Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

Prevention of Significant Deterioration Permit
Application No. NE-15-018
Transmittal No.: X262144

Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, MA 02139

MIT Central Utility Plant Combustion Turbine Expansion Project

Pursuant to the provisions of the Clean Air Act (CAA) Chapter I, Part C (42 U.S.C. Section 7470 *et seq.*), the regulations found at the Code of Federal Regulations Title 40, Section 52.21, and the Agreement for Delegation of the Federal Prevention of Significant Deterioration Program, dated April 2011, by the United States Environmental Protection Agency, Region 1 (EPA) to the Massachusetts Department of Environmental Protection (MassDEP), MassDEP is issuing a Prevention of Significant Deterioration (PSD) Permit to Massachusetts Institute of Technology (MIT or the Permittee) concerning its proposed, new 44 Megawatt (MW) Combustion Turbine Expansion Project (Project), consisting of two 22 MW Combustion Turbine Generators (CTG) with associated Heat Recovery Steam Generators (HRSG) along with a 2 MW emergency engine.

The proposed combined heat and power (CHP) project will be considered part of MIT's Central Utility Plant (CUP) and will be located near the existing CUP which exists at 59 Vassar Street on the Cambridge, Massachusetts campus. As such, the objective of the Project is to integrate with the existing CUP to provide for efficient, reliable, and responsive electrical and thermal energy to support the critical research facilities, laboratories, classrooms and dormitories on the MIT campus in an environmentally responsible manner. The proposed units as well as certain modifications to the allowable operating scenarios of existing emission units shall be subject to the permit conditions and permit limitations set forth herein. This PSD Permit is valid only for the equipment described herein and as submitted to MassDEP in a December 2015 application for a PSD Permit under 40 CFR 52.21 and subsequent application submittal addenda. In accordance with 40 CFR 124.15(b), this PSD Permit shall be effective 30 days after the date of

signature or, if no comments requesting a change in the Draft Permit are received, shall be effective immediately upon signature and shall remain in effect until it is surrendered to MassDEP. This Permit becomes invalid if the construction does not commence as defined in 40 CFR 52.21(b)(9) within 18 months after this PSD Permit takes effect, is discontinued for a period of 18 months or more, or is not completed within a reasonable time. Pursuant to 40 CFR 52.21, MassDEP may extend the 18 month period upon a satisfactory showing that an extension is justified. This PSD Permit does not relieve the Permittee from the obligation to comply with applicable state and federal air pollution control rules and regulations. Failure to comply with the terms and conditions of this PSD Permit may result in enforcement action by MassDEP and/or EPA pursuant to Sections 113 and 167 of the Clean Air Act.

June 21, 2017

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Susan Ruch
Deputy Regional Director
and Acting Permit Chief
Bureau of Air and Waste

Date Issued

Project Description (For Informational Purposes)

The proposed Project includes the installation and operation of two new nominal 22 MW CHP units and one new 2 MW emergency (cold start) engine in addition to a modification regarding the amount and type of fuel utilized in three existing campus boilers identified as BLR-42-3, BLR-42-4, and BLR-42-5. Additionally, as part of its energy strategy to mitigate climate change, MIT has contracted for firm, uninterruptable natural gas supply and resultantly MIT has proposed to restrict the amount of allowable fuel oil usage in two existing boilers identified as BLR-42-7 and BLR-42-9. It should be noted that this fuel oil restriction is not considered a major modification under 40 CFR 52.21(2)(i) since the proposed fuel restriction is neither a physical change nor a change in the method of operation. The Project is summarized below:

- The two proposed CHP units will each consist of a CTG with an associated HRSG equipped with supplementary natural gas firing capability via a Duct Burner (DB). The CTGs will combust natural gas as the primary fuel of use. Since the scope of the Project includes providing reliable electric and thermal energy, the CTGs will also have the capability of firing ultra-low sulfur distillate (ULSD) as a limited back-up fuel for no more than 48 hours per consecutive twelve month period (C12MP) for testing and for no more than 168 hours per C12MP when natural gas is unavailable or unable to be burned in the equipment and including testing. Each of the two HRSGs will combust solely natural gas in its Duct Burner. The two proposed CHP units will be designated as CTG 200/HRSG 200 and CTG 300/HRSG 300. The proposed 2 MW emergency engine, designated as Cold Start Engine, will combust solely ULSD due to the Project objective of reliability, since operation of an emergency engine such as this is expected to include during emergencies when natural gas would be unavailable.

- The fuel firing capability of each of the three boilers existing at MIT's CUP, identified as BLR-42-3, BLR-42-4, and BLR-42-5, will be converted from the current option of firing either natural gas or No. 6 residual oil to the allowable firing of natural gas as the primary fuel and, in order to meet the Project objective of reliability, limited firing of ULSD as the only back-up fuel for no more than 48 hours per C12MP for testing and no more than 168 hours per C12MP including testing and when natural gas is unavailable or unable to be burned in the equipment. The Project's proposed switch to and restriction of ULSD in BLR-42-3, BLR-42-4, and BLR-42-5 is projected to result in a decrease in actual air emissions from each of these boilers for all pollutants of consideration.

- Regarding the other two existing boilers operated by the CUP, identified as BLR-42-7 and BLR-42-9, MIT has proposed to reduce the allowable burning of ULSD in BLR-42-7 and BLR-42-9 from the current limit of 720 hours per C12MP, each, to no more than 48 hours per C12MP, each, for testing and to no more than 168 hours per C12MP, each, including testing and when natural gas is unavailable or unable to be burned in the equipment. In this way, the Combustion Turbine Expansion Project will result in all fuel burning equipment at MIT's CUP (other than emergency engines which necessarily fire ULSD for reliability during emergencies) utilizing natural gas as the primary fuel with limited firing of ULSD as the only backup fuel for no more than 48 hours per C12MP,

each, for testing and for no more than 168 hours per C12MP, each, including testing and when natural gas is unavailable or unable to be burned in the equipment. MIT's proposed restriction in the allowable use of ULSD in BLR-42-7 and BLR-42-9 is not considered a physical change or a change in the method of operation and as such BLR-42-7 and BLR-42-9 are not subject to PSD review. However, BLR-42-7 and BLR-42-9 have been relied upon in the increment modeling as increment expanding sources and, as such, MassDEP considers BLR-42-7 and BLR-42-9 part of the Project.

- In addition, MIT has recently installed, independent of the Project, three new cooling towers, designated as Cooling Tower 11, Cooling Tower 12, and Cooling Tower 13 to the rear of the CUP. Due to their recent installations they have been included in Project emissions and in the increment modeling as increment consuming sources and, as such, MassDEP considers them part of the Project.

The two proposed CHP units and Cold Start Engine will be located in a building, to be constructed and designated as MIT Building 42C, located on Albany Street at the site of an existing surface parking lot on the Cambridge, Massachusetts campus, between MIT Building N16 at 60 Albany Street and MIT's existing Albany Parking Garage at 32 Albany Street. The existing boilers, BLR-42-3, BLR-42-4, and BLR-42-5, will remain in MIT Building 42 at 59 Vassar Street on the MIT campus and existing boilers BLR-42-7 and BLR-42-9 will remain in MIT Building N16 at 60 Albany Street to the rear of the CUP.

EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this PSD Permit:

Table 1			
EU	**Description**	**Heat Rate Input Design Capacity in MMBtu/hr**	**Pollution Control Device**
CTG 200	Solar Titan 250 Combustion Turbine, Natural gas as primary fuel, with ULSD as limited backup fuel	219 (HHV) for natural gas firing 212 (HHV) for ULSD firing	Dry Low NO_X Combustor
HRSG 200	Heat Recovery Steam Generator with supplemental natural gas firing via a Duct Burner (DB)	134 (HHV) for natural gas firing	Selective Catalytic Reduction Oxidation Catalyst
CTG 300	Solar Titan 250 Combustion Turbine, Natural gas as primary fuel, with ULSD as limited backup fuel	219 (HHV) for natural gas firing 212 (HHV) for ULSD firing	Dry Low NO_X Combustor
HRSG 300	Heat Recovery Steam Generator with supplemental natural gas firing via a Duct Burner	134 (HHV) for natural gas firing	Selective Catalytic Reduction Oxidation Catalyst
Cold Start Engine	CAT DM8263 or equivalent	19.04 (HHV) for ULSD firing	None
BLR-42-3	Wickes Type R Boiler (existing)	116.2	
BLR-42-4	Wickes Type R Boiler (existing)	116.2	
BLR-42-5	Riley Type VP Boiler (existing)	145.2	Coen Low NO_X burner
BLR-42-7[1]	Indeck boiler	99.7	Natcom ultra low NO_X burner or equivalent and Flue Gas Recirculation
BLR-42-9[1]	Rentech Model 0	119.2 for ULSD firing 125.8 for natural gas firing	Coen ultra low NO_X burner and Flue Gas Recirculation
Cooling Tower 11	Wet mechanical cooling towers	Varies	High efficiency drift eliminators
Cooling Tower 12			
Cooling Tower 13			

Table 1 Note:
1. Emission Units are considered part of Project solely due to inclusion in increment modeling.

Table 1 Key:
EU= Emission Unit
MMBtu/hr = 1,000,000 British thermal units per hour
HHV = higher heating value basis, from Table C-1 to Subpart C of 40 CFR Part 98: 0.138 MMBtu per gallon ULSD and $1.026*10^{-3}$ MMBtu per standard cubic foot natural gas
NO_X = Nitrogen Oxides
ULSD = Ultra Low Sulfur Distillate, having a sulfur content of no more than 0.0015 percent by weight
CTG = combustion turbine generator
HRSG = heat recovery steam generator

OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Project is subject to, and the Permittee shall ensure that the Project shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below, including notes:

Table 2			
EU	**Operational / Production Limit**	**Air Contaminant**	**Emission Limit**
CTG 200/ HRSG 200, CTG 300/ HRSG 300, each	**Natural Gas Firing in the CTGs:** Natural Gas Heat Input Rate in each CTG ≤ 223.7 MMBtu per hour, HHV[1] Heat Input Rate in each DB: ≤ 134.0 MMBtu per hour, HHV Natural Gas Firing[1] (only fuel of use) Shakedown period for both units shall not exceed 180 days from first fire of either unit. Prior to completion of shakedown of either CTG 200/HRSG 200 or CTG 300/HRSG 300, the existing GT-42-1A and HRSG-42-1B shall be permanently removed from service. (See Table 6, Special Terms and Conditions, of this Permit)	$PM/PM_{10}/PM_{2.5}$ (no duct firing)[2]	≤ 4.47 lb/hr[1] ≤ 0.020 lb/MMBtu[1]
		$PM/PM_{10}/PM_{2.5}$ (with duct firing)[2]	≤ 7.14 lb/hr[1] ≤ 0.020 lb/MMBtu[1]
		Greenhouse Gases (GHG)[5], as CO_2e (no duct firing)	≤ 26,194 lb/hr[1] ≤ 117.098 lb/MMBtu[1]
		Greenhouse Gases (GHG)[5], as CO_2e (with duct firing)	≤ 41,885 lb/hr[1] ≤ 117.098 lb/MMBtu[1]

Table 2			
EU	**Operational / Production Limit**	**Air Contaminant**	**Emission Limit**
CTG 200/ HRSG 200, CTG 300/ HRSG 300, each	**ULSD Firing in the CTGs:** ULSD Heat Input Rate in each CTG: ≤ 229.3 MMBtu per hour, HHV[1] Heat Input Rate in each HRSG's DB: ≤ 135.2 MMBtu per hour, HHV Natural Gas Firing[1] (only fuel of use) ≤ 48 hours on ULSD for testing per C12MP, per CTG, ≤ 279,216 gallons ULSD per C12MP, per CTG[3], ≤ 168 operating hours on ULSD per C12MP, per CTG, including ≤ 48 hours on ULSD for testing per C12MP, per CTG, ≤ 1,662 gallons per hour, per CTG ULSD firing in each CTG is restricted to periods during which any of the following events occur: 1. When natural gas is unable to be burned in the equipment; 2. When natural gas is unavailable; and 3. During testing which requires the use of ULSD firing. Shakedown period for both units shall not exceed 180 days from first fire of either unit. Prior to completion of shakedown of either CTG 200/HRSG 200 or CTG 300/HRSG 300, the existing GT-42-1A and HRSG-42-1B shall be permanently removed from service. (See Table 6, Special Terms and Conditions, of this Permit)	$PM/PM_{10}/PM_{2.5}$ (no duct firing)[2]	≤ 7.8 lb/hr[1] ≤ 0.034 lb/MMBtu[1,6]
		$PM/PM_{10}/PM_{2.5}$ (with duct firing)[2]	≤ 10.6 lb/hr[1] ≤ 0.029 lb/MMBtu[1]
		Greenhouse Gases (GHG)[5], as CO_2e (no duct firing)	≤ 37,516 lb/hr[1] ≤ 163.61 lb/MMBtu[1]
		Greenhouse Gases (GHG)[5], as CO_2e (with duct firing)	≤ 53,347 lb/hr[1] ≤ 146.36 lb/MMBtu[1]
CTG 200/ HRSG 200, and CTG 300/ HRSG 300, **combined**	Operation during all conditions **including start-ups, shutdowns, and transient which are identified as those while firing natural gas in the CTG when its associated HRSG's Duct Burner heat input is changing by more than 30 MMBtu per hour**	$PM/PM_{10}/PM_{2.5}$[2]	≤ 50.7 tons per C12MP[4]
		Greenhouse Gases (GHG)[5], as CO_2e	≤ 295,480 tons per C12MP[4]

Table 2			
EU	**Operational / Production Limit**	**Air Contaminant**	**Emission Limit**
Cold Start Engine	ULSD is the only fuel of use, ≤ 300 hours per consecutive 12 month period, ≤ 19.04 MMBtu per hour, HHV ≤ 8 hours per day	$PM/PM_{10}/ PM_{2.5}$[2]	≤ 0.4 lb/hr ≤ 0.06 tons per C12MP
		Greenhouse Gases (GHG)[5], as CO_2e	≤ 163.61 lb/MMBtu[1] ≤ 3,115 lb/hr ≤ 467.3 tons per C12MP
	The Permittee shall operate and maintain the unit such that it complies with the emission standards as required in 40 CFR 60.4205 over the entire life of the engine.	NA	40 CFR Part 60 Subpart IIII Section 60.4206 and Section 60.4211
BLR-42-3, BLR-42-4, BLR-42-5	Within 12 months of initial start-up of either CTG 200/HRSG 200 or CTG 300/HRSG 300 or after either CTG 200/HRSG 200 or CTG 300/HRSG 300 commences normal operations (after shakedown), whichever occurs earlier: Natural gas is primary fuel; ULSD firing is restricted to periods during which any of the following events occur: 1. When natural gas is unable to be burned in the equipment; 2. When natural gas is unavailable; and 3. During testing which requires the use of ULSD firing. ≤ 48 hours on ULSD for testing per C12MP, each, ≤ 168 operating hours on ULSD per C12MP, each, including ≤ 48 hours on ULSD for testing per C12MP, each The back-up fuel oil switch from No. 6 to ULSD shall occur within 12 months of initial start-up of either CTG 200/HRSG 200 or CTG 300/HRSG 300 or after either CTG 200/HRSG 200 or CTG 300/HRSG 300 commences normal operations (after shakedown), whichever occurs earlier. (See Table 6, Special Terms and Conditions, of this Permit) Heat Input Rate in each boiler: BLR-42-3: ≤ 116.2 MMBtu per hour, HHV BLR-42-4: ≤ 116.2 MMBtu per hour, HHV BLR-42-5: ≤ 145.2 MMBtu per hour, HHV	$PM/PM_{10}/ PM_{2.5}$[2]	0.0076 lb/MMBtu when firing natural gas[7] 0.055 lb/MMBtu when firing ULSD[7]

Table 2			
EU	**Operational / Production Limit**	**Air Contaminant**	**Emission Limit**
BLR-42-7	Natural gas is primary fuel; ULSD firing is restricted to periods during which any of the following events occur: 1. When natural gas is unable to be burned in the equipment; 2. When natural gas is unavailable; and 3. During testing which requires the use of ULSD firing. $\leq$ 48 hours on ULSD for testing per C12MP, each, $\leq$ 168 operating hours on ULSD per C12MP, each, including $\leq$ 48 hours on ULSD for testing per C12MP, each Heat Input Rate in each boiler: BLR-42-7: $\leq$ 99.7 MMBtu per hour, HHV BLR-42-9 on ULSD: $\leq$ 119.2 MMBtu per hour, HHV BLR-42-9 on Natural Gas: $\leq$ 125.8 MMBtu per hour, HHV	$PM/PM_{10}/ PM_{2.5}$[2]	0.01 lb/MMBtu when firing natural gas[8] 0.03 lb/MMBtu when firing ULSD[8]
BLR-42-9			0.01 lb/MMBtu when firing natural gas[9] 0.03 lb/MMBtu when firing ULSD[9]
CTG 200/HRSG 200, CTG 300/HRSG 300, and Cold Start Engine, combined	NA	$PM/PM_{10}/ PM_{2.5}$[2]	$\leq$ 50.8 tons per C12MP
		Greenhouse Gases (GHG)[5], as CO_2e	$\leq$ 295,948 tons per C12MP

Table 2 Notes:

1. BACT emission limits are one hour block averages, except heat input and GHG as CO_2e which are 24 hour averages based on one hour block averages.
2. Emission limit is for the sum of filterable and condensable particulate matter via EPA Reference Methods 201A and 202 or an equivalent test method(s) approved by both MassDEP and EPA.
3. The total allowable fuel heat input is based on ULSD usage in each CTG at 229.3 MMBtu/hr for 168 hours per C12MP.
4. C12MP emission limits are based on nominal ratings and include start-up, shutdown, and transient operation emissions and are based on ULSD usage in each CTG at 212 MMBtu/hr for 168 hours per C12MP and of natural gas usage at 219 MMBtu/hr for 8,592 hours per C12MP and natural gas usage in each HRSG's Duct Burner at 125 MMBtu/hr for 4,380 hour per C12MP.
5. The CO_2 emission factors from combustion of natural gas and ULSD were obtained from 40 CFR Part 98, Subpart C, Table C-1. The emission factors for other greenhouse gases of consideration, methane (CH_4) and nitrous oxide (N_2O), from combustion of natural gas and ULSD were obtained from 40 CFR Part 98, Subpart C, Table C-2. Greenhouse Gases expressed as Carbon Dioxide equivalent (CO_2e) was calculated by multiplying the individual GHG emission rates for CO_2, CH_4, and N_2O by its 100-year time horizon Global Warming Potential (GWP) factor

from 40 CFR Part 98, Subpart A, Table A-1 (GWP factors used were: CO_2 = 1, CH_4 = 25, and N_2O = 298) and summing.
Emission rates were converted from kg/MMBtu to pounds/MMBtu using the 2.20462 lb/kg conversion factor from 40 CFR Part 98, Table A-2.

For example, natural gas:
{(53.06 kg CO_2/MMBtu * 1 kg CO_2e/kg CO_2) + (0.001 kg CH_4/MMBtu * 25 kg CO_2e/kg CH_4) + (0.0001 kg N_2O/MMBtu * 298 kg CO_2e/kg N_2O)} * 2.20462 pounds/kg = 117.098 lb CO_2e/MMBtu
For example, ULSD:
{(73.96 kg CO_2/MMBtu * 1 kg CO_2e/kg CO_2) + (0.003 kg CH_4/MMBtu * 25 kg CO_2e/kg CH_4) + (0.0006 kg N_2O/MMBtu * 298 kg CO_2e/kg N_2O)} * 2.20462 pounds/kg = 163.61 lb CO_2e/MMBtu

6. Subject to revision by MassDEP based on review of compliance (stack) testing data generated for the first year of operation in which this operating condition occurs; however, not to exceed the emission rate utilized in the National Ambient Air Quality Standards compliance demonstration.
7. Emission limits from applicable MassDEP approval, No. MBR-91-COM-027.
8. Emission limits from applicable MassDEP approval, No. MBR-09-COM-007.
9. Emission limits from applicable MassDEP approval, No. MBR-10-COM-007.

Table 2 Key:
EU = Emission Unit
PM = Particulate Matter
PM_{10} = Particulate Matter with particle diameter less than or equal to 10 microns
$PM_{2.5}$ = Particulate Matter with particle diameter less than or equal to 2.5 microns
CO_2e = Greenhouse Gases expressed as Carbon Dioxide equivalent and calculated by multiplying each of the six greenhouse gases (Carbon Dioxide, Nitrous Oxide, Methane, Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride) mass amount of emissions, in tons per year, by the gas's associated global warming potential published at Table A-1 of 40 CFR Part 98, Subpart A and summing the six resultant values.
No. = Number
C12MP = consecutive twelve month period
lb = pound
lb/hr = pounds per hour
MMBtu = 1,000,000 British thermal units
lb/MMBtu = pounds per 1,000,000 British thermal units
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
ULSD = Ultra-Low Sulfur Distillate, having a sulfur content of no more than 0.0015 percent by weight
CTG = Combustion Turbine Generator
DB = Duct Burner
HHV = higher heating value basis, from Table C-1 to Subpart C of 40 CFR Part 98: 0.138 MMBtu per gallon ULSD and $1.026*10^{-3}$ MMBtu per standard cubic foot natural gas
$\leq$ = less than or equal to
NA = Not Applicable

MONITORING AND TESTING REQUIREMENTS

The Project is subject to, and the Permittee shall ensure that the Project shall comply with, the monitoring and testing requirements, as contained in Table 3 below:

Table 3	
EU	**Monitoring and Testing Requirements**
CTG 200/ HRSG 200, CTG 300/ HRSG 300	1. The Permittee shall ensure that CTG 200/HRSG 200 and CTG 300/HRSG 300 are constructed to accommodate the emissions (compliance) testing requirements as stipulated in 40 CFR Part 60 Appendix A. The two outlet sampling ports (90 degrees apart from each other) for each Emission Unit must be located at a minimum of one half duct diameter upstream and two duct diameters downstream of any flow disturbance. In addition, the Permittee shall facilitate access to the sampling ports and testing equipment by constructing platforms, ladders, or other necessary equipment.
	2. The Permittee shall monitor date(s) of startup(s) and compliance testing to ensure that compliance testing of CTG 200/HRSG 200 and CTG 300/HRSG 300 is completed within 180 days after initial start-up of the Emission Unit to demonstrate compliance with the emission limits specified in Table 2 of this PSD Permit. All emissions testing shall be conducted in accordance with MassDEP's "Guidelines for Source Emissions Testing" and in accordance with EPA reference test methods as specified in 40 CFR Part 60, Appendix A and 40 CFR Part 51, Appendix M, or by another method which has been approved by both MassDEP and EPA. The Permittee shall schedule the compliance testing such that MassDEP personnel can witness it.
	3. The Permittee shall conduct initial compliance tests on CTG 200/HRSG 200 and CTG 300/HRSG 300 to document actual emissions of each Emission Unit so as to determine its compliance status with respect to the emission limits in lb/hr and lb/MMBtu both with and without DB operation as contained in Table 2 for the pollutants listed below: a. $PM/PM_{10}/ PM_{2.5}$ b. Greenhouse gases as measured by CO_2e Testing for these pollutants for each Emission Unit shall be conducted on natural gas at three (3) load conditions, both with and without duct firing, that cover the entire normal operating range: the minimum emissions compliance load (MECL), 100 percent load, and a minimum of one additional load that falls between MECL and 100 percent. Testing on ULSD shall be conducted at one load condition without Duct Burner firing.
	4. During the initial compliance test and all subsequent emissions testing, the Permittee shall monitor emissions to establish a parametric monitoring system utilizing the Facility's operations data acquisition handling system – DAHS for tracking $PM/PM_{10}/PM_{2.5}$ emissions, both including filterable and condensable particulate matter. Said parametric system shall be used to track emissions of $PM/PM_{10}/PM_{2.5}$ in order to monitor compliance with the emission limits in Table 2 until the next compliance testing is conducted and a new system is developed at which time that system shall be utilized to track $PM/PM_{10}/PM_{2.5}$ emissions.

Table 3	
EU	**Monitoring and Testing Requirements**
CTG 200/ HRSG 200, CTG 300/ HRSG 300	5. Whenever required by MassDEP, the Permittee shall conduct compliance tests on CTG 200/HRSG 200 and CTG 300/HRSG 300 to document actual emissions of each Emission Unit so as to determine its compliance status with respect to the emission limits in lb/hr and lb/MMBtu, both with and without DB operation as contained in Table 2 for the pollutants listed below: a. $PM/PM_{10}/PM_{2.5}$ b. Greenhouse gases as measured by CO_2e During said compliance testing, the Permittee shall monitor emissions and update the $PM/PM_{10}/PM_{2.5}$ parametric monitoring system, as deemed appropriate by testing results.
	6. The Permittee shall ensure that all emission monitors and recorders serving each Emission Unit comply with MassDEP approved performance and location specifications, and conform with the EPA monitoring specifications at 40 CFR 60.13 and 40 CFR Part 60 Appendices B and F.
	7. All periods of excess emissions occurring, even if attributable to an emergency/malfunction, start-up/shutdown or equipment cleaning, shall be quantified and included by the Permittee in the compilation of emissions and determination of compliance with the emission limits as stated in Table 2 of this PSD Permit. ("Excess Emissions" are defined as emissions which are in excess of the emission limits as stated in Table 2).
	8. The Permittee shall install, operate, and maintain a separate fuel metering device and recorder for each CTG that monitors and records natural gas consumption in standard cubic feet such that MMBtu/hr heat input can be calculated based on HHV to ensure compliance with Table 2 limits.
	9. The Permittee shall install, operate, and maintain a separate fuel metering device and recorder for each HRSG's Duct Burner that monitors and records natural gas consumption in standard cubic feet such that MMBtu/hr heat input can be calculated based on HHV to ensure compliance with Table 2 limits.
	10. The Permittee shall install, operate, and maintain a separate fuel metering device and recorder for each CTG which shall monitor and record ULSD consumption such that gallons per hour and per C12MP and MMBtu/hr heat input can be calculated based on HHV to ensure compliance with Table 2 limits.
	11. The Permittee shall monitor each date and daily hours of operation and total hours of operation for each Emission Unit per month and per C12MP.
	12. The Permittee shall monitor the natural gas and ULSD consumption of each Emission Unit in accordance with 40 CFR Part 60 Subpart KKKK utilizing a continuous monitoring system as approved by MassDEP.

Table 3	
EU	**Monitoring and Testing Requirements**
CTG 200/ HRSG 200, CTG 300/ HRSG 300	13. The Permittee shall monitor the sulfur content of the fuel combusted in each Emission Unit in accordance with 40 CFR Part 60 Subpart KKKK, or pursuant to any alternative fuel monitoring schedule developed in accordance with 40 CFR Part 60 Subpart KKKK.
	14. The Permittee shall monitor the operation of each Emission Unit, in accordance with the surrogate methodology or parametric monitoring developed during the most recent compliance test concerning PM/PM_{10}/$PM_{2.5}$ emission limits.
	15. The Permittee shall monitor the hours of operation for testing purposes while firing ULSD in each CTG on a monthly and C12MP basis.
	16. The Permittee shall monitor operations to ensure that the shakedown period for both units shall not exceed 180 days from first fire of either unit.
	17. The Permittee shall monitor operations to ensure that prior to completion of shakedown of either unit, the existing GT-42-1A and HRSG-42-1B shall be permanently removed from service.
Cold Start Engine	18. The Permittee shall monitor operations to ensure compliance with the requirements applicable to emergency engines, as contained in 40 CFR Part 60, Subpart IIII, which include but are not limited to purchasing an engine that has been certified by EPA, operating said emergency engine in accordance with 60.4211(f), not including 60.4211(f)(ii)-(iii), and installing, configuring, operating, and maintaining the engine per the manufacturer's instructions.
	19. The Permittee shall monitor the sulfur content of ULSD fuel oil burned.
	20. The Permittee shall monitor hourly operations to ensure compliance with the operational limits in terms of hours per day and hours per C12MP and emission limits in Table 2.
	21. The Permittee shall monitor operations to ensure that the Cold Start Engine shall not be operated more than 300 hours during any C12MP, including normal maintenance and testing procedures as recommended by the manufacturer.
	22. The Permittee shall monitor operations to ensure that the Cold Start Engine is equipped and operated with a non-turnback hour counter which shall be maintained in good working order.
BLR-42-3, BLR-42-4, BLR-42-5	23. The Permittee shall monitor the date(s) of startup(s) and commencement of normal operation of CTG 200/HRSG 200 and CTG 300/HRSG 300 to ensure that the required fuel switch occurs within twelve months of initial start-up of either CTG 200/HRSG 200 or CTG 300/HRSG 300 or after either CTG 200/HRSG 200 or CTG 300/HRSG 300 commences normal operation (after conclusion of shakedown), whichever occurs earlier.

Table 3	
EU	**Monitoring and Testing Requirements**
CTG 200, CTG 300, BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, BLR-42-9	24. The Permittee shall monitor each emission unit's ULSD-fired operations to ensure compliance with the requirement that natural gas shall be the primary fuel and that ULSD firing is restricted to no more than 48 hours for testing per C12MP and 168 hours per C12MP including periods during which any of the following events occur: a. When natural gas is unable to be burned in the equipment; b. When natural gas is unavailable; and c. During testing which requires the use of ULSD firing.
	25. For each Emission Unit, the Permittee shall monitor the sulfur content of ULSD burned as well as the reason for and number of hours of ULSD firing, both on a C12MP basis.
BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, BLR-42-9	26. The Permittee shall monitor operations to ensure compliance with limits contained in Table 2 above.
Project-Wide	27. The Permittee shall comply with all required monitoring contained in any applicable New Source Performance Standards (NSPS) contained in 40 CFR Part 60.
	28. The Permittee shall comply with all required monitoring contained in any applicable National Emission Standards for Hazardous Air Pollutants (NESHAPS) contained in 40 CFR Part 63.
	29. If and when MassDEP requires it, the Permittee shall conduct compliance testing in accordance with EPA Reference Test Methods and 310 CMR 7.13.

Table 3 Key:

EU = Emission Unit
EPA = United States Environmental Protection Agency
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
DB = Duct Burner
CTG = Combustion Turbine Generator
CHP = Combined Heat and Power
PM = Particulate Matter
PM_{10} = Particulate Matter less than or equal to 10 microns in size
$PM_{2.5}$ = Particulate Matter less than or equal to 2.5 microns in size
CO_2e = Greenhouse Gases expressed as Carbon Dioxide equivalent and calculated by multiplying each of the six Greenhouse Gases (Carbon Dioxide, Nitrous Oxide, Methane, Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride) mass amount of emissions, in tons per year, by the gas's associated global warming potential published at Table A-1 of 40 CFR Part 98, Subpart A and summing the six resultant values.
C12MP = Consecutive twelve month period
lb/hr = pounds per hour
lb/MMBtu = pounds per million British thermal units
MMBtu/hr = million British thermal units per hour
MassDEP = The Massachusetts Department of Environmental Protection

HHV = higher heating value basis, from Table C-1 to Subpart C of 40 CFR Part 98: 0.138 MMBtu per gallon ULSD and $1.026*10^{-3}$ MMBtu per standard cubic foot natural gas
MECL = Minimum Emissions Compliance Load
ULSD = Ultra-Low Sulfur Distillate, having a sulfur content of no more than 0.0015 percent by weight
Project-wide = CTG 200/HRSG 200, CTG 300/HRSG 300, Cold Start Engine, BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, and BLR-42-9

RECORD KEEPING REQUIREMENTS

The Project is subject to, and the Permittee shall ensure that the Project shall comply with the record keeping requirements as contained in Table 4 below:

Table 4

EU	Record Keeping Requirements
CTG 200/HRSG 200, CTG 300/HRSG 300	1. The Permittee shall maintain records of CTG 200/HRSG 200's and of CTG 300/HRSG 300's hourly fuel heat input rate (MMBtu/hr, HHV) and natural gas consumption in standard cubic feet and ULSD in gallons, both per month and per C12MP, each.
	2. The Permittee shall maintain records of each date and daily hours of operation and total hours of operation of CTG 200/HRSG 200 and CTG 300/HRSG 300 per month and per C12MP.
	3. The Permittee shall maintain a record of the date(s) of startup(s) and compliance testing to verify that compliance testing of CTG 200/HRSG 200 and CTG 300/HRSG 300 is completed within 180 days after initial start-up of the Emission Unit to demonstrate compliance with the emission limits specified in Table 2 of this PSD Permit.
	4. The Permittee shall maintain a record of the stack emissions test results report(s) including parametric monitoring strategies for $PM/PM_{10}/PM_{2.5}$ emissions as well as MECL optimization such that the Final test results report can be submitted to MassDEP as required in Table 5 of this PSD Permit.
	5. The Permittee shall continuously record $PM/PM_{10}/PM_{2.5}$ emissions on the DAHS using the surrogate methodology or parametric monitoring derived from the most recent compliance test.
	6. The Permittee shall maintain a record of all periods of excess emissions, even if attributable to an emergency/malfunction, start-up/shutdown or equipment cleaning, which shall be quantified and included by the Permittee in the compilation of emissions and determination of compliance with the emission limits as stated in Table 2 of this PSD Permit.
	7. The Permittee shall maintain records of consumption of and the sulfur content of the fuel combusted at the frequency required pursuant to 40 CFR Part 60 Subpart KKKK, or pursuant to any alternative fuel monitoring schedule issued in accordance with 40 CFR Part 60 Subpart KKKK.
	8. The Permittee shall maintain a copy of this PSD Permit, underlying Application, and the most up-to-date SOMP for CTG 200/HRSG 200 and CTG 300/HRSG 300.

Table 4	
EU	**Record Keeping Requirements**
CTG 200/HRSG 200, CTG 300/HRSG 300	9. The Permittee shall install, operate, and maintain a separate fuel metering device and recorder for each CTG that records natural gas consumption in standard cubic feet.
	10. The Permittee shall install, operate, and maintain a separate fuel metering device and recorder for each HRSG's Duct Burner that records natural gas consumption in standard cubic feet.
	11. The Permittee shall install, operate, and maintain a separate fuel metering device and recorder for each CTG which shall record ULSD consumption in gallons per hour and per C12MP.
	12. The Permittee shall maintain a record of the hours of operation for testing purposes while firing ULSD in each CTG on a monthly and C12MP basis.
	13. The Permittee shall maintain records of first fire and the completion of the shakedown period for both units to verify that the shakedown period shall not exceed 180 days from first fire of either unit.
	14. The Permittee shall maintain records of the dates of completion of shakedown of both units as well as the date that the existing GT-42-1A and HRSG-42-1B are permanently removed from service to verify that the existing GT-42-1A and HRSG-42-1B are permanently removed from service prior to the completion of the shakedown of either CTG 200/HRSG 200 or CTG 300/HRSG 300.
Cold Start Engine	15. The Permittee shall maintain a record of the sulfur content of ULSD fuel oil burned.
	16. The Permittee shall maintain records documenting compliance with the requirements applicable to emergency engines, as contained in 40 CFR Part 60, Subpart IIII, which include but are not limited to purchasing an engine that has been certified by EPA, operating said emergency engine in accordance with 60.4211(f), not including 60.4211(f)(ii)-(iii), and installing, configuring, operating, and maintaining the engine per the manufacturer's instructions.
	17. The Permittee shall maintain a record of hourly operations to verify compliance with the operational limits in terms of hours per day and hours per C12MP and emission limits in Table 2.
	18. The Permittee shall maintain records to verify that the Cold Start Engine shall not be operated more than 300 hours during any C12MP, including normal maintenance and testing procedures as recommended by the manufacturer.
	19. The Permittee shall maintain records to verify that the Cold Start Engine is equipped and operated with a non-turnback hour counter which shall be maintained in good working order.
BLR-42-3, BLR-42-4, BLR-42-5	20. The Permittee shall maintain records of date(s) of startup(s) and commencement of normal operation of CTG 200/HRSG 200 or CTG 300/HRSG 300 to verify that the required fuel switch occurs within twelve months of initial start-up of either CTG 200/HRSG 200 or CTG 300/HRSG 300 or after either CTG 200/HRSG 200 or CTG 300/HRSG 300 commences normal operation (after conclusion of shakedown), whichever occurs earlier.

Table 4	
EU	**Record Keeping Requirements**
CTG 200, CTG 300, BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, BLR-42-9	21. The Permittee shall maintain a record of each emission unit's ULSD-fired operations to document compliance with the requirement that natural gas shall be the primary fuel and that ULSD firing for testing purposes shall not exceed 48 hours per C12MP and is restricted to no more than 168 hours per C12MP including only periods during which any of the following events occur: a. When natural gas is unable to be burned in the equipment; b. When natural gas is unavailable; and c. During testing which requires the use of ULSD firing.
	22. For each Emission Unit, the Permittee shall maintain records of the sulfur content of ULSD burned as well as the reason for and number of hours of ULSD firing, both on a C12MP basis.
BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, BLR-42-9	23. The Permittee shall maintain records to verify compliance with limits contained in Table 2 above.
Project-Wide	24. The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each C12MP (current month plus prior eleven months). These records shall be compiled no later than the 30th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping.
	25. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	26. The Permittee shall comply with all required recordkeeping contained in any applicable New Source Performance Standards (NSPS) contained in 40 CFR Part 60.
	27. The Permittee shall comply with all required recordkeeping contained in any applicable National Emission Standards for Hazardous Air Pollutants (NESHAPS) contained in 40 CFR Part 63.
	28. The Permittee shall maintain a copy of this PSD Permit, underlying Application and the most up-to-date SOMP for the emission units and pollution control devices approved herein on-site.
	29. The Permittee shall maintain a record of routine maintenance activities performed on the approved emission units and pollution control devices and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.

Table 4	
EU	**Record Keeping Requirements**
Project-Wide	30. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved emission units and pollution control devices and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	31. The Permittee shall maintain records required by this PSD Permit on site for a minimum of five (5) years.
	32. The Permittee shall make records required by this PSD Permit available to MassDEP and EPA personnel upon request.

Table 4 Key:
EU = Emission Unit
SOMP = Standard Operating and Maintenance Procedures
CMR = Code of Massachusetts Regulations
PM = Particulate Matter
PM_{10} = Particulate Matter less than or equal to 10 microns in size
$PM_{2.5}$ = Particulate Matter less than or equal to 2.5 microns in size
ULSD = Ultra-Low Sulfur Distillate Fuel Oil containing a maximum of 0.0015 weight percent sulfur
C12MP = Consecutive twelve month period
CTG = Combustion Turbine Generator
HRSG = Heat Recovery Steam Generator
MassDEP = The Massachusetts Department of Environmental Protection
CHP = Combined Heat and Power
PSD = Prevention of Significant Deterioration
MECL = Minimum Emissions Compliance Load
CFR = Code of Federal Regulations
MMBtu/hr = pounds per million British thermal units
HHV = higher heating value basis, from Table C-1 to Subpart C of 40 CFR Part 98: 0.138 MMBtu per gallon ULSD and $1.026*10^{-3}$ MMBtu per standard cubic foot natural gas
Project-wide = CTG 200/HRSG 200, CTG 300/HRSG 300, Cold Start Engine, BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, and BLR-42-9

REPORTING REQUIREMENTS

The Project is subject to, and the Permittee shall ensure that the Project shall comply with the reporting requirements as contained in Table 5 below:

Table 5	
EU	**Reporting Requirements**
CTG 200/HRSG 200, CTG 300/HRSG 300	1. The Permittee must obtain written MassDEP approval of an emissions test protocol prior to initial compliance emissions testing of CTG 200/HRSG 200 and CTG 300/HRSG 300 at the Facility. The Permittee shall submit a pre-test protocol at least 30 days prior to the compliance emissions testing. The protocol shall include a detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for any such emissions testing. In addition, the protocol shall include procedures for parametric monitoring strategies to ensure continuous monitoring of $PM/PM_{10}/PM_{2.5}$ emissions from CTG 200/HRSG 200 and CTG 300/HRSG 300.
	2. The Permittee shall submit a final stack emissions test results report within 60 days after completion of the initial and all subsequent annual compliance emissions testing.
	3. The Permittee shall submit a quarterly Excess Emissions Report to MassDEP by the thirtieth (30th) day of April, July, October, and January covering the previous calendar periods of January through March, April through June, July through September, and October through December, respectively. The report shall contain at least the following information: a) The parametric monitoring of $PM/PM_{10}/PM_{2.5}$ emissions excess emissions in a format acceptable to MassDEP. b) For each period of excess emissions or excursions from allowable operating conditions for the emission unit(s), the Permittee shall list the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include, but not be limited to, periods of start-up, shutdown, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMS. ("**Malfunction**" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. "**Emergency**" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the **PSD Permit**, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of these things.) c) A tabulation of periods of operation of each emission unit and total hours of operation of each emission unit during the calendar quarter.

Table 5	
EU	**Reporting Requirements**
CTG 200/HRSG 200, CTG 300/HRSG 300	4. The Permittee shall submit, in writing, the following notifications to MassDEP within fourteen (14) days after each occurrence: a) date(s) of commencement of construction of CTG 200/HRSG 200 and of CTG 300/HRSG 300; b) date(s) when construction has been completed on CTG 200/HRSG 200 and on CTG 300/HRSG 300; c) date(s) of initial firing of CTG 200/HRSG 200 and of CTG 300/HRSG 300; d) date(s) upon which CTG 200/HRSG 200 and CTG 300/HRSG 300 are either ready for operation or have commenced operation.
	5. The Permittee shall submit to MassDEP a SOMP for the Emission Units and associated control and monitoring/recording systems no later than 30 days prior to commencement of operation of the units. Thereafter, the Permittee shall submit updated versions of the SOMP to MassDEP no later than thirty (30) days prior to the occurrence of a significant change. MassDEP must approve of significant changes to the SOMP prior to the SOMP becoming effective. The updated SOMP shall supersede prior versions of the SOMP.
Cold Start Engine	6. The Permittee shall submit to MassDEP, in accordance with the provisions of 310 CMR 7.02(5)(c), the plans and specifications for the Cold Start Engine and its associated exhaust stack once the specific information has been determined, but in any case not later than 30 days before the construction or installation.
Project-Wide	7. If the Facility is subject to 40 CFR Part 68 due to the presence of a regulated substance above a threshold quantity in a process, the Permittee must submit a Risk Management Plan to EPA no later than the date the regulated substance is first present above a threshold quantity.
	8. The Permittee shall submit an application to update the Facility's Operating Permit. The Permittee may commence construction of the Project. However operation of the proposed equipment/proposed modifications to existing equipment operation cannot occur prior to final approval of the updated Operating Permit.
	9. The Permittee shall comply with all applicable reporting requirements of 310 CMR 7.71 (Reporting of Greenhouse Gas Emissions), and 40 CFR Part 98 (Mandatory Greenhouse Gas Emissions Reporting).
	10. The Permittee shall submit to MassDEP all information required by this PSD Permit over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).

Table 5	
EU	**Reporting Requirements**
Project-Wide	11. The Permittee shall notify the Northeast Regional Office of MassDEP, BAW Permit Chief by telephone at (978) 694-3200, by email to nero.air@massmail.state.ma.us , or by fax to (978) 694-3499, as soon as possible, but no later than three (3) business days after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	12. All notifications and reporting to MassDEP required by this PSD Permit shall be made to the attention of: Department of Environmental Protection/ Bureau of Air and Waste 205B Lowell Street Wilmington, Massachusetts 01887 Attn: Permit Chief Phone (978) 694-3200 Fax: (978) 694-3499 E-Mail: nero.air@massmail.state.ma.us
	13. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this PSD Permit within thirty (30) days from MassDEP's request.
	14. The Permittee shall comply with all required reporting contained in any applicable New Source Performance Standards (NSPS) contained in 40 CFR Part 60.
	15. The Permittee shall comply with all required reporting contained in any applicable National Emission Standards for Hazardous Air Pollutants (NESHAPS) contained in 40 CFR Part 63.

Table 5 Key:
EU = Emission Unit
SOMP = Standard Operating and Maintenance Procedures
PM = Particulate Matter
PM_{10} = Particulate Matter less than or equal to 10 microns in size
$PM_{2.5}$ = Particulate Matter less than or equal to 2.5 microns in size
MassDEP = The Massachusetts Department of Environmental Protection
CFR = Code of Federal Regulations
Project-wide = CTG 200/HRSG 200, CTG 300/HRSG 300, Cold Start Engine, BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, and BLR-42-9

SPECIAL TERMS AND CONDITIONS

The Project is subject to, and the Permittee shall ensure that the Project shall comply with, the special terms and conditions as contained in Table 6 below:

Table 6	
EU	**Special Terms and Conditions**
CTG 200/HRSG 200, CTG 300/HRSG 300	1. The Permittee shall ensure that natural gas shall be the sole fuel of use in each of the HRSG's DBs. The Permittee shall ensure that natural gas shall be the primary fuel of use in the CTGs. ULSD firing in the CTGs shall not exceed 48 hours for testing per C12MP, per CHP, and is restricted to no more than 168 hours per C12MP, per CHP including only periods during which any of the following events occur: a. When natural gas is unable to be burned in the equipment; b. When natural gas is unavailable; and c. During testing which requires the use of ULSD firing.
	2. The Permittee is restricted to a maximum fuel usage for ULSD of 279,216 gallons per C12MP, per CTG.
	3. The Permittee is restricted to a maximum hourly ULSD input rate of 1,662 gallons per hour and maximum operation on ULSD of 168 hours per C12MP, per CTG.
	4. The Permittee shall properly train all personnel to operate CTG 200/HRSG 200 and CTG 300/HRSG 300 and the control and monitoring equipment serving said units in accordance with vendor specifications, including refresher training as warranted by operational changes but not less than once every five (5) years. All persons responsible for the operation of said units shall sign a statement affirming that they have read and understand the approved SOMP.
	5. The Permittee shall comply with all applicable emission standards, monitoring, record keeping, and reporting requirements of 40 CFR Part 60 Subpart KKKK for each of the two proposed CHPs.
	6. The Permittee shall ensure that the shakedown period for both units shall not exceed 180 days from first fire of either unit.
	7. The Permittee shall ensure that prior to completion of shakedown of either unit, the existing GT-42-1A and HRSG-42-1B shall be permanently removed from service and the Permittee shall submit to MassDEP notification of the date that the existing GT-42-1A and HRSG-42-1B are removed from service.
CTG 200/HRSG 200, CTG 300/HRSG 300, Cold Start Engine	8. The Permittee shall operate each Emission Unit in accordance with its manufacturer's recommendations as included in each unit's SOMP. The Permittee shall monitor operations and shall maintain a record of operations and maintenance to verify compliance with this requirement.

Table 6	
EU	**Special Terms and Conditions**
Cold Start Engine	9. The Permittee shall comply with all applicable emission standards, monitoring, record keeping, and reporting requirements contained in 40 CFR Part 60 Subpart IIII.
	10. The Permittee shall ensure that the Cold Start Engine shall not be operated more than 300 hours during any C12MP, including normal maintenance and testing procedures as recommended by the manufacturer.
	11. The Permittee shall ensure that the Cold Start Engine is equipped and operated with a non-turnback hour counter which shall be maintained in good working order.
BLR-42-3, BLR-42-4, BLR-42-5	12. The Permittee shall ensure that the required fuel switch occurs within twelve months of initial start-up of either CTG 200/HRSG 200 or CTG 300/HRSG 300 or after either CTG 200/HRSG 200 or CTG 300/HRSG 300 commences normal operations (after conclusion of shakedown), whichever occurs earlier.
	13. Within twelve months of initial start-up of either CTG 200/HRSG 200 or CTG 300/HRSG 300 or after either CTG 200/HRSG 200 or CTG 300/HRSG 300 commences normal operations (after shakedown), whichever occurs earlier: The Permittee shall ensure that natural gas shall be the primary fuel of use. ULSD firing in each boiler shall not exceed 48 hours for testing per C12MP and is restricted to no more than 168 hours per C12MP including only periods during which any of the following events occur: a. When natural gas is unable to be burned in the equipment; b. When natural gas is unavailable; and c. During testing which requires the use of ULSD firing.
BLR-42-7, BLR-42-9	14. The Permittee shall ensure that natural gas shall be the primary fuel of use. ULSD firing in each boiler shall not exceed 48 hours for testing per C12MP and is restricted to no more than 168 hours per C12MP including only periods during which any of the following events occur: a. When natural gas is unable to be burned in the equipment; b. When natural gas is unavailable; and c. During testing which requires the use of ULSD firing.
Project-Wide	15. The Permittee shall comply with all provisions of 40 CFR Part 60, 40 CFR Part 63, 40 CFR Part 64, 40 CFR Part 68, 40 CFR Part 98, and 310 CMR 6.00 through 8.00 that are applicable to this Project.
	16. All requirements of this Permit which apply to the Permittee shall apply to all subsequent owners and/or operators of the Project.

Table 6 Key:
EU = Emission Unit
SOMP = Standard Operating and Maintenance Procedures
CHP = Combined Heat and Power

C12MP = Consecutive twelve month period
ULSD = Ultra Low Sulfur Distillate Fuel Oil containing a maximum of 0.0015 weight percent sulfur
CTG = Combustion Turbine Generator
DB = Duct Burner
HRSG = Heat Recovery Steam Generator
MassDEP = The Massachusetts Department of Environmental Protection
QA/QC = Quality Assurance/Quality Control
CFR = Code of Federal Regulations
Project-wide = CTG 200/HRSG 200, CTG 300/HRSG 300, Cold Start Engine, BLR-42-3, BLR-42-4, BLR-42-5, BLR-42-7, and BLR-42-9
CMR = Code of Massachusetts Regulations

RIGHT OF ENTRY

The Permittee shall allow all authorized representatives of MassDEP and/or EPA, upon presentation of credentials, to enter upon or through the Facility where records required under this PSD Permit are kept. The Permittee shall allow such authorized representatives, at reasonable times:

1. To access and copy any records that must be kept under this PSD Permit;

2. To inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this PSD Permit; and

3. To monitor substances or parameters for purposes of assuring compliance with this PSD Permit.

TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the Project, this PSD Permit shall be binding on all subsequent owners and operators. The Permittee shall notify the succeeding owner and operator of the existence of this PSD Permit and its conditions before such change, if possible, but in no case later than 14 days after such change. Notification shall be sent by letter with a copy forwarded within 5 days to MassDEP and EPA.

SEVERABILITY

The provisions of this PSD Permit are severable, and if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit will not be affected thereby.

CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any provision of this PSD Permit, the methods used in this PSD Permit shall be used, as applicable. However, nothing in this PSD Permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the Permittee would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.

OTHER APPLICABLE REGULATIONS

The Permittee shall operate all equipment regulated herein in compliance with all other applicable provisions of federal and state air regulations.

The Permittee has addressed the PSD Environmental Justice (EJ) requirements as required by the April 11, 2011 PSD Delegation Agreement between EPA and MassDEP to "identify and address, as appropriate high and adverse human health or environmental effects of federal programs, policies and activities on minority and low income populations" in accordance with Executive Order 12898 (February 11, 1994). Additional EJ discussion is provided in the PSD Fact sheet for the MIT Project.

AGENCY ADDRESS

Subject to change, all correspondence required by this PSD Permit shall be forwarded to:

Attn: NERO BAW Permit Chief
Department of Environmental Protection
205B Lowell Street
Wilmington, Massachusetts 01887

APPEAL PROCEDURES

1. Within 30 days after the final PSD Permit decision has been issued under 40 CFR 124.15, any person who filed comments on the Draft Permit or participated in any public hearing may petition EPA's Environmental Appeals Board to review any condition of the Permit decision.
2. The effective date of the Permit is 30 days after service of notice to the Permittee and commenters of the final decision to issue, modify, or revoke and reissue the PSD Permit, unless review is requested on the Permit under 40 CFR 124.19 within the 30 day period.
3. If an appeal is made to the Environmental Appeals Board, the effective date of the Permit is suspended until the appeal is resolved.