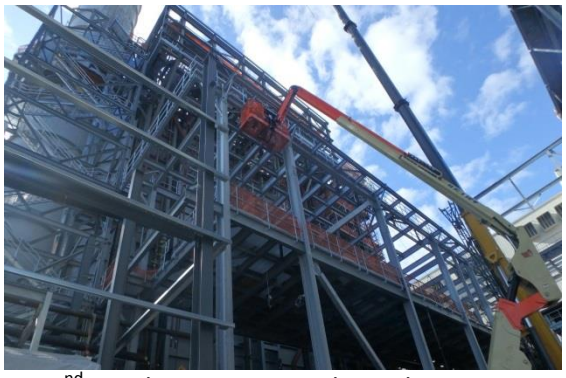
Set Condensate Pumps

Setting Pipe Spools in Pipe Rack

ST Generator Circuit Breaker Set

CTG Isophase Buss


Setting ACC Module 2E


2nd Level HRSG Pipe Rack Steel Erection


HRSG Acoustic Wall Erection


CT Air Inlet Hood Section


Completed Trench Covers in GIS


Warehouse Roof Installation


Cable pulling operation


CTG 345kV HV Potheads

Exhibit 3 Final Title V Air Operating Permit No. 015-0217-TV

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

BUREAU OF AIR MANAGEMENT
TITLE V OPERATING PERMIT

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-33 of the Regulations of Connecticut State Agencies (RCSA) and pursuant to the Code of Federal Regulations (CFR), Title 40, Part 70.

Title V Permit Number	015-0217-TV
Client/Sequence/Town/Premises Numbers	8087/01/015/0045
Date Issued	August 30, 2018
Expiration Date	August 30, 2023

Corporation:

PSEG Power Connecticut, LLC

Premises Location:

Bridgeport Harbor Station, 1 Atlantic Street, Bridgeport, CT 06604

Name of Responsible Official and Title:

Karl A. Wintermeyer, Plant Manager-New England

Vincent Fiumidinisi, Power Plant Manager

All the following attached pages, 2 through 154, are hereby incorporated by reference into this Title V permit.

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

August 30, 2018
Date

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Title V Operating Permit

All conditions in Sections III, IV, and VI of this Title V permit are enforceable by both the Administrator and the commissioner unless otherwise specified. Applicable requirements and compliance demonstration are set forth in Section III of this Title V permit. The Administrator or any citizen of the United States may bring an action to enforce all permit terms or conditions or requirements contained in Sections III, IV, and VI of this Title V permit in accordance with the Clean Air Act, as amended.

LIST OF ABBREVIATIONS/ACRONYMS

Abbreviation/Acronym	*Description*
AEL	Allowable Emission Limits
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BHS	Bridgeport Harbor Station
Bhp	Brake Horsepower
Btu	British Thermal Units
CAIR	Clean Air Interstate Rule
CAM	Compliance Assurance Monitoring
CDX	Central Data Exchange
CEDRI	Compliance and Emission Data Reporting Interface
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitor System
CH_4	Methane
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CI	Compression Ignition
CMS	Continuous Monitoring System
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
COM	Continuous Opacity Monitoring
cyl	Cylinders
DC	Direct Current
DEEP	Department of Energy and Environmental Protection
DERC	Discrete Emission Reduction Credits
EGU	Emission Generating Unit
EPA	Environmental Protection Agency
ERC	Emission Reduction Credit
ERT	Electronic Reporting Tool
ESP	Electrostatic Precipitator
EU	Emissions Unit
^oF	Degree Fahrenheit
FGR	Flue Gas Recirculation
FLER	Full Load Emission Rate
G	Grams
gal	Gallons
GEU	Grouped Emission Unit
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HAP	Hazardous Air Pollutant
HCl	Hydrogen Chloride
Hg	Mercury
HHV	Higher Heating Value
hp	Horsepower
hr	Hour

LIST OF ABBREVIATIONS/ACRONYMS, continued

Abbreviation/Acronym	*Description*
HRSG	Heat Recovery Stream Generator
H_2SO_4	Sulfuric Acid
HVAC	Heating Ventilating and Air Conditioning
ICE	Internal Combustion Engine
ISO	Independent System Operator
ISO NE	Independent System Operator New England
J	Joule
kV	Kilovolts
kW	Kilowatt
l	Liters
lb	Pound
LEE	Low Emitting Electric Generating Unit
mA	Milliampere
MACT	Maximum Achievable Control Technology
MASC	Maximum Allowable Stack Concentration
MHIT	Maximum Heat Input at Ambient Temperature
min	Minute
MMBtu	Million British Thermal Units
NMHC	Non-Methane Hydrocarbon
MW	Megawatts
MWh	Megawatt hour
NAAQS	National Air Ambient Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
ng	Nanogram
NH_3	Ammonia
NMHC	Non-Methane Hydrocarbon
NO_x	Nitrogen Oxides
N_2O	Nitrous Oxide
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
Pb	Lead
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 microns
$PM_{2.5}$	Particulate Matter less than 2.5 microns
ppm	Parts per million
ppmvd	Parts per million, volumetric basis dry
PSD	Prevention of Significant Deterioration
Q	Heat Input
QA	Quality Assurance
QC	Quality Control
RATA	Relative Accuracy Test Audit
RCSA	Regulations of Connecticut State Agencies

LIST OF ABBREVIATIONS/ACRONYMS, continued

Abbreviation/Acronym	*Description*
RICE	Reciprocating Internal Combustion Engine
RTV	Room-Temperature-Vulcanizing
scf	Standard Cubic Feet
SCR	Selective Catalytic Reduction
SF_6	Sulfur Hexafluoride
SIC	Standard Industrial Classification Code
SNCR	Selective Non Catalytic Reduction
SO_2	Sulfur Dioxide
SO_x	Sulfur Oxides
T_{ACT}	Actual Ambient Temperature
TAO	Trading Agreement and Order
TBtu	Trillion British Thermal Units
TDS	Total Dissolved Solids
TPY	Tons per year
T/R	Transformer/Rectifier
TSP	Total Suspended Particulate
ULSD	Ultra-Low Sulfur Distillate
VOC	Volatile Organic Compound

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business:	Electric Generation for Wholesale Sale
Primary SIC:	4911
Facility Mailing Address:	PSEG Power Connecticut, LLC 1 Atlantic Street Bridgeport, CT 06604
Telephone Number:	Mr. Vincent Fiumidinisi, 203-551-6001

B. PREMISES DESCRIPTION

The Bridgeport Harbor Station (BHS) is an exempt wholesale electric generating facility, owned and operated by PSEG Power Connecticut LLC (PSEG) with its principal place of business in Newark, New Jersey.

Electricity is generated at the facility through a various types of equipment as follows:

EU-3: Combustion Engineering Steam Generator (Unit No. 3) 400 MW (megawatts), a tangentially fired dual-fuel unit (low sulfur coal and fuel oil) equipped with an in-line heater (No. 2 fuel oil fired) that removes excess moisture from coal prior to combustion. The steam generator has the following control equipment: a low nitrogen oxides (NO_x) concentric firing system to control NO_x emissions, a baghouse with an activated carbon and dry sorbent injection systems used only during coal combustion to control mercury (Hg) and acid gas emissions, respectively, and an electrostatic precipitator (ESP) to control particulate matter (PM) emissions.

EU-4: Pratt & Whitney Gas Turbine Generator (Unit No. 4), a simple cycle turbine burns aviation fuel or equivalent and is used during peak energy demand periods. The facility also operates Cummins Model H61P Diesel Fire Pump Engine (EU-6) near Unit No. 4 for the existing fire suppression system.

A combined cycle unit (Unit No. 5) that is a single combustion turbine generator exhausting to a single supplementary fired Heat Recovery Steam Generator (HRSG). Steam generation in the HRSG drives a single steam turbine generator. The combined cycle consists of the following:

> EU-50: General Electric Dual Fired Combustion Turbine that fires natural gas and ultra-low sulfur distillate (ULSD) fuel, a duct burner that fires natural gas and a HRSG. Emissions are controlled by dry low-NO_x combustors, water injection (when the turbine is firing ULSD), a selective catalytic reduction (SCR) system, and an oxidation catalyst system. The turbine has a Cummins emergency fire pump engine (EU-53) that fires diesel fuel. The emergency fire pump engine provides backup mechanical energy to the fire suppression system for the Unit No. 5 project. A SPX Auxiliary Cooling Tower (EU-54), fire pump engine and separate, small emission units (GEU-1) consisting of: building space heaters, makeup air heaters, and heating ventilating and air conditioning (HVAC) are ancillary pieces of equipment associated with it.
>
> EU-51: Victory Energy boiler that fires natural gas and is equipped with ultra-low NO_x burners and Flue Gas Recirculation (FGR). The boiler produces auxiliary steam to provide certain heating functions prior to and during startups in order to allow shorter startup time durations.

EU-52: Caterpillar emergency generator that fires diesel fuel. The emergency generator provides emergency back-up power to the combined cycle unit. The emergency generator is not connected to the electrical grid.

Additional support equipment includes several storage tanks.

PSEG is a Title V source because actual sulfur oxides (SO_x), NO_x, carbon monoxide (CO) and greenhouse gas (GHG) emissions exceed the major source thresholds. Also PSEG is a Title V source as defined in RCSA §§22a-174-33(a)(10)(A) and (B) (subject to 40 CFR Parts 60 and 63), RCSA §22a-174-33(a)(10)(C) (subject to 40 CFR Parts 72-78) and RCSA §22a-174-33(a)(10)(F) (location of one or more major sources). PSEG is located in a severe ozone non-attainment area as defined in RCSA §22a-174-1(104).

PSEG is subject to the following:

TAO No. 8367	Trading Agreement and Order for EU-3 (Steam generator)
TAO No. 8368	Trading Agreement and Order for EU-4 (Turbine generator)
40 CFR Part 60 Subpart Dc	Standards of Performance for Small Industrial, Commercial, Institutional Steam Generating Units
40 CFR Part 60 Subpart IIII	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 CFR Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
40 CFR Part 63 Subpart DDDDD	National Emission Standards for Industrial, Commercial and Institutional Boilers and Process Heaters-Major Sources
40 CFR Part 63 Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
40 CFR Part 63 Subpart ZZZZ	National Emission Standards for Reciprocating Internal Combustion Engines (RICE)
40 CFR Part 63 Subpart UUUUU	National Emission Standards for Utility NESHAP
40 CFR Parts 72-78	Acid Rain Requirements
40 CFR Part 96 Subpart AAAA	Clear Air Interstate Rule (CAIR)

Section II: Emissions Units Information

A. EMISSIONS UNITS DESCRIPTION

Emissions units are set forth in Table II.A. It is not intended to incorporate by reference these NSR Permits, TAOs, Registrations, or Regulations into this Title V permit.

TABLE II.A: EMISSIONS UNITS DESCRIPTION

Emissions Unit	Emissions Unit Description	Control Unit Description	Monitoring Unit Description	Permit, Order, Registration, or Regulation Number
EU-3	Steam Generator with in-line heater and Dense Pack Turbine, BHS No. 3 Make: Combustion Engineering Installation Date: 8/1/68 Maximum Rated Capacity: 4,100 MMBtu/hr (400 MW)	Electrostatic Precipitator Fabric Filter Baghouse Low NO_x Concentric Firing System Activated Carbon and Dry Sorbent Injection Systems (Only for Coal Burning)	Teledyne Monitor Labs, Inc. Model 560 Opacity Monitor TECO CEM Model 42i for NO_x 43i for SO_x TECO CEM for CO_2	Permit No. 015-0089 TAO No. 8367 RCSA §22a-174-22c (CAIR) CGS §22a-199 40 CFR Part 63 Subpart UUUUU 40 CFR Parts 72-78 (Acid Rain) 40 CFR Part 75
EU-4	Gas Turbine Generator BHS No. 4 Make: Pratt & Whitney Model: FT 4A-8LI Turbo Jet Installation Date: 1/1/67 Maximum Rated Capacity: 289 MMBtu/hr (22 MW)	None	None	015-0166-R TAO No. 8368 RCSA §22a-174-22c (CAIR)

Section II: Emissions Units Information

TABLE II.A: EMISSIONS UNITS DESCRIPTION				
Emissions Unit	**Emissions Unit Description**	**Control Unit Description**	**Monitoring Unit Description**	**Permit, Order, Registration, or Regulation Number**
EU-6	Diesel Fired Pump Engine Make: Cummins Model:H6-1P SBM99305 Installation Date: 1/1/68 Maximum Rated Capacity: 0.71 MMBtu/hr (101 hp)	None	None	40 CFR Part 63 Subpart ZZZZ
EU-50	Dual Fired Combustion Turbine, Duct Burner and HRSG, BHS No. 5 Make: General Electric (turbine and HRSG) and Foray (duct burner) Model: 7HA.02 (turbine) Installation Date: Under Construction Maximum Rated Capacity (Maximum Gross Heat Input): 3,292 MMBtu/hr (turbine, natural gas, HHV); 3,439 MMBtu/hr (turbine, ULSD, HHV);and 267 MMBTU/hr (duct burner, natural gas, HHV)	Dry Low –NO_x combustors (natural gas operation) Water Injection (ULSD operation) Selective Catalytic Reduction (SCR) Oxidation Catalyst	CEM for: CO_2 NO_x CO NH_3 O_2 Fuel flow Net electrical output	Permit No. 015-0299 40 CFR Part 60 Subpart KKKK 40 CFR Part 63 Subpart YYYY 40 CFR Parts 72-78 (Acid Rain)
EU-51	Natural Gas Fired Auxiliary Boiler with Ultra Low NO_x Burners and FGR Make: Victory Energy Model: Discovery Series Package Boiler Installation Date: Under Construction	Ultra-Low NO_x Burners FGR	Continuously monitor fuel consumption to the boiler using non-resettable totalizing fuel meter	Permit No. 015-0300 40 CFR Part 60 Subpart Dc 40 CFR Part 63 Subpart DDDDD

Section II: Emissions Units Information

TABLE II.A: EMISSIONS UNITS DESCRIPTION				
Emissions Unit	**Emissions Unit Description**	**Control Unit Description**	**Monitoring Unit Description**	**Permit, Order, Registration, or Regulation Number**
	Maximum Rated Capacity: 80 MMBtu/hr (HHV)			
EU-52	Emergency Generator Make: Caterpillar Model: 3516C Installation Date: Under Construction Maximum Rated Capacity: 19.1 gal/hr MMBtu/hr	None	Continuously monitor fuel consumption to the generator using non-resettable totalizing fuel meter	Permit No. 015-0301 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ
EU-53	Emergency Fire Pump Engine (Ancillary equipment) Make: Cummins Model: CFP9E-F60 Installation Date: Under Construction Maximum Rated Capacity: 2.6 MMBtu/hr (HHV)	None	Continuously monitor fuel consumption to the engine using non-resettable totalizing fuel meter	Permit No. 015-0299 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ
EU-54	Cooling Tower (Ancillary equipment) Make: SPX Model: NC 8411WCN-03 Installation Date: Under Construction Maximum Rated Capacity: 13,000 gal/min	Drift Eliminators	None	Permit No. 015-0299
GEU-1	Separate small emission units consisting of: building space heaters, makeup air heaters, and HVAC units Make: Various	None	Continuously monitor fuel consumption to the heaters using a single non-resettable	Permit No. 015-0299

Section II: Emissions Units Information

TABLE II.A: EMISSIONS UNITS DESCRIPTION				
Emissions Unit	**Emissions Unit Description**	**Control Unit Description**	**Monitoring Unit Description**	**Permit, Order, Registration, or Regulation Number**
	Model: Various Installation Date: Under Construction Maximum Rated Capacity: 17.67 MMBtu/hr (HHV) (Maximum aggregate total)		totalizing fuel meter	

Section II: Emissions Units Information

B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios and Alternative Operating Scenarios without notifying the commissioner, provided that such operations are explicitly provided for and described in Table II.B. There are no Alternate Operating Scenarios for the premises.

TABLE II.B: OPERATING SCENARIO IDENTIFICATION

Emissions Units Associated with the Scenario	Description of Scenario
EU-3	Operates on very low sulfur sub-bituminous coal and higher sulfur bituminous coal and uses No. 2 fuel oil on startup. It is equipped with an in-line heater (No. 2 fuel oil fired) that removes excess moisture from coal prior to combustion. An ESP and fabric filter baghouse control particulate emissions. A low NO_x burner controls NO_x emissions. Activated carbon and dry sorbent injection systems, both upstream of the fabric filter baghouse, control Hg and acid emissions, respectively, during coal burning.
EU-4	Operates on aviation fuel, Jet Fuel A or equivalent. The unit is used to generate electric power only when electric energy supply and demand requires.
EU-6	Operates as needed on ultra-low sulfur diesel (ULSD) fuel with less than 0.0015% sulfur on a dry weight basis
EU-50	Combustions turbine, duct burners and HRSG operate in any of the following modes: Mode 1-Turbine operating on natural gas without duct firing Mode 2- Turbine operating on natural gas with duct firing Mode 3- Turbine operating on ULSD without duct firing Mode 4-Turbine operating on ULSD with duct firing
EU-51	Operates on natural gas
EU-52	Operates on diesel fuel
EU-53	Operates on diesel fuel
EU-54	Mechanical draft auxiliary cooling tower to support EU-50 operations
GEU-1	Operates on natural gas

Section III: Applicable Requirements and Compliance Demonstration

The following contains summaries of applicable regulations and compliance demonstration for each identified Emissions Unit and Operating Scenario, regulated by this Title V permit.

A. EU-3 (Combustion Engineering Steam Generator with in-line heater and Dense Pack Turbine, BHS No. 3)
Subject to: Permit No. 015-0089, TAO No. 8367, RCSA §22a-174-22c (CAIR), CGS §22a-199, 40 CFR Part 63 Subpart UUUUU, 40 CFR Parts 72-78 (Acid Rain) and 40 CFR Part 75

1. Sub-Bituminous and Bituminous Coal

a. Limitation or Restriction

i. The firing rate of coal shall not exceed 230 tons/hr @ 400 MW net electrical output, daily average. [Permit No. 015-0089]

ii. The annual coal usage shall not exceed 2,014,800 tons over any consecutive 12 months. [Permit No. 015-0089]

iii. The sulfur content of the coal shall not exceed 1.0% by weight (dry basis). [Permit No. 015-0089]

b. Monitoring Requirements

i. The Permittee shall monitor monthly and annual fuel consumption. [Permit No. 015-0089]

ii. The Permittee shall monitor the maximum daily average heat input rate by recording the net electrical output. [Permit No. 015-0089]

iii. The commissioner shall have the right to make on-site, unscheduled inspection visits for the purpose of taking coal samples, examining and copying records, reports, and other data, and determining whether the Permittee is operating the emission unit in compliance with all applicable environmental requirements. [Permit No. 015-0089]

c. Record Keeping Requirements

i. The Permittee shall make and keep records of monthly fuel use by each unit, including the type(s) of fuel and amount(s) used. [Permit No. 015-0089; 40 CFR §63.10032(d)(1)]

ii. The Permittee shall make and keep records of the daily average net electrical output. [Permit No. 015-0089]

iii. The Permittee shall make and keep records of the types and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. [40 CFR §63.10021(e)(8)(iii)]

iv. The Permittee shall keep the following: records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR §63.10(b)(2)(viii). [Permit No. 015-0089; 40 CFR §63.10032(a)(2)]

d. Reporting Requirements

The Permittee shall submit to the commissioner and the Administrator a compliance report in accordance with 40 CFR §63.10031(b). The compliance report shall contain the following information: The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination from EPA or the Permittee's basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.
[Permit No. 015-0089; 40 CFR §63.10031(c)(2)]

2. No. 2 Fuel Oil

a. Limitation or Restriction

i. The firing rate of No. 2 fuel oil shall not exceed 27,517 gal/hr. [Permit No. 015-0089]

ii. The annual No. 2 fuel oil usage shall not exceed 241,048,920 gallons over any consecutive 12 months. [Permit No. 015-0089]

iii. The sulfur content of the No. 2 fuel oil shall not exceed 0.3% by weight (dry basis). [Permit No. 015-0089]

b. Monitoring Requirements

The Permittee shall monitor monthly and annual fuel consumption. [Permit No. 015-0089]

c. Record Keeping Requirements

i. The Permittee shall make and keep records of monthly and annual No. 2 fuel consumption. The Permittee shall make these calculations within 30 days of the end of the previous month or year, respectively. [Permit No. 015-0089]

ii. The Permittee shall make and keep records of the fuel certification for each delivery of No. 2 fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by this 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. [Permit No. 015-0089]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. PM-Fugitive Emissions from Coal and Ash Handling, Storage, and Processing

a. Limitation or Restriction

The Permittee shall implement a dust control plan concerning the handling, storage, and processing of coal sufficient to cause compliance with RCSA §22a-174-18, Fugitive Dust, to be achieved at all times.

Such plan may include, but is not limited to, such dust control measures and techniques as the use of: enclosures, vacuum enclosure collection systems and filters, specialized loading procedures and transport techniques, spray devices and surface applications, or any other methods necessary to assure compliance. [Permit No. 015-0089]

b. Monitoring Requirements

The Permittee shall operate the coal and ash handling, storage and processing in accordance with the dust control plan on site. [Permit No. 015-0089]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.A.3.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

4. Total Suspended Particulate (TSP)/PM–Fuel Combustion

a. Limitation or Restriction

i. For coal burning, the TSP emissions shall not exceed 0.06 lb/MMBtu of heat input. [Permit No. 015-0089; RCSA §22a-174-18(e)(1)]

ii. For No. 2 fuel oil burning, the TSP emissions shall not exceed 0.02 lb/MMBtu of heat input. [Permit No. 015-0089; RCSA §22a-174-18(e)(1)]

iii. The ESP's minimum efficiency for operations without the fabric filter is 98%. [Permit No. 015-0089]

iv. The Permittee shall properly operate the control equipment (i.e., ESP and fabric filter) at all times that this equipment is in operation and emitting air pollutants. [Permit No. 015-0089]

v. For coal burning, the filterable PM shall not exceed 0.03 lb/MMBtu or 0.3 lb/MWh (gross output) [Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 2, Item No. 1.a]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the emissions limits shall be met by calculating the emissions rate using emissions factors from: stack test results or latest version of AP-42 for coal and AP-42, Fifth Edition, Volume 1, Table1.3-1, May, 2010 for No. 2 fuel oil. [Permit No. 015-0089]

ii. For coal firing and for a qualifying LEE (Low Emitting EGU (Electric Utility Steam Generating Units)) for PM emission limits, performance test emissions results shall be less than 50% of the

applicable emission limit in 40 CFR Part 63 Subpart UUUUU, Table 2 for all required testing for three consecutive years. [Permit No. 015-0089; 40 CFR §63.10005(h)(1)(i)]

iii. For coal firing, the Permittee shall repeat the performance test once every three years for PM according to 40 CFR Part 63 Subpart UUUUU, Table 5 and 40 CFR §63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur: [Permit No. 015-0089; 40 CFR §63.10006(b)(1)]

(A) The Permittee shall conduct emission testing quarterly, except as otherwise provided in 40 CFR §63.10021(d)(1).

iv. For coal firing, the Permittee may skip performance testing in those quarters during which less than 168 unit operating hours occur, except that a stack test shall be conducted at least once every calendar year. [Permit No. 015-0089; 40 CFR §63.10021(d)(1)]

c. Record Keeping Requirements

i. The Permittee shall make and keep records of annual TSP emissions. The annual TSP emissions shall be calculated using emissions factors obtained from stack testing or from the latest version of AP-42 and the fuel usage for the calendar year. The Permittee shall make these calculations within 60 days of the end of the previous calendar year. [Permit No. 015-00898]

ii. The Permittee shall make and keep records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR §63.10(b)(2)(viii). [Permit No. 015-0089; 40 CFR §63.10032(a)(2)]

iii. For a unit that qualifies as an LEE under 40 CFR §63.10005(h), keep annual records that document that emissions in the previous stack test(s) continue to qualify for the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation or air pollution control equipment that would cause emissions of the pollutant to increase within the past year. [Permit No. 015-0089; 40 CFR §63.10032(d)(3)]

iv. The Permittee shall make and keep records of monthly and annual operating hours. The Permittee shall make these records within 30 days of the end of the previous month or year, respectively. [Permit No. 015-0089]

d. Reporting Requirements

i. Stack test results shall be reported as follows: PM in units of lb/MMBtu (or lb/MWh gross)

ii. The Permittee shall submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. [Permit No. 015-0089: 40 CFR §63.10030(d)]

iii. The Permittee shall submit to the commissioner and the Administrator a compliance report in accordance with 40 CFR §63.10031(b). The compliance report shall contain the following information:

(A) The Permittee shall report emergency bypass information annually from units with LEE status. [Permit No. 015-0089; 40 CFR §63.10031(c)(6)]

(B) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. If conducting stack tests once every three years to maintain LEE status, consistent with 40 CFR §63.10006(b), the date of each stack test conducted during the previous three years, a comparison of emission level achieved in each stack test conducted during the previous three years to the 50 percent emission limit threshold required in 40 CFR §63.10005(h)(1)(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions. [Permit No. 015-0089; 40 CFR §63.10031(c)(7)]

(C) If the Permittee has a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the cause of the deviation. [Permit No. 015-0089; 40 CFR §63.10031(c)(9)]

iv. The Permittee shall report all deviations as defined in 40 CFR Part 63 Subpart UUUUU in the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A). [Permit No. 015-0089; 40 CFR §63.10031(e)]

v. Within 60 days after the date of conducting each performance test, the Permittee shall submit the performance test reports required by 40 CFR Part 63 Subpart UUUUU to EPA's WebFIRE database by using the Compliance and Emission Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT)(see http://www.epa.gov/ttn/chief/ert/index.html). The Permittee shall also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority in the format specified by the delegated authority.
[Permit No. 015-0089; 40 CFR §63.10031(f)]

4a. Compliance Assurance Monitoring (CAM) Plan for EU-3 only
Research-Cottrell ESP Controls

a. Indicator No. 1: ESP voltage, current, spark rate and power at each Transformer/Rectifier (T/R)

i. *Justification*: The voltage and current are used to help diagnose reductions in power. A reduction in voltage typically relates to higher spark rates indicating increased particulate loading while high voltage with low amperage ratings are typically of dirty collector plates and wires. Stable coal firing conditions should have primary voltages and secondary miliampere (mA) values above 150.

The T/R power is the primary indicator of the precipitator T/R performance. The power is a product of the secondary voltage and secondary amperage. The power fluctuates based on the cleanliness of the collector plates/wires, the particulate count in the flue gas and the gas flow velocity. An increase in the spark rate or reduction of voltage or current results in a reduction in power.

The T/R set control system automatically maintains optimum current and voltage conditions at all times. The system also limits the voltage and current below the ratings of each set.

The unit operator monitors the voltage applied to the primary and secondary windings of the transformer, the current in the primary windings, the total average Direct Current (DC) output of the silicon rectifier, and the average sparking rate in the precipitator on the plant data acquisition system.

ii. *Measurement Approach*: Plant data acquisition system and voltage/current output-limiting device.

iii. *Indicator Range or Designated Conditions*: If power levels, operating voltages, amperages, or spark rate of any of the precipitator fails show considerable variation (greater than 70%) as compared to adjacent T/R sets.

Sustained (six minutes in duration or more) precipitator side total power levels below 125 kW or individual precipitator T/R set power levels below 5 kW while firing coal shall be investigated.

iv. *Corrective Action*: Solutions to mechanical type problems:

(A) *Rapper failure*: This is a potential cause of dust accumulation. The ESP use magnetic impulse/gravity impact type rappers. A common cause of failure of this type of rapper is a short in the coil that lifts the rapper. Methods of correcting this problems include:

(1) Repairing the defective rapper

(2) Rebuilding the defective rapper

(3) Replacing the defective rapper with a new one.

(B) *Dust build-up with rappers in good operating orders*: The following equipment control procedures can be used:

(1) Increase rapping frequency (this is a good first choice. Frequent checks of electrical characteristics through the precipitator will indicate the success of this procedure. If increased rapping intensity is required, the increase should not exceed 50% because of the potential for damage to the precipitator).

(2) Increase rapping intensity.

(3) Should either of the above activities fail to clear the dust accumulation, a procedure called “power down” rapping can be employed. This technique involves removing or reducing the power from the field (usually one field is turned off and rapped at a time) and rapping that field for a period of 15 minutes to an hour. This technique is also routinely employed for EU-3 as a preventive measure.

(C) *Wire breaks*: Random wire breaks (up to 10% of the total wires in the ESP) will not significantly affect ESP performance. Wire breaks will be repaired during the yearly plant shutdown if the percent breakage approaches the 10% total or specific gas pass sections have abnormally high wire losses. However, if more than 10% of the total wires are broken then corrective action will be implemented within the time necessary to shut down the combustion process without damaging the process equipment or control equipment, and without leaving the electrical grid system with a shortage of generating capacity. If records show that wire breaks occur in the same area of the precipitator, additional troubleshooting and corrective action will be initiated.

Wire failure mechanisms include: electrical erosion, mechanical erosion, corrosion, or a combination of the three. The most common of these is a failure at a plate/wire misalignment point or where the wire passes the edge of the plates in the collecting field (end effect). Correction of this problem involves realignment of the plates and/or placing a wire shroud

that extends 6 to 18 inches from each end of the plugged ash hopper.

(D) *Plugged ash hopper*: When a plugged ash hopper is detected, immediate action needs to be taken to clear and empty the unit. This problem will be given a high priority for correction because long term precipitator performance can be reduced. Causes of hopper plugging include: obstructions due to fallen wires and/or bottle weights, inadequately sized solids removal equipment, use of the hopper for dust storage, inadequate insulation or heating of the hopper and air infiltration through access doors. Corrective actions include:

(1) Verification of the ash removal system operation.

(2) Roding/poking of the hopper to dislodge the accumulated ash. If necessary, place the T/R controller for the field above the hopper in the manual mode to reduce the collection rate until the hopper is emptied. If the hopper is completely filled and the T/R has not tripped automatically, it should be turned off until the hopper has been cleared.

(3) Reduce cooling effects around the hopper so that ash remains heated and free flowing.

(4) Installation of striker plates on the hopper wall or throat to be used during emptying to dislodge ash build-up.

(E) *Misalignment*: Corrective action for misalignment can only be done during a complete precipitator shutdown. Corrective actions include:

(1) Plate straightening by: hydraulic press, localized heating with an oxy/acetylene torch followed by water quench, remove the warped section of a plate with a cutting torch and replace. Major rebuilding will require removal of the top of the precipitator and replacement of entire plates.

(2) Wire correction: Bent wire frames or lower guide frames often cause the wires to slacken and bow towards the plates. Distorted lower guide frames are often difficult to straighten and may have to be replaced. If the distortion is not too serious and only a few wires are slack, then they can be removed. The wires can be tightened by crimping them in the direction of gas flow, or by lowering the support pigtail.

(3) General misalignment caused by a shift in guide frame components can usually be corrected by realigning the frame.

(F) *Air infiltration*: Routine inspections of the precipitator will reveal any locations of leakage into/out of the unit. Correction of this problem involves simple sealing of the leaking joint, surface or door latch gasket.

v. *Data Representativeness*: The T/R set control system automatically maintains optimum current and voltage conditions at all times. The system also limits the voltage and current below the ratings of each set.

vi. *QA/QC*: All instruments and equipment will be calibrated, maintained, and operated according to manufacturer specifications. The Operation and Maintenance Plan will be available for review during normal business hours at the premises.

vii. *Monitoring Frequency*: Daily review of T/R data will give station personnel an indication of any abnormal conditions.

viii. *Data Collection Procedures*: Performance evaluation will be done via analysis of the recorded T/R set voltage and amperage data.

ix. *Averaging Periods*: Instantaneous Values

x. *Record Keeping*: T/R set data records of voltage and current levels and operations and maintenance checklists, wire breakage record and repair work orders.

All records will be kept and maintained at the premises for a period of five years and will be available for review upon request by a regulating agencies.

xi. *Reporting*: Reports that include times and duration of all instances of data recorded that were outside of an indicated performance range.

The report will also contain information on the corrective actions that were promptly taken or a statement that all readings were within the performance range.

xii. *Frequency*: The voltage, current, and power for each T/R sets are measured continuously.

b. Indicator No. 2: Continuous Opacity Monitoring (COM)

i. *Justification*: The opacity of particulate matter in stack is continuously monitored by a measurement system based upon the principle of transmissometry. Light having specific spectral characteristics is projected from a lamp through the effluent in the stack, and the intensity of the projected light is measured by a sensor. The projected light is attenuated because of absorption and scattered by the particulate matter in the effluent; the percentage of visible light attenuated is defined as the opacity of the emission. Transparent stack emissions that do not attenuate light will have a transmittance of 100% or an opacity of 0%. Opaque stack emissions that attenuate all of the visible light will have a transmittance of 0% or an opacity of 100%.

Compliance with the six minute block (20% opacity) and one minute block (40% opacity) may indicate compliance with the PM limit.

In general, individual precipitator power T/R set power less than 5 kW during normal operation results while firing coal shall be investigated. During abnormal operation or malfunction, the ESP power levels may be appreciably lower than normal operational levels.

Monitoring required under 40 CFR Part 60, Appendix B and RCSA §22a-174-4(b).

ii. *Measurement Approach*: Stack COM. Also north and south duct COMs are used as troubleshooting tool.

iii. *Indicator Range or Designated Conditions*: Except during periods of startup, shutdown or malfunction; commissioner-approved stack testing; or intentional sootblowing, fuel switching or sudden load changing done in accordance with good engineering practices, when opacity levels exceed 20% opacity during any six-minute block average; or 40% opacity during any one-minute block average.

iv. *Corrective Action*: Any ESP power levels that are appreciably lower than normal operational levels may be an indication of abnormal operation or malfunction. Precipitator side total power levels below 125 kW or individual precipitator T/R set power levels below 5 kW while firing coal shall be investigated. The corrective action for Indicator No. 1 should be followed.

Any ESP power levels that are appreciably lower than normal operational levels may be an indication of abnormal operation or malfunction. Precipitator side total power levels below 125 kW or individual precipitator T/R set power levels below 5 kW while firing coal shall be investigated. The corrective action for Indicator No. 1 should be followed.

v. *Data Representativeness*: The opacity readings are taken in accordance with 40 CFR Part 60, Appendix B and RCSA §22a-174-18.

vi. *QA/QC*: All instruments and equipment will be calibrated, maintained, and operated according to manufacturer specifications.

Opacity readings are taken in accordance with 40 CFR Part 60, Appendix B and RCSA §22a-174-18.

The Operation and Maintenance Plan will be available for review during normal business hours at the premises.

vii. *Monitoring Frequency*: Continuously

viii. *Data Collection Procedures*: Performance evaluation will be done by reviewing the opacity monitoring data.

ix. *Averaging Periods*: Six minute block (20% opacity) and one minute block (40% opacity)

x. *Record Keeping*: COM one-minute block and six-minute block averages

All records will be kept and maintained at the premises for a period of five years and will be available for review upon request by a regulating agencies.

xi. *Reporting*: Reports that include times and duration of all instances of data recorded that were outside of an indicated performance range.

The report will also contain information on the corrective actions that were promptly taken or a statement that all readings were within the performance range.

xii. *Frequency*: The opacity readings are measured continuously.

c. Daily Sets Inspection

i. Operation of the dust discharge system: All conveyors, airlocks, valves, and other associated equipment should be operating so that ash removal is optimal.

ii. Vacuum system: Check vacuum gauges. This gauge will be used as a reference during ash and dust removal with the ash equipment system.

iii. Check indicator lights on the hopper level alarm system.

iv. Check hopper access doors for air leaks or dust discharge.

v. Check for air leaks around the precipitator.

d. Annual Inspection of Plates

i. Make sure there are no holes. If any are found they are to be patched. If they are out of reach, the wires that will be affected must be dropped.

ii. Make sure they are aligned.

(A) Plates should be 9 inches apart

(B) Plate to wire should be 4 ½ inches, ¼ to ½ is an acceptable deviation. Anything more should be noted and plans should be made to align the field.

(C) Opzel fin to nearest wire should be 5-6 inches on both sides.

iii. Inspect the fly ash accumulation on the plates.

iv. Lightly bang plates from the top with a hammer to get the ash to drop.

v. Abrasive cleaning of the wires and plates will be done if manual rapping and shaking does not prove to be effective.

e. Annual Inspection of Wires

i. Inspect and make sure that none are missing, if so they should be repaired or replaced as deemed necessary.

ii. Making sure all the bottles are attached, if any are missing, they should be replaced. Inspect the accumulation on the wires.

iii. The wires should be shaken from the top and sides.

iv. Abrasive cleaning of the wires and plates will be done if manual rapping and shaking does not prove to be effective.

f. Annual Inspection of Inlet, Outlet Ducts and Side Walls

i. Make sure there are no holes, if any are found they must be fixed.

ii. Look for excessive moisture on the ceiling and walls, if any is found look extensively for the leak(s) so that they may be fixed.

iii. Shake or bang perforated plates on both the inlet and outlet to shake off ash. Make sure that all of the holes are unclogged so that the proper airflow is achieved when online.

iv. Evacuate all ash.

g. Annual Inspection of the Penthouse

i. Kick pipe nipples and caps, if they break off, new ones should be put in their place or the old ones repaired.

ii. Inspect support insulators and make sure there are no breaches. If there are, the insulators should be replaced.

iii. Tug on all high voltage cables. Make sure they are taught, snug, and are making good contact.

iv. Inspect all access doors and edges.

(A) Look for corrosive holes on the hatch edges. If any are found they must be patched.

(B) Look for holes in the insulation on the hatch door. If any are found they can be caulked using a high temperature room-temperature-vulcanizing (RTV) caulk or patched.

(C) Look for corroded gaskets on the hatch doors. If any are found they must be replaced.

v. Inspect all grounding sticks and wires. Replace if needed.

vi. Clean all high voltage insulators and support insulators using non-residual cleaning solution (colanite insulator cleaner is normally used, but a dilution of vinegar and water can also be used).

h. Annual Inspection of the Hoppers

i. All hoppers should be sucked clean through the bottom ash valve and access door.

ii. All hopper access doors should be opened to inspect the doors and hatch edges.

(A) Look for corrosive holes on the hatch edges. If any are found, they must be patched.

(B) Look for holes in the insulation on the hatch door. If any are found, they can be caulked using a high temperature RTV caulk or patched.

(C) Look for corroded gaskets on hatch doors. If any are found, they must be replaced.

i. Annual Inspection of the Roofs

i. Open the back of all T/R's and inspect all of the high voltage bushings for cracks. If they are cracked, spray with Gliptol, or replace bushing.

ii. Clean all high voltage insulators using non-residual cleaning solution (Colanite insulator cleaner is normally used, but a dilution of vinegar and water can also be used).

iii. Inspect all rappers, boots, and conduit. Make sure there are no holes or leaks in the boots, rappers are all intact, and that all conduit is closed and secure with no exposed wires.

j. Annual Inspection of the Controls

i. Check programming variables on T/R and rapper controls. Make sure they match up with data sheet.

ii. Check Max Limits and ensure they match data sheet.

iii. Make changes in program variables if necessary.

iv. Check resistance readings on resistor boards for any mA and Kilovolts (kV) feedback signals. Should meet manufacturers' specifications.

v. Enter sequence code to check rapper rows. Walk down the rappers and check the status on each. If any are not meeting expectations, make a notification or work order to test and replace.

k. Testing Requirements

The Permittee shall perform particulate matter stack tests at least once every five years from the date of the last particulate matter stack test.

5. CO

a. Limitation or Restriction

There are no CO limitations or restrictions for this emission unit.

b. Monitoring Requirements

Record keeping specified in Section III.A.5.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall maintain on-site and submit, if requested by the Administrator, an annual report containing the following information:
[Permit No. 015-0089; 40 CFR §63.10021(e)(8)(i)]

(A) The concentration of CO in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the unit's combustions systems.

(B) A description of any corrective actions taken as a part of the combustion adjustment.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

6. SO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following SO_x emission limit when operating on coal: 1.1 lb/MMBtu (24 hour average). [Permit No. 015-0089]

ii. The Permittee shall: [Permit No. 015-0089; RCSA §22a-174-19a(e)]

(A) Combust liquid fuel that possesses a fuel sulfur limit equal to or less than 3000 ppm (0.3% sulfur, by weight);

(B) Meet an average emission rate of equal to or less than 0.33 lb SO_2/MMBtu for each calendar quarter; or

(C) Meet an average emissions rate of equal to or less than 0.3 lb SO_2/MMBtu calculated for each calendar quarter, if the Permittee averages the emissions from two or more emissions units at the premises.

b. Monitoring Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4. CEM shall be required for SO_x. [Permit No. 015-0089]

ii. Demonstration of compliance with the emissions limits shall be met by calculating the emissions rate using emissions factors from: CEMS Data for coal and No. 2 fuel oil. [Permit No. 015-0089]

iii. The Permittee shall use data recorded by the CEM and any other records and reports to determine compliance with SO_x emissions. [Permit No. 015-0089]

c. Record Keeping Requirements

i. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1), the Permittee shall make and keep records in accordance with the following: [RCSA §§22a-174-19a(i)(1)(A) and (B)]

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the Permittee shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the Permittee shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1). Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82, or a more recent version of the same method. (Copies of ASTM test methods referenced in this section may be obtained from the Department of Environmental Protection, Bureau of Air Management, 79 Elm Street, 5th floor, Hartford, CT 06106-5127; (860) 424-3027).

ii. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the average SO_2 emission rate limits of RCSA §22a-174-19a(e)(2) or (e)(3), the Permittee shall make and keep records in accordance with the following: [RCSA §§22a-174-19a(i)(2)(A) and (C)]

(A) For affected units that are also Title IV sources, hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75;

(B) For all affected units, quarterly facility SO_2 emission rate averages, determined by dividing total quarterly SO_2 emissions by total quarterly heat input values for all affected units at the facility.

iii. The Permittee unit shall keep the records specified in RCSA §22a-174-19a(1) or (2) at the premises for a period of five years. [RCSA §§22a-174-19a(i)(3)]

j. Reporting Requirements

The Permittee of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to RCSA §22a-174-33(q)(2), certify in writing to the commissioner compliance with the applicable provisions of RCSA §22a-174-19a. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit. [RCSA §§22a-174-19a(j)(1)]

7. NO_x

a. Limitation or Restriction

i. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO_x allowable emission limits (AEL) when operating on coal, except when Discrete Emission Reduction Limits (DERCs) are used for compliance:
[Permit No. 015-0089; TAO No. 8367, Table 1; RCSA §§22a-174-22e(d)(2)(A) and (B)]

(A) 0.28 lb/MMBtu (24 hour daily average)

(B) 0.15 lb/MMBtu

ii. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO_x emission limits when operating on coal: [Permit No. 015-0089; RCSA §§22a-174-22e(d)(2)(C) and (D)]

(A) 0.12 lb/MMBtu (24 hour daily average)

(B) 0.15 lb/MMBtu (Non Ozone Season: October 1st – April 30th)

iii. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO_x AEL when operating on No. 2 fuel oil, except when DERCs are used for compliance:
[Permit No. 015-0089; TAO No. 8367, Table 1; RCSA §§22a-174-22e(d)(2)(A) and (B)]

(A) 0.20 lb/MMBtu (24 hour daily average)

(B) 0.10 lb/MMBtu (Ozone Season: May 1st – September 30th)

(C) 0.15 lb/MMBtu (Non-Ozone Season: October 1st – April 30th)

iv. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO_x emission limits when operating on No. 2 fuel oil: [Permit No. 015-0089; RCSA §§22a-174-22e(d))(2)(C) and (D)]

(A) 0.10 lb/MMBtu (24 hour daily average)

(B) 0.15 lb/MMBtu (Non-Ozone Season: October 1st – April 30th)

v. When firing dual fuels (i.e. start-ups, flame stabilization and in-line heater), the Permittee shall not cause or allow emissions of NO_x from such emission unit in excess of the following: [RCSA §§22a-174-22e(d)(10)(A) and (B)]

(A) For fuel burning equipment that simultaneously fires two or more fuels, an emission limitation calculated by:

(1) Multiplying the heat input of each fuel combusted by the emissions limitation in RCSA §22a-174-22e(d)(10) for the particular emission unit and fuel used,

(2) Summing those products, and

(3) Dividing the sum by the total heat input; or

(B) For fuel burning equipment that is capable of interchangeably firing two or more fuels, the emissions limitation in RCSA §22a-174-22e(d)(10) for the particular equipment and fuel used.

vi. The Permittee may use emissions trading, subject to the provisions of TAO No. 8367 until the earlier of: [TAO No. 8367, B.1]

(A) May 31, 2023

(B) The commissioner issues written notice to the Permittee stating that the Permittee is no longer allowed to use emissions trading due to the Permittee's violation of any provision of TAO No. 8367; or

(C) The commissioner issues written notice to the Permittee notifying the Permittee that the commissioner has determined the use of emissions trading as a compliance option has been further restricted, modified or nullified by:

(1) The promulgation of and Act, Statute, or Regulations; or

(2) The issuance of a judgement or court order.

vii. While using emissions trading in accordance with TAO No. 8367, the Permittee shall obtain and use sufficient DERCs in such a manner as to comply with this Title V permit. All DERCs used during the Ozone season for the emission unit, shall have been generated during an Ozone season. [TAO No. 8367, B.2]

viii. For the purposes of compliance with RCSA §22a-174-22e and the provisions of TAO No. 8367, DERCs shall only remain valid for five calendar years from the year of the generation of such

DERCs. DERCs older than five calendar years from their creation are not valid for use for compliance with RCSA §22a-174-22e and the provisions of TAO No. 8367. Ozone season DERCs generated by an Affected Unit during 2013 shall remain valid until December 31, 2018. [TAO No. 8367, B.3]

ix. When operating the emission unit during the Ozone Season, the Permittee shall operate the unit while firing or co-firing the lowest NO_x emitting fuel type or combination of fuel types that the unit is physically able to burn to achieve the unit's rated electricity output, according to the Independent System Operator-New England (ISO NE), and that the Permittee is authorized to burn in accordance with Departmental permit, registration, or applicable regulation. [TAO No. 8367, B.4]

x. During the Ozone Season, the Permittee may operate the emission unit on fuels that result in higher emissions of NO_x, if either: [TAO No. 8367, B.5.a-c]

(A) The availability of fuel oil that complies with the lowest NO_x emitting fuel type is inadequate to meet the needs of residential, commercial, and industrial users in this state and that such inadequate supply constitutes an emergency;

(B) The supply of gaseous fuels to the emission unit is: interrupted, otherwise unavailable due to inadequate supply within the supply area, or curtailed in accordance with an interruptible supply agreement between the Permittee and the gaseous fuel supplier; or

(C) The unit is operating in order to conduct testing required by any governmental agency or auditing/testing required to demonstrate the ability to satisfy commitments made to ISO NE in the Forward Capacity and/or Locational Forward Reserve Markets.

b. Monitoring and Testing Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4. CEM shall be required for NO_x. [Permit No. 015-0089]

ii. Demonstration of compliance with the emissions limits shall be met by calculating the emissions rate using emissions factors from: CEMS data for coal and No. 2 fuel oil. [Permit No. 015-0089]

iii. The Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO_x emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [Permit No. 015-0089; RCSA §22a-174-22e(d)(19)]

iv. The Permittee shall calculate an emission unit's ozone season emission rate as the sum of the emission unit's NO_x emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the emission unit's heat input while firing the applicable fuel during the period from May 1 through September 30 inclusive. [Permit No. 015-0089; RCSA §22a-174-22e(d)(20)]

v. The Permittee shall collect quality assured CEM data for all emission unit operating conditions. Data collection shall include periods of startup or shutdown, monitoring system malfunctions, out-of-control periods, while conducting maintenance or repairs, and periods of required monitoring system quality assurance or quality control activities, such as calibration checks and required zero and span adjustments. [Permit No. 015-0089; RCSA §22a-174-22e(m)(2)]

vi. Emissions data used to determine compliance with the applicable emissions limitations of RCSA §22a-174-22e(d) shall not include data collected during the following periods: [Permit No. 015-0089; RCSA §22a-174-22e(m)(3)]

(A) When the monitoring system is out-of-control as specified in the facility-specific monitoring plan;

(B) While conducting required monitoring system quality assurance or quality control activities, including calibration checks and required zero and span adjustments;

(C) While conducting maintenance or repairs of the monitoring system to prevent or correct a malfunction; or

(D) When the emission unit is not operating.

vii. Compliance with the seasonal limits of RCSA §22a-174-22e(d) shall be determined using emissions and operating data for the entire five-month period for an ozone season emissions limitation or for the entire seven-month period for a non-ozone season emissions limitation, except for the 2018 or 2023 ozone season, compliance shall be determined based on data collected June 1 through September 30. [Permit No. 015-0089; RCSA §22a-174-22e(m)(5)]

viii. The Permittee shall use data recorded by the CEM and any other records and reports to determine compliance with NO_x emissions. [Permit No. 015-0089]

ix. On the first day of each calendar month, the Permittee shall possess a quantity of DERCs that equals or exceeds the quantity of Actual DERCs Required in that month. Compliance with TAO No. 8367 shall be determined as follows: [TAO NO. 8367, B.6, a & b]

(A) Before the first day of each month, the Permittee shall estimate DERCs required for such calendar month for each emission unit as follows:

Estimated DERCs Required={(Estimated fuel use in MMBtu) x ((estimated 24-hr average NO_x emission rate in lb/MMBtu) – (0.95 x AEL))} ÷ 2000 lbs/ton

(B) No later than the 20th day of each month, the Permittee shall calculate actual DERCs used in the preceding calendar month for the emission unit as follows:

Actual DERCs Required=Σ{(Daily fuel use in MMBtu) x ((actual 24-hr average emission rate in lb/MMBtu) – (0.95 X AEL))} ÷ 2000 lbs/ton

For all days in the month where actual 24-hr average emissions rate > AEL

x. On the first day of each Ozone Season, the Permittee shall possess a quantity of DERCs that equals or exceeds the quantity of Ozone Season Actual DERCs Required for that Ozone Season. Compliance shall be determined as follows: [TAO No. 8367, B.7]

(A) Before the first day of each Ozone Season, the Permittee shall estimate DERCs required for that Ozone Season for the emission unit based on the average actual NO_x emission rate from the emission unit as follows:

Estimated Ozone Season DERCs Required =

{(Estimated Ozone Season fuel use in MMBtu) x ((Estimated average NO_x Emission Rate in lb/MMBtu) - (0.95 x Ozone Season Average AEL in lb/MMBtu))} ÷ 2000 lbs/ton

(B) No later than 30 days after the end of each Ozone Season, the Permittee shall calculate Actual Ozone Season DERCs used during that Ozone Season for each emission unit as follows:

Actual Ozone Season DERCs Required =

{(Actual Ozone Season fuel use in MMBtu) x ((Ozone Season Average Actual NO_x Emission Rate in lb/MMBtu) - (0.95 x Ozone Season Average AEL in lb/MMBtu))} ÷ 2000 lbs/ton– Σ(DERCs Required for all months of the Ozone Season calculated)

xi. On the first day of each Non-Ozone Season, the Permittee shall possess a quantity of DERCs that equals or exceeds the quantity of Non-Ozone Season Actual DERCs Required for that Non-Ozone Season for the emission unit. Compliance with TAO No. 8367 shall be determined as follows: [TAO No. 8367, B.8, a and b]

(A) Before the first day of each Non-Ozone Season, the Permittee shall estimate DERCs required for that Non-Ozone Season for the emission unit based on an emission limit of 0.15 lb/MMBtu as follows:

Estimated Non-Ozone Season DERCs Required={(Estimated Non-Ozone Season fuel use in MMBtu) x ((estimated average NO_x Emission Rate in lb/MMBtu) – (0.95 x 0.15 lb/MMBtu))} ÷ 2000 lbs/ton

(B) No later than 30 days after the end of each Non-Ozone Season, the Permittee shall calculate Actual Non-Ozone Season DERCs used during that Non-Ozone Season for the emission unit as follows:

Actual Non-Ozone Season DERCs Required={(Actual Non-Ozone Season fuel use in MMBtu) x ((Non-Ozone Season Average Actual NO_x Emission Rage in lb/MMBtu) – (0.95 x 0.15 lb/MMBtu))} ÷ 2000 lbs/ton- Σ(DERCs Required for all months of the Non-Ozone Season calculated)

xii. No later than 30 days after the end of the Ozone Season, the Permittee shall calculate actual DERCs generated during the Ozone Season from the emission unit as follows: [TAO No. 8367, B.9]

Actual Ozone Season DERCs Generated = {Ozone Season fuel use in (MMBtu) x [(Ozone Season Average AEL in lb/MMBtu) – Ozone Season average emission rate (lb/MMBtu)]} ÷ 2000 lbs/ton

Where:
Ozone Season Average Emission Rate < AEL; and

Ozone Season fuel use and Ozone Season Average Emission rate shall exclude data substituted in accordance with any missing data substitution procedures, including those allowed under RCSA §22a-174-22c and 40 CFR Part 75.

xiii. No later than 30 days after the end of the Non-Ozone Season, the Permittee shall calculate actual DERCs generated during the Non-Ozone Season from the emission unit as follows:
[TAO No. 8367, B.10]

Actual Non-Ozone Season DERCs Generated = {Non-Ozone Season fuel use in (MMBtu) x [(0.15 lb/MMBtu) – Non-Ozone Season average emission rate (lb/MMBtu)]} ÷ 2000 lbs/ton

Where:
Non-Ozone Season Average Emission Rate < 0.15 lb/MMBtu; and

Non-Ozone Season fuel use and Non-Ozone Season Average Emission rate shall exclude data substituted in accordance with any missing data substitution procedures, including those allowed under RCSA §22a-174-22c and 40 CFR Part 75.

xiv. The Permittee shall retire 10% of all DERCs (tons) generated by the emission unit, prior to use, and shall deduct them from any calculations of DERCs available and possessed by the Permittee to assure a benefit to the environment. [TAO No. 8367, B.11]

xv. On or before January 31 of each calendar year, the Permittee shall deduct a quantity of DERCs from the current balance of DERCs possessed by the Permittee such that the total is equal to 0 or the sum of (Actual DERCs Required for the preceding calendar year) – 0.9 x (Actual DERCs Generated in the preceding calendar year) for the emission unit, whichever is greater.
[TAO No. 8367, B.12]

xvi. Not more than 90 days after the completion of the Non-Ozone Season, the Permittee shall deduct a quantity of DERCs from the current balance of DERCs possessed by the Permittee such that the total is equal to 0 or the total of (Actual Non-Ozone Season DERCs Required for the most recently completed Non-Ozone Season) – 0.9 x (Actual Non-Ozone Season DERCs Generated in the most recently completed Non-Ozone Season) for the emission unit, whichever is greater.
[TAO No. 8367, B.13]

c. Record Keeping Requirements

i. On and after 5/1/18, the Permittee shall make and keep the following records:

(A) For an emission unit that has or is required to have a CEM system for NO_x:
[Permit No. 015-0089; RCSA §22a-174-22e(j)(2)(D)]

(1) Records of all performance evaluations, calibration checks and adjustments on such monitor,

(2) A record of maintenance performed,

(3) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3), and

(4) Charts, electronically stored data, and printed records produced by such CEM as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.

ii. Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and
[Permit No. 015-0089; RCSA §22a-174-22e(j)(2)(F)]

iii. Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [Permit No. 015-0089; RCSA §22a-174-22e(j)(2)(G)]

iv. The Permittee shall maintain on-site and submit, if requested by the Administrator, an annual report containing the following information:
[Permit No. 015-0089; 40 CFR §63.10021(e)(8)(i)]

(A) The concentration of NO_x in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the unit's combustions systems.

(B) A description of any corrective actions taken as a part of the combustion adjustment.

v. The Permittee shall make and keep records sufficient to demonstrate compliance with all applicable requirements of RCSA §22a-174-22c and the standard requirements of the CAIR permit application. [RCSA §22a-174-33(j)(1)(K)(ii)]

vi. The Permittee shall make and keep records including, but not limited to, the following:
[TAO No. 8367, B.15, a-k]

(A) By the close of each calendar day, the Permittee shall record the actual 24-hour average NO_x emission rate for any emission unit equipped with an approved CEMS, the actual fuel type and the actual quantity of each type of fuel in units of volume per day or MMBtu per day for each fuel used on the preceding day in the emission unit;

(B) On or before the first day of each calendar month, the Permittee shall record the number of DERCs and corresponding serial numbers and vintages for all DERCs in its possession on the first calendar day of that calendar month;

(C) On or before the first day of each calendar month, the Permittee shall record the number of DERCs and corresponding serial numbers, vintages, purchase/sales dates, and seller/buyer for all DERCs purchased or sold during the preceding calendar month;

(D) On or before the first day of each calendar month, the Permittee shall record the Estimated DERCs Required for that calendar month;

(E) On or before the 20^{th} calendar day of each calendar month, the Permittee shall record the Actual DERCs Required for the preceding calendar month;

(F) On or before January 31 of each calendar year, the Permittee shall record the Ozone Season Average NO_x emission rate for the emission unit, the Actual DERCs Generated for the preceding ozone season determined and the DERCs retired for environmental benefit;

(G) On or before January 31 of each calendar year, the Permittee shall record the quantity of DERCs possessed on the first day of the Ozone Season and the quantity of DERCS deducted. Such records shall include the seral number and vintage of each DERC deducted from the Permittee's current balance;

(H) Not more than 90 days after the completion of each Non-Ozone Season, the Permittee shall record the Non-Ozone Season Average NO_x emission rate for the emission unit, the quantity of DERCs generated during the Non-Ozone Season, generated during the Non-Ozone Season

and retired for environmental benefit;

(I) Not more than 90 days after the completion of each Non-Ozone Season, the Permittee shall record the quantity of DERCs possessed on the first day of the Non-Ozone Season and the quantity of DERCS deducted. Such records shall include the seral number and vintage of each DERC deducted from the Permittee's current balance

(J) For each month of the Ozone Season, the Permittee shall maintain records attesting to the fact that any DERCs deducted from its balance satisfy the requirements of TAO No. 8367. Generator certification of this fact shall be sufficient; and

(K) On each day during the Ozone Season that the Permittee operates, the Permittee shall make and keep records of all emission unit operation including copies of any written correspondence from the Permittee's fuel supplier detailing the duration and circumstances of the inadequate fuel oil supply or interruption of gaseous fuel supply to the emission unit.

vii. The Permittee shall retain records and supporting documentation required by TAO No. 8367 for a minimum of five years, commencing on the date such records were created. The Permittee shall provide the records to the commissioner within 30 days of receipt of a written request from the commissioner. All records shall be maintained in accordance to RCSA §§22a-174-4 and -22e. [TAO No. 8367, B.16]

d. Reporting Requirements

i. On and after 6/1/18, the Permittee shall submit to the commissioner, on forms provided by the commissioner, written quarterly reports of excess emissions and CEM system malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30 and October 30 of each year and shall include:
[Permit No. 015-0089; RCSA §§22a-174-22e(k)(3)(A)-(G)]

(A) All daily block average data, in a format acceptable to the commissioner, for the three calendar month period ending the month before the due date of the report;

(B) The date and time of commencement and completion of each period of excess emissions;

(C) The magnitude and suspected cause of the excess emissions;

(D) Actions taken to correct the excess emission;

(E) The date and time when each malfunction of the CEM system commenced and ended;

(F) Actions taken to correct each malfunction; and

(G) If not excess emissions or CEM system malfunctions occur during a quarter, the Permittee shall indicate that no excess emissions or malfunctions occurred during the quarter.

ii. On and after 6/1/18, the Permittee shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of any CEM for NO_x. Any such testing shall be conducted in accordance with a testing protocol approved by the commissioner. Any CEM for NO_x shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in RCSA §22a-174-4 and 40 CFR Part 60 Subpart A, Appendix

B and Appendix F, or, for affected units 40 CFR Part 75.
[Permit No. 015-0089; RCSA §22a-174-22e(m)(4)]

iii. No later than March 1 of every year after issuance of TAO No. 8367, the Permittee shall submit to the commissioner a written report containing copies of all the records required in Section III.A.7.c.vi.(A)-(G), Section III.A.7.c.vi.(J) and (K) of this Title V permit. Not later than July 30 of each calendar year, the Permittee shall submit a written report containing copies of all records required pursuant to Section III.A.7.c.vi.(H) and (I) of this Title V permit. The commissioner may prescribe the forms to be used for the submission of these reports. The Permittee shall submit these reports on such forms, if prescribed by the commissioner.
[TAO No. 8367, B.17]

8. Hydrogen Chloride (HCl) (Applicable to Coal Firing Only)

a. Limitation or Restriction

For coal burning, the Permittee shall meet an HCl emission rate of equal to or less than: 0.002 lb/MMBtu or 0.020 lb/MWh (gross).
[Permit No. 015-0089 and 40 CFR §63.9991(a)(1), 40 CFR Part 63 Subpart UUUUU, Table 2, Item No. 1.b]

b. Monitoring and Testing Requirements

i. For coal firing and for a qualifying LEE for HCl emission limits, performance test emissions results less than 50% of the applicable emission limit in 40 CFR Part 63 Subpart UUUUU, Table 2 for all required testing for three consecutive years. [Permit No. 015-0089; 40 CFR §63.10005(h)(1)(i)]

ii. For coal firing, the Permittee shall repeat the performance test once every three years for HCl according to 40 CFR Part 63 Subpart UUUUU, Table 5 and 40 CFR §63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur: [Permit No. 015-0089; 40 CFR §63.10006(b)(1)]

(A) The Permittee shall conduct emission testing quarterly, except as otherwise provided in 40 CFR §63.10021(d)(1).

iii. Any stack test used to demonstrate compliance with the HCl limit shall be conducted in accordance with the EPA's Method 26 or 26A of 40 CFR Part 60 Appendix A-8 or Method 320 of 40 CFR Part 63, Appendix A.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 2, Item No. 1.b]

iv. The Permittee may skip performance testing in those quarters during which less than 168 unit operating hours occur, except that a stack test shall be conducted at least once every calendar year.
[Permit No. 015-0089; 40 CFR §63.10021(d)(1)]

c. Record Keeping Requirements

i. The Permittee shall keep the following records: records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR §63.10(b)(2)(viii). [Permit No. 015-0089; 40 CFR §63.10032(a)(2)]

ii. For a unit that qualifies as an LEE under 40 CFR §63.10005(h), keep annual records that document that emissions in the previous stack test(s) continue to qualify for the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation or air pollution control equipment that would cause emissions of the pollutant to increase within the past year.[Permit No. 015-0089 and 40 CFR §63.10032(d)(3)]

iii. The Permittee shall make and keep records of monthly and annual operating hours. The Permittee shall make these records within 30 days of the end of the previous month or year, respectively. [Permit No. 015-0089]

d. Reporting Requirements

i. Stack test results shall be reported as follows: HCl in units of lb/MMBtu (or lb/MWh gross) [Permit No. 015-0089]

ii. For coal firing, the Permittee shall submit to the commissioner and the Administrator each report by the following dates. Each subsequent HCl compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report shall be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [Permit No. 015-0089; 40 CFR §§63.10031(b)(3) and (4)]

iii. The compliance report shall contain the following information:

(A) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. If conducting stack tests once every three years to maintain LEE status, consistent with 40 CFR §63.10006(b), the date of each stack test conducted during the previous three years, a comparison of emission level achieved in each stack test conducted during the previous three years to the 50% emission limit threshold required in 40 CFR §63.10005(h)(1)(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions. [Permit No. 015-0089; 40 CFR §63.10031(c)(7)]

(B) If the Permittee has a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the cause of the deviation. [Permit No. 015-0089; 40 CFR §63.10031(c)(9)]

iv. The Permittee shall report all deviations as defined in 40 CFR Part 63 Subpart UUUUU in the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A). [Permit No. 015-0089; 40 CFR §63.10031(e)]

v. Within 60 days after the date of conducting each performance test, the Permittee shall submit the performance test reports required by 40 CFR Part 63 Subpart UUUUU to EPA's WebFIRE database by using the Compliance and Emission Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT)(see http://www.epa.gov/ttn/chief/ert/index.html). The Permittee shall also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority in the format specified by the delegated authority. [Permit No. 015-0089; 40 CFR §63.10031(f)]

9. Mercury (Hg) (Applicable to Coal Firing Only)

a. Limitation or Restriction

i. For coal burning, the Permittee shall not exceed the following Hg emission limits:
[Permit No. 015-0089]

(A) 0.0025 lb/hr

(B) 21.76* lb/calendar year

* The emission limit is based on 8,760 hours per year of firing coal and a maximum heat input of 4,100 MMBtu/hr. Such limit shall include emissions during periods of startup, shutdown, and malfunction.

ii. For coal burning, the Permittee shall meet an Hg emission rate of equal to or less than:
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 2, Item No. 1.c]

(A) 1.2 lb/TBtu or 0.013 lb/GWh (gross)

iii. The Permittee shall:
[Permit No. 015-0089 and CGS §22a-174-199(b)(1) {State Enforceable Only}]

(A) Meet an emissions rate of equal to or less than 0.6 pounds of Hg per TBtu, or

(B) Meet an Hg emissions rate equal to a 90% reduction of Hg from the measured inlet conditions for the unit, whichever emissions rate is more readily achievable by the unit.

b. Monitoring and Testing Requirements

i. If the commissioner determines that CEM for mercury in flue gases are commercially available and can perform in accordance with National Institute of Technology Standards, or other methodology approved by the EPA, the Permittee shall properly install and operate such CEM and shall not be required to conduct stack testing on a calendar quarter basis.
[Permit No. 015-0089; CGS §22a-199(b)(3)(C) {State Enforceable Only}]

ii. The Permittee shall use data recorded by the CEMs and any other records and reports to determine compliance with Hg, if applicable. [Permit No. 015-0089]

iii. If the Permittee achieves and maintains compliance with the Hg emissions rate requirement established in CGS §22a-199(b)(1) for a period of eight consecutive calendar quarters, the Permittee may reduce the frequency of such stack testing from once-per-calendar-quarter basis to a once-per-year basis. If such annual stack testing demonstrates a failure to comply with the mercury emissions rate in this Title V permit, such stack testing shall resume on a once-per-calendar-quarter basis. [Permit No. 015-0089; CGS §22a-199(b)(3)(B) {State Enforceable Only}]

iv. For a qualifying LEE for Hg emissions limits, the Permittee shall conduct a 30 day performance test using Method 30B in 40 CFR Part 63 Appendix A-8 at least once every 12 calendar months to demonstrate continued LEE status.
[Permit No. 015-0089; 40 CFR §63.10000(c)(1)(ii); 40 CFR §63.10005(h)(3); 40 CFR Part 63

Subpart UUUUU, Table 2, Item No. 1.c]

v. For a qualifying LEE for Hg, performance test data demonstrates that either average emissions less than 10 percent of the applicable Hg emissions limit in 40 CFR Part 63 Subpart UUUUU, Table 2 (expressed either in units of lb/TBtu or lb/GWh); or potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable Hg emission limit in 40 CFR Part 63 Subpart UUUUU, Table 2 (expressed either in units of lb/TBtu or lb/GWh).
[Permit No. 015-0089 and 40 CFR §§63.10005(h)(1)(ii)(A) and (B)]

vi. The Permittee shall repeat the performance test once every year for Hg according to 40 CFR Part 63 Subpart UUUUU, Table 5 and 40 CFR §63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur: [Permit No. 015-0089; 40 CFR §63.10006(b)(2)]

(A) The Permittee shall install, certify, maintain, and operate an Hg CEMS or a sorbent trap monitoring system in accordance with 40 CFR Part 63 Subpart UUUUU, Appendix A, within six calendar months of losing LEE eligibility. Until the Hg CEMS or sorbent trap monitoring system is installed, certified and operating, the Permittee shall conduct Hg emissions testing quarterly, except as otherwise provided in 40 CFR §63.10021(d)(1). The Permittee shall have three calendar years of testing and CEMS or sorbent trap monitoring system data that satisfy the LEE emissions criteria to reestablish LEE status.

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month Hg 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. [Permit No. 015-0089]

ii. The Permittee shall keep the following records:

(A) Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR §63.10(b)(2)(viii).
[Permit No. 015-0089; 40 CFR §63.10032(a)(2)]

(B) Records required in 40 CFR Part 63 Subpart UUUUU, Table 7 including records of all monitoring data to show continuous compliance with each applicable emission limit and operating limit. [Permit No. 015-0089; 40 CFR §63.10032(c)]

(C) For a unit that qualifies as an LEE under 40 CFR §63.10005(h), keep annual records that document that emissions in the previous stack test(s) continue to qualify for the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation or air pollution control equipment that would cause emissions of the pollutant to increase within the past year.
[Permit No. 015-0089; 40 CFR §63.10032(d)(3)]

d. Reporting Requirements

i. Stack test results shall be reported as follows: Hg in units of lb/hr and lb/TBtu (or lb/GWh gross). [Permit No. 015-0089]

ii. For coal firing, if the Permittee uses an Hg CEM:

(A) When reporting compliance with the Hg emissions rate in this Title V permit, as applicable, the Permittee shall use an average of the Hg CEM data recorded during the most recent calendar quarter. [Permit No. 015-0089; CGS §22a-199(b)(3)(C) {State Enforceable Only}]

(B) For each calendar quarter, report to the commissioner the results of any stack test or average of the Hg CEM data, as applicable, used to demonstrate compliance with the provisions of CGS §22a-199(b). Such reports shall be submitted on such forms as may be prescribed by the commissioner. [Permit No. 015-0089; CGS §22a-199(b)(4) {State Enforceable Only}]

iii. The Permittee shall submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. [Permit No. 015-0089; 40 CFR §63.10030(d)]

iv. The compliance report shall contain the following information:

(A) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. If conducting stack tests once every three years to maintain LEE status, consistent with 40 CFR §63.10006(b), the date of each stack test conducted during the previous three years, a comparison of emission level achieved in each stack test conducted during the previous three years to the 50 percent emission limit threshold required in 40 CFR §63.10005(h)(1)(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions. [Permit No. 015-0089; 40 CFR §63.10031(c)(7)]

(B) If the Permittee has a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the cause of the deviation. [Permit No. 015-0089; 40 CFR §63.10031(c)(9)]

v. The Permittee shall report all deviations as defined in 40 CFR Part 63 Subpart UUUUU in the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A). [Permit No. 015-0089; 40 CFR §63.10031(e)]

vi. Within 60 days after the date of conducting each performance test, the Permittee shall submit the performance test reports required by 40 CFR Part 63 Subpart UUUUU to EPA's WebFIRE database by using the Compliance and Emission Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT)(see http://www.epa.gov/ttn/chief/ert/index.html). The Permittee shall also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority in the format specified by the delegated authority. [Permit No. 015-0089; 40 CFR §63.10031(f)]

10. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0089]

b. Monitoring Requirements

Record keeping specified in Section III.A.10.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.A.10.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

11. Opacity

a. Limitation or Restriction

i. The Permittee shall not exceed the following visible emission limits:
[Permit No. 015-0089; RCSA §§22a-174-18(b)(2)(A) and (B)]

(A) 20% opacity during any six-minute block average; or

(B) 40% opacity during any one-minute block average.

b. Monitoring Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4. CEM shall be required for opacity. [Permit No. 015-0089]

ii. The Permittee shall use data recorded by the CEMs and any other records and reports to determine compliance with opacity. [Permit No. 015-0089]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.A.11.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

12. Operation and Maintenance

a. Limitation or Restriction

i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit No. 015-0089]

ii. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants. [Permit No. 015-0089]

iii. Not more than one year from the date of issuance of TAO No. 8367, the Permittee shall perform maintenance and inspection of the emission unit. Such maintenance and inspection shall include, but not be limited to, the following: [TAO No. 8367, B.14, a-c]

(A) Inspect the combustion system, and clean or replace any components of the combustion system as necessary, in accordance with manufacturer's specification or current good engineering practice;

(B) Inspect the system controlling the air-to-fuel ratio, and ensure that it is calibrated and functioning in accordance with the manufacturer's specifications or current good engineering practice; and

(C) Measure the operating parameters of the emission unit used to determine that the emission unit is operating in accordance with the manufacturer's specifications or current good engineering practice prior to and after any adjustments are made during maintenance, tune-up, or inspection activity.

iv. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 63 Subpart UUUUU, Table 9.
[40 CFR §63.10040 and 40 CFR Part 63 Subpart UUUUU, Table 9]

b. Monitoring Requirements

The Permittee shall perform inspections of the control devices as recommended by the manufacturer. [Permit No. 015-0089]

c. Record Keeping Requirements

i. The Permittee shall keep the following records:

(A) A copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart UUUUU, including all documentation supporting any Initial Notification or notification of Compliance Status or semiannual compliance report submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv). [Permit No. 015-0089; 40 CFR §63.10032(a)(1)]

(B) Records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment. [Permit No. 015-0089; 40 CFR §63.10032(g)]

(C) Records of actions taken during periods of malfunction to minimize emission in accordance with 40 CFR §63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [Permit No. 015-0089; 40 CFR §63.10032(h)]

ii. The Permittee's records shall be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1). [Permit No. 015-0089; 40 CFR §63.10033(a)]

iii. The Permittee shall make and keep records including, but not limited to, the following: [TAO No. 8367, B.14.d.i-iv]

(A) Demonstration that any maintenance, tune-up, and/or inspection activity performed on the emission unit has been performed in accordance with the manufacturer's specification or current good engineering practice,

(B) The date and a description of any maintenance, tune-up, and/or inspection activity performed on the emission unit,

(C) The name, title and affiliation of the person conducting any maintenance, tune-up, and/or inspection activity performed on the emission unit, and

(D) The operating parameter of the emission unit used to determine that the emission unit is operating in accordance with manufacturer's specification or current good engineering practice prior to and after any adjustments are made during maintenance, tune-up, or inspection activity performed.

iv. The Permittee shall make and keep records sufficient to show compliance with applicable General Provisions requirements of 40 CFR Part 63 Subpart UUUUU, Table 9. [RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

13. Operation and Maintenance-Tune-Ups

a. Limitation or Restriction

i. The Permittee may conduct tune-ups according to the schedule and procedures of the applicable requirements of 40 CFR Part 60 or 40 CFR Part 63. If the period between tune-ups in the applicable requirements of 40 CFR Part 60 or 40 CFR Part 63 is greater than 60 months, a tune-up shall be conducted at least once every 60 months. [Permit No. 015-0089; RCSA §22a-174-22e(i)(2)]

ii. The Permittee shall conduct a tune-up of the unit's burner and combustion controls at least each 36 months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in 40 CFR §63.10021(e). If the unit is offline when a deadline to perform the tune-up passes, the Permittee shall perform the tune-up work practice requirements within 30 days after the restart of the affected unit.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR §63.10000(e); 40 CFR §63.10021(e); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 1]

iii. The Permittee shall conduct periodic performance tune-ups of their unit as follows:
[Permit No. 015-0089; 40 CFR §§63.10021(e)(1-7)]

(A) As applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special ordered parts may be scheduled as follows:

(1) Burner or combustion control components parts needing replacement that affect the ability to optimize NO_x and CO shall be installed within three calendar months after the burner inspection,

(2) Burner or combustion control components parts that do not affect the ability to optimize NO_x and CO may be installed on a schedule determined by the operator.

(B) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type;

(C) As applicable, observe the damper operations as a function or mill and/or cyclone loadings, cyclone and other pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors;

(D) As applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors;

(E) Inspect the system controlling the air-to fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O_2 probes and/or sensors, adjusting overfire air systems, charging software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;

(F) Optimize combustion to minimize generation of CO and NO_x. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_x optimization includes burner, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or neural

network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles; and

(G) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO_x in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). The Permittee may use portable CO, NO_x and O_2 monitors for this measurement. Units employing neural network optimization systems need only provide a single pre- and post tune-up value rather than continual values before and after each optimization adjustment made by the system.

b. Monitoring Requirements

Record keeping specified in Section III.A.13.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall make and keep the following records, for each tune-up, conducted pursuant to RCSA §22a-174-22e(i): [Permit No. 015-0089; RCSA §22a-174-22e(j)(2)(E)]

(A) The date on which the emission unit is tuned-up; the name title and affiliation of the person performing the tune-up, and a description of work performed, and

(B) The procedures used to inspect and perform adjustments.

d. Reporting Requirements

i. The Permittee shall report the dates of the initial and subsequent tune-ups in hard copy, as specified in 40 CFR §63.10031(f)(5), through June 30, 2018. On or after July 1, 2018, report the date of all tune-ups electronically, in accordance with 40 CFR §63.10031(f). The tune-up report date is the date when tune-up requirements in 40 CFR §63.10021(e)(6) and (7) are completed. [Permit No. 015-0089; 40 CFR §63.10021(e)(9)]

ii. The compliance report shall contain the following information:

(A) Include the date of the most recent tune-up for each unit. The date of the tune-up is the date the tune-up provisions specified in 40 CFR §§63.10021(e)(6) and (7) were completed. [Permit No. 015-0089; 40 CFR §63.10031(c)(4)]

(B) If the Permittee has a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the cause of the deviation. [Permit No. 015-0089; 40 CFR §63.10031(c)(9)]

iii. The Permittee shall report all deviations as defined in 40 CFR Part 63 Subpart UUUUU in the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A). [Permit No. 015-0089; 40 CFR §63.10031(e)]

14. Operation and Maintenance-Startup & Shutdown

a. Limitation or Restriction

i. The Permittee shall meet the following work practice requirements during periods of startup:
[Permit No. 015-0089; 40 CFR §63.10000(a); 40 CFR §63.10021(h)]

(A) For startup of the unit, the Permittee shall use clean fuels as defined in 40 CFR §63.10042 for ignition.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 3.a(1)]

(B) Once the Permittee starts firing coal, the Permittee shall engage all of the applicable control technologies except dry scrubber and SCR. The Permittee shall start their dry scrubber and SCR systems, if present, approximately to comply with relevant standards applicable during normal operation.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 3.a(1)]

(C) The Permittee shall comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in 40 CFR Part 63 Subpart UUUUU.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 3.a(1)]

(D) If the Permittee chooses to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, the Permittee shall comply with the limit at all times; otherwise, the Permittee shall comply with the applicable emission limit at all times except for startup and shutdown periods.
[40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 3.c]

(E) The Permittee shall collect monitoring data during startup periods, as specified in 40 §§63.10020(a) and (e). The Permittee shall keep records during startup periods, as provided in 40 CFR §63.10032 and 40 CFR §63.10021(h). The Permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR §63.10011(g), 40 CFR §63.10021(i) and 40 CFR §63.10031.
[40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 3.d]

ii. The Permittee shall meet the following work practice requirements during periods of shutdown:
[Permit No. 015-0089; 40 CFR §63.10000(a)]

(A) The Permittee shall operate all CMS during shutdown. The Permittee shall also collect appropriate data, and shall calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 4]

(B) While firing coal, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the unit and for as long as possible thereafter considering operational and safety concerns. In any case, the Permittee shall operate their controls when necessary to

comply with other standards made applicable to the unit by a permit limit or a rule other than 40 CFR Part 63 Subpart UUUUU that require operation of the control devices.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 4]

(C) If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in 40 CFR §63.10042 and shall be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 4]

(D) The Permittee shall comply with all the applicable emission limits at all times except during startup and shutdown periods at which time the Permittee shall meet this work practice. The Permittee shall collect monitoring data during shutdown periods, as specified in 40 §63.10020(a). The Permittee shall keep records during shutdown periods, as provided in 40 CFR §63.10032 and 40 CFR §63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour or shutdown. The Permittee shall provide reports concerning activities and shutdown periods, as specified in 40 CFR §63.10011(g), 40 CFR §63.10021(i), and 40 CFR §63.10031.
[Permit No. 015-0089; 40 CFR §63.9991(a)(1); 40 CFR Part 63 Subpart UUUUU, Table 3, Item No. 4]

(E) The Permittee shall determine the fuel whose combustion produces the least uncontrolled emissions, i.e., the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. The cleanest fuel, either natural gas or distillate oil, for use during periods of startup or shutdown determination may take safety considerations into account.
[Permit No. 015-0089; 40 CFR §§63.10011(f)(1) and (2)]

b. Monitoring Requirements

Record keeping specified in Section III.A.14.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall keep the following records:

(A) Records of the occurrence and duration of each startup or shutdown.
[Permit No. 015-0089; 40 CFR §63.10032(f)(1)]

(B) Records of the type(s) and amount(s) of fuel used during each startup and shutdown.
[Permit No. 015-0089; 40 CFR §63.10032(i)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

15. Acid Rain-See Section III.I of this Title V permit

B. EU-4 (Pratt & Whitney Aircraft FT 4A-8LI Turbo Jet Gas Turbine Generator, BHS No. 4) Subject to: 015-0166-R, TAO No. 8368 and RCSA §22a-174-22c (CAIR)

1. TSP

a. Limitation or Restriction

The Permittee shall not exceed 0.20 lb TSP/MMBtu of heat input. [RCSA §22a-174-18(e)(2)(D)]

b. Monitoring Requirements

Record keeping specified in Section III.B.1.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.1.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. Aviation Fuel, Jet Fuel A or Equivalent

a. Limitation or Restriction

i. The Permittee shall: [RCSA §22a-174-19a(e); CGS §16a-21a]

(A) Combust liquid fuel that possesses a fuel sulfur limit equal to or less than 3000 ppm (0.3% sulfur, by weight);

(B) Meet an average emission rate of equal to or less than 0.33 lb SO_2/MMBtu for each calendar quarter; or

(C) Meet an average emissions rate of equal to or less than 0.3 lb SO_2/MMBtu calculated for each calendar quarter, if the Permittee averages the emissions from two or more emissions units at the premises.

b. Monitoring Requirements

i. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1), the Permittee shall make and keep records in accordance with the following: [RCSA §§22a-174-19a(i)(1)(A) and (B)]

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the Permittee shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the Permittee shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1). Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82, or a more recent version of the same method. (Copies of ASTM test methods referenced in this section may be obtained from the Department of Environmental Protection, Bureau of Air Management, 79 Elm Street, 5th floor, Hartford, CT 06106-5127; (860) 424-3027).

ii. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the average SO_2 emission rate limits of RCSA §22a-174-19a(e)(2) or (e)(3), the Permittee shall make and keep records in accordance with the following: [RCSA §§22a-174-19a(i)(2)(A) and (C)]

(A) For affected units that are also Title IV sources, hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75;

(B) For all affected units, quarterly facility SO_2 emission rate averages, determined by dividing total quarterly SO_2 emissions by total quarterly heat input values for all affected units at the facility.

iii. The Permittee unit shall keep the records specified in RCSA §22a-174-19a(1) or (2) at the premises for a period of five years. [RCSA §§22a-174-19a(i)(3)]

c. Record Keeping Requirements

The Permittee of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to RCSA §22a-174-33(q)(2), certify in writing to the commissioner compliance with the applicable provisions of RCSA §22a-174-19a. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit. [RCSA §§22a-174-19a(j)(1)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. NO_x

a. Limitation or Restriction

i. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO_x AEL and Full Load Emission Rate (FLER) emission limits when operating on aviation fuel, jet fuel or equivalent, except when DERCs are used for compliance:
[RCSA §§22a-174-22e(d)(4)(A) and (B), and -22e(d)(16); TAO No. 8368, Table 1]

(A) 75 ppmvd @ 15%O_2

(B) 50 ppmvd @ 15%O_2 (ozone season average: May 1-September 30)

(C) 0.29 AEL lb/MMBtu (24 hour daily average)

(D) 0.19 AEL lb/MMBtu (ozone season average: May 1-September 30)

(E) 0.15 AEL lb/MMBtu (non-ozone season average: October 1 – April 30)

(F) 0.73 FLER lb/MMBtu

ii. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO_x emission limit when operating on aviation fuel, jet fuel or equivalent:
[RCSA §§22a-174-22e(d)(4)(C) and (D) and -22e(d)(16)]

(A) 50 ppmvd @ 15%O_2

(B) 0.15 lb/MMBtu (non-ozone season average: October 1 – April 30)

iii. The Permittee may only use emissions trading, subject to the provisions of TAO No. 8368, until the date of expiration of TAO No. 8368. The date of expiration of TAO No. 8368 shall be the earlier of: [TAO No. 8368, B.1]

(A) May 31, 2023;

(B) The date upon which the Permittee demonstrates to the commissioner's satisfaction that actual NO_x emissions from the emission unit, at all times, does not exceed the corresponding AEL(s);

(C) The date specified in any written notice from the commissioner stating that the Permittee is no longer allowed to use emissions trading due to the Permittee's violation of any provision of TAO No. 8368;

(D) The date specified in any written notice from the commissioner, notifying the Permittee that the commissioner has determined the use of emissions trading as a compliance option has been further restricted, modified or nullified by:

(1) the promulgation of an Act, Statute, or Regulations; or

(2) the issuance of a judgment or court order.

iv. The Permittee shall obtain and use sufficient DERCs in such a manner as to comply with TAO No. 8368. All DERCs used during the ozone season for the emission unit, shall have been generated during an ozone season. [TAO No. 8368, B.2]

v. For the purposes of compliance with RCSA §22a-174-22e(g)(4)(D) and the provisions of TAO No. 8368, DERCs shall only remain valid for five calendar years from the year of the generation of such DERCs. DERCs older than five calendar years from their creation are not valid for use for compliance with RCSA §22a-174-22e(g)(4)(D) and the provisions of TAO No. 8368. Ozone season

DERCs generated by a CAIR NO_x Ozone Season Unit during 2013 shall remain valid until December 31, 2018. [TAO No. 8368, B.3]

vi. The Permittee shall not cause or allow actual NO_x emissions from the operation of the emission unit to exceed the corresponding FLERs. Compliance with the corresponding FLERs shall be determined based on the results of emissions testing performed in accordance with RCSA §22a-174-22e(l) or NO_x emissions monitored and recorded by a continuous emissions monitoring system that was approved by the commissioner and that complies with RCSA §22a-174-4 and either 40 CFR Part 60, Appendices B and F or 40 CFR Part 75.
[TAO No. 8368, B.4]

vii. When operating the emission unit during the ozone season, the Permittee shall operate that unit while firing or co-firing the lowest NO_x emitting fuel type or combination of fuel types that the unit is authorized to burn in accordance with Departmental permit, registration, or applicable regulation.
[TAO No. 8368, B.5]

viii. During the ozone season, the Permittee may operate the emission unit on fuels that result in higher emissions of NO_x, if either: [TAO No. 8368, B.6.a and b]

(A) the availability of fuel oil that complies is inadequate to meet the needs of residential, commercial and industrial users in this state and that such inadequate supply constitutes an emergency; or

(B) the supply of gaseous fuels to the emission unit is interrupted due to inadequate supply or in accordance with an interruptible supply agreement between the Permittee and the gaseous fuel supplier.

b. Monitoring and Testing Requirements

i. The Permittee shall conduct an initial NO_x emission test on a date during Phase 1 that is no more than 63 calendar months following the date of the last emission test performed pursuant to former RCSA §22a-174-22(k).
[RCSA §§22a-174-22e(d)(12), -22e(l)(1)(A) and -22e(l)(4); TAO No. 8368, B.19]

ii. The Permittee shall conduct a NO_x emission test following the initial emission test on a date after 5/31/23 and no later than 6/1/25. Subsequently, the Permittee shall conduct emission tests within every 63 calendar months following the date of the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier.
[RCSA §§22a-174-22e(d)(12), -22e(l)(1)(A), -22e(l)(5)]

iii. Each emission test shall be conducted in accordance with RCSA §22a-174-5 and compliance with the emission limitations of RCSA §22a-174-22e shall be determined based on the average of three one–hour tests, each performed over a consecutive 60-minute period except as follows:
[RCSA §§22a-174-22e(d)(12), -22e(l)(1)(A), -22e(l)(6)(A) and (B)]

(A) As otherwise specified in an applicable NSPS in 40 CFR Part 60; or

(B) If the commissioner determines that three one-hour tests are not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing where compliance with the emission limitations of RCSA §22a-174-22e shall be determined based on the average of test runs shorter than one-hour period. For the

first time that an emissions unit is tested with a shorter than a one-hour test run an provided in RCSA §22a-174-22e(l), approval of the commissioner for a shorter that one-hour test run shall be received prior to testing by submission of a request to the commissioner at least 120 days prior to the scheduled testing. The request shall specify a test run duration and describe why a shorter time period is necessary.

iv. The Permittee shall demonstrate compliance with the emissions limitations of RCSA §22a-174-22e using sampling and analytical procedures under 40 CFR Part 60, Appendix A or, for affected units under 40 CFR Part 75, or under procedures in RCSA §22a-174-5(d). Sampling shall be conducted when the emission unit is at normal operating temperature and, unless allowed by the commissioner in a permit or order, is operating at or above 90% of maximum capacity, except as follows: [RCSA §§22a-174-22e(d)(12), -22e(l)(1)(A), -22e(l)(7)(A) and (B)]

(A) If the commissioner determines that operating at or above 90% of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at an alternative maximum capacity where compliance with the emissions limitations of RCSA §22a-174-22e(d) shall be determined based on operating at or above 90% of the alternative maximum capacity approved by the commissioner; and

(B) Any emission unit that has operated in excess of 100% of its maximum capacity at any time since the most recent performance test performed pursuant to RCSA §22a-174-22e the emission unit is operating at or above 90% of its highest operating rate since the most recent performance test performed pursuant to RCSA §22a-174-22e.

v. The Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO_x emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]

vi. The Permittee shall calculate an emission unit's ozone season emission rate as the sum of the emission unit's NO_x emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the emission unit's heat input while firing the applicable fuel during the period from May 1 through September 30 inclusive [RCSA §22a-174-22e(d)(20)]

vii. If the Permittee is unable to conduct scheduled emission testing required by RCSA §22a-174-22e due to force majeure, the Permittee shall conduct the required emission testing as soon as practicable after the force majeure event occurs. [RCSA §22a-174-22e(l)(8)]

viii. On the first day of each calendar month, the Permittee shall possess a quantity of DERCs that equals or exceeds the quantity of Actual DERCs Required in that month. Compliance shall be determined as follows: [TAO No. 8368, B.7.a & b]

(A) Before the first day of each month, the Permittee shall estimate DERCs required for such calendar month for the emission unit as follows:

Estimated DERCs Required =

{(Estimated fuel use in MMBtu) x ((FLER in lb/MMBtu) - (0.95 x AEL))} ÷ 2000 lbs/ton

Where:
AEL = Allowable Emission limit, as defined in TAO No. 8368

Discount (0.95) = 5% design margin applied to the AEL.

(B) No later than the twentieth day of each month, the Permittee shall calculate actual DERCs used in the preceding calendar month for the emission unit as follows:

Actual DERCs Required =

{(Monthly fuel use in MMBtu) x ((FLER lb/MMBtu) - (0.95 x AEL))} ÷ 2000 lbs/ton

ix. On the first day of each Ozone Season, the Permittee shall possess a quantity of DERCs that equals or exceeds the quantity of Ozone Season Actual DERCs Required for that Ozone Season. Compliance shall be determined as follows:
[TAO No. 8368, B.8.a and b]

(A) Before the first day of each Ozone Season, the Permittee shall estimate DERCs required for that Ozone Season for the emission unit based on the average actual NO_x emission rate from the emission unit as follows:

Estimated Ozone Season DERCs Required =

{(Estimated Ozone Season fuel use in MMBtu) x ((FLER in lb/MMBtu) - (0.95 x AEL in lb/MMBtu))} ÷ 2000 lbs/ton-Σ(Estimated DERCs Required for all months of the Ozone Season calculated)

(B) No later than 30 days after the end of each Ozone Season, the Permittee shall calculate Actual Ozone Season DERCs used during that Ozone Season for each emission unit as follows:

Actual Ozone Season DERCs Required =

{(Actual Ozone Season fuel use in MMBtu) x ((FLER in lb/MMBtu) - (0.95 x AEL in lb/MMBtu))} ÷ 2000 lbs/ton– Σ(Actual DERCs Required for all months of the Ozone Season calculated)

Where:

AEL = Ozone season average Allowable Emission Limit

x. On the first day of each Non-Ozone Season, the Permittee shall possess a quantity of DERCs that equals or exceeds the quantity of Non-Ozone Season Actual DERCs Required for that Non-Ozone Season. Compliance shall be determined as follows:
[TAO No. 8368, B.9.a and b]

(A) Before the first day of each Non-Ozone Season, the Permittee shall estimate DERCs required for that Non-Ozone Season for the emission unit based on the average actual NO_x emission rate from the emission unit and an emission limit of 0.15 lb/MMBtu as follows:

Estimated Non-Ozone Season DERCs Required =

{(Estimated Non-Ozone Season fuel use in MMBtu) x ((FLER in lb/MMBtu) - (0.95 x 0.15 lb/MMBtu))} ÷ 2000 lbs/ton-Σ(Estimated DERCs Required for all months of the Non-Ozone Season calculated)

(B) No later than 30 days after the end of each Non-Ozone Season, the Permittee shall calculate Actual Non-Ozone Season DERCs used during that Non-Ozone Season for each emission unit as follows:

Actual Non-Ozone Season DERCs Required =

{(Actual Non-Ozone Season fuel use in MMBtu) x ((FLER in lb/MMBtu) - (0.95 x 0.15 lb/MMBtu))} ÷ 2000 lbs/ton– Σ(DERCs Required for all months of the Non-Ozone Season calculated)

xi. On or before January 31 of each calendar year, the Permittee shall deduct a quantity of DERCs from the current balance of DERCs possessed by the Permittee such that the total is equal to the sum of Actual DERCs Required for the preceding calendar year, rounded up to the nearest whole ton. [TAO No. 8368, B.10]

xii. Within 90 days of the close of the Non-Ozone Season, the Permittee shall deduct a quantity of DERCs from the current balance of DERCs possessed by the Permittee such that the total is equal to Actual Non-Ozone Season DERCs Required for the most recently completed Non-Ozone Season. [TAO No. 8368, B.11]

xiii. The Permittee shall calibrate, maintain and operate a fuel flow meter to continuously monitor fuel feed and heat input to the emission unit. [TAO No. 8368, B.16]

xiv. Violation of an established FLER shall subject the Permittee to make restitution by matching the quantity of emissions ("true up") caused by the exceedance plus a 100% premium. The true up in tons of DERCs shall be equal to the FLER exceedance in lbs/MMBtu, multiplied by the total heat input during the period of noncompliance divided by 2000 lbs/ton. If the period of noncompliance is not known, the time period from the completion of the last/previous Department witnessed emission test through the date that FLER compliance is achieved as approved by the commissioner shall be used. Notwithstanding this requirement, exceedance of any FLER is a violation of TAO No. 8368 subject to enforcement action in accordance with the Department of Energy & Environmental Protection's Enforcement Response Policy, in effect at the time of such violation. [TAO No. 8368, B.17]

xv. The FLER may be modified only after the consent of the commissioner by written modification of TAO No. 8368. [TAO No. 8368, B.18]

c. Record Keeping Requirements

i. The Permittee shall make and keep the following records:

(A) The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]

(B) Records of the dates and times of all emission testing required by RCSA §22a-174-22e, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;
[RCSA §22a-174-22e(j)(2)(C)]

(C) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]

(D) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

ii. The Permittee shall make and keep records sufficient to demonstrate compliance with all applicable requirements of RCSA §22a-174-22c and the standard requirements of the CAIR permit application. [RCSA §22a-174-33(j)(1)(K)(ii)]

iii. The Permittee shall make and keep records of the following: [TAO No. 8368, B.13.a-j]

(A) By the close of each calendar day, the Permittee shall record the actual fuel type and the actual quantity of each type of fuel in units of volume per day or MMBtu per day for each fuel used on the preceding day in the emission unit;

(B) On or before the first day of each calendar month, the Permittee shall record the number of DERCs and corresponding serial numbers and vintages for all DERCs in its possession on the first calendar day of that calendar month;

(C) On or before the first day of each calendar month, the Permittee shall record the number of DERCs and corresponding serial numbers, vintages, purchase/sales dates, and seller/buyer for all DERCs purchased or sold during the preceding calendar month;

(D) On or before the first day of each calendar month, the Permittee shall record the Estimated DERCs Required for that calendar month determined in accordance with TAO No. 8368;

(E) On or before the twentieth calendar day of each calendar month, the Permittee shall record the Actual DERCs Required for the preceding calendar month;

(F) On or before January 31 of each calendar year, the Permittee shall record the quantity of DERCs deducted for the preceding year. Such records shall include the serial number and vintage of each DERC deducted from the Permittee's current balance;

(G) On or before January 31 of each calendar year, the Permittee shall record the Ozone Season average NO_x emission rate for the emission unit , the quantity of DERCs possessed on the first day of the Ozone Season, and the quantity of DERCs deducted;

(H) Within 90 days of the close of each Non-Ozone Season, the Permittee shall record the Non-Ozone Season average NO_x emission rate for the emission unit, the quantity of DERCs possessed on the first day of the Non-Ozone Season, and the quantity of DERCs deducted;

(I) For each month of the Ozone Season, the Permittee shall maintain records attesting to the fact that any DERCs deducted from its balance satisfy the requirements of TAO No. 8368. Generator certification of this fact shall be sufficient; and

(J) On each day during the Ozone Season that the Permittee operates, the Permittee shall make and keep records of all emission unit operation, including copies of any written correspondence from the Permittee's fuel supplier detailing the duration and circumstances of the inadequate fuel oil supply or interruption of gaseous fuel supply to the emission unit.

iv. The Permittee shall retain records and supporting documentation required by TAO No. 8368 for a minimum of five years, commencing on the date such records were created. The Permittee shall provide the records specified above to the Commissioner within 30 days of receipt of a written request from the commissioner. All records shall be maintained in accordance with RCSA §§22a-174-4 and -22e. [TAO No. 8368, B.14]

d. Reporting Requirements

i. Not more than 60 days after the completion of emission tests conducted under RCSA §22a-174-22e(l), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(1)]

ii. No later than March 1 of every year after issuance of TAO No. 8368, the Permittee shall submit to the commissioner a written report containing copies of all of the records required pursuant to Section III.B.3.c.vii.(A)-(G) and Section III.B.3.c.vii.(I) and (J) of this Title V permit. Not later than July 30 of each calendar year, the Permittee shall submit a written report containing copies of all records required pursuant to Section III.B.3.c.vii.(H) of this Title V permit. The commissioner may prescribe the forms to be used for the submission of these reports. The Permittee shall submit these reports on such forms, if prescribed by the commissioner. [TAO No. 8368, B.15]

4. Opacity

a. Limitation or Restriction

i. The Permittee shall not exceed the following visible emission limits:, except as provided in RCSA §22a-174-18(j), as measured by 40 CFR Part 60, Appendix A, Reference Method 9: [RCSA §§22a-174-18(b)(1)(A) and (B)]

(A) 20% opacity during any six-minute block average; or

(B) 40% opacity during any one-minute block average.

b. Monitoring Requirements

Record keeping specified in Section III.B.4.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.4.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

5. Operation and Maintenance

a. Limitation or Restriction

i. Not more than one year from the date of issuance of TAO No. 8368, the Permittee shall perform maintenance and inspection of the emission unit. Such maintenance and inspection shall include, but not be limited to, the following: [TAO No. 8368, B.12.a-c]

(A) Inspect the combustion system, and clean or replace any components of the combustion system as necessary, in accordance with manufacturer's specification or current good engineering practice;

(B) Inspect the system controlling the air-to-fuel ratio, and ensure that it is calibrated and functioning in accordance with the manufacturer's specifications or current good engineering practice; and

(C) During the next Title V required stack test subsequent to the issuance of TAO No. 8368, measure the operating parameters of the emission unit used to determine that the emission unit is operating in accordance with manufacturer's specification or current good engineering practice prior to and after any adjustments are made during maintenance, tune-up, or inspection activity.

b. Monitoring and Testing Requirements

Record keeping specified in Section III.B.5.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall make and keep records including, but not limited to, the following: [TAO No. 8368, B.12.d.i-iv]

(A) Demonstration that any maintenance, tune-up, and/or inspection activity performed on the emission unit has been performed in accordance with the manufacturer's specifications or current good engineering practice,

(B) The date and a description of any maintenance, tune-up, and/or inspection activity performed on the emission unit,

(C) The name, title and affiliation of the person conducting any maintenance, tune-up, and/or inspection activity performed on the emission unit,

(D) The operating parameters of the emission unit used to determine that the emission unit is operating in accordance with manufacturer's specification or current good engineering practice prior to and after any adjustments are made during maintenance, tune-up, or

inspection activity performed.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

C. EU-6 (Cummins Diesel Fired Pump Engine)
Subject to: 40 CFR Part 63 Subpart ZZZZ
RICE MACT Designation: Emergency, Existing CI, ≤ 500 Bhp, Constructed Before 6/12/06

1. Hours of Operation

a. Limitation or Restriction

i. The Permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR §§63.6640(f)(1), (f)(2)(i) and (f)(3). Any operation other than emergency operation and maintenance and testing as described in 40 CFR §§63.6640(f)(1), (f)(2)(i), or non-emergency use in 40 CFR §63.6640(f)(3) is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §63.6640(f)(1), (f)(2)(i) and (f)(3), the engine will not be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and will need to meet all requirements for a non-emergency engine. [40 CFR §63.6640(f)]

ii. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR §63.6640(f)(1)]

iii. The Permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engines. Maintenance checks and readiness testing of such units is limited to 100 hours per year per unit. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the emergency RICE beyond 100 hours per year. [40 CFR §63.6640(f)(2)(i)]

iv. The Permittee may operate the engine for an additional 50 hours per year in non-emergency situations. The 50 hours per year per unit for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §63.6640(f)(3)]

b. Monitoring and Testing Requirements

The Permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR §63.6625(f)]

c. Record Keeping Requirements

The Permittee shall make and keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR §63.6655(f)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. Fuel Sulfur Content

a. Limitation or Restriction

The Permittee shall use diesel fuel that meets the requirements of 40 CFR §80.510(b) for non-road diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [RCSA §22a-174-19b(d)(2); 40 CFR §63.6604(b)]

b. Monitoring Requirements

Record keeping specified in Section III.C.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall make and keep records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient, if it identifies the following: [RCSA §§22a-174-19b(g)(3)(A)-(D)]

(A) Name of the fuel seller;

(B) Type of fuel purchased;

(C) Sulfur content of the fuel purchased; and

(D) Method used to determine the sulfur content of the fuel purchased.

ii. All records made to demonstrate compliance with the requirements of RCSA §22a-174-19b shall be: [RCSA §§22a-174-19b(g)(4)(A) and (B)]

(A) Made available to the commissioner to inspect and copy upon request; and

(B) Maintained for five years from the date such record is created.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. Operation and Maintenance

a. Limitation or Restriction

i. The Permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

ii. The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup. [40 CFR §63.6625(h)]

iii. The Permittee shall meet the following requirements, except during periods of startup: [40 CFR Part 63 Subpart ZZZZ, Table 2c, No 1]

(A) Change oil and filter every 500 hours of operation or annually, whichever comes first;

(B) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

(C) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

iv. During periods of startup, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h); 40 CFR Part 63 Subpart ZZZZ, Table 2c No. 1]

v. If the emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in 40 CFR Part 63 Subpart ZZZZ, Table 2c, or if performing the work practice on the required schedule would otherwise pose and unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. [40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 1]

vi. The Permittee shall be in compliance with the applicable emission limitations, operating limitations, and other requirements in 40 CFR Part 63 Subpart ZZZZ at all times. [40 CFR §63.6605(a)]

vii. The Permittee has the option of utilizing an oil analysis program in order to extend the oil change requirement in 40 CFR Part 63 Subpart ZZZZ, Table 2c. The oil analysis shall be performed at the same frequency specified for changing the oil in 40 CFR Part 63 Subpart ZZZZ, Table 2c. The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30% of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20% from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all these condemning limits are not exceeded, the

Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee shall change the oil within two business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee shall change the oil within two business days or before commencing operation, whichever is later. The analysis program shall be part of the maintenance plan for the engine.
[40 CFR §63.6625(i) and 40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 2]

viii. The Permittee can petition the Administrator pursuant to the requirements of 40 CFR §63.6(g) for alternative work practices. [40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 3]

ix. At all times the Permittee shall operate and maintain the engine in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by the standards of 40 CFR Part 63 Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the engine. [40 CFR §63.6605(b)]

x. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 63 Subpart ZZZZ, Table 8.
[40 CFR §63.6655 and 40 CFR Part 63 Subpart ZZZZ, Table 8]

b. Monitoring and Testing Requirements

i. The Permittee shall demonstrate continuous compliance by:
[40 CFR §63.6640(a); 40 CFR Part 63 Subpart ZZZZ, Table 6, No. 9]

(A) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instruction; or

(B) Develop and follow the Permittee's own maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

c. Record Keeping Requirements

i. The Permittee shall make and keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine. [40 CFR §63.6625(i)]

ii. The Permittee shall make and keep the following records: [40 CFR §§63.6655(a)(1)-(5)]

(A) A copy of each notification and report that is submitted to comply with 40 CFR Part 63 Subpart ZZZZ, including all documentation supporting any Notification of Compliance Status submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).

(B) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the monitoring equipment.

(C) Records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).

(D) Records of all required maintenance performed on the monitoring equipment.

(E) Records of action taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation.

iii. The Permittee shall make and keep the records required in 40 CFR Part 63 Subpart ZZZZ, Table 6 to show continuous compliance with each applicable emission or operating limitation. [40 CFR §63.6655(d)]

iv. The Permittee shall make and keep records of the maintenance conducted on the stationary RICEs in order to demonstrate that the Permittee operated and maintained the stationary RICEs according to the Permittee's own maintenance plan. [40 CFR §63.6655(e)]

v. The Permittee's records shall be in a form suitable and readily available for expeditious review according to 40 CFR §63.10(b)(1). Each record shall be readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR §63.10(b)(1). [40 CFR §63.6600(a), (b) and (c)]

d. Reporting Requirements

i. The Permittee shall report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR Part 63 Subpart ZZZZ, Table 2c, Footnote 1]

ii. The Permittee shall report each instance in which they did not meet each applicable emission limitation or operating limitation in 40 CFR Part 63 Subpart ZZZZ, Table 2c. These instances are deviations from the emission and operating limitations in 40 CFR Part 63 Subpart ZZZZ. These deviations shall be reported according to the requirements in 40 CFR §63.6650. [40 CFR §63.6640(b)]

iii. Each affected source that has obtained a Title V operating permit pursuant to 40 CFR Part 70 or 71 shall report all deviations as defined in 40 CFR Part 63 Subpart ZZZZ in the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR Part 63 Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the affected source may have to report deviation from permit requirements to the permit authority. [40 CFR §63.6650(f)]

iv. The Permittee shall also report each instance in which they did not meet the applicable requirements in 40 CFR Part 63 Subpart ZZZZ, Table 8. [40 CFR §63.6640(e)]

Section III: Applicable Requirements and Compliance Demonstration

D. EU-50 General Electric 7HA.02 Dual Fired Combustion Turbine, Duct Burner and Heat Recovery System Generator (HRSG)
Subject to: Permit No. 015-0299, 40 CFR Part 60 Subpart KKKK, 40 CFR Part 63 Subpart YYYY and 40 CFR Parts 72-78 (Acid Rain)

1. Fuels and Maximum Heat Input

a. Limitation or Restriction

i. Maximum Heat Input over any Consecutive 12 Month Period on Natural Gas:
[Permit No. 015-0299]

(A) Turbine: 25,885,944 MMBtu (HHV)

(B) Duct Burner: 849,934 MMBtu (HHV)

ii. Maximum Natural Gas Sulfur Content: 0.5 grains/100 scf
[Permit No. 015-0299; 40 CFR §60.4365(a)]

iii. Turbine's Maximum Heat Input over any Consecutive 12 Month Period on ULSD: 2,309,684 MMBtu (HHV) [Permit No. 015-0299]

iv. Maximum ULSD Sulfur Content: 0.0015% by weight
[Permit No. 015-0299; 40 CFR §60.4365(a)]

v. The Permittee shall only burn ULSD in the combined cycle turbine during hours when one or more of the following conditions is true: [Permit No. 015-0299]

(A) Independent System Operator - New England (ISO NE) declares an Energy Emergency as defined in ISO NE's Operating Procedure No. 21 – Energy Inventory Accounting and Actions during an Energy Emergency and requests the firing of ULSD.

(B) ISO NE required audits of capacity.

(C) 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.

(D) There exists a physical blockage or breakage in the natural gas pipeline.

(E) 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.

(F) The firing of ULSD is required for emission testing purposes as specified in this Title V permit.

(G) Routine maintenance of any equipment that will require the Permittee to fire ULSD.

(H) 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.

(I) 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.

b. Monitoring and Testing Requirements

i. 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: fuel flow, 1 hour block averaging time. [Permit No. 015-0299; 40 CFR §60.4350(e)]

ii. 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.
[Permit No. 015-0299; 40 CFR §60.4345(c)]

iii. The frequency of determining the sulfur content of the fuel shall be as follows:

(A) For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in Sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 CFR Part 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). [40 CFR §60.4370(a)]

(B) The Permittee may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs 40 CFR §§60.4370(c)(1) and (c)(2), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in 40 CFR §60.4330. [40 CFR §60.4370(c)]

iv. If the Permittee chooses to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see 40 CFR §60.17) for natural gas or ASTM D4177 (incorporated by reference, see 40 CFR §60.17) for oil. Alternatively, for oil, the Permittee may follow the procedures for manual pipeline sampling in Section 14 of ASTM D4057 (incorporated by reference, see 40 CFR §60.17). The fuel analyses of this section may be performed either by the Permittee, a service contractor retained by the Permittee, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using: [40 CFR §§60.4415(a)(1)(i) and (ii)]

(A) For liquid fuels, ASTM D129, or alternatively D1266, D1552, D2622, D4294, or D5453 (all of which are incorporated by reference, see 40 CFR §60.17); or

(B) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR §60.17).

c. Record Keeping Requirements

i. The Permittee shall make and 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. [Permit No. 015-0299]

ii. The Permittee shall make and 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. [Permit No. 015-0299]

iii. The Permittee shall make and 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. [Permit No. 015-0299]

iv. The Permittee shall make and 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. [Permit No. 015-0299; 40 CFR §60.4365(a)]

v. 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). [Permit No. 015-0299]

vi. The Permittee shall make and keep records of the monthly and consecutive 12 month heat input to the duct burner. The record shall include sample calculations. [Permit No. 015-0299]

vii. 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: [Permit No. 015-0299]

(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.

viii. 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: [Permit No. 015-0299]

(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.

ix. The Permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in 40 CFR §60.4345(c). [40 CFR §60.4345(e)]

d. Reporting Requirements

i. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [40 CFR §60.4375(a)]

ii. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions and monitor downtime that must be reported and are defined for turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345: A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: fuel flow rate. [40 CFR §60.4380(b)(2)]

iii. All reports required under 40 CFR §60.7(c) must be postmarked by the 30th day following the end of each six month period. [40 CFR §60.4395]

2. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.5}$ emission limits when the turbine is operating on natural gas without duct firing (Mode 1):
[Permit No. 015-0299]

(A) 11.9 lb/hr

(B) 0.007 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

ii. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.5}$ emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299]

(A) 14.6 lb/hr

(B) 0.005 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iii. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.5}$ emission limits when the turbine is operating on ULSD without duct firing (Mode 3):
[Permit No. 015-0299]

(A) 60.0 lb/hr

(B) 0.030 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iv. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.}5$ emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4):
[Permit No. 015-0299]

(A) 65.0 lb/hr

(B) 0.021 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual $PM/PM_{10}/PM_{2.5}$ emission limit stated herein at any time: 71.8 Tons per consecutive 12 months.
[Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for $PM/PM_{10}/PM_{2.5}$. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website.
[Permit No. 015-0299]

ii. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: stack testing data. [Permit No. 015-0299]

iii. Recurrent stack testing of $PM/PM_{10}/PM_{2.5}$ shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exception: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM_{10}, $PM_{2.5}$ emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. Emissions during startup and shutdown shall be counted towards the

annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

3. SO_2

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on natural gas without duct firing (Mode 1):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 5.5 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

ii. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 5.6 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iii. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on ULSD without duct firing (Mode 3):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 6.6 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iv. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 7.1 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual SO_2 emission limit stated herein at any time: 22.7 Tons per consecutive 12 months. [Permit No. 015-0299]

vi. The Permittee shall: [RCSA §22a-174-19a(e)]

(A) Combust liquid fuel that possesses a fuel sulfur limit equal to or less than 3000 ppm (0.3% sulfur, by weight);

(B) Meet an average emission rate of equal to or less than 0.33 lb SO_2/MMBtu for each calendar quarter; or

(C) Meet an average emissions rate of equal to or less than 0.3 lb SO_2/MMBtu calculated for each calendar quarter, if the Permittee averages the emissions from two or more emissions units at the premises.

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for SO_2. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299; 40 CFR §60.4415(a)]

ii. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: sulfur content in fuel. [Permit No. 015-0299]

iii. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the average SO_2 emission rate limits of RCSA §22a-174-19a(e)(2) or (e)(3), the Permittee shall obtain SO_2 data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. 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. [Permit No. 015-0299]

ii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

iii. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1), the Permittee shall make and keep records in

accordance with the following: [RCSA §§22a-174-19a(i)(1)(A) and (B)]

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the Permittee shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the Permittee shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1). Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82, or a more recent version of the same method. (Copies of ASTM test methods referenced in this section may be obtained from the Department of Environmental Protection, Bureau of Air Management, 79 Elm Street, 5th floor, Hartford, CT 06106-5127; (860) 424-3027).

iv. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the average SO_2 emission rate limits of RCSA §22a-174-19a(e)(2) or (e)(3), the Permittee shall make and keep records in accordance with the following: [RCSA §§22a-174-19a(i)(2)(A) and (C)]

(A) For affected units that are also Title IV sources, hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75;

(B) For all affected units, quarterly facility SO_2 emission rate averages, determined by dividing total quarterly SO_2 emissions by total quarterly heat input values for all affected units at the facility.

v. The Permittee unit shall keep the records specified in RCSA §22a-174-19a(1) or (2) at the premises for a period of five years. [RCSA §§22a-174-19a(i)(3)]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

ii. The Permittee of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to RCSA §22a-174-33(q)(2), certify in writing to the commissioner compliance with the applicable provisions of RCSA §22a-174-19a. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit. [RCSA §§22a-174-19a(j)(1)]

4. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on natural gas without duct firing (Mode 1):
[Permit No. 015-0299; RCSA §22a-174-22e(d)(11)(B); 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 25.1 lb/hr

(B) 2.0 ppmvd @ 15% O2

ii. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299; RCSA §22a-174-22e(d)(11)(B); 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 25.7 lb/hr

(B) 2.0 ppmvd @ 15% O_2

iii. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on ULSD without duct firing (Mode 3):
[Permit No. 015-0299; RCSA §22a-174-22e(d)(11)(B); 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 56.1 lb/hr

(B) 4.0 ppmvd @ 15% O_2

iv. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4):
[Permit No. 015-0299; RCSA §22a-174-22e(d)(11)(B); 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 60.2 lb/hr

(B) 4.0 ppmvd @ 15% O_2

v. The Permittee shall meet the emission limits specified in 40 CFR Part 60 Subpart KKKK, Table 1. If the total heat input is greater than or equal to 50 percent natural gas, the Permittee shall meet the corresponding limit for a natural gas-fired turbine when the Permittee is burning that fuel. Similarly, when the total heat input is greater than 50 percent distillate oil and fuels other than natural gas, the Permittee shall meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that the Permittee burns that particular fuel.
[40 CFR §60.4325]

vi. The Permittee shall not exceed the following startup operation NO_x emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold, 99 lb/event

(B) Startup Type: Warm, 99 lb/event

(C) Startup Type: Hot, 67 lb/event

vii. The Permittee shall not exceed the following startup operation NO_x emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold, 108 lb/event

(B) Startup Type: Warm, 108 lb/event

(C) Startup Type: Hot, 63 lb/event

viii. The Permittee shall not exceed the following shutdown operation NO_x emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 9.8 lb/event

ix. The Permittee shall not exceed the following shutdown operation NO_x emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 16 lb/event

x. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual NO_x emission limit stated herein at any time: 126.8 Tons per consecutive 12 months. [Permit No. 015-0299]

xi. Phase 1 (6/1/18-5/31/23), the Permittee shall not exceed the following NO_x emission limit when operating on natural gas or ULSD: 0.15 lb/MMBtu (Non Ozone Season: October 1st – April 30th). [RCSA §22a-174-22e(d)(5)(B); RCSA §22a-174-22e(d)(11)(A)]

xii. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO_x emission limit when operating on natural gas or ULSD: 0.15 lb/MMBtu (Non Ozone Season: October 1st – April 30th). [RCSA §22a-174-22e(d)(5)(D); RCSA §22a-174-22e(d)(11)(A)]

xiii. For a combined cycle combustion turbine associated with a duct burner, the emissions from the turbine and duct burner system in the aggregate, or either the turbine or duct burner if the turbine or duct burner operates alone, shall at all times be less than the applicable emissions limitations in RCSA §22a-174-22e(d)(5). [RCSA §22a-174-22e(d)(15)]

xiv. To comply with RCSA §22a-174-3a(l), the Permittee shall possess, at least 178 tons of external Emission Reduction Credits (ERCs) to offset the quantity of NO_x emitted from the following sources: [Permit No. 015-0299]

(A) EU-50, Dual fuel fired General Electric Model 7HA.02 combustion turbine with duct burner operating under Permit No. 015-0299

(B) EU-51, One auxiliary boiler operating under Permit No. 015-0300

(C) EU-52, One emergency generator operating under Permit No. 015-0301

(D) EU-53, One emergency fire pump operating under collateral conditions in Permit No. 015-0299

(E) EU-54, One Cooling Tower operating under collateral conditions in Permit No. 015-0299

(F) Three fuel storage tanks

(G) HVAC units, makeup air heaters and building space heaters (GEU-1) operating under collateral conditions in Permit No. 015-0299

xv. 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_x emissions allowed under Permit Nos. 015-0299, 105-0300 and 015-0301. 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 Title V permit and any subsequent changes to the permit. [Permit No. 015-0299]

xvi. Such NO_x offsets have been obtained from the following sources: The Permittee used 115 tons of Emission Reduction Credits (ERCs) from PSEG – Bridgeport Harbor Station. The ERCs have Serial Numbers: CT4NOx00-015-0045-7668-115 and the Permittee acquired 63 tons of ERCs from the New York Power Authority: NY-DEC-2-6301-00084-63. [Permit No. 015-0299]

xvii. The Permittee may be required to obtain additional NO_x 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 an emissions limit in Section III.D.4 of this Title V permit. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. 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: NO_x, 1 hour block averaging time. [Permit No. 015-0299]

ii. The Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO_x emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]

iii. Compliance with the seasonal limits of RCSA §22a-174-22e(d) shall be determined using emissions and operating data for the entire five-month period for an ozone season emissions limitation or for the entire seven-month period for a non-ozone season emissions limitation, except as follows: [RCSA §§22a-174-22e(m)(5)(A)&(B)]

(A) For the 2018 or 2023 ozone season, compliance shall be determined based on data collected June 1 through September 30; or

(B) If an emission unit commences initial operation during the ozone season or non-ozone season, compliance shall be determined based only on the portion of the season in which the unit operated.

iv. Install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO_X monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NO_X emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu). [40 CFR §60.4335(b)(1); 40 CFR §60.4340(b)(1)]

v. Each NO_x diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to 40 CFR Part 60, except the seven day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in Appendix F to 40 CFR Part 60 is not required. Alternatively, a NO_x diluent CEMS that is installed and certified according to Appendix A of 40 CFR Part 75 is acceptable for use under 40 CFR Part 60 Subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis. [40 CFR §60.4345(a)]

vi. As specified in 40 CFR §60.13(e)(2), during each full unit operating hour, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_x emission rate for the hour. [40 CFR §60.4345(b)]

vii. For the purposes of identifying excess emissions: [40 CFR §§60.4350(a)-(d) and (f)]

(A) All CEMS data must be reduced to hourly averages as specified in 40 CFR §60.13(h).

(B) For each unit operating hour in which a valid hourly average, as described in 40 CFR §60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 in Appendix A of 40 CFR Part 60. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculations.

(C) Correction of measured NO_x concentrations to 15 percent O_2 is not allowed.

(D) If the Permittee has installed and certified a NO_x diluent CEMS to meet the requirements of 40 CFR Part 75, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under this subpart. Periods where the missing data substitution procedures in 40 CFR Part 75 Subpart D are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR §60.7(c).

(E) Calculate the hourly average NO_x emission rates, in units of the emission standards under 40 CFR §60.4320, using either ppm for units complying with the concentration limit.

viii. For combined cycle, use the calculated hourly average emission rates from paragraph 40 CFR §60.4350(f) to assess excess emissions on a 30 unit operating day rolling average basis, as described in 40 CFR §60.4380(b)(1). [40 CFR §60.4350(h)]

ix. Initial stack testing shall be required for NO_x. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299; 40 CFR §60.4400(a)]

x. 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). [Permit No. 015-0299]

xi. If the Permittee elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in 40 CFR §60.4405) as part of the initial performance test of the affected unit. [40 CFR §60.4400(b)(5)]

xii. The initial performance test required under 40 CFR §60.8 may be performed in the following manner: [40 CFR §60.4405]

xiii. Perform a minimum of nine RATA reference method runs with a minimum time per run of 21 minutes, at a single load level, within plus or minus 25% of 100% peak load. The ambient temperature shall be greater than 0°F during the RATA runs.
[40 CFR §60.4405(a)]

xiv. For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) and measure the electrical and thermal output from the unit.
[40 CFR §60.4405(b)]

xv. Use the test data both to demonstrate compliance with the applicable NOx emission limit under 40 CFR §60.4320 and provide the required reference method data for the RATA of the CEMS described under 40 CFR §60.4335. [40 CFR §60.4405(c)]

xvi. Compliance with the applicable emission limit in 40 CFR §60.4320 is achieved if the arithmetic average of all of the NO_x emission rates for the RATA runs, expressed in unit of ppm or lb/MWh, does not exceed the emission limit. [40 CFR §60.4405(d)]

xvii. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: CEM data for steady state and manufacturer's recommended uncontrolled emission factors for transient state.
[Permit No. 015-0299]

xviii. The Permittee shall continuously monitor 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 Title V permit.
[Permit No. 015-0299]

xix. Recurrent stack testing of NO_x shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions:
[Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

xx. The Permittee shall demonstrate compliance with the emissions limitations of RCSA §22a-174-22e using sampling and analytical procedures under 40 CFR Part 60, Appendix A or, for affected units under 40 CFR Part 75, or under procedures in RCSA §22a-174-5(d). Sampling shall be conducted when the emission unit is at normal operating temperature and, unless allowed by the commissioner in a permit or order, is operating at or above 90% of maximum capacity, except as follows:

[RCSA §§22a-174-22e(d)(12), -22e(l)(1)(A), -22e(l)(7)(A) and (B)]

(A) If the commissioner determines that operating at or above 90% of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at an alternative maximum capacity where compliance with the emissions limitations of RCSA §22a-174-22e(d) shall be determined based on operating at or above 90% of the alternative maximum capacity approved by the commissioner; and

(B) Any emission unit that has operated in excess of 100% of its maximum capacity at any time since the most recent performance test performed pursuant to RCSA §22a-174-22e the emission unit is operating at or above 90% of its highest operating rate since the most recent performance test performed pursuant to RCSA §22a-174-22e.

xxi. If the Permittee is unable to conduct scheduled emission testing required by RCSA §22a-174-22e due to force majeure, the Permittee shall conduct the required emission testing as soon as practicable after the force majeure event occurs. [RCSA §22a-174-22e(l)(8)]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. 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. [Permit No. 015-0299]

ii. The Permittee shall 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 Title V permit. [Permit No. 015-0299]

iii. 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. Such records shall contain the following information: total NO_x emissions emitted (lb) during the event. [Permit No. 015-0299; 40 CFR §60.7(b)]

iv. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

v. The Permittee shall make and keep the following records:

(A) Records of the dates and times of all emission testing required by RCSA §22a-174-22e, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;
[RCSA §22a-174-22e(j)(2)(C)]

(B) For an emission unit that has or is required to have a CEM system for NO_x: [RCSA §§22a-174-22e(j)(2)(D)(i-iv)]

(1) Records of all performance evaluations, calibration checks and adjustments on such monitor,

(2) A record of maintenance performed,

(3) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3), and

(4) Charts, electronically stored data, and printed records produced by such CEM as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.

(C) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]

(D) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

vi. The Permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in 40 CFR §60.4345(a). [40 CFR §60.4345(e)]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. Not more than 60 days after the completion of emission tests conducted under RCSA §22a-174-22e(l), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(1)]

iii. Not more than 60 days after the completion of a certification test conducted under the requirements of RCSA §22a-174-22e(m), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(2)]

iv. The Permittee shall submit to the commissioner, on forms provided by the commissioner, written quarterly reports of excess emissions and CEM system malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30 and October 30 of each year and shall include: [RCSA §§22a-174-22e(k)(3)(A)-(G)]

(A) All daily block average data, in a format acceptable to the commissioner, for the three calendar month period ending the month before the due date of the report;

(B) The date and time of commencement and completion of each period of excess emissions;

(C) The magnitude and suspected cause of the excess emissions;

(D) Actions taken to correct the excess emission;

(E) The date and time when each malfunction of the CEM system commenced and ended;

(F) Actions taken to correct each malfunction; and

(G) If not excess emissions or CEM system malfunctions occur during a quarter, the Permittee shall indicate that no excess emissions or malfunctions occurred during the quarter.

v. Upon written notice, the commissioner may require the Permittee to provide all hourly CEM data, in a format acceptable to the commissioner, for the three calendar month period identified in such written notice. [RCSA §22a-174-22e(k)(4)]

vi. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [40 CFR §60.4375(a)]

vii. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions and monitor downtime that must be reported and are defined for turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345: [40 CFR §60.4380(b)]

viii. An excess emissions is any unit operating period in which the 30-day rolling average NO_x emission rate exceeds the applicable emission limit in 40 CFR §60.4320. For the purposes of 40 CFR Part 60 Subpart KKKK, a "30-day rolling average NO_x emission rate" is the arithmetic average of all hourly NO_x emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the 29 unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_x emissions rates for the preceding 30 unit operating days if a valid NO_x emission rate is obtained for at least 75% of all operating hours. [40 CFR §60.4380(b)(1)]

ix. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if the Permittee will use this information for compliance purposes. [40 CFR §60.4380(b)(2)]

x. All reports required under 40 CFR §60.7(c) must be postmarked by the 30th day following the end of each six month period. [40 CFR §60.4395]

5. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on natural gas without duct firing (Mode 1): [Permit No. 015-0299]

(A) 6.9 lb/hr

(B) 0.9 ppmvd @ 15% O_2

ii. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299]

(A) 13.3 lb/hr

(B) 1.7 ppmvd @ 15% O_2

iii. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on ULSD without duct firing (Mode 3): [Permit No. 015-0299]

(A) 17.1 lb/hr

(B) 2.0 ppmvd @ 15% O_2

iv. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4): [Permit No. 015-0299]

(A) 55.0 lb/hr

(B) 6.0 ppmvd @ 15% O_2

v. The Permittee shall not exceed the following startup operation CO emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold, 129 lb/event

(B) Startup Type: Warm, 126 lb/event

(C) Startup Type: Hot, 120 lb/event

vi. The Permittee shall not exceed the following startup operation CO emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold, 284 lb/event

(B) Startup Type: Warm, 279 lb/event

(C) Startup Type: Hot, 261 lb/event

vii. The Permittee shall not exceed the following shutdown operation CO emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 124 lb/event

viii. The Permittee shall not exceed the following shutdown operation CO emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 42.0 lb/event

ix. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual CO emission limit stated herein at any time: 95.1 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. 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: CO, 1 hour block averaging time and O_2, 1 hour block averaging time. [Permit No. 015-0299]

ii. 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). [Permit No. 015-0299]

iii. Initial stack testing shall be required for CO. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iv. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: CEM data for steady state and manufacturer's recommended uncontrolled emission factors for transient state. [Permit No. 015-0299]

v. Recurrent stack testing of CO shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. 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. [Permit No. 015-0299]

ii. 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. Such records shall contain the following information: total CO emissions emitted (lb) during the event. [Permit No. 015-0299 and 40 CFR §60.7(b)]

iii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

6. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state VOC emission limits when the turbine is operating on natural gas without duct firing (Mode 1): [Permit No. 015-0299]

(A) 3.1 lb/hr

(B) 0.7 ppmvd @ 15% O_2

ii. The Permittee shall not exceed the following steady state VOC emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2): [Permit No. 015-0299]

(A) 7.2 lb/hr

(B) 1.6 ppmvd @ 15% O_2

iii. The Permittee shall not exceed the following steady state VOC emission limits when the turbine is operating on ULSD without duct firing (Mode 3): [Permit No. 015-0299]

(A) 9.8 lb/hr

(B) 2.0 ppmvd @ 15% O_2

iv. The Permittee shall not exceed the following steady state emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4): [Permit No. 015-0299]

(A) 20.9 lb/hr

(B) 4.0 ppmvd @ 15% O_2

v. The Permittee shall not exceed the following startup operation VOC emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold, 10.2 lb/event

(B) Startup Type: Warm, 9.6 lb/event

(C) Startup Type: Hot, 8.4 lb/event

vi. The Permittee shall not exceed the following startup operation VOC emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold, 31 lb/event

(B) Startup Type: Warm, 31 lb/event

(C) Startup Type: Hot, 28 lb/event

vii. The Permittee shall not exceed the following shutdown operation VOC emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 26 lb/event

viii. The Permittee shall not exceed the following shutdown operation emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 6.2 lb/event

ix. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual VOC emission limit stated herein at any time: 29.5 Tons per consecutive 12 months. [Permit No. 015-0299]

x. To comply with RCSA §22a-174-3a(l), the Permittee shall possess, at least 41 tons of ERCs to offset the quantity of VOC emitted from the following sources: [Permit No. 015-0299]

(A) EU-50, Dual fuel fired General Electric Model 7HA.02 combustion turbine with duct burner operating under Permit No. 015-0299

(B) EU-51, One auxiliary boiler operating under Permit No. 015-0300

(C) EU-52, One emergency generator operating under Permit No. 015-0301

(D) EU-53, One emergency fire pump operating under collateral conditions in Permit No. 015-0299

(E) EU-54, One Cooling Tower operating under collateral conditions in Permit No. 015-0299

xi. Such a quantity is sufficient to offset the emissions at a ratio of 1.3 to 1 ton of reduction for every ton of VOC emissions allowed under Permit Nos. 015-0299, 105-0300 and 015-0301. 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 Title V permit and any subsequent changes to the permit. [Permit No. 015-0299]

xii. Such VOC offsets have been obtained from the following source: The Permittee acquired 41 tons of ERCs from Element Markets, LLC: NY-DEC-2-6401-00042-41. [Permit No. 015-0299]

xiii. The Permittee may be required to obtain additional 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 an emission limit in Section III.D.6 of this Title V permit. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for VOC. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

ii. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack testing data for steady state and manufacturer's recommended uncontrolled emission factors for transient state. [Permit No. 015-0299]

iii. Compliance with VOC emission limits shall be determined by correlating the VOC emissions to the CO emissions using the results of the stack test required in this Title V permit along with manufacturer's data and tracked using the CO CEMS. [Permit No. 015-0299]

iv. Recurrent stack testing of VOC shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exception: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. 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. [Permit No. 015-0299]

ii. 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. Such records shall contain the following information: total VOC emissions emitted (lb) during the event. [Permit No. 015-0299 and 40 CFR §60.7(b)]

iii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

6a. Compliance Assurance Monitoring (CAM) Plan for EU-50 only
Emera Chem Oxidation Catalyst

a. Indicator No. 1: CO emission rate (ppmvd @ 15%O_2) as measured by the CO CEMS

b. Indicator No. 2: The prediction of the VOC emission rate using a correlation algorithm

i. *Justification*: The CO emission rate was chosen as the CAM indicator because the same parameters that influence the oxidation catalyst control of CO also influence control of VOC. Elevated CO levels are an indicator that emissions of VOC may also be elevated. CO levels that remain below the steady state CO emission limits will indicate that the oxidation catalyst system is performing adequately and will provide reasonable assurance of ongoing compliance with the pollutant specific emission unit's permitted VOC emission limits.

During the initial stack testing of EU-50, the Permittee will conduct correlation testing of VOC emissions versus CO stack test and CO CEMs results over a range of potential EU-50 operating conditions to develop a correlation algorithm. This algorithm will be used as part of the CAM plan to relate CO CEMs data with VOC emissions. The correlation results will be updated during the recurrent stack testing.

The Permittee will input the CO CEMs data into the correlation algorithm described above. The resultant prediction of VOC emission levels will be used as a secondary indicator of compliance with the steady state VOC emission limits.

ii. *Measurement Approach*: CO is measured and recorded using a certified CEMS

iii. *Indicator Range or Designated Conditions*: CO emissions less than or equal to the steady state CO emission limitations:

(A) Mode 1 (natural gas, without duct firing): 0.9 ppmvd @ 15%O_2

(B) Mode 2 (natural gas, with duct firing): 1.7 ppmvd @ 15%O_2

(C) Mode 3 (natural gas, without duct firing): 2.0 ppmvd @ 15%O_2

(D) Mode 4 (natural gas, with duct firing): 6.0 ppmvd @ 15%O_2

iv. *Corrective Action*: In the event of an excursion of a CO emission limit, or a prediction by the correlation algorithm that a steady state VOC emission limit may be exceeded, the occurrence will be evaluated by a station operator to determine the procedures necessary to correct the condition.

v. *Data Representatives*: CO data will be collected and validated in accordance with the CEMs requirements. CO CEMs data availability is in accordance with the CEMs requirements.

vi. *QA/QC*: CO QA/QC procedures are consistent with the CEMs requirements.

vii. *Monitoring Frequency*: CO is measured on a continuous basis with the exception of QA/QC periods, monitor malfunction periods and periods where the module is not combusting fuel.

viii. *Data Collection*: CO data is collected by a computerized Data Acquisition System meeting the CEMs requirements.

ix. *Averaging Period*: CO emission rate is a 1-hour block average

x. *Record Keeping*: Time of day and duration of any CAM plan excursion and resulting corrective actions will be recorded.

xi. *Reporting*: A list of all CAM plan excursions, their durations and corrective actions.

xii. *Frequency*: CO is measured on a continuous basis with the exception of QA/QC periods, monitor malfunction periods and periods where the module is not combusting fuel.

7. Lead (Pb)

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on natural gas without duct firing (Mode 1): 0.0016 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on natural gas with duct firing natural gas (Mode 2): 0.0017 lb/hr. [Permit No. 015-0299]

iii. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on ULSD without duct firing (Mode 3): 0.05 lb/hr. [Permit No. 015-0299]

iv. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on ULSD with duct firing natural gas (Mode 4): 0.05 lb/hr. [Permit No. 015-0299]

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual Pb emission limit stated herein at any time: 0.02 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: AP-42, Fifth Edition, Volume I, Chapter 3.1, April 2000. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.D.7.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

8. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on natural gas without duct firing (Mode 1): 3.6 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on natural gas with duct firing natural gas (Mode 2): 3.6 lb/hr. [Permit No. 015-0299]

iii. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on ULSD without duct firing (Mode 3): 4.3 lb/hr. [Permit No. 015-0299]

iv. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on ULSD with duct firing natural gas (Mode 4): 4.6 lb/hr. [Permit No. 015-0299]

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/Space Heaters (GEU-1) to exceed the annual H_2SO_4 emission limit stated herein at any time: 14.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for H_2SO_4. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

ii. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: stack testing data. [Permit No. 015-0299]

iii. Recurrent stack testing of H_2SO_4 shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exception: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. 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. [Permit No. 015-0299]

ii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

9. Ammonia (NH_3)

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on natural gas without duct firing (Mode 1): 2.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on natural gas with duct firing natural gas (Mode 2): 2.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

iii. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on ULSD without duct firing (Mode 3): 5.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

iv. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on ULSD with duct firing natural gas (Mode 4): 5.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

v. The Permittee shall not exceed the following startup operation NH_3 emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

vi. The Permittee shall not exceed the following startup operation NH_3 emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

vii. The Permittee shall not exceed the following shutdown operation NH_3 emissions rate when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

viii. The Permittee shall not exceed the following shutdown operation NH_3 emissions rate when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

ix. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual NH_3 emission limit stated herein at any time: 47.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. 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: NH_3, 1 hour block averaging time. [Permit No. 015-0299]

ii. 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). [Permit No. 015-0299]

iii. Initial stack testing shall be required for NH_3. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iv. Demonstration of compliance with the NH_3 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: CEM data for steady state and manufacturer's recommended uncontrolled emission factors for transient state. [Permit No. 015-0299]

v. Recurrent stack testing of NH_3 shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NH_3 emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. 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. [Permit No. 015-0299]

ii. 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. Such records shall contain the following information: total NH_3 emissions emitted (lb) during the event. [Permit No. 015-0299; 40 CFR §60.7(b)]

iii. 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.

iv. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

10. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for formaldehyde. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

ii. Initial stack testing shall be required for arsenic while firing distillate oil. 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. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iii. Demonstration of compliance with the HAP emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: AP-42, Fifth Edition, Volume I, Chapter 3.1, April 2000 except for those HAP with required stack test. [Permit No. 015-0299]

iv. Recurrent stack testing of formaldehyde and arsenic shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results for formaldehyde shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. Stack emissions test results for arsenic shall be reported in the following units: lb/hr. [Permit No. 015-0299]

11. Opacity

a. Limitation or Restriction

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. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. A certified observer shall conduct visual observations once every 100 hours of oil firing operation using Reference Method 9. [Permit No. 015-0299]

ii. Monitoring 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. [Permit No. 015-0299]

iii. Initial stack testing shall be required for opacity. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iv. Recurrent stack testing of opacity shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

v. 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." [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall make and keep records of the visual observations of opacity. 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. [Permit No. 015-0299]

d. Reporting Requirements

Opacity shall be reported in the following units: %. [RCSA §22a-174-33(j)(1)(X)]

12. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed a maximum allowable CO_2 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. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following CO_{2e} emission limits. Compliance with these limitations shall be determined on a 12 month rolling basis. [Permit No. 015-0299]

(A) Equipment: Permit Nos. 015-0299, 105-0300 and 015-0301, 1,671,463 TPY

(B) Equipment: Combustion turbine/duct burner and HVAC/space heaters (GEU-1), 1,620,616 TPY

(C) Equipment: SF_6-Circuit Breakers & CH_4-Natural Gas Pipeline, 9,285 TPY

b. Monitoring and Testing Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4, 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: CO_2 from the HRSG stack, 1 hour block averaging time and net electrical output, continuous averaging time. [Permit No. 015-0299]

ii. 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). [Permit No. 015-0299]

iii. Initial stack testing shall be required for CO_2. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iv. Stack emissions testing firing natural gas, without duct firing, for CO_2 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. [Permit No. 015-0299]

v. Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources: [Permit No. 015-0299]

(A) CO_2 emissions from the combustion turbine shall be determined by CO_2 CEM.

(B) Methane (CH_4) and Nitrous Oxide (N_2O) 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_4 and N_2O Emission Factors for Various Types of Fuel.

(C) Emissions of sulfur hexafluoride (SF_6) 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.

(D) Emissions from CH_4 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.

(E) 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).

vi. Prior to operation, the Permittee shall develop a written plan for the operation, inspection, maintenance, preventive and corrective measures for minimizing GHG emissions (CH_4 from the natural gas pipeline components and SF_6 emissions from the insulated electrical equipment). At a minimum the plan shall provide for: [Permit No. 015-0299]

(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_6 leakage from the circuit breakers;

(C) Inspection for SF_6 emissions from the insulated electrical equipment on at least a monthly basis.

vii. The following calculation method shall be used: [Permit No. 015-0299]

(A) Determine total hourly CO_2 mass emission (lbs) for each hour of the operating month using CO_2 CEMs.

(B) Determine total hourly net electrical output in terms of MWh for each hour of the operating month.

(C) Sum the hourly CO_2 mass emissions calculated for the month.

(D) Sum the total net output calculated for the operating month.

(E) Divide the total CO_2 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).

viii. Recurrent stack testing of CO_2 shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. 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. 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. [Permit No. 015-0299]

ii. The Permittee shall keep records of the electrical output of the plant (net).[Permit No. 015-0299]

iii. 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: [Permit No. 015-0299]

(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_6 added (if any) to the electrical equipment.

iv. The Permittee shall keep monthly records of the audible alarms from the SF_6 leak detection system and inspections for the insulated electrical equipment. The records shall include: [Permit No. 015-0299]

(A) The name of the person conducting inspection/maintenance;

(B) The date the inspection/maintenance took place; and

(C) The results or actions taken.

v. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

13. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee is not required to demonstrate compliance with the short-term emission limits during the initial shakedown period. [Permit No. 015-0299]

ii. Emissions during the initial shakedown period shall be counted towards the annual emission limits. [Permit No. 015-0299]

iii. 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. [Permit No. 015-0299]

iv. Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions. [40 CFR §60.4345(d)]

b. Monitoring and Testing Requirements

The Permittee shall perform inspections of the SCR and oxidation catalysts as recommended by the manufacturer. [Permit No. 015-0299]

c. Record Keeping Requirements

i. 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. [Permit No. 015-0299]

ii. The Permittee shall keep records of the inspection and maintenance of the SCR and oxidation catalysts. The records shall include: [Permit No. 015-0299]

(A) the name of the person;

(B) the date;

(C) the results or actions; and

(D) the date the catalyst is replaced.

iii. The Permittee shall keep records of all repairs/replacement of parts and other maintenance activities for the equipment. [Permit No. 015-0299]

iv. The Permittee shall keep records of the manufacturer written recommendations for operation and maintenance of the turbine/duct burner and air pollution control equipment. [Permit No. 015-0299]

v. The Permittee shall keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 015-0299]

(A) the date and time of the exceedance;

(B) a detailed description of the exceedance; and

(C) the duration of the exceedance.

vi. The Permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in 40 CFR §60.4345(d). [40 CFR §60.4345(e)]

vii. For purposes of identifying excess emissions: all required steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages. [40 CFR §60.4350(e)]

viii. The Permittee shall keep a certified copy of Permit No. 015-0299 on the premises at all times, and shall make it available upon request of the commissioner for the duration of Permit No. 015-0299. Permit No. 015-0299 shall also be available for public inspection during regular business hours. [Permit No. 015-0299]

ix. The Permittee shall keep all records required by Permit No. 015-0299 for a period of no less than five years and shall submit such records to the commissioner upon request. [Permit No. 015-0299]

x. The Permittee shall make and keep the following records: The date and work performed for repairs, replacement of parts and other maintenance.
[RCSA §22a-174-22e(j)(2)(B)]

d. Reporting Requirements

i. 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 Permit No. 015-0299) for such construction or phase of construction.
[RCSA §22a-174-3a(j)(4); Permit No. 015-0299]

ii. 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.
[Permit No. 015-0299]

iii. 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: [Permit No. 015-0299]

(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.

iv. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [40 CFR §60.4375(a)]

v. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions and monitor downtime that must be reported and are defined for turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345: [40 CFR §60.4380(b)]

(A) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if the Permittee will use this information for compliance purposes.
[40 CFR §60.4380(b)(2)]

vi. All reports required under 40 CFR §60.7(c) must be postmarked by the 30th day following the end of each six month period. [40 CFR §60.4395]

vii. The Permittee shall comply with the Initial Notification requirements set forth in 40 CFR §63.6145 but need not comply with any other requirement of 40 CFR Part 63 Subpart YYYY until EPA takes final action to require compliance and publishes a document in the Federal Register.
[40 CFR §63.6095(d)]

viii. The Permittee shall submit all of the applicable notifications in 40 CFR §§63.7(b) and (c), 63.8(e), 63.8(f)(4), and 63.9(b) and (h) by the dates specified. [40 CFR §63.6145(a)]

ix. The Permittee shall submit an Initial Notification not later than 120 calendar days after becoming subject to 40 CFR Part 63 Subpart YYYY. [40 CFR §63.6145(c)]

x. The Permittee shall submit 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. [Permit No. 015-0299]

14. Operation and Maintenance (O & M) -Startup & Shutdown and Transient

a. Limitation or Restriction

i. 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 during, startup, shutdown and malfunction. [Permit No. 015-0299 and 40 CFR §60.4333(a)]

ii. The Permittee shall immediately institute shutdown of the turbine in the event where emissions are in excess of an emission limit listed in this Title V permit that cannot be corrected within three hours of when the emission exceedance was identified. [Permit No. 015-0299]

iii. No period of Transient operation shall exceed 60 consecutive minutes. [Permit No. 015-0299]

iv. The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints: [Permit No. 015-0299]

(A) Start the ammonia injection as soon as minimum catalyst temperature is reached;

(B) The oxidation catalyst shall not be bypassed during startup or shutdown; and

(C) Emissions during these periods shall be counted towards the annual emission limits stated herein.

v. The Permittee shall not exceed a total of 500 hours of cold startups, warm startups, hot startups and shutdown per calendar year. [Permit No. 015-0299]

b. Monitoring Requirements

Record keeping specified in Section III.D.14.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii]

c. Record Keeping Requirements

i. 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. Such records shall contain the following information: [Permit No. 015-0299; 40 CFR §60.7(b)]

(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); and

(F) fuel being used during event.

d. Reporting Requirements

i. 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: [Permit No. 015-0299]

(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.

15. Operation-Stack Testing

a. Limitation or Restriction

i. 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. [Permit No. 015-0299]

ii. The shakedown period shall not extend beyond the required date for the initial performance tests. [Permit No. 015-0299]

iii. 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. [Permit No. 015-0299]

iv. Maximum Heat Input Capacities at Given Ambient Temperatures for Natural Gas: [Permit No. 015-0299]

Actual Ambient Temperature (T_{ACT}) (^oF)	Heat Input (Q) for Combustion Turbine without Duct Burner (MMBTU/hr (HHV))	Heat Input (Q)for Duct Burner (MMBTU/hr (HHV))
0	3,292	73*
20	3,281	84*
35	3,245	120*
50	3,138	227*
59	3,128	237*
80	3,096	267
90	3,043	267
100	2,967	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.

v. Maximum Heat Input Capacities at Given Ambient Temperatures for ULSD:
[Permit No. 015-0299]

Actual Ambient Temperature (T_{ACT}) (°F)	Heat Input (Q) for Combustion Turbine without Duct Burner (MMBTU/hr (HHV))	Heat Input (Q)for Duct Burner (MMBTU/hr (HHV))
0	3,439	267
20	3,422	267
35	3,396	267
50	3,348	267
59	3,321	267
80	3,281	267
90	3,199	267
100	3,079	267

vi. The Permittee shall perform one set of tests on the turbine for the following scenarios:
[Permit No. 015-0299]

(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

b. Monitoring and Testing Requirements

i. 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 Section III.D.15.a.iv or v of this Title V permit:
[Permit No. 015-0299]

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

Where:
MHI_T: Turbine or duct burner maximum heat input at ambient temperature (°F)
T_{Act}: Actual ambient temperature
T_1: Temperature value from Section III.D.15.a.iv or v of this Title V permit that is below T_{Act}
T_2: Temperature value from Section III.D.15.a.iv or v of this Title V permit that is above T_{Act}
Q_1: Maximum Heat Input value from Section III.D.15.a.iv or v of this Title V permit at corresponding T_1

Q_2: Maximum Heat Input value from Section III.D.15.a.iv or v of this Title V permit at corresponding T_2

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.D.15.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

16. Acid Rain-See Section III.I of this Title V permit

E. EU-51 Victory Energy Natural Gas Fired Auxiliary Boiler with Ultra Low NO_x Burners and FGR (80 MMBtu/hr)
Subject to: Permit No. 015-0300, 40 CFR Part 60 Subpart Dc and 40 CFR Part 63 Subpart DDDDD

1. Fuel and Maximum Fuel Consumption

a. Limitation or Restriction

i. The boiler's maximum fuel consumption over any consecutive 12 month period shall not exceed 687 MMscf. [Permit No. 015-0300]

ii. The sulfur content of the natural gas shall not exceed 0.5 grains/100 scf. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

The Permittee shall continuously monitor fuel consumption to the boiler using a non-resettable totalizing fuel meter. [Permit No. 015-0300]

c. Record Keeping Requirements

i. 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.
[Permit No. 015-0300; 40 CFR §60.48c(g)(2); 40 CFR §63.755(a)(3)]

ii. 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. [Permit No. 015-0300]

d. Reporting Requirements

i. The Permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by 40 CFR §60.7. This notification shall include: [40 CFR §§60.48c(a)(1)-(3)]

(A) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(B) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR §60.42c, or 40 CFR §60.43c.

(C) The annual capacity factor at which the Permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

2. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limit: 0.48 lb/hr. [Permit No. 015-0300]

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 2.1 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the PM_{10} emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Guaranteed Vendor Emissions Factor. [Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM_{10}, $PM_{2.5}$ 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. [Permit No. 015-0300]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. SO_2

a. Limitation or Restriction

i. The Permittee shall not exceed the following SO_2 emission limit: 0.12 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual SO_2 emission limit: 0.5 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Calculated from fuel sulfur content. [Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

4. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following NO_x emission limits: [Permit No. 015-0300]

(A) 0.72 lb/hr

(B) 7.0 ppmvd @ 3% O_2

ii. The Permittee shall not cause or exceed the following annual NO_x emission limit: 3.2 Tons per consecutive 12 months. [Permit No. 015-0300]

iii. Phase 1 (6/1/18-5/31/23), The Permittee shall not exceed the following NO_x emission limits: [RCSA §§22a-174-22e(d)(3)(A) and (B)]

(A) 0.20 lb/MMBtu (24 hour daily average)

(B) 0.10 lb/MMBtu (Ozone Season: May 1st – September 30th)

(C) 0.15 lb/MMBtu (Non Ozone Season: October 1st – April 30th)

iv. Phase 2 (on or after 6/1/23), the Permittee shall not exceed the following NO_x emission limits: [RCSA §§22a-174-22e(d)(3)(C) and (D)]

(A) 0.05 lb/MMBtu (24 hour daily average)

(B) 0.15 lb/MMBtu (Non Ozone Season: October 1st – April 30th)

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for NO_x. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0300; RCSA §22a-174-22e(d)(12); RCSA §22a-174-22e(l)(1)(A)]

ii. 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. [Permit No. 015-0300]

iii. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: stack testing data. [Permit No. 015-0300]

iv. 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. [Permit No. 015-0300]

v. Recurrent stack testing for NO_x shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300: RCSA §§22a-174-22e(l)(4) and (5)]

vi. Each emission test shall be conducted in accordance with RCSA §22a-174-5 and compliance with the emissions limitations in RCSA §22a-174-22e shall be determined based on the average of three one-hour tests, each performed over a consecutive 60-minute period except as follows: [RCSA §22a-174-22e(l)(6)]

(A) If the commissioner determines that three one-hour tests are not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing where compliance with the emissions limitations of this section shall be determined based on the average of test runs shorter than a one-hour period. For the first time that an emissions unit is tested with a shorter than one-hour test run as provided in this subdivision, approval of the commissioner for a shorter than one-hour test run shall be received prior to testing by submission of a request to the commissioner at least 120 days prior to the scheduled testing. The request shall specify a test run duration and describe why a shorter time period is necessary. [RCSA §22a-174-22e(l)(6)(B)]

vii. The Permittee shall demonstrate compliance with the emissions limitations of RCSA §22a-174-22e using sampling and analytical procedures under 40 CFR Part 60, Appendix A or, for affected units, under 40 CFR Part 75, or under procedures in RCSA §22a-174-5(d). Sampling shall be conducted when the emission unit is at normal operating temperature and, unless allowed otherwise by the commissioner in a permit or order, is operating at or above 90 % of maximum capacity, except as follows: [RCSA §§22a-174-22e(l)(7)(A) and (B)]

(A) If the commissioner determines that operating at or above 90% of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at

an alternative maximum capacity where compliance with the emissions limitations of RCSA §22a-174-22e(d) shall be determined based on operating at or above 90% of the alternative maximum capacity approved by the commissioner; and

(B) Any emission unit that has operated in excess of 100% of its maximum capacity at any time since the most recent performance test performed pursuant to RCSA §22a-174-22e shall be tested when the emission unit is operating at or above 90% of its highest operating rate since the most recent performance test performed pursuant to this section.

viii. If the Permittee is unable to conduct scheduled emission testing required by RCSA §22a-174-22e due to force majeure, the Permittee shall conduct the required emission testing as soon as practicable after the force majeure event occurs. [RCSA §22a-174-22e(l)(8)]

ix. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

x. On and after 6/1/18, the Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO_x emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]

xi. On and after 6/1/18, the Permittee shall calculate an emission unit's ozone season emission rate as the sum of the emission unit's NO_x emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the emission unit's heat input while firing the applicable fuel during the period from May 1 through September 30 inclusive. [RCSA §22a-174-22e(d)(20)]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

iii. The Permittee shall make and keep the following stack testing records:
[Permit No. 015-0300; RCSA §22a-174-22e(j)(2)]

(A) Records of the dates and times of all emission testing required by RCSA §22a-174-22e, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;
[RCSA §22a-174-22e(j)(2)(C)]

(B) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]

(C) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 3% O_2. [Permit No. 015-0300]

ii. Not more than 60 days after the completion of emission tests conducted under RCSA §22a-174-22e(l), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(1)]

5. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following VOC emission limits:
[Permit No. 015-0300]

(A) 0.32 lb/hr

(B) 0.004 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual VOC emission limit: 1.4 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for VOC. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website.
[Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

iii. Recurrent stack testing for VOC shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300]

iv. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

v. 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.
[Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr and lb/MMBtu. [Permit No. 015-0300]

6. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO emission limits: [Permit No. 015-0300]

(A) 2.88 lb/hr

(B) 50 ppmvd @ 3% O_2

ii. The Permittee shall not cause or exceed the following annual CO emission limit: 12.6 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for CO. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

iii. Recurrent stack testing for CO shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300]

iv. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

v. 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. [Permit No. 015-0300]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

ii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0300]

d. Reporting Requirements

Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 3% O_2. [Permit No. 015-0300]

7. Lead (Pb)

a. Limitation or Restriction

i. The Permittee shall not exceed the following Pb emission limit: 3.9 E-05 lb/hr. [Permit No. 015-0300]

ii. The Permittee shall not cause or exceed the following annual Pb emission limit: 1.7E-04 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and *Testing Requirements*

i. Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: AP-42, Table 1.4-2, July 1998. [Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

c. Record *Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

8. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following H_2SO_4 emission limit: 0.02 lb/hr. [Permit No. 015-0300]

ii. The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.08 Tons per consecutive months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Calculated from fuel sulfur content. [Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

9. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0300]

b. Monitoring Requirements

Record keeping specified in Section III.E.9.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.E.9.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

10. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limits:
[Permit No. 015-0300]

(A) 9,368 lb/hr

(B) 117 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 41,031 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources:
[Permit No. 015-0299]

(A) CO_2 emissions from the auxiliary boiler, emergency generator and emergency fire pump engine 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_2 Emission Factors and High Heat Values for Various Types of Fuel.

(B) Methane (CH_4) and Nitrous Oxide (N_2O) 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_4 and N_2O Emission Factors for Various Types of Fuel.

ii. Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: 40 CFR Part 98, Tables A-1 (Dec 2014), C-1 and C-2 (Nov 2013). [Permit No. 015-0300]

iii. 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.
[Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month.
[Permit No. 015-0300]

d. Reporting *Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

11. Opacity

a. Limitation or Restriction

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. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Initial stack testing shall be required for opacity. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

iii. Recurrent stack testing for opacity shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300]

iv. Demonstration of compliance with the opacity emission limit may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall keep records of stack testing reports. [Permit No. 015-0300]

d. Reporting Requirements

Stack emissions test results shall be reported in the following unit: %. [Permit No. 015-0300]

12. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee shall operate and maintain the boiler/control equipment in accordance with manufacturer's specifications and written recommendations. [Permit No. 015-0300 and 40 CFR §63.7500(a)(3)]

ii. The Permittee shall properly operate the flue gas recirculation (FGR) system at all times that this equipment is in operation and emitting air pollutants. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

The Permittee shall perform inspections of the low NO_x burners and flue gas recirculation system as recommended by the manufacturer. [Permit No. 015-0300]

c. Record Keeping Requirements

i. The Permittee shall make and keep records of all maintenance and tune-up activities for the boiler. [Permit No. 015-0300]

ii. The Permittee shall make and keep records of all inspections of the low NO_x burners and flue gas recirculation system. [Permit No. 015-0300]

iii. The Permittee shall make and keep records of manufacturer written specifications and recommendations for operation and maintenance. [Permit No. 015-0300]

iv. The Permittee shall keep all records required by Permit No. 015-0300 for a period of no less than five years and shall submit such records to the commissioner upon request. [Permit No. 015-0300]

v. The Permittee shall make and keep records of the date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]

d. Reporting Requirements

i. 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 Permit No. 015-0300) for such construction or phase of construction. [RCSA §22a-174-3a(j)(4) and Permit No. 015-0300]

ii. 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. [Permit No. 015-0300]

iii. The Permittee shall submit 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. [Permit No. 015-0300]

13. Work Practice

a. Limitation or Restriction

i. The Permittee shall comply with 40 CFR Part 63 Subpart DDDDD upon startup of the boiler or process heater. [40 CFR §63.7510(g); 40 CFR §63.7495(a)]

ii. The Permittee shall conduct a tune-up of the boiler annually to demonstrate continuous compliance. Each annual tune-up shall be no more than 13 months after the previous tune-up. For a new affected source, the first annual tune-up shall be no later than 13 months after the initial startup of the new affected source.

[RCSA §22a-174-22e(i); 40 CFR §63.7500(a)(1); 40 CFR §63.7510(g); 40 CFR §63.7515(d); 40 CFR §63.7540(a)(10); 40 CFR Part 63 Subpart DDDDD, Table 3, No. 3]

iii. The tune-up shall consist of the following: [40 CFR §§63.7540(a)(10)(i)-(v)]

(A) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(B) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(C) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(D) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject; and

(E) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

iv. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR §63.7540(a)(13)]

v. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 63 Subpart DDDDD, Table 10.
[40 CFR §63.7565; 40 CFR Part 63 Subpart DDDDD, Table 10]

b. Monitoring and Testing Requirements

The Permittee shall demonstrate continuous compliance with the applicable work practice standards in 40 CFR Part 63 Subpart DDDDD, Table 3. [40 CFR §63.7540(a)]

c. Record Keeping Requirements

i. The Permittee shall make and keep the following records on and after May1, 2018, for each tune up conducted pursuant to RCSA §22a-174-22e(i):
[RCSA §§22a-174-22e(j)(2)(E)(i) and (ii)]

(A) the name, title and affiliation of the person performing the tune-up, and a description of the work performed, and;

(B) The procedures used to inspect and perform adjustments.

ii. The Permittee shall make, keep on-site and submit, if requested by the Administrator, an annual report containing the following information:
[40 CFR §§63.7540(a)(10)(vi)(A)-(C)]

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

iii. The Permittee shall make and keep the following records: [40 CFR §§63.7555(a)(1)-(3)]

(A) A copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or compliance report submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).

(B) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).

(C) The Permittee shall keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10%.

iv. The Permittee's records shall be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1). [40 CFR §63.7560(a)]

v. As specified in 40 CFR §63.10(b)(1), the Permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
[40 CFR §63.7560(b)]

vi. The Permittee shall keep each record on site, or they shall be accessible from on-site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). The Permittee can keep the records off site for the remaining three years. [40 CFR §63.7560(c)]

vii. The Permittee shall make and keep records sufficient to show compliance with applicable General Provisions requirements of 40 CFR Part 63 Subpart DDDDD, Table 10.
[RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

i. The Permittee shall submit to the Administrator all of the applicable notifications in 40 CFR §§63.7(b) and (c), 40 CFR §§63.8(e), (f)(4) and (6), and 40 CFR §§63.9(b) through (h) by the dates specified. [40 CFR §63.7495(d); 40 CFR §63.7545(a)]

ii. The Permittee shall submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [40 CFR §63.7495(d); 40 CFR §63.7545(c)]

iii. The Permittee shall submit an annual compliance report instead of a semi-annual compliance report, as specified below:
[40 CFR §63.7550(a); 40 CFR §§63.7550(b)(1)-(4); 40 CFR Part 63 Subpart DDDDD, Table 9]

(A) The first compliance report shall cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR §63.7495 and ending on December 31, within a year, after the compliance date that is specified for the source in 40 CFR §63.7495.

(B) The first annual compliance report shall be postmarked or submitted no later than January 31.

(C) Annual compliance reports shall cover the applicable one year period from January 1 to December 31.

(D) Annual compliance reports shall be postmarked or submitted no later than January 31.

iv. The annual compliance report shall contain the following information:
[40 CFR §63.7550(c)(1); 40 CFR §§63.7550(c)(5)(i)-(iv), (xiv) and (xvii)]

(A) Company and Facility name and address;

(B) Process unit information, emissions limitations, and operating parameter limitations;

(C) Date of report and beginning and ending dates of the reporting period;

(D) The total operating time during the reporting period; and

(E) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR §63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.

(F) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

v. The Permittee shall submit all reports required by 40 CFR Part 63 Subpart DDDDD, Table 9 electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The Permittee shall use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for 40 CFR Part 63 Subpart DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63 Subpart DDDDD is not available in CEDRI at the time that the report is due, the Permittee shall submit the report to the Administrator at the appropriate address listed in 40 CFR §63.13. The Permittee shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR §63.7550(h)(3)]

F. EU-52 Caterpillar 3516C Diesel Fired Emergency Generator (19.1 MMBtu/hr)
Subject to: Permit No. 015-0301, 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ
RICE NSPS Designation: Emergency, New CI, Model year 2007 and later, < 30 l/cyl, Constructed after 7/11/05 and Manufactured after 4/1/06

1. Fuel and Maximum Hours of Operation

a. Limitation or Restriction

i. The engine's maximum fuel consumption over any consecutive 12 month period shall not exceed 41,400 gallons. [Permit No. 015-0301]

ii. The engine's maximum hours of operation over any consecutive 12 month period shall not exceed 300 hours. [Permit No. 015-0301]

iii. The sulfur content of the ULSD fuel oil shall not exceed 0.0015% by weight. [Permit No. 015-0301; 40 CFR §60.4207(b); 40 CFR §80.510(b)(1)]

iv. The diesel fuel is subject of the following cetane index or aromatic content per gallon standards: [40 CFR §60.4207(b) and 40 CFR §80.510(b)(2)]

(A) A minimum cetane index of 40; or

(B) A maximum aromatic content of 35 volume percent.

v. The Permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR §§63.6640(f)(1), (f)(2)(i) and (f)(3). Any operation other than emergency operation and maintenance and testing as described in 40 CFR §§63.6640(f)(1), (f)(2)(i), or non-emergency use in 40 CFR §63.6640(f)(3) is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §63.6640(f)(1), (f)(2)(i) and (f)(3), the engine will not be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and will need to meet all requirements for a non-emergency engine. [40 CFR §63.6640(f)]

vi. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR §63.6640(f)(1)]

vii. The Permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engines. Maintenance checks and readiness testing of such units is limited to 100 hours per year per unit. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the emergency RICE beyond 100 hours per year. [40 CFR §63.6640(f)(2)(i)]

viii. The Permittee may operate the engine for an additional 50 hours per year in non-emergency situations. The 50 hours per year per unit for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §63.6640(f)(3)]

b. Monitoring and Testing Requirements

i. The Permittee shall continuously monitor fuel consumption by this equipment using a non-resettable totalizing fuel meter. [Permit No. 015-0301; 40 CFR §60.4209(a)]

ii. The Permittee shall monitor the number of hours that this equipment is in operation. [Permit No. 015-0301]

c. Record Keeping Requirements

i. 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. [Permit No. 015-0301]

ii. 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. [Permit No. 015-0301]

iii. 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. [Permit No. 015-0301]

iv. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the Permittee is not required to submit an initial notification. Starting with the model years in 40 CFR Part 60 Subpart IIII, Table 5, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time.
[40 CFR §60.4214(b)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limits:
[Permit No. 015-0301; 40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR §89.112(a)]

(A) 0.3 lb/hr

(B) 0.15 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.04 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. 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. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month $PM/PM_{10}/PM_{2.}$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. [Permit No. 015-0301]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. SO_2

a. Limitation or Restriction

i. The Permittee shall not exceed the following SO_2 emission limit: 0.2 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual SO_2 emission limit: 0.03 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using emission factors from the following sources: Calculated from fuel sulfur content. [Permit No. 015-0301]

ii. 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. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

4. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following NO_x emission limit: 42.3 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual NO_x emission limit: 6.4 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. 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. [Permit No. 015-0301]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emissions unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

iii. The Permittee shall make and keep the following records: [RCSA §§22a-174-22e(j)(2)(F) and (G)]

(A) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and

(B) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

5. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following VOC emission limit: 1.0 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual VOC emission limit: 0.15 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. 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. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

6. NO_x + Non Methane Hydro Carbon (NMHC)

a. Limitation or Restriction

The Permittee shall not exceed the following NO_x +NMHC emission limit: 4.8 g/hp-hr. [Permit No. 015-0301; 40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR §89.112(a)]

b. Monitoring Requirements

Record keeping specified in Section III.F.6.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.F.6.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

7. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO emission limit:
[Permit No. 015-0301; 40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR §89.112(a)]

(A) 3.5 lb/hr

(B) 2.6 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual CO emission limit: 0.52 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. 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.
[Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner,

whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

8. Lead (Pb)

a. Limitation or Restriction

i. The Permittee shall not exceed the following Pb emission limit: 0.0003 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual Pb emission limit: 0.00004 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and *Testing Requirements*

i. Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Fifth Edition, Volume I, Chapter 3.1, April 2000. [Permit No. 015-0301]

ii. 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. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

9. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following H_2SO_4 emission limit: 0.03 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.0043 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using emission factors from the following sources: Calculated from fuel sulfur content. [Permit No. 015-0301]

ii. 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. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

10. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0300]

b. Monitoring Requirements

Record keeping specified in Section III.F.10.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. *Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.F.10.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

11. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limits: [Permit No. 015-0301]

(A) 3,117 lb/hr

(B) 163 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 468 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

a. Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources: [Permit No. 015-0299]

(A) CO_2 emissions from the auxiliary boiler, emergency generator and emergency fire pump engine 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_2 Emission Factors and High Heat Values for Various Types of Fuel.

(B) Methane (CH_4) and Nitrous Oxide (N_2O) 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_4 and N_2O Emission Factors for Various Types of Fuel.

b. Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using emission factors from the following sources: 40 CFR Part 98 Subpart C, Table C-1 and Table C-2 (Nov 2013). [Permit No. 015-0301]

c. 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. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

12. Opacity

a. Limitation or Restriction

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.
[Permit No. 015-0301; 40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR §89.113]

b. Monitoring and Testing Requirements

Record keeping specified in Section III.F.12.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33.
[RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.F.12.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

13. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit No. 015-0301; 40 CFR §60.4211(a)(1)]

ii. 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. [Permit No. 015-0301]

iii. The Permittee shall only operate this equipment in accordance with the definition of emergency engine as defined in RCSA §22a-174-1, et seq. [Permit No. 015-0301]

iv. 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. [Permit No. 015-0301]

v. Forecast Information-Official ambient ozone information can be obtained by calling:
[Permit No. 015-0301]

(A) (860) 424-4167 Department's Bureau of Air Management Monitoring Section
(Recorded Message Updated daily at 3:00 p.m.)

(B) (860) 424-3027 Department's Bureau of Air Management Monitoring Section
(For additional air quality information)

vi. The Permittee shall operate and maintain stationary CI ICE that achieves the emission standards as required in 40 CFR §60.4205 over the entire life of the engine. [40 CFR §60.4206]

vii. The Permittee shall do all of the following, except as permitted under paragraph 40 CFR §60.4211(g): [40 CFR §§60.4211(a)(2) and (3)]

(A) Change only those emission-related settings that are permitted by the manufacturer; and

(B) Meet the applicable requirements of 40 CFR Part 89.

viii. The Permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR §60.4205(b) for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g). [40 CFR §60.4211(c)]

ix. The Permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR §§60.4211(f)(1), (f)(2) and (f)(2)(i). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, as described in 40 CFR §§60.4211(f)(1), (f)(2) and (f)(2)(i), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1), (f)(2) and (f)(2)(i), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII and must meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]

x. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR §60.4211(f)(1)]

xi. The Permittee may operate the emergency stationary ICE for any combination the purpose specified in 40 CFR §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. [40 CFR §60.4211(f)(2)]

xii. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR §60.4211(f)(2)(i)]

xiii. If the Permittee does not install, configure, operate, and maintain their engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows: [40 CFR §60.4211(g)(3)]

(A) The Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or three years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(B) The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 60 Subpart IIII, Table 8.
[40 CFR §60.4218; 40 CFR Part 60 Subpart IIII, Table 8]

b. Monitoring and Testing Requirements

The Permittee is not required to demonstrate compliance with the short-term emission limits during the initial shakedown period. Emissions during the initial shakedown period shall be counted towards the annual emission limits. [Permit No. 015-0301]

c. Record Keeping Requirements

i. The Permittee shall keep records of the inspection and maintenance for this equipment. The records shall include: [Permit No. 015-0301; RCSA §22a-174-22e(j)(2)(B)]

(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.

ii. The Permittee shall keep records of the manufacturer's specifications and written recommendations. [Permit No. 015-0301]

iii. The Permittee shall keep all records required by Permit No.105-0301 for a period of no less than five years and shall submit such records to the commissioner upon request.
[Permit No. 015-0301]

iv. The Permittee shall make and keep records sufficient to show compliance with applicable General Provisions requirements of 40 CFR Part 60 Subpart IIII, Table 8.
[RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

i. 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. [Permit No. 015-0301]

ii. The Permittee shall submit 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.
[Permit No. 015-0301]

iii. The Permittee shall submit a notification that includes the information in 40 CFR §§63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 Bhp located at a major source of HAP emissions).
[40 CFR §63.6590(b); 40 CFR §63.6645(f)]

G. EU-53 Cummins CFP9E-F60 Emergency Fire Pump Engine (2.6 MMBtu/hr)
Subject to: Permit No. 015-0299, 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ
RICE NSPS Designation: Fire Pump Engine, < 30 l/cyl , 2009 Model Year and later

1. Fuel and Maximum Hours of Operation

a. Limitation or Restriction

i. The Permittee shall only use ULSD fuel in the engine. [Permit No. 015-0299]

ii. The engine's maximum hours of operation over any consecutive 12 month period shall not exceed 295 hours. [Permit No. 015-0299]

iii. The sulfur content of the ULSD fuel oil shall not exceed 0.0015% by weight. [Permit No. 015-0299; 40 CFR §60.4207(b); 40 CFR §80.510(b)(1)]

iv. The diesel fuel is subject of the following cetane index or aromatic content per gallon standards: [40 CFR §60.4207(b); 40 CFR §80.510(b)(2)]

(A) A minimum cetane index of 40; or

(B) A maximum aromatic content of 35 volume percent.

b. Monitoring and Testing Requirements

i. The Permittee shall continuously monitor fuel consumption by this unit using a non-resettable totalizing fuel meter. [Permit No. 015-0299; 40 CFR §60.4209(a)]

ii. The Permittee shall monitor the number of hours that this unit is in operation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall monitor and keep records of monthly and 12 consecutive months operating hours of the emergency fire pump. The12 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. [Permit No. 015-0299]

ii. The Permittee shall keep any of the records listed below to demonstrate the sulfur content of the fuel used: [Permit No. 015-0299]

(A) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or

(B) 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.

iii. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the Permittee is not required to submit an initial notification. Starting with the model years in 40 CFR Part 60 Subpart IIII, Table 5, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through

the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR §60.4214(b)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limits:
[Permit No. 015-0299; 40 CFR §60.4205(c); 40 CFR Part 60 Subpart IIII, Table 4]

(A) 0.1 lb/hr

(B) 0.15 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.014 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor.
[Permit No. 015-0299]

ii. 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.
[Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month $PM_{10}/PM_{2.5}$ 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following NO_x emission limit: 1.8 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual NO_x emission limit: 0.3 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor. [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emissions unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

iii. The Permittee shall make and keep the following records: [RCSA §§22a-174-22e(j)(2)(F) and (G)]

(A) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and

(B) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

4. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following VOC emission limit: 0.1 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual VOC emission limit: 0.01 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor.
ii. [Permit No. 015-0299]

iii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

5. NO_x + Non Methane Hydro Carbon (NMHC)

a. Limitation or Restriction

The Permittee shall not exceed the following NO_x +NMHC emission limit: 3.0 g/hp-hr. [Permit No. 015-0299; 40 CFR §60.4205(c); 40 CFR Part 60 Subpart IIII, Table 4]

b. Monitoring Requirements

Record keeping specified in Section III.G.5.c of this Title V permit shall be sufficient to meet other Monitoring [and Testing] Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.G.5.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

6. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO emission limit:
[Permit No. 015-0299; 40 CFR §60.4205(c); 40 CFR Part 60 Subpart IIII, Table 4]

(A) 1.1 lb/hr

(B) 2.6 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual CO emission limit: 0.17 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor. [Permit No. 015-0299]

ii. 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.
[Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

7. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following H_2SO_4 emission limit: 0.0006 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.0001 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: calculated from fuel sulfur content. [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

8. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0300]

b. Monitoring Requirements

Record keeping specified in Section III.G.8.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.G.8.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

9. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limits:
[Permit No. 015-0299]

(A) 427 lb/hr

(B) 163 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 63 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources:
[Permit No. 015-0299]

(A) CO_2 emissions from the auxiliary boiler, emergency generator and emergency fire pump engine 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_2 Emission Factors and High Heat Values for Various Types of Fuel.

(B) Methane (CH_4) and Nitrous Oxide (N_2O) 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_4 and N_2O Emission Factors for Various Types of Fuel.

ii. Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: 40 CFR Part 98 Subpart C, Table C-1 for CO_2 and 40 CFR Part 98 Subpart C, Table C-2 for CO_{2e}.
[Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

10. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee shall operate and maintain the engine in accordance with the most recent specific and written recommendations supplied by the equipment manufacturer. [40 CFR §60.4211(a)(1)]

ii. The Permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR §60.4205 over the entire life of the engine. [40 CFR §60.4206]

iii. The Permittee shall do the following, except as permitted under paragraph 40 CFR §60.4211(g): Change only those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)(2)]

iv. The Permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR §60.4205(c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g). [40 CFR §60.4211(c)]

v. The Permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR §§60.4211(f)(1), (f)(2) and (f)(2)(i). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, as described in 40 CFR §§60.4211(f)(1), (f)(2) and (f)(2)(i), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1), (f)(2) and (f)(2)(i), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII and must meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]

vi. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR §60.4211(f)(1)]

vii. The Permittee may operate the emergency stationary ICE for any combination the purpose specified in 40 CFR §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. [40 CFR §60.4211(f)(2)]

viii. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator

for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR §60.4211(f)(2)(i)]

ix. If the Permittee does not install, configure, operate, and maintain their engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows: [40 CFR §60.4211(g)(2)]

(A) The Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer.

x. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 60 Subpart IIII, Table 8. [40 CFR §60.4218; 40 CFR Part 60 Subpart IIII, Table 8]

b. Monitoring Requirements

Record keeping specified in Section III.G.10.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)

c. Record Keeping Requirements

i. The Permittee shall keep records of the manufacturer’s specifications and written recommendations. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance at all times and shall make them available upon request by the commissioner for the duration of this Title V permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

iii. The Permittee shall make and keep the following records: The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)((2)(B)]

iv. The Permittee shall make and keep records sufficient to show compliance with applicable General Provisions requirements of 40 CFR Part 60 Subpart IIII, Table 8.
[RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

i. 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. [Permit No. 015-0299]

ii. The Permittee shall submit 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. [Permit No. 015-0299]

H. EU-54 Auxiliary Cooling Tower
Subject to: Permit No. 015-0299

1. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limits: 0.16 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.71 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

Demonstration of compliance with the above emission limits may be met by calculating the emission rates using the cooling tower flow rate (gallons/min), Total Dissolved Solids (TDS) content of the cooling water and drift rate from the manufacturer. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month $PM/PM_{10}/PM_{2.5}$ 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. Operation and Maintenance (O & M)

a. Limitation or Restriction

There are no O & M limitations or restrictions for this emission unit.

b. Monitoring Requirements

Record keeping specified in Section III.H.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall keep records of the manufacturer's specifications and written recommendations. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance at all times and shall make them available upon request by the commissioner for the duration of this Title V permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

d. Reporting Requirements

i. 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. [Permit No. 015-0299]

ii. The Permittee shall submit 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. [Permit No. 015-0299]

I. GEU-1 HVAC/Space Heaters
Subject to: Permit No. 015-0299

1. Fuel Consumption and Units Included in GEU-1

a. Limitation or Restriction

The Permittee shall only use natural gas in the HVAC/space heaters. [Permit No. 015-0299]

b. Monitoring Requirements

The Permittee shall continuously monitor fuel consumption for GEU-1 using a single non-resettable totalizing fuel meter. [Permit No. 015-0299]

c. Record Keeping Requirements

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. [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

iii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner,

whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month $PM/PM_{10}/PM_{2.5}$ 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. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. SO_2

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual SO_2 emission limit: 0.05 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions in units of Tons for all units in GEU-1 combined. 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

4. NO_x

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual NO_x emission limit: 7.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of Tons for all units in GEU-1 combined. 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

5. CO

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual CO emission limit: 6.4 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of Tons for all units in GEU-1 combined. 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

6. VOC

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual VOC emission limit: 0.4 Tons per

consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of Tons for all units in GEU-1 combined. 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

7. Lead (Pb)

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual Pb emission limit: 0.00004 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions in units of Tons for all units in GEU-1 combined. 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

8. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.007 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using emission factors from the following sources: Engineering estimate based on SO_2. [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of Tons for all units in GEU-1 combined. 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

9. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limit: 117 lb/MMBTU. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 9,061 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using emission factors from the following sources: CO_2 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_2 Emission Factors and High Heat Values for Various Types of Fuel. [Permit No. 015-0299]

ii. 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. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of Tons for all units in GEU-1 combined. 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. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above 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. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

Section III: Applicable Requirements and Compliance Demonstration

J. FEDERAL ACID RAIN PERMIT REQUIREMENTS

1. SO_2 Allowance Allocations and NO_x Requirements for Each Affected Unit

a. EU-3 (Combustion Engineering Steam Generator with in-line heater and Dense Pack Turbine)

		2018	2019	2020	2021	2022
EU-3 (Unit: BHB3)	**SO_2 Allowances under Tables 2,3,or 4 of 40 CFR Part 73**	11,501	11,501	11,501	11,501	11,501
	NO_x Limit	Pursuant to 40 CFR §76.7(a)(1), this unit shall be subject to the applicable NOx limitation of 0.40 lb/MMBtu of heat input on an annual average basis for tangentially fired boilers.				

b. EU-50 (General Electric Dual Fired Combustion Turbine, Duct Burner and Heat Recovery Steam Generator)

		2018	2019	2020	2021	2022
EU-50 (Unit BHB5)	**SO_2 Allowances under Tables 2,3,or 4 of 40 CFR Part 73**	0	0	0	0	0
	NO_x Limit	Not an Affected Unit under 40 CFR Part 76				

2. Phase II Acid Rain Permit Application

The attached Phase II Acid Rain Permit Application is hereby incorporated by reference into this Title V permit. If this Title V permit is in conflict with or inconsistent with the Phase II Acid Rain Permit Application, the Title V permit requirements, including any applicable requirement under 40 CFR Parts 72 through 78, inclusive, shall supersede the Phase II Acid Rain Permit Application and the Permittee shall be governed by and adhere to this Title V permit and any applicable requirement under 40 CFR Parts 72 through 78, inclusive.

Section III: Applicable Requirements and Compliance Demonstration

K. PREMISES-WIDE GENERAL REQUIREMENTS

1. **Annual Emission Statements:** The Permittee shall submit annual emission statements requested by the commissioner as set forth in RCSA §22a-174-4(d)(1).

2. **Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.

3. **Reporting of Malfunctioning Control Equipment:** The Permittee shall comply with the reporting requirements of malfunctioning control equipment as set forth in RCSA §22a-174-7.

4. **Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.

5. **Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.

6. **Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.

7. **Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.

8. **Variances:** The Permittee may apply to the commissioner for a variance from one or more of the provisions of these regulations as set forth in RCSA §22a-174-13.

9. **No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.

10. **Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.

11. **Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.

12. **Particulate Emissions:** The Permittee shall comply with the standards for control of particulate matter and visible emissions as set forth in RCSA §22a-174-18.

13. **Fuel Sulfur Content:**

    a. For the period beginning July 1, 2014 and ending June 30, 2018, the Permittee shall not use No. 2 heating oil that exceeds five hundred parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(A); and

    b. On or after July 1, 2018, the Permittee shall not use No. 2 heating oil that exceeds fifteen parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(B).

14. **Sulfur Dioxide Emissions:** The Permittee shall comply with the requirements for Control of Sulfur Dioxide Emissions from Power Plants and other large stationary sources of air pollution as set forth in RCSA §22a-174-19a.

15. **Sulfur Compound Emissions:** The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §§22a-174-19, 22a-174-19a and 22a-174-19b, as applicable.

16. **Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.

17. **Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22e.

18. **Ambient Air Quality:** The Permittee shall not cause or contribute to a violation of an ambient air quality standard as set forth in RCSA §22a-174-24(b).

19. **Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).

20. **Asbestos:** Should the premises, as defined in 40 CFR §61.145, become subject to the national emission standard for asbestos regulations in 40 CFR Part 61 Subpart M when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR §61.145(b) and shall comply with all other applicable requirements of 40 CFR Part 61 Subpart M.

21. **Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

Section IV: Compliance Schedule

THERE IS NO COMPLIANCE SCHEDULE

TABLE IV: COMPLIANCE SCHEDULE				
Emissions Unit	**Applicable Regulations**	**Steps Required for Achieving Compliance (Milestones)**	**Date by which Each Step is to be Completed**	**Dates for Monitoring, Record Keeping, and Reporting**

Section V: State Enforceable Terms and Conditions

Only the Commissioner of the Department of Energy and Environmental Protection has the authority to enforce the terms, conditions and limitations contained in this section.

SECTION V: STATE ENFORCEABLE TERMS AND CONDITIONS

A. This Title V permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the emissions units in compliance with all applicable requirements of any other Bureau of the Department of Energy and Environmental Protection or any federal, local or other state agency. Nothing in this Title V permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

B. Nothing in this Title V 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, investigate air 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.

C. Additional Emissions Units

1. The Permittee shall make and submit a written record, at the commissioner's request, within 30 days of receipt of notice from the commissioner, or by such other date specified by the commissioner, of each additional emissions unit or group of similar or identical emissions units at the premises.

2. Such record of additional emissions units shall include each emissions unit, or group of emissions units, at the premises which is not listed in Section II.A of this Title V permit, unless the emissions unit, or group of emissions units, is:

    a. an insignificant emissions unit as defined in RCSA §22a-174-33; or

    b. an emissions unit or activity listed in *White Paper for Streamlined Development of Part 70 Permit Applications, Attachment A* (EPA guidance memorandum dated July 10, 1995).

3. For each emissions unit, or group of emissions units, on such record, the record shall include, as available:

    a. Description, including make and model;

    b. Year of construction/installation or if a group, range of years of construction/installation;

    c. Maximum throughput or capacity; and

    d. Fuel type, if applicable.

D. Odors: The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor that constitutes a nuisance beyond the property boundary of the premises as set forth in RCSA §22a-174-23.

E. Noise: The Permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA §§22a-69-1 through 22a-69-7.4, inclusive.

F. Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.

G. Mercury emission standards: In accordance with CGS §22a-199, on and after July 1, 2008, the owner or operator of an affected unit or units shall: (1) meet an emissions rate of equal to or less than 0.6 pounds of mercury per trillion BTU of heat input, or (2) meet a mercury emissions rate equal to a ninety percent reduction of mercury from the measured inlet conditions for the affected unit, whichever emissions rate is more readily achievable by such affected unit, as determined by the owner or operator of such affected unit.

Section VI: Title V Requirements

The Administrator of the United States Environmental Protection Agency and the Commissioner of the Department of Energy and Environmental Protection have the authority to enforce the terms and conditions contained in this section.

SECTION VI: TITLE V REQUIREMENTS

A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

The date of submission to the commissioner of any document required by this Title V permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this Title V permit, including, but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this Title V permit, the word "day" means calendar day. Any document or action which is required by this Title V 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.

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

Any submittal to the Administrator of the Environmental Protection Agency shall be in a computer-readable format and addressed to: U.S. EPA New England, 5 Post Office Square, Suite 100 (OES04-2), Boston, Massachusetts 02109, Attn: Air Clerk.

B. CERTIFICATIONS [RCSA §22a-174-33(b)]

In accordance with RCSA §22a-174-33(b), any report or other document required by this Title V permit and any other information submitted to the commissioner or Administrator shall be signed by an individual described in RCSA §22a-174-2a(a), or by a duly authorized representative of such individual. Any individual signing any document pursuant to RCSA §22a-174-33(b) shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and shall also sign the following certification as provided in RCSA §22a-174-2a(a)(4):

> "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."

C. SIGNATORY RESPONSIBILITY [RCSA §22a-174-2a(a)]

For purposes of signing any Title V-related application, document, report or certification required by RCSA §22a-174-33, any corporation's duly authorized representative may be either a named individual or any individual occupying a named position. Such named individual or individual occupying a named position is a duly authorized representative if such individual is responsible for the overall operation of one or more manufacturing, production or operating facilities subject to RCSA §22a-174-33 and either:

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding 25 million dollars in second quarter 1980 dollars; or

2. The delegation of authority to the duly authorized representative has been given in writing by an officer of the corporation in accordance with corporate procedures and the following:

    i. Such written authorization specifically authorizes a named individual, or a named position, having responsibility for the overall operation of the Title V premises or activity,

    ii. Such written authorization is submitted to the commissioner and has been approved by the commissioner in advance of such delegation. Such approval does not constitute approval of corporate procedures, and

    iii. If a duly authorized representative is a named individual in an authorization submitted under subclause ii. of this subparagraph and a different individual is assigned or has assumed the responsibilities of the duly authorized representative, or, if a duly authorized representative is a named position in an authorization submitted under subclause ii. of this subparagraph and a different named position is assigned or has assumed the duties of the duly authorized representative, a new written authorization shall be submitted to the commissioner prior to or together with the submission of any application, document, report or certification signed by such representative.

D. ADDITIONAL INFORMATION [RCSA §22a-174-33(j)(1)(X), RCSA §22a-174-33(h)(2)]

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, or suspending this Title V permit or to determine compliance with this Title V permit.

In addition, the Permittee shall submit information to address any requirements that become applicable to the subject source and shall submit correct, complete, and sufficient information within 15 days of the applicant's becoming aware of any incorrect, incomplete, or insufficient submittal, during the pendency of the application, or any time thereafter, with an explanation for such deficiency and a certification pursuant to RCSA §22a-174-2a(a)(5).

E. MONITORING REPORTS [RCSA §22a-174-33(o)(1)]

A Permittee, required to perform monitoring pursuant to this Title V permit, shall submit to the commissioner, on forms prescribed by the commissioner, written monitoring reports on March 1 and September 1 of each year or on a more frequent schedule if specified in such permit. Such monitoring reports shall include the date and description of each deviation from a permit requirement including, but not limited to:

1. Each deviation caused by upset or control equipment deficiencies; and

2. Each deviation of a permit requirement that has been monitored by the monitoring systems required under this Title V permit, which has occurred since the date of the last monitoring report; and

3. Each deviation caused by a failure of the monitoring system to provide reliable data.

F. PREMISES RECORDS [RCSA §22a-174-33(o)(2)]

Unless otherwise required by this Title V permit, the Permittee shall make and keep records of all required monitoring data and supporting information for at least five years from the date such data and information were obtained. The Permittee shall make such records available for inspection at the site of the subject source, and shall submit such records to the commissioner upon request. The following information, in addition to required monitoring data, shall be recorded for each permitted source:

1. The type of monitoring or records used to obtain such data, including record keeping;

2. The date, place, and time of sampling or measurement;

3. The name of the individual who performed the sampling or the measurement and the name of such individual's employer;

4. The date(s) on which analyses of such samples or measurements were performed;

5. The name and address of the entity that performed the analyses;

6. The analytical techniques or methods used for such analyses;

7. The results of such analyses;

8. The operating conditions at the subject source at the time of such sampling or measurement; and

9. All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and copies of all reports required by the subject permit.

G. PROGRESS REPORTS [RCSA §22a-174-33(q)(1)]

The Permittee shall, on March 1 and September 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a progress report on forms prescribed by the commissioner, and certified in accordance with RCSA §22a-174-2a(a)(5). Such report shall describe the Permittee's progress in achieving compliance under the compliance plan schedule contained in this Title V permit. Such progress report shall:

1. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has met, and the dates on which they were met; and

2. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has not timely met, explain why they were not timely met, describe all measures taken or to be taken to meet them and identify the date by which the Permittee expects to meet them.

Any progress report prepared and submitted pursuant to RCSA §22a-174-33(q)(1) shall be simultaneously submitted by the Permittee to the Administrator.

Section VI: Title V Requirements

H. COMPLIANCE CERTIFICATIONS [RCSA §22a-174-33(q)(2)]

The Permittee shall, on March 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a written compliance certification certified in accordance with RCSA §22a-174-2a(a)(5) and which includes the information identified in 40 CFR §§70.6(c)(5)(iii)(A) to (C), inclusive.

Any compliance certification prepared and submitted pursuant to RCSA §22a-174-33(q)(2) shall be simultaneously submitted by the Permittee to the Administrator.

I. PERMIT DEVIATION NOTIFICATIONS [RCSA §22a-174-33(p)]

Notwithstanding Section VI.E of this Title V permit, the Permittee shall notify the commissioner in writing, on forms prescribed by the commissioner, of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:

1. For any hazardous air pollutant, no later than 24 hours after such deviation commenced; and

2. For any other regulated air pollutant, no later than ten days after such deviation commenced.

J. PERMIT RENEWAL [RCSA §22a-174-33(j)(1)(B)]

All of the terms and conditions of this Title V permit shall remain in effect until the renewal permit is issued or denied provided that a timely renewal application is filed in accordance with RCSA §§22a-174-33(g), -33(h), and -33(i).

K. OPERATE IN COMPLIANCE [RCSA §22a-174-33(j)(1)(C)]

The Permittee shall operate the source in compliance with the terms of all applicable regulations, the terms of this Title V permit, and any other applicable provisions of law. In addition, any noncompliance constitutes a violation of the Clean Air Act and Chapter 446c of the Connecticut General Statutes and is grounds for federal and/or state enforcement action, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

L. COMPLIANCE WITH PERMIT [RCSA §22a-174-33(j)(1)(G)]

This Title V permit shall not be deemed to:

1. Preclude the creation or use of emission reduction credits or allowances or the trading thereof in accordance with RCSA §§22a-174-33(j)(1)(I) and -33(j)(1)(P), provided that the commissioner's prior written approval of the creation, use, or trading is obtained;

2. Authorize emissions of an air pollutant so as to exceed levels prohibited pursuant to 40 CFR Part 72;

3. Authorize the use of allowances pursuant to 40 CFR Parts 72 through 78, inclusive, as a defense to noncompliance with any other applicable requirement; or

4. Impose limits on emissions from items or activities specified in RCSA §§22a-174-33(g)(3)(A) and -33(g)(3)(B) unless imposition of such limits is required by an applicable requirement.

Section VI: Title V Requirements

M. INSPECTION TO DETERMINE COMPLIANCE [RCSA §22a-174-33(j)(1)(M)]

The commissioner may, for the purpose of determining compliance with this Title V permit and other applicable requirements, enter the premises at reasonable times to inspect any facilities, equipment, practices, or operations regulated or required under such permit; to sample or otherwise monitor substances or parameters; and to review and copy relevant records lawfully required to be maintained at such premises in accordance with this Title V permit. It shall be grounds for permit revocation should entry, inspection, sampling, or monitoring be denied or effectively denied, or if access to and the copying of relevant records is denied or effectively denied.

N. PERMIT AVAILABILITY

The Permittee shall have available at the facility at all times a copy of this Title V permit.

O. SEVERABILITY CLAUSE [RCSA §22a-174-33(j)(1)(R)]

The provisions of this Title V permit are severable. If any provision of this Title V permit or the application of any provision of this Title V permit to any circumstance is held invalid, the remainder of this Title V permit and the application of such provision to other circumstances shall not be affected.

P. NEED TO HALT OR REDUCE ACTIVITY [RCSA §22a-174-33(j)(1)(T)]

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Title V permit.

Q. PERMIT REQUIREMENTS [RCSA §22a-174-33(j)(1)(V)]

The filing of an application or of a notification of planned changes or anticipated noncompliance does not stay the Permittee's obligation to comply with this Title V permit.

R. PROPERTY RIGHTS [RCSA §22a-174-33(j)(1)(W)]

This Title V permit does not convey any property rights or any exclusive privileges. This Title V 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 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, including CGS §4-181a(b) and RCSA §22a-3a-5(b). This Title V permit shall neither create nor affect any rights of persons who are not parties to this Title V permit.

S. ALTERNATIVE OPERATING SCENARIO RECORDS [RCSA §22a-174-33(o)(3)]

The Permittee shall, contemporaneously with making a change authorized by this Title V permit from one alternative operating scenario to another, maintain a record at the premises indicating when changes are made from one operating scenario to another and shall maintain a record of the current alternative operating scenario.

Section VI: Title V Requirements

T. OPERATIONAL FLEXIBILITY AND OFF-PERMIT CHANGES [RCSA §22a-174-33(r)(2)]

The Permittee may engage in any action allowed by the Administrator in accordance with 40 CFR §§70.4(b)(12)(i) to (iii)(B), inclusive, and 40 CFR §§70.4(b)(14)(i) to (iv), inclusive, without a Title V non-minor permit modification, minor permit modification or revision and without requesting a Title V non-minor permit modification, minor permit modification or revision provided such action does not:

1. Constitute a modification under 40 CFR Part 60, 61 or 63;

2. Exceed emissions allowable under the subject permit;

3. Constitute an action which would subject the Permittee to any standard or other requirement pursuant to 40 CFR Parts 72 to 78, inclusive; or

4. Constitute a non-minor permit modification pursuant to RCSA §22a-174-2a(d)(4).

At least seven days before initiating an action specified in RCSA §22a-174-33(r)(2)(A), the Permittee shall notify the Administrator and the commissioner in writing of such intended action.

U. INFORMATION FOR NOTIFICATION [RCSA §22a-174-33(r)(2)(A)]

Written notification required under RCSA §22a-174-33(r)(2)(A) shall include a description of each change to be made, the date on which such change will occur, any change in emissions that may occur as a result of such change, any Title V permit terms and conditions that may be affected by such change, and any applicable requirement that would apply as a result of such change. The Permittee shall thereafter maintain a copy of such notice with the Title V permit. The commissioner and the Permittee shall each attach a copy of such notice to their copy of the Title V permit.

V. TRANSFERS [RCSA §22a-174-2a(g)]

No person other than the Permittee shall act or refrain from acting under the authority of this Title V permit unless such permit has been transferred to another person in accordance with RCSA §22a-174-2a(g).

The proposed transferor and transferee of a permit shall submit to the commissioner a request for a permit transfer on a form provided by the commissioner. A request for a permit transfer shall be accompanied by any fees required by any applicable provision of the general statutes or regulations adopted thereunder. The commissioner may also require the proposed transferee to submit with any such request, the information identified in CGS §22a-6m.

W. REVOCATION [RCSA §22a-174-2a(h)]

The commissioner may revoke this Title V permit on his own initiative or on the request of the Permittee or any other person, in accordance with CGS §4-182(c), RCSA §22a-3a-5(d), and any other applicable law. Any such request shall be in writing and contain facts and reasons supporting the request. The Permittee requesting revocation of this Title V permit shall state the requested date of revocation and provide evidence satisfactory to the commissioner that the subject source is no longer a Title V source.

Pursuant to the Clean Air Act, the Administrator has the power to revoke this Title V permit. Pursuant to the Clean Air Act, the Administrator also has the power to reissue this Title V permit if the Administrator has determined that the commissioner failed to act in a timely manner on a permit renewal application.

Section VI: Title V Requirements

This Title V permit may be modified, revoked, reopened, reissued, or suspended by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(r), CGS §22a-174c, or RCSA §22a-3a-5(d).

X. REOPENING FOR CAUSE [RCSA §22a-174-33(s)]

This Title V permit may be reopened by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(s).

Y. CREDIBLE EVIDENCE

Notwithstanding any other provision of this Title V permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this Title V permit shall preclude the use, including the exclusive use, of any credible evidence or information.

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Approval expires 11/30/2012

Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ☐ New ☑ Revised ☐ for ARP permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

Bridgeport Harbor Station Facility (Source) Name	CT State	568 Plant Code

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
BHB1 (retired)	Yes
BHB2 (retired)	Yes
BHB3	Yes
BHB5	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes

Permit Requirements

STEP 3

Read the standard requirements.

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:

(i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:

(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission

of a new certificate of representation changing the designated representative;

STEP 3, Cont'd. **Recordkeeping and Reporting Requirements, Cont'd.**

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with

any other provision of the Act, including the provisions of title I of the Act relating

STEP 3, Cont'd.

Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a source can hold; *provided,* that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4
Read the certification statement, sign, and date.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Karl A. Wintermeyer	
Signature Karl A Wintermeyer	Date 11/14/18

Exhibit 4 Updated FAA Determinations for HRSG Stack and Various Cranes

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

Aeronautical Study No.
2018-ANE-4348-OE
Prior Study No.
2016-ANE-4491-OE

Issued Date: 07/17/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 4
Location:	Bridgeport, CT
Latitude:	41-10-00.16N NAD 83
Longitude:	73-10-48.42W
Heights:	8 feet site elevation (SE)
	382 feet above ground level (AGL)
	390 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4348-OE

Signature Control No: 370166336-370383900 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4348-OE

Proposal: To construct and/or operate a(n) Crane to a height of 382 feet above ground level, 390 feet above mean sea level.

Location: The structure will be located 2.45 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4348-OE

REFERENCE TO ASN 2016-ANE-4491. Increase of height. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 11/17/2018 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional information for ASN 2018-ANE-4348-OE

The proposed Temporary crane, at a height of 382 feet (ft.) above ground level (AGL) / 390 ft. above mean sea level (AMSL), would be located approximately 2.50 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 181 ft.

Section 77.17 (a) (5): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

Section 77.19 (b): Conical Surface. A surface, extending outward and upward, from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 ft. The proposed temporary crane exceeds the Conical Surface by up to 120 ft.

The proposed temporary crane also exceeds the VFR traffic pattern's left and right climb and descent areas for category "C" and "D" aircraft, as applied to visual approach runway 11/29 at BDR, by up to 32 ft.

The temporary crane will be erected and maintained at full height for up to 7 days in order to complete construction of, and temporarily support, an exhaust stack, which was previously studied by the FAA (ASN 2014-ANE-2323-OE, Obstacle Authoritative source (OAS) # 09-044854), at 300 ft. AGL / 317 AMSL. Once the stack has been secured, the crane will be operated at a lower height, which was previously studied by the FAA (ASN 2016-ANE-4491-OE, at 350 ft. AGL/358 ft. AMSL).

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

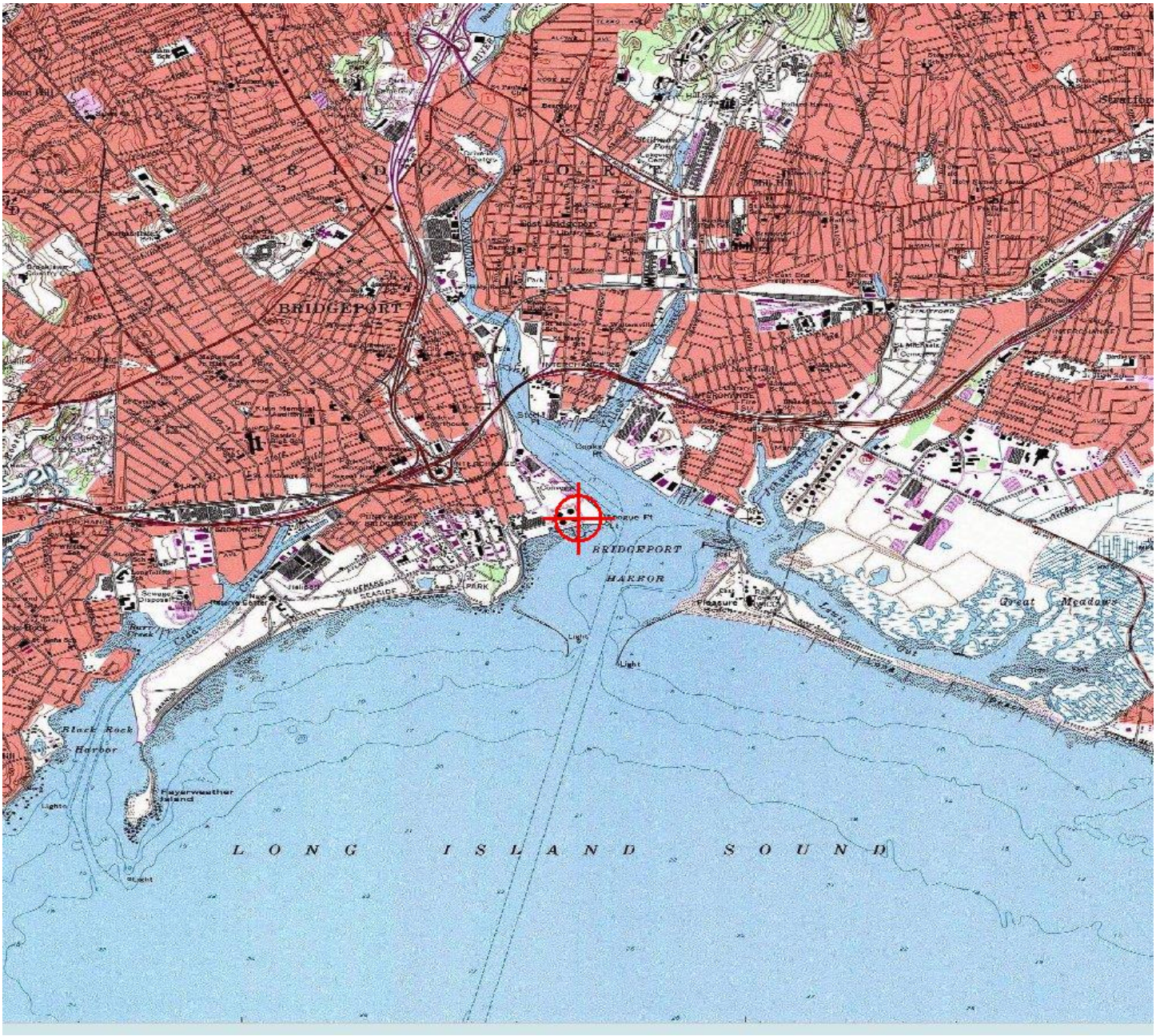
2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy , at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The Temporary crane operator shall advise the AM and the ATCT when operations at the full determined height are completed, and advise the lower height the crane will be operated (350 ft. AGL / 358 ft. AMSL, ASN 2016-ANE-4491-OE) thereafter.

4. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

5. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4348-OE

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Student Training

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

Aeronautical Study No.
2018-ANE-4680-OE
Prior Study No.
2016-ANE-4490-OE

Issued Date: 07/31/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 3
Location:	Bridgeport, CT
Latitude:	41-10-00.38N NAD 83
Longitude:	73-10-49.43W
Heights:	8 feet site elevation (SE)
	335 feet above ground level (AGL)
	343 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4680-OE

Signature Control No: 371341000-371626413 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4680-OE

Proposal: To construct and/or operate a(n) Crane to a height of 335 feet above ground level, 343 feet above mean sea level.

Location: The structure will be located 2.47 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4680-OE

REFERENCE TO ASN-2016-ANE-4490. Extension of Determination. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:
Section 77.17 (a) (2) by 135 feet - a height that exceeds 208 feet above mean sea level within 2.47 nautical miles of BDR.

Preliminary FAA study indicates that the above mentioned structure would:
have no effect on any existing or proposed arrival, departure, or en route instrument flight rules (IFR) operations or procedures.
have no effect on any existing or proposed arrival, departure, or en route visual flight rules (VFR) operations.
have no effect on any existing or proposed arrival, departure, or en route instrument/visual flight rules (IFR/VFR) minimum flight altitudes.
not exceed traffic pattern airspace
have no physical or electromagnetic effect on the operation of air navigation and communications facilities.
have no effect on any airspace and routes used by the military.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

As a condition to this determination, the temporary structure must be lowered to 200 feet above ground level (208 feet above mean sea level) , when not in use and during the hours between sunset and sunrise.

If the crane cannot be lowered to this height, then the following condition must also be met for nighttime conspicuity:

The structure must be lighted in accordance with FAA Advisory Circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5(Red),&12.

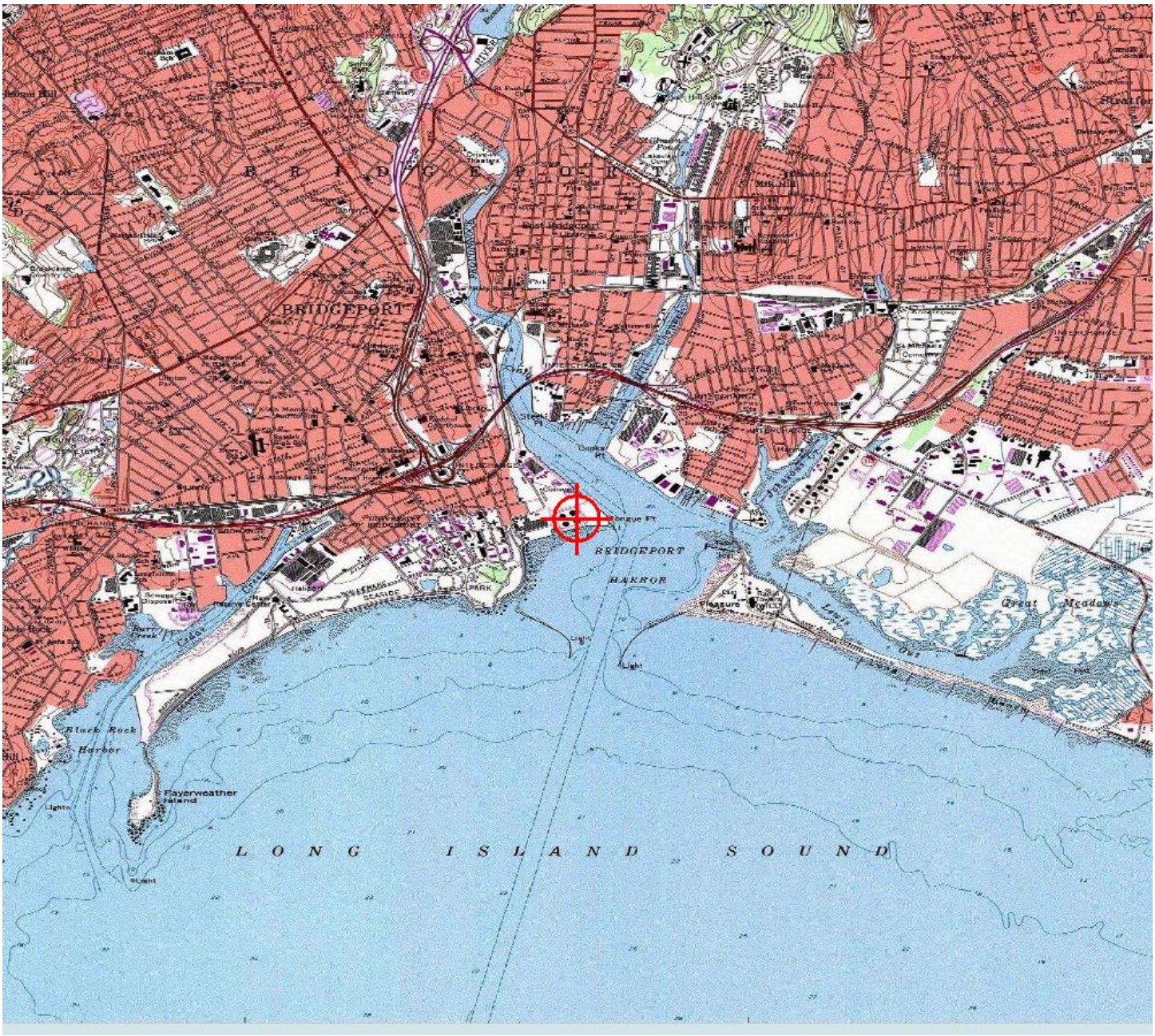
It is required that the manager of SIKORSKY BRIDGEPORT, (203) 386-3873 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of BDR Air Traffic Control Tower (ATCT) (Operations Supervisor), Mr Brian Gilroy , at (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 07/31/2019 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2018-ANE-4680-OE

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Student Training

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

Aeronautical Study No.
2018-ANE-4681-OE
Prior Study No.
2016-ANE-4681-OE

Issued Date: 07/31/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 7
Location:	Bridgeport, CT
Latitude:	41-10-04.28N NAD 83
Longitude:	73-10-48.84W
Heights:	9 feet site elevation (SE)
	285 feet above ground level (AGL)
	294 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4681-OE

Signature Control No: 371341129-371626634 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4681-OE

Proposal: To construct and/or operate a(n) Crane to a height of 285 feet above ground level, 294 feet above mean sea level.

Location: The structure will be located 2.46 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4681-OE

REFERENCE TO ASN-2016-ANE-4496-OE. Extension of Determination. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:
Section 77.17 (a) (2) by 85 feet - a height that exceeds 209 feet above mean sea level within 2.46 nautical miles of BDR.

Section 77.17 (a) (5) a height that affects an Airport Surface by penetrating:
Section 77.19 (b) Conical Surface by 22 feet as applied to BDR.

Preliminary FAA study indicates that the above mentioned structure would:
have no effect on any existing or proposed arrival, departure, or en route instrument flight rules (IFR) operations or procedures.
have no effect on any existing or proposed arrival, departure, or en route visual flight rules (VFR) operations.
have no effect on any existing or proposed arrival, departure, or en route instrument/visual flight rules (IFR/VFR) minimum flight altitudes.
not exceed traffic pattern airspace
have no physical or electromagnetic effect on the operation of air navigation and communications facilities.
have no effect on any airspace and routes used by the military.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

As a condition to this determination, the temporary structure must be lowered to 200 feet above ground level (209 feet above mean sea level) , when not in use and during the hours between sunset and sunrise.

If the crane cannot be lowered to this height, then the following condition must also be met for nighttime conspicuity:

The structure must be lighted in accordance with FAA Advisory Circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5(Red),&12.

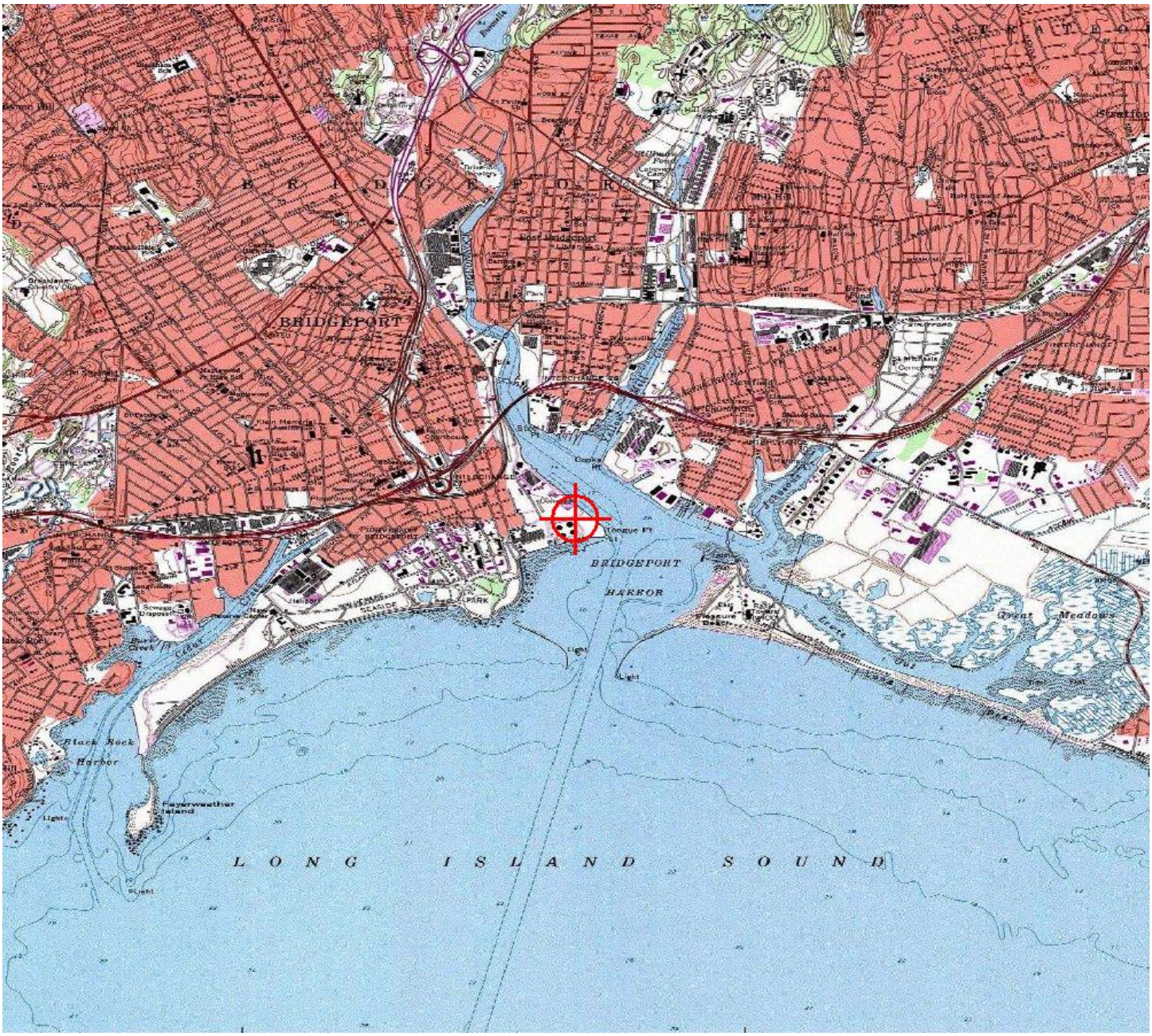
It is required that the manager of SIKORSKY BRIDGEPORT, (203) 386-3873 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of BDR Air Traffic Control Tower (ATCT) (Operations Supervisor), Mr Brian Gilroy , at (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 07/31/2019 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2018-ANE-4681-OE



Sectional Map for ASN 2018-ANE-4681-OE

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

Aeronautical Study No.
2018-ANE-4682-OE
Prior Study No.
2016-ANE-4497-OE

Issued Date: 07/31/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 7A
Location:	Bridgeport, CT
Latitude:	41-10-02.72N NAD 83
Longitude:	73-10-56.55W
Heights:	8 feet site elevation (SE)
	285 feet above ground level (AGL)
	293 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4682-OE

Signature Control No: 371341610-371626947 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4682-OE

Proposal: To construct and/or operate a(n) Crane to a height of 285 feet above ground level, 293 feet above mean sea level.

Location: The structure will be located 2.56 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4682-OE

REFERENCE TO ASN-2016-ANE-4497-OE. Extension of Determination. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:
Section 77.17 (a) (2) by 85 feet - a height that exceeds 208 feet above mean sea level within 2.56 nautical miles of BDR.

Preliminary FAA study indicates that the above mentioned structure would:
have no effect on any existing or proposed arrival, departure, or en route instrument flight rules (IFR) operations or procedures.
have no effect on any existing or proposed arrival, departure, or en route visual flight rules (VFR) operations.
have no effect on any existing or proposed arrival, departure, or en route instrument/visual flight rules (IFR/VFR) minimum flight altitudes.
not exceed traffic pattern airspace
have no physical or electromagnetic effect on the operation of air navigation and communications facilities.
have no effect on any airspace and routes used by the military.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

As a condition to this determination, the temporary structure must be lowered to 200 feet above ground level (208 feet above mean sea level) , when not in use and during the hours between sunset and sunrise.

If the crane cannot be lowered to this height, then the following condition must also be met for nighttime conspicuity:

The structure must be lighted in accordance with FAA Advisory Circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5(Red),&12.

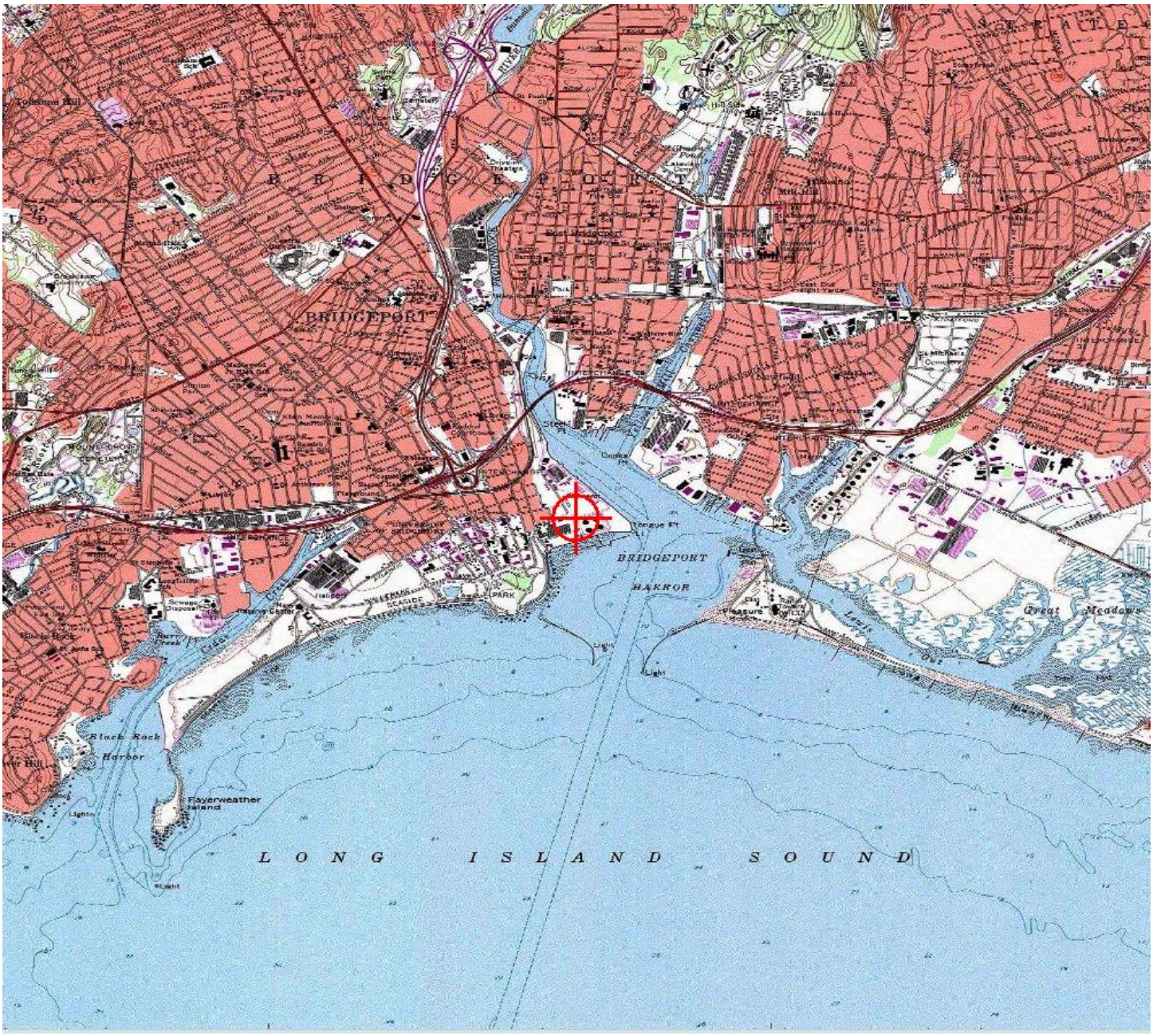
It is required that the manager of SIKORSKY BRIDGEPORT, (203) 386-3873 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of BDR Air Traffic Control Tower (ATCT) (Operations Supervisor), Mr Brian Gilroy , at (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 07/31/2019 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2018-ANE-4682-OE

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

Aeronautical Study No.
2018-ANE-4683-OE
Prior Study No.
2016-ANE-4499-OE

Issued Date: 07/31/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 9
Location:	Bridgeport, CT
Latitude:	41-10-06.57N NAD 83
Longitude:	73-10-46.03W
Heights:	7 feet site elevation (SE)
	160 feet above ground level (AGL)
	167 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4683-OE

Signature Control No: 371341842-371609158 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4683-OE

Proposal: To construct and/or operate a(n) Crane to a height of 160 feet above ground level, 167 feet above mean sea level.

Location: The structure will be located 2.43 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4683-OE

REFERENCE TO ASN-2016-ANE-4499-OE. Extension of Determination. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Preliminary FAA study indicates that the above mentioned structure would:
have no effect on any existing or proposed arrival, departure, or en route instrument flight rules (IFR) operations or procedures.
have no effect on any existing or proposed arrival, departure, or en route visual flight rules (VFR) operations.
have no effect on any existing or proposed arrival, departure, or en route instrument/visual flight rules (IFR/VFR) minimum flight altitudes.
not exceed traffic pattern airspace
have no physical or electromagnetic effect on the operation of air navigation and communications facilities.
have no effect on any airspace and routes used by the military.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

It is required that the manager of SIKORSKY BRIDGEPORT, (203) 386-3873 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

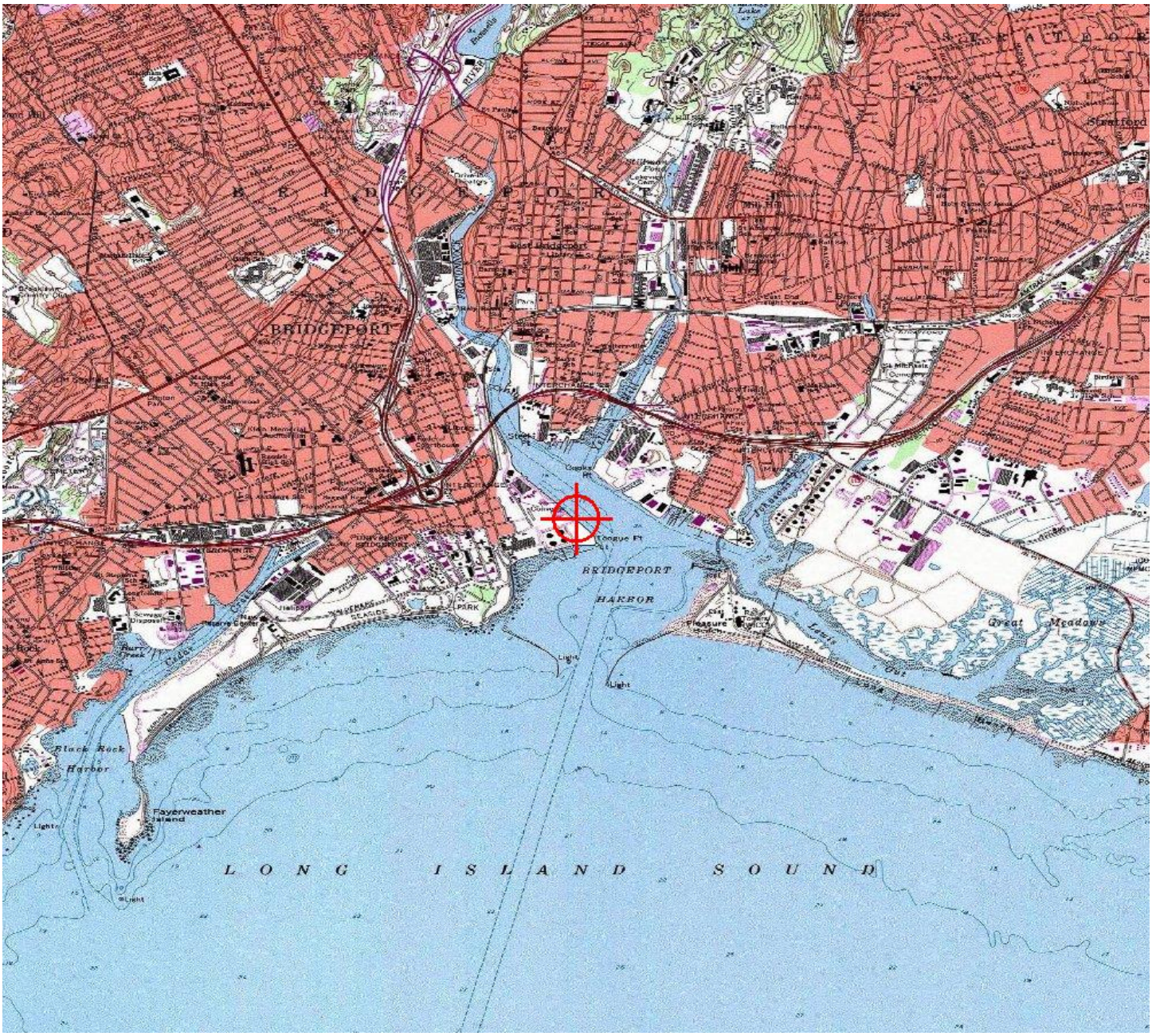
It is required that the manager of BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy , at (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 07/31/2019 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2018-ANE-4683-OE



Sectional Map for ASN 2018-ANE-4683-OE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CTC NEW YORK APP WITHIN
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Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2018-ANE-4684-OE
Prior Study No.
2016-ANE-4500-OE

Issued Date: 07/31/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 10
Location:	Bridgeport, CT
Latitude:	41-09-57.49N NAD 83
Longitude:	73-10-58.44W
Heights:	7 feet site elevation (SE)
	235 feet above ground level (AGL)
	242 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4684-OE

Signature Control No: 371342070-371600864 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4684-OE

Proposal: To construct and/or operate a(n) Crane to a height of 235 feet above ground level, 242 feet above mean sea level.

Location: The structure will be located 2.58 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4684-OE

REFERENCE TO ASN-2016-ANE-4500-OE. Extension of Determination. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Preliminary FAA study indicates that the above mentioned structure would:
have no effect on any existing or proposed arrival, departure, or en route instrument flight rules (IFR) operations or procedures.
have no effect on any existing or proposed arrival, departure, or en route visual flight rules (VFR) operations.
have no effect on any existing or proposed arrival, departure, or en route instrument/visual flight rules (IFR/VFR) minimum flight altitudes.
not exceed traffic pattern airspace
have no physical or electromagnetic effect on the operation of air navigation and communications facilities.
have no effect on any airspace and routes used by the military.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 07/31/2019 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional information for ASN 2018-ANE-4684-OE

The proposed Temporary crane, at a height of 235 feet (ft.) above ground level (AGL) / 242 ft. above mean sea level (AMSL), would be located approximately 2.58 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 34 ft.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

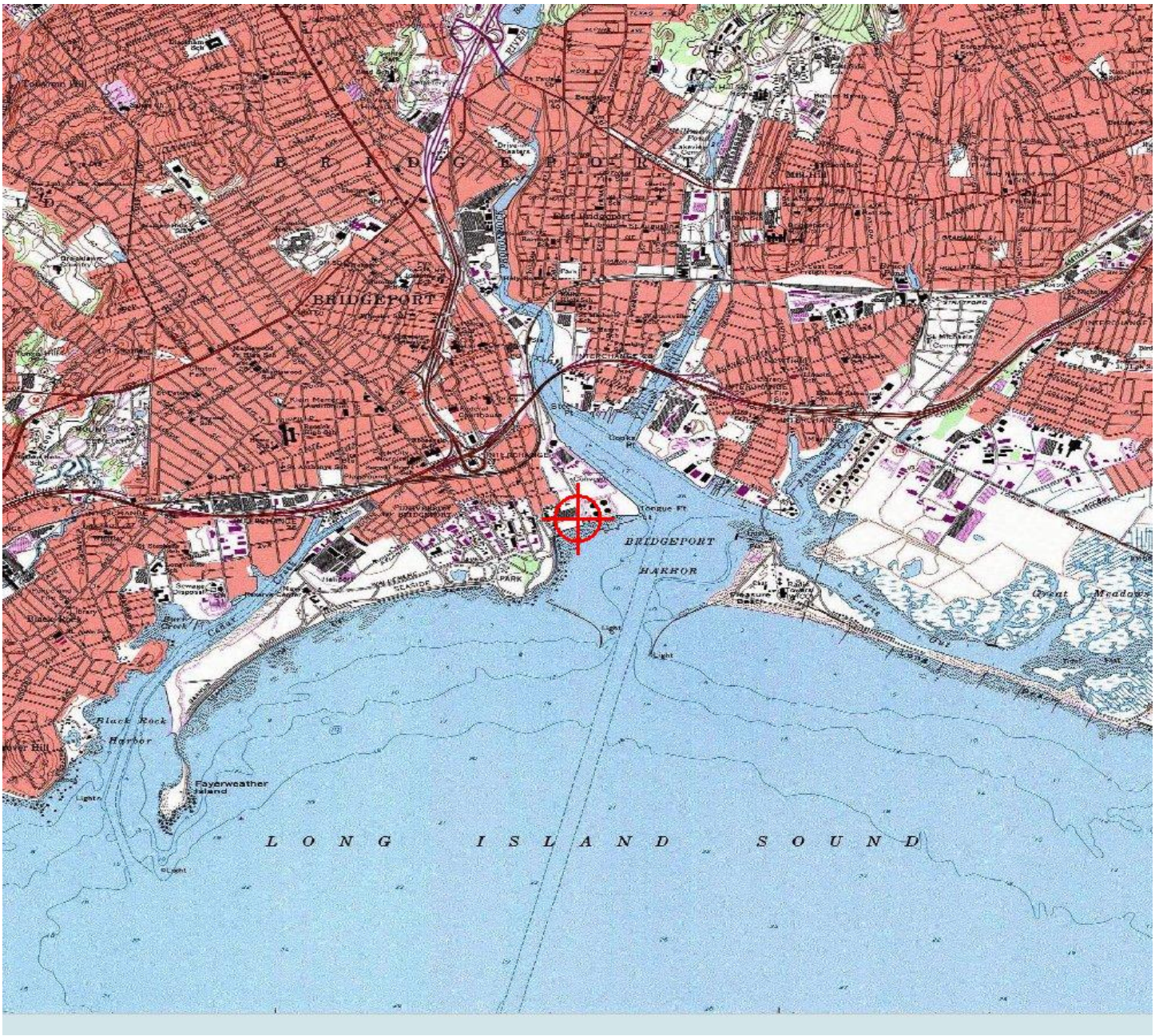
1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy , at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

4. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4684-OE



Sectional Map for ASN 2018-ANE-4684-OE

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

Aeronautical Study No.
2018-ANE-4685-OE
Prior Study No.
2016-ANE-4640-OE

Issued Date: 07/31/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 14
Location:	Bridgeport, CT
Latitude:	41-10-00.39N NAD 83
Longitude:	73-10-44.91W
Heights:	9 feet site elevation (SE)
	235 feet above ground level (AGL)
	244 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4685-OE

Signature Control No: 371342379-371627148 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4685-OE

Proposal: To construct and/or operate a(n) Crane to a height of 235 feet above ground level, 244 feet above mean sea level.

Location: The structure will be located 2.41 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4685-OE

REFERENCE TO ASN-2016-ANE-4640-OE. Extension of Determination. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:
Section 77.17 (a) (2) by 35 feet - a height that exceeds 209 feet above mean sea level within 2.41 nautical miles of BDR.

Preliminary FAA study indicates that the above mentioned structure would:
have no effect on any existing or proposed arrival, departure, or en route instrument flight rules (IFR) operations or procedures.
have no effect on any existing or proposed arrival, departure, or en route visual flight rules (VFR) operations.
have no effect on any existing or proposed arrival, departure, or en route instrument/visual flight rules (IFR/VFR) minimum flight altitudes.
not exceed traffic pattern airspace
have no physical or electromagnetic effect on the operation of air navigation and communications facilities.
have no effect on any airspace and routes used by the military.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

As a condition to this determination, the temporary structure must be lowered to 200 feet above ground level (209 feet above mean sea level) , when not in use and during the hours between sunset and sunrise.

If the crane cannot be lowered to this height, then the following condition must also be met for nighttime conspicuity:

The structure must be lighted in accordance with FAA Advisory Circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5(Red),&12.

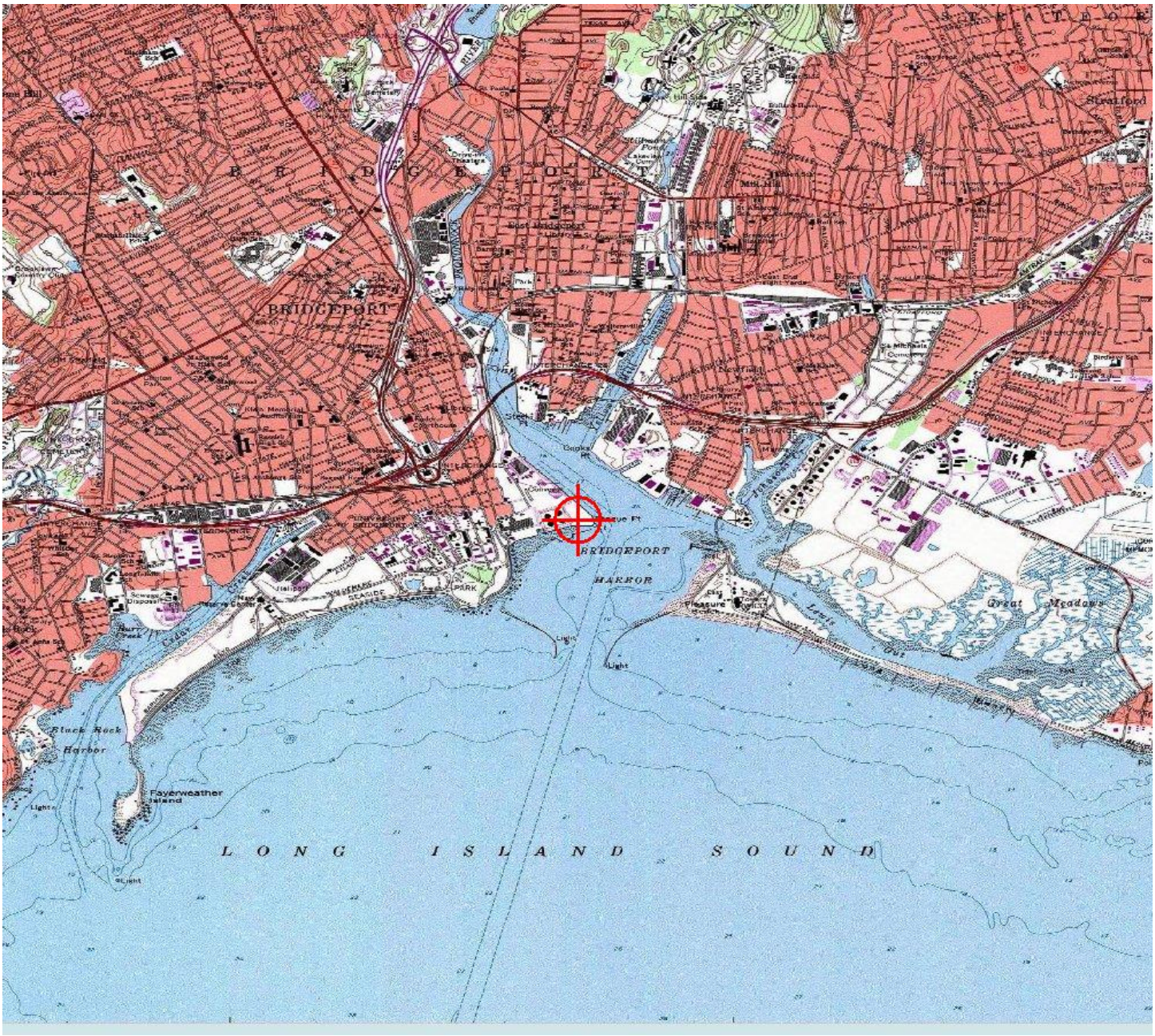
It is required that the manager of SIKORSKY, (203) 386-3873 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of BDR Air Traffic Control Tower (ATCT) (Operations Supervisor), Mr Brian Gilroy , at (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 07/31/2019 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2018-ANE-4685-OE



Sectional Map for ASN 2018-ANE-4685-OE

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

Aeronautical Study No.
2018-ANE-4717-OE
Prior Study No.
2016-ANE-4635-OE

Issued Date: 08/20/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE** (CORRECTION)**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 14
Location:	Bridgeport, CT
Latitude:	41-09-57.90N NAD 83
Longitude:	73-10-53.60W
Heights:	9 feet site elevation (SE)
	235 feet above ground level (AGL)
	244 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4717-OE

Signature Control No: 371629136-382105360 (TMP)
David Maddox
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4717-OE

Proposal: To construct and/or operate a(n) Crane to a height of 235 feet above ground level, 244 feet above mean sea level.

Location: The structure will be located 2.51 nautical miles west of BDR Airport reference point.

Case Description for ASN 2018-ANE-4717-OE

REFERENCE TO ASN-2016-ANE-4635-OE. Extension of Determination. PLEASE RUSH

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

As a condition to this determination, the temporary structure must be lowered to 200 feet above ground level (209 feet above mean sea level) , when not in use and during the hours between sunset and sunrise.

If the crane cannot be lowered to this height, then the following condition must also be met for nighttime conspicuity:

The structure must be lighted in accordance with FAA Advisory Circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5(Red),&12.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 02/20/2020 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Corrects location information-

The proposed Temporary crane, at a height of 235 feet (ft.) above ground level (AGL) / 244 ft. above mean sea level (AMSL), would be located approximately 2.51 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 35 ft.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

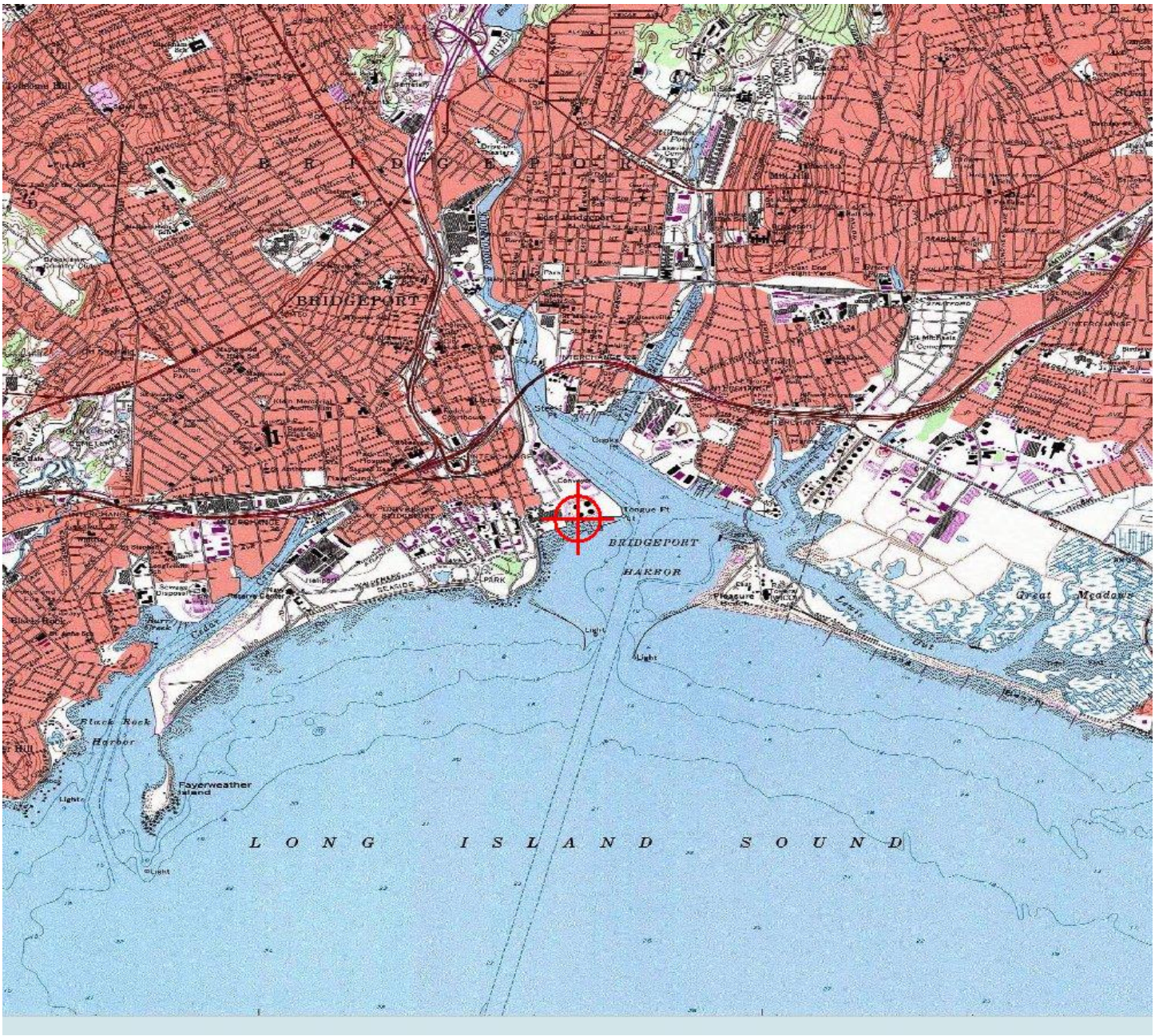
1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy , at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

4. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4717-OE




for Class D eff h
V 188
824
FZOOL
ANNEI
TO11
(491)
V 487
Ansonia
(Pvt)
SIKORSKY (JSD)
CT - 133.6
20
25
TRUMBULL
355°
054°
DENNA
336°
MILF
TAMs/Supplement
Class D eff hrs
stacks
511
358
(348)
stacks
077°
Fl (2)
SIKORSKY ME
WESTPORT
318
BRIDGEPORT
CT - 120.9
09
L 47
RP 29
145°
Fl R
122.1R
122.2
25
212°
VOR-DME
BRIDGEPORT
108.8 Ch 25 BDR
V 44-91
V 229
BRIDGEPORT
248°
Fl
BELTT
TICUT COASTAL
WILDLIFE REFUGE
CTC NEW YORK APP WITHIN
20 NM ON 120.05 343.75
Caution
Student Training

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

Aeronautical Study No.
2018-ANE-4718-OE
Prior Study No.
2016-ANE-4638-OE

Issued Date: 08/20/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 14
Location:	Bridgeport, CT
Latitude:	41-10-03.53N NAD 83
Longitude:	73-10-57.70W
Heights:	9 feet site elevation (SE) 235 feet above ground level (AGL) 244 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4718-OE

Signature Control No: 371629733-382107877 (TMP)
David Maddox
Specialist

Proposal: To construct and/or operate a(n) Crane to a height of 235 feet above ground level, 244 feet above mean sea level.

Location: The structure will be located 2.57 nautical miles west of BDR Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

As a condition to this determination, the temporary structure must be lowered to 200 feet above ground level (209 feet above mean sea level) , when not in use and during the hours between sunset and sunrise.

If the crane cannot be lowered to this height, then the following condition must also be met for nighttime conspicuity:

The structure must be lighted in accordance with FAA Advisory Circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5(Red),&12.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 02/20/2020 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional information for ASN 2018-ANE-4718-OE

The proposed Temporary crane, at a height of 235 feet (ft.) above ground level (AGL) / 244 ft. above mean sea level (AMSL), would be located approximately 2.57 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 35 ft.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy , at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

4. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4718-OE


V 188
FZOOL
14
ANNEI
1011
(491)
TRUMBULL
824
487
Ansonia
(Pvt)
SIKORSKY (JSD)
CT - 133.6
20
25
054°
355°
DENNA
336°
stacks
511
358
(348)
stacks
077°
FI (2)
SIKORSKY ME
CT - 120.9
09 L 47
RP 29
WESTPORT
318
BRIDGEPORT
145°
FI R
122.1R
122.2
VOR-DME
BRIDGEPORT
108.8 Ch 25 BDR
BRIDGEPORT
212°
V 229
V 44-91
248°
FI
BELTT
CTC NEW YORK APP WITHIN
20 NM ON 120.05 343.75
Caution
Student Training

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

Aeronautical Study No.
2018-ANE-4719-OE
Prior Study No.
2016-ANE-4639-OE

Issued Date: 08/20/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 14
Location:	Bridgeport, CT
Latitude:	41-10-06.20N NAD 83
Longitude:	73-10-47.74W
Heights:	9 feet site elevation (SE) 235 feet above ground level (AGL) 244 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4719-OE

Signature Control No: 371630306-382107990 (TMP)
David Maddox
Specialist

Proposal: To construct and/or operate a(n) Crane to a height of 235 feet above ground level, 244 feet above mean sea level.

Location: The structure will be located 2.45 nautical miles west of BDR Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

As a condition to this determination, the temporary structure must be lowered to 200 feet above ground level (209 feet above mean sea level) , when not in use and during the hours between sunset and sunrise.

If the crane cannot be lowered to this height, then the following condition must also be met for nighttime conspicuity:

The structure must be lighted in accordance with FAA Advisory Circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights – Chapters 4, 5(Red),&12.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of ***SEE BELOW*** be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 02/20/2020 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional information for ASN 2018-ANE-4719-OE

The proposed Temporary crane, at a height of 235 feet (ft.) above ground level (AGL) / 244 ft. above mean sea level (AMSL), would be located approximately 2.45 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 35 ft.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

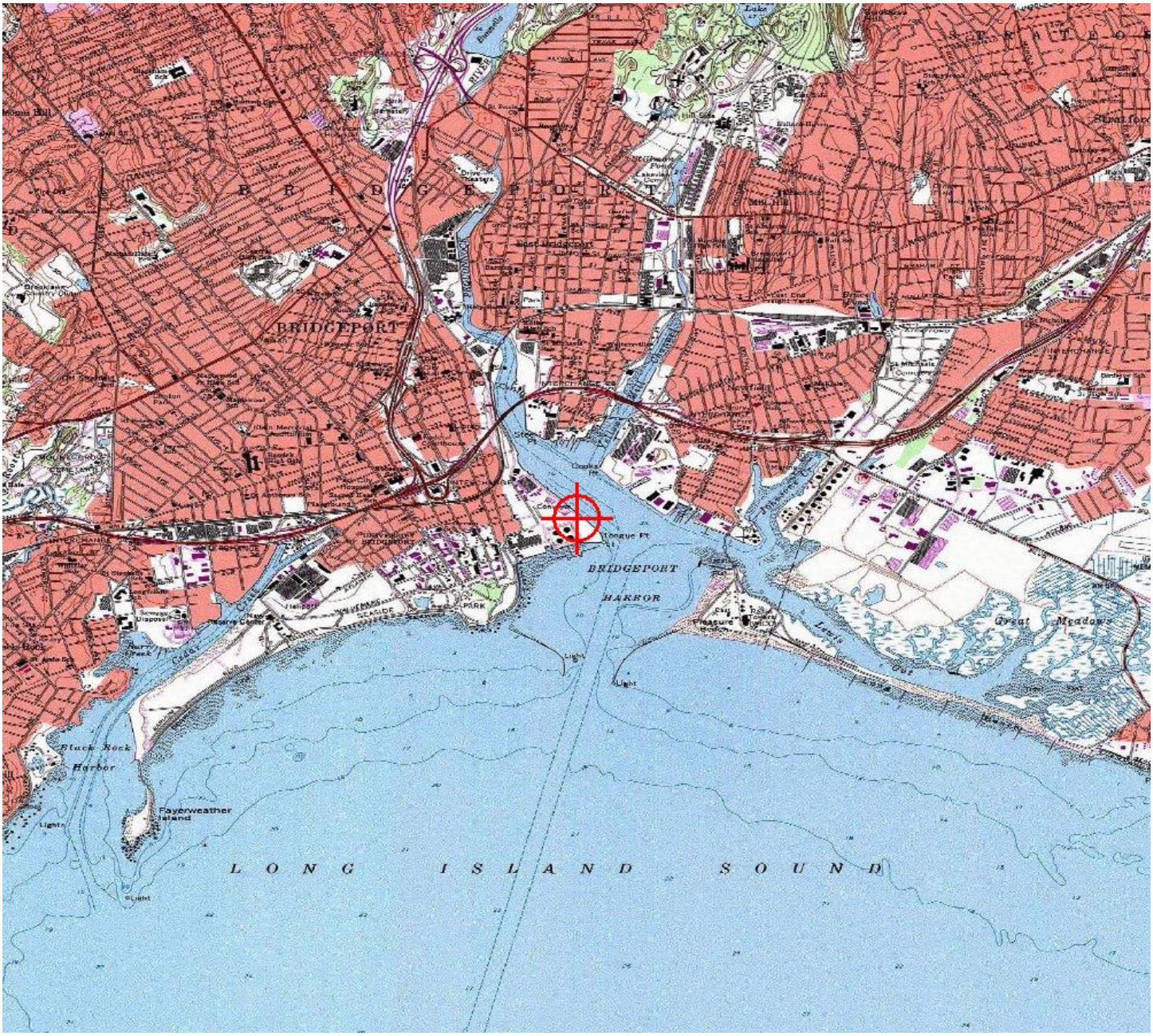
1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy , at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

4. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4719-OE




V 188
FZOOL
824
14
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Caution
Student Training

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

Aeronautical Study No.
2018-ANE-4778-OE

Issued Date: 08/30/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE** (CORRECTION)**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 15 A
Location:	Bridgeport, CT
Latitude:	41-10-05.57N NAD 83
Longitude:	73-10-58.91W
Heights:	18 feet site elevation (SE)
	325 feet above ground level (AGL)
	343 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-0105, or j.garver@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4778-OE

Signature Control No: 372196119-383867001 (TMP)
Jay Garver
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4778-OE

Proposal: To construct and/or operate a(n) Crane to a height of 325 feet above ground level, 343 feet above mean sea level.

Location: The structure will be located 2.59 nautical miles west of BDR Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

It is required that the manager of IGOR I SIKORSKY MEMORIAL @ (203) 576-8163 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of IGOR I SIKORSKY MEMORIAL Air Traffic Control Tower @ (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 03/01/2020 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Corrected Determination for Airport Name. All else remains the same.

The proposed Temporary crane, at a height of 325 feet (ft.) above ground level (AGL) / 343 ft. above mean sea level (AMSL), would be located approximately 2.59 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 125 ft.

Section 77.17 (a) (5): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

Section 77.19 (b): Conical Surface. A surface, extending outward and upward, from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 ft. The proposed temporary crane exceeds the Conical Surface by up to 32 ft.

The temporary crane will be erected and maintained at full height in order to complete construction of, and temporarily support, an exhaust stack, (ASN 2018-ANE-4776-OE), at 300 ft. AGL / 317 AMSL. Once the stack has been secured, the crane will be operated at various places within the perimeter of an area outlined by aeronautical studies 2018-ANE-4778-OE / 2018-ANE-4779-OE / 2018-ANE-4780-OE / 2018-ANE-4781-OE. The crane will not, at any time, exceed 325 ft. AGL/343 AMSL.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

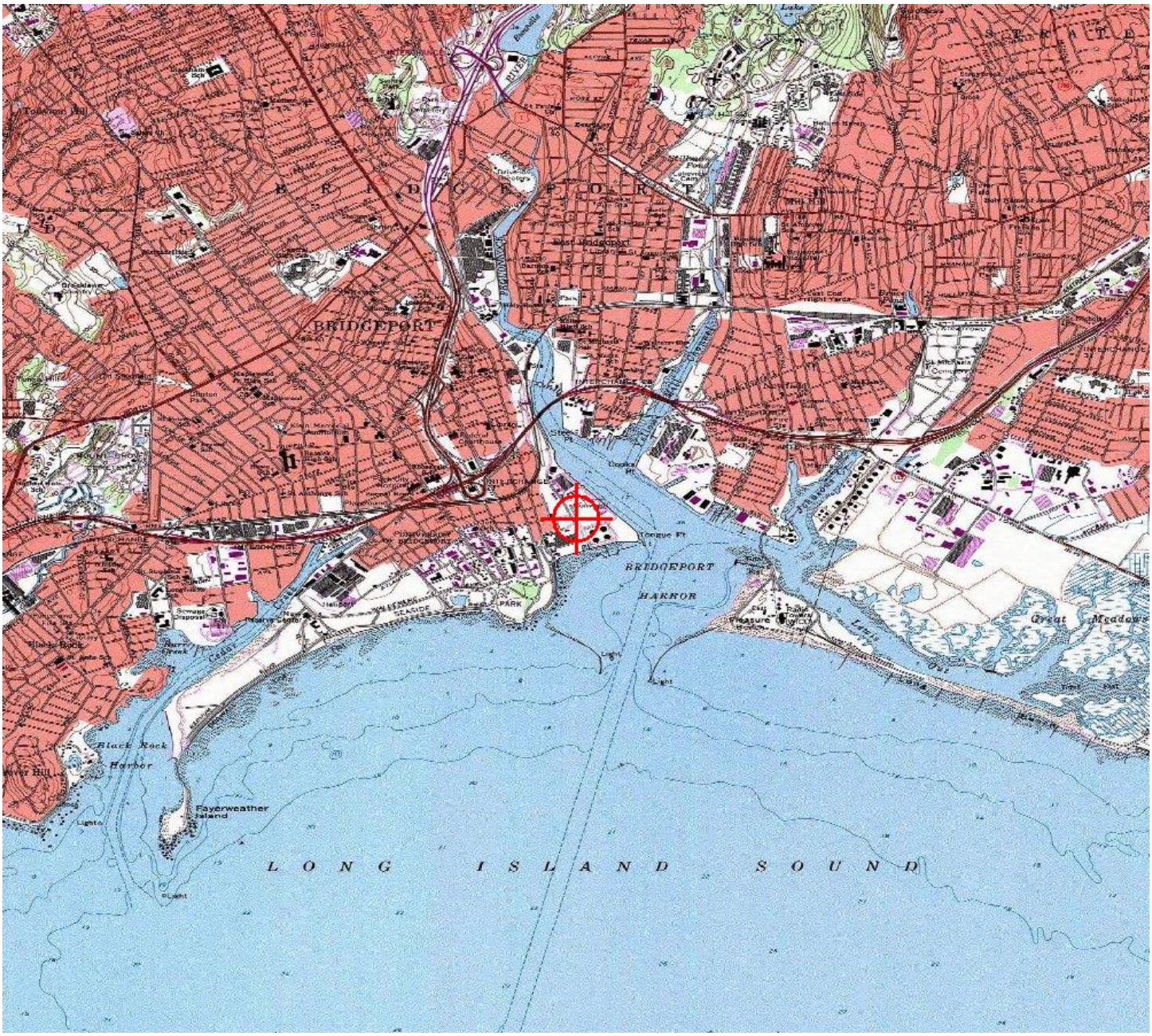
2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy, at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The Temporary crane operator shall advise the AM and the ATCT when operations at the full determined height are completed.

4. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

5. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4778-OE



Sectional Map for ASN 2018-ANE-4778-OE

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

Aeronautical Study No.
2018-ANE-4779-OE

Issued Date: 08/30/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 15 B
Location:	Bridgeport, CT
Latitude:	41-10-08.18N NAD 83
Longitude:	73-10-48.96W
Heights:	18 feet site elevation (SE)
	325 feet above ground level (AGL)
	343 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-0105, or j.garver@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4779-OE

Signature Control No: 372196290-383867265 (TMP)
Jay Garver
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4779-OE

Proposal: To construct and/or operate a(n) Crane to a height of 325 feet above ground level, 343 feet above mean sea level.

Location: The structure will be located 2.47 nautical miles west of BDR Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

It is required that the manager of IGOR I SIKORSKY MEMORIAL @ (203) 576-8163 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of IGOR I SIKORSKY MEMORIAL Air Traffic Control Tower @ (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 03/01/2020 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Corrected Determination for Airport Name. All other information remains the same.

The proposed Temporary crane, at a height of 325 feet (ft.) above ground level (AGL) / 343 ft. above mean sea level (AMSL), would be located approximately 2.47 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 125 ft.

Section 77.17 (a) (5): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

Section 77.19 (b): Conical Surface. A surface, extending outward and upward, from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 ft. The proposed temporary crane exceeds the Conical Surface by up to 69 ft.

The temporary crane will be erected and maintained at full height in order to complete construction of, and temporarily support, an exhaust stack, (ASN 2018-ANE-4776-OE), at 300 ft. AGL / 317 AMSL. Once the stack has been secured, the crane will be operated at various places within the perimeter of an area outlined by aeronautical studies 2018-ANE-4778-OE / 2018-ANE-4779-OE / 2018-ANE-4780-OE / 2018-ANE-4781-OE. The crane will not, at any time, exceed 325 ft. AGL/343 AMSL.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

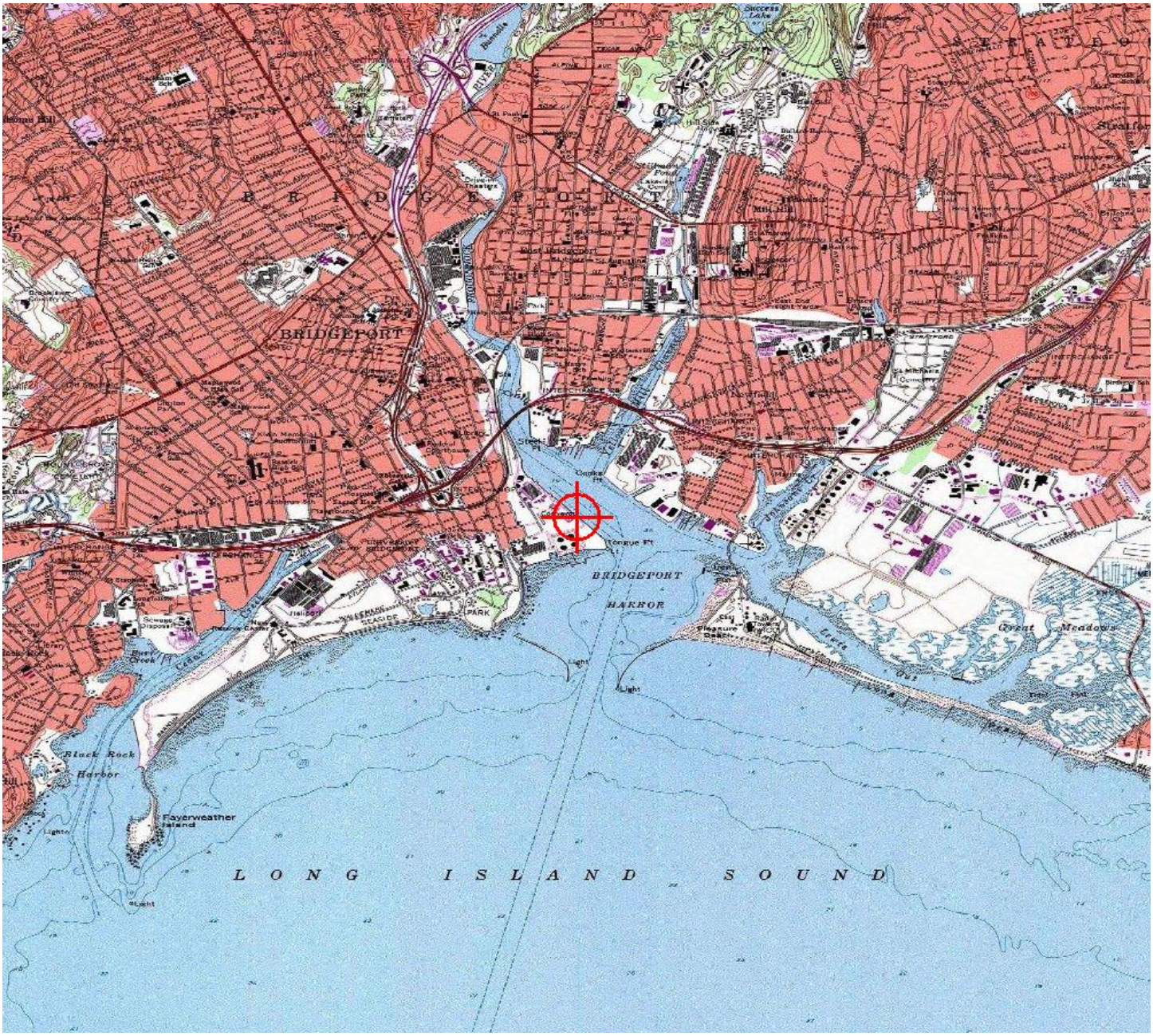
2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy , at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The Temporary crane operator shall advise the AM and the ATCT when operations at the full determined height are completed.

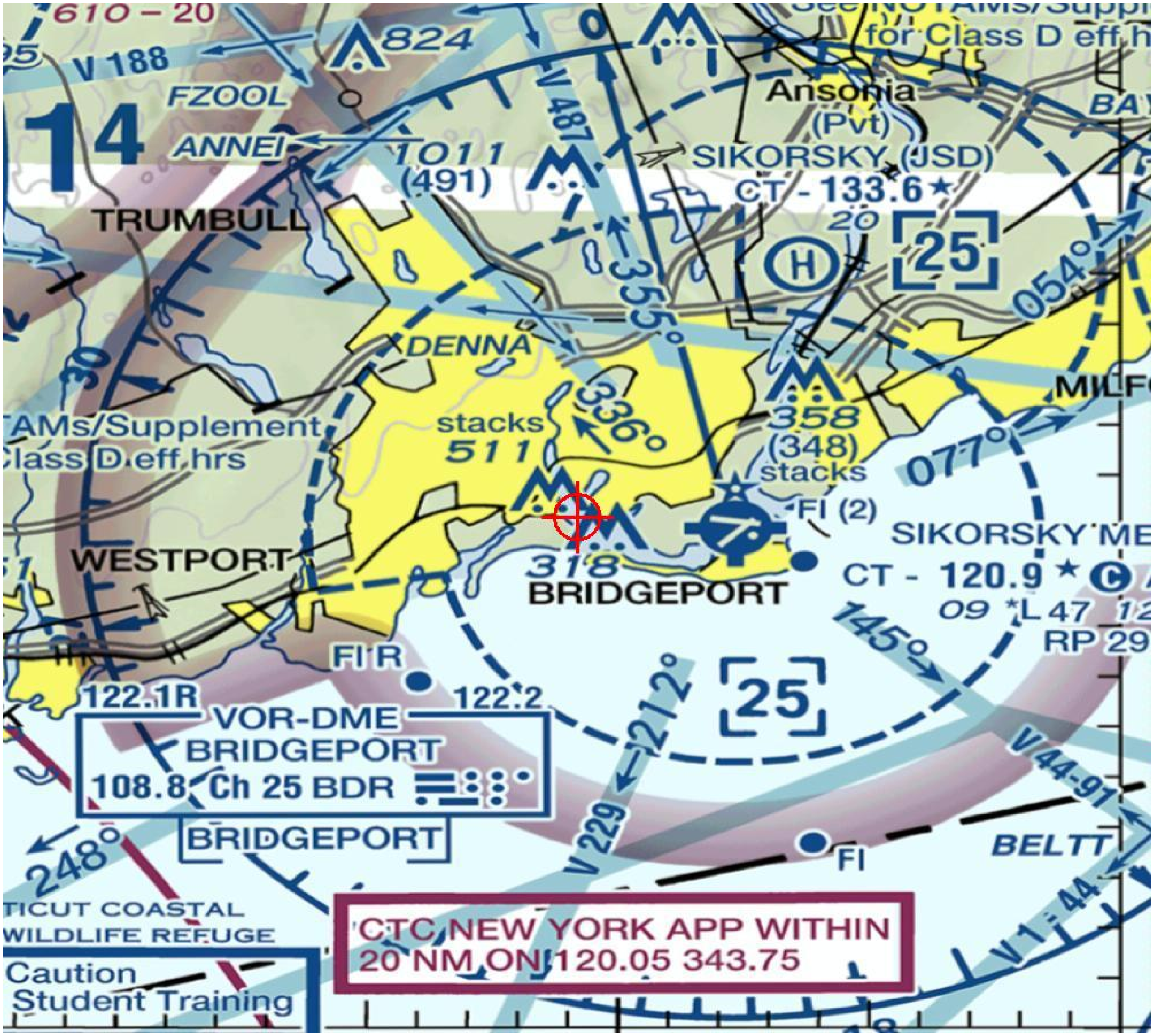
4. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

5. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4779-OE



Sectional Map for ASN 2018-ANE-4779-OE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Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2018-ANE-4780-OE

Issued Date: 08/30/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 15 C
Location:	Bridgeport, CT
Latitude:	41-09-57.90N NAD 83
Longitude:	73-10-53.61W
Heights:	18 feet site elevation (SE)
	325 feet above ground level (AGL)
	343 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-0105, or j.garver@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4780-OE

Signature Control No: 372196333-383866058 (TMP)
Jay Garver
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4780-OE

Proposal: To construct and/or operate a(n) Crane to a height of 325 feet above ground level, 343 feet above mean sea level.

Location: The structure will be located 2.52 nautical miles west of BDR Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

It is required that the manager of IGOR I SIKORSKY MEMORIAL @ (203) 576-8163 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of IGOR I SIKORSKY MEMORIAL Air Traffic Control Tower @ (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 03/01/2020 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional information for ASN 2018-ANE-4780-OE

The proposed Temporary crane, at a height of 325 feet (ft.) above ground level (AGL) / 343 ft. above mean sea level (AMSL), would be located approximately 2.50 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

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Section 77.17 (a) (5): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

Section 77.19 (b): Conical Surface. A surface, extending outward and upward, from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 ft. The proposed temporary crane exceeds the Conical Surface by up to 53 ft.

The temporary crane will be erected and maintained at full height in order to complete construction of, and temporarily support, an exhaust stack, (ASN 2018-ANE-4776-OE), at 300 ft. AGL / 317 AMSL. Once the stack has been secured, the crane will be operated at various places within the perimeter of an area outlined by aeronautical studies 2018-ANE-4778-OE / 2018-ANE-4779-OE / 2018-ANE-4780-OE / 2018-ANE-4781-OE. The crane will not, at any time, exceed 325 ft. AGL/343 AMSL.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

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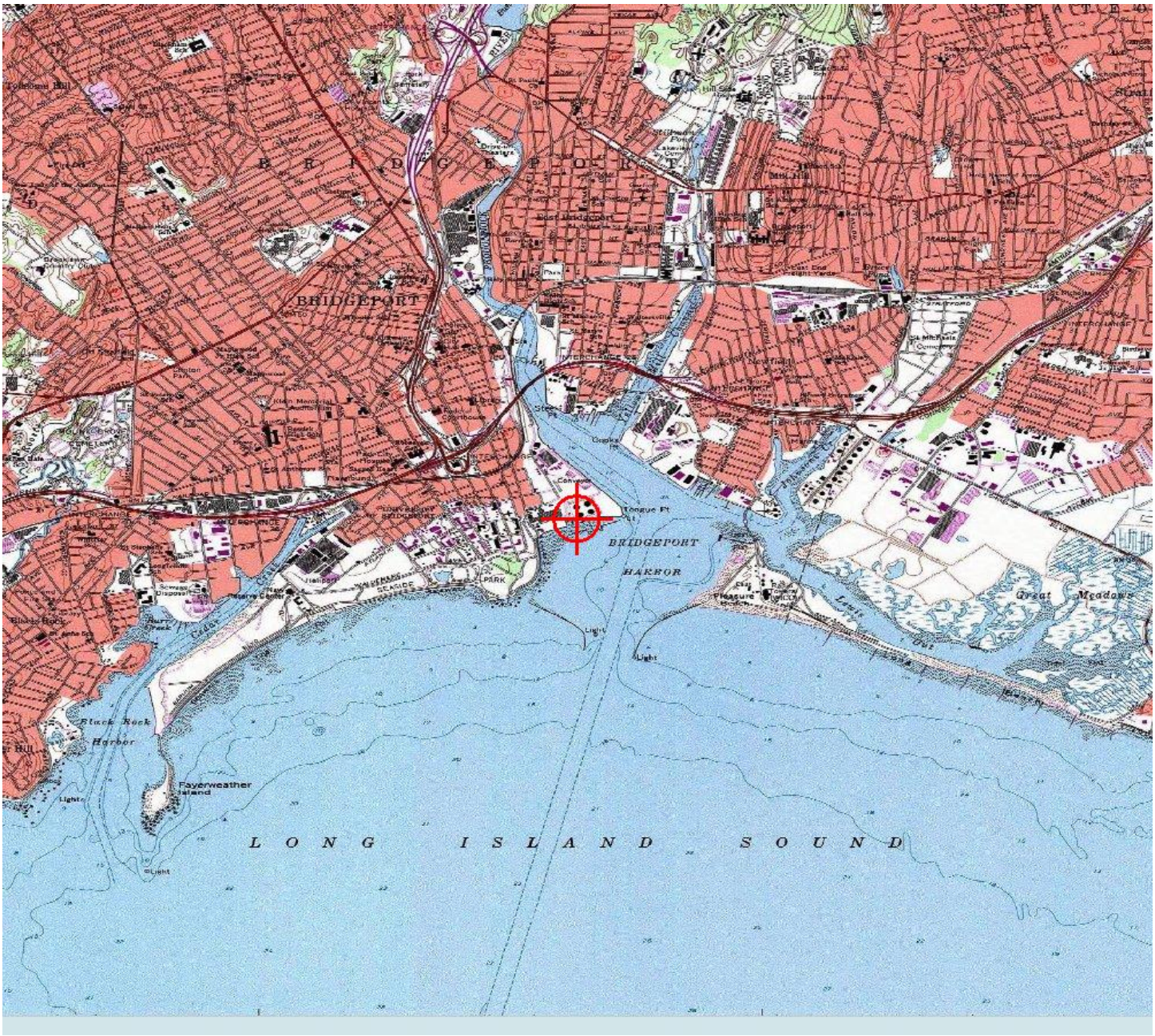
TOPO Map for ASN 2018-ANE-4780-OE



Sectional Map for ASN 2018-ANE-4780-OE

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

Aeronautical Study No.
2018-ANE-4781-OE

Issued Date: 08/30/2018

Scott Matheson
PSEG Power Connecticut LLC
1 Atlantic Street
Bridgeport, CT 06604

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Crane Crane BHS 5 Crane 15 D
Location:	Bridgeport, CT
Latitude:	41-10-01.44N NAD 83
Longitude:	73-10-41.09W
Heights:	18 feet site elevation (SE)
	325 feet above ground level (AGL)
	343 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does exceed obstruction standards but would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

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A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Airman (NOTAM).

If you have any questions, please contact our office at (202) 267-0105, or j.garver@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ANE-4781-OE

Signature Control No: 372196690-383866315 (TMP)
Jay Garver
Specialist

Additional Condition(s) or Information for ASN 2018-ANE-4781-OE

Proposal: To construct and/or operate a(n) Crane to a height of 325 feet above ground level, 343 feet above mean sea level.

Location: The structure will be located 2.36 nautical miles west of BDR Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, flags/red lights - Chapters 3(Marked),4,5(Red),&12.

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

It is required that the manager of IGOR I SIKORSKY MEMORIAL @ (203) 576-8163 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

It is required that the manager of IGOR I SIKORSKY MEMORIAL Air Traffic Control Tower @ (203) 378-4106 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

This determination expires on 03/01/2020 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional information for ASN 2018-ANE-4781-OE

The proposed Temporary crane, at a height of 325 feet (ft.) above ground level (AGL) / 343 ft. above mean sea level (AMSL), would be located approximately 2.36 nautical miles (NM) west of the Igor I. Sikorski Memorial Airport (BDR) airport reference point (ARP), Bridgeport, CT. The proposed temporary crane has been identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BDR as follows:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft. The proposed crane exceeds by up to 125 ft.

Section 77.17 (a) (5): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

Section 77.19 (b): Conical Surface. A surface, extending outward and upward, from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 ft. The proposed temporary crane exceeds the Conical Surface by up to 101 ft.

The temporary crane will be erected and maintained at full height in order to complete construction of, and temporarily support, an exhaust stack, (ASN 2018-ANE-4776-OE), at 300 ft. AGL / 317 AMSL. Once the stack has been secured, the crane will be operated at various places within the perimeter of an area outlined by aeronautical studies 2018-ANE-4778-OE / 2018-ANE-4779-OE / 2018-ANE-4780-OE / 2018-ANE-4781-OE. The crane will not, at any time, exceed 325 ft. AGL/343 AMSL.

The temporary crane does not constitute substantial adverse effect because the equipment would be temporary and would not be a hazard to air navigation provided the conditions noted on page 1 and below of this determination are strictly met.

Additional conditions:

1. The temporary crane operator shall contact the BDR Airfield Manager (AM), Ms. Michelle Muoio at (203) 576-8163 at least three (3) business days prior to erecting the crane, and notify the AM when operations are complete and the crane is removed from the site.

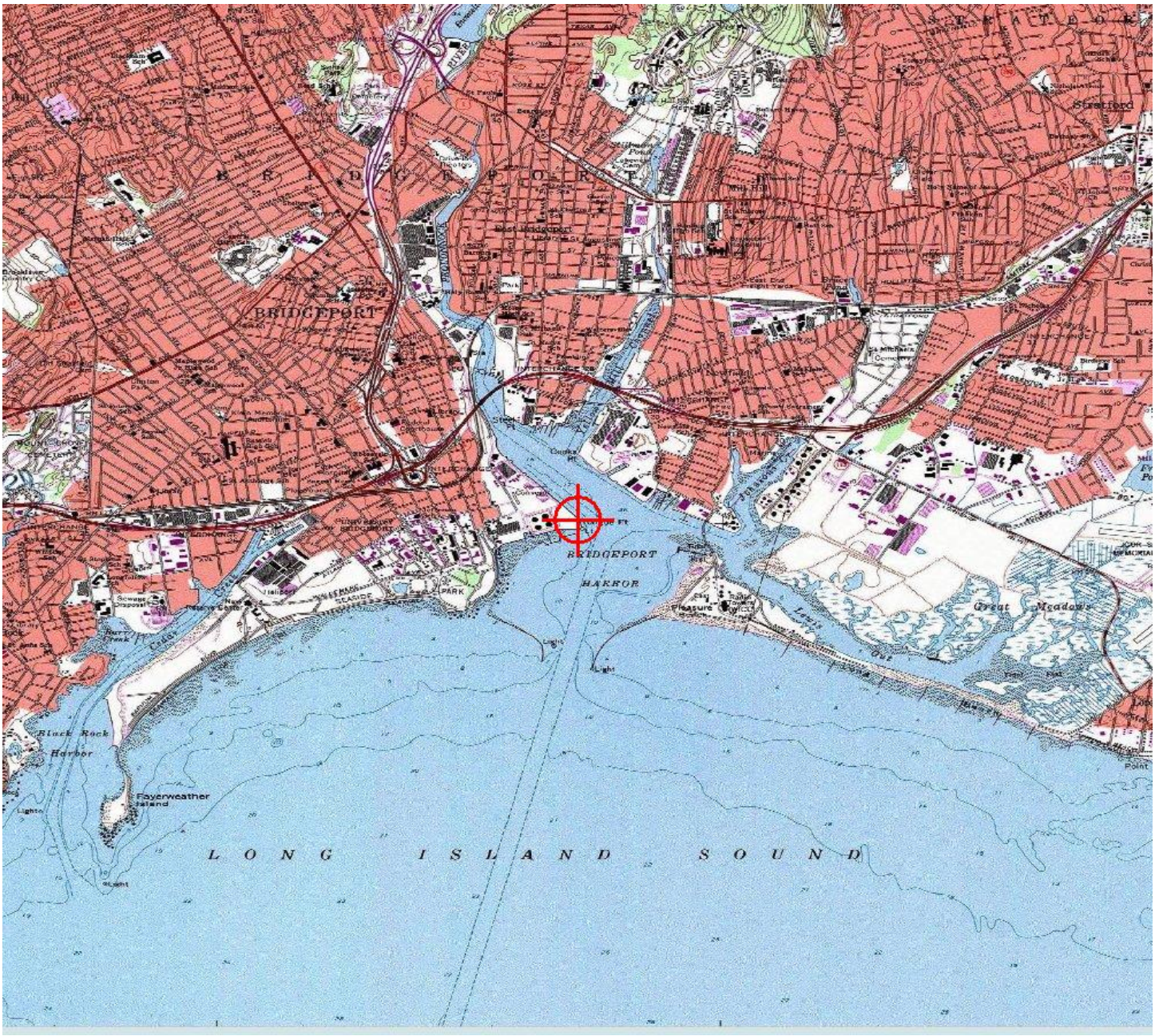
2. The temporary equipment operator shall contact the BDR Air Traffic Control Tower (ATCT) Operations Supervisor, Mr Brian Gilroy, at (203) 378-4106 at least three (3) business days prior to erecting the crane, and when the crane is removed from the site. The crane operator shall also ensure the ATCT Watch Supervisor is provided a good working cell phone number each morning to ensure timely communications, if required.

3. The Temporary crane operator shall advise the AM and the ATCT when operations at the full determined height are completed.

4. The sponsor shall ensure the temporary crane is obstruction marked and lighted with flags and red lights in accordance with FAA Advisory Circular 70/7460-1L, "Obstruction Marking and Lighting," Chapters 4, 5 and 12. The advisory circular is available for viewing at the following website: https:// oeaaa.faa.gov.

5. Notify david.maddox@faa.gov and doug.ctr.felix@faa.gov when the crane has been removed from the work site.

TOPO Map for ASN 2018-ANE-4781-OE



Sectional Map for ASN 2018-ANE-4781-OE