

Department of Environmental Protection

Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

Charles D. Baker Governor

Karyn E. Polito Lieutenant Governor Matthew A. Beaton Secretary

Martin Suuberg Commissioner

July 27, 2017

Brian Quinn
Director of Engineering and Generation Assets
Stony Brook Energy Center - MMWEC
327 Moody Street
Ludlow, MA 01056

Re: 310 CMR 7.00 – APPENDIX C

Transmittal # X275252

PROPOSED RENEWAL OPERATING PERMIT

Dear Mr. Quinn:

In accordance with 310 CMR 7.00—APPENDIX C(6) of the Air Pollution Control Regulations ("the Regulations"), the Massachusetts Department of Environmental Protection ("MassDEP") is forwarding to EPA the attached Proposed Renewal Operating Permit for the Stony Brook Energy Center - MMWEC facility located in Ludlow, Massachusetts.

Public notice of the Draft Operating Permit was published by the Department in the Springfield Union News/Sunday Republican on Tuesday May 22, 2018 and in The Environmental Monitor on Wednesday June 6, 2018, in accordance with the requirements of 310 CMR 7.00: Appendix C. As such, the public comment period ended on July 6, 2018. During that period, no public hearing was requested pursuant to 310 CMR 7.00: Appendix C(6)(f). Comments received from the United States Environmental Protection Agency, Region 1 are listed below and have been addressed in this Proposed Operating Permit as follows (MassDEP's response in *Bold Italics*):

1. The permit includes non-emergency use requirements for two Caterpillar 19.3 MMBtu/hr (7580 brake horsepower (HP)) compression ignition (CI) stationary engines. During the permit review process, EPA received information that these engines are Model Year 2007, manufactured on 12/1/2006 and 3/16/2007, and with a displacement of 4.3 Liters per Cylinder. We recommend the permit description of facility operations include this information in order to establish that the appropriate requirements from the federal Reciprocating Internal Combustion Engine (RICE) NESHAP and NSPS have been included in the permit. In addition, we recommend for the engine constructed on 3/16/2007 (after April 1, 2006), the permit specifically include the requirements from 60.4214(a) for non-emergency engines greater than 3000 HP.

MassDEP modified the information in the Description of Facility and Operations to include the dates of manufacture of each compression ignition stationary engine. MassDEP has

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amended the Description of Facility and Operations paragraph concerning Emission Units (EUs) 12 and 13 as follows:

"In September 2007, MMWEC constructed two EPA TIER 2 Certified, Caterpillar Model #3516C #2 fuel oil-fired emergency compression ignition (CI) stationary engines (EU's 12 and 13) in accordance with MassDEP's Environmental Results Program, 310 CMR 7.26(42). Both engines are Model Year 2007, with EU 12 manufactured on Dec 1, 2006 and EU 13 manufactured on March 16, 2007, and have a displacement of 4.3 Liters per cylinder. Each CI stationary engine has a maximum rating of 19.3 MMBtu/hr of heat input (equivalent to a rated 2937 brake horsepower [mechanical] and 2,000 kilowatts output [electrical]) at 100 percent load. In March 2016 MMWEC submitted and received approval for a Non-major Comprehensive Plan Approval to change the status of the Caterpillar CI stationary engines from a solely emergency function to one of providing power to the facility under both emergency and scheduled maintenance conditions. Such operation does not qualify as "emergency operation" of the engines under the requirements of 310 CMR 7.26(42). In addition, the new use for scheduled maintenance does not meet the definition of "emergency" or "black start" under 40 CFR 63, Subpart ZZZZ. In order to enable the operation of the two engines under non-emergency conditions, a carbon monoxide ("CO") oxidation catalyst was added to each unit to comply with 40 CFR 63, Subpart ZZZZ for non-emergency units and operating hours under non-emergency conditions will be limited."

Pertaining to the second part of this comment, according to Lou Gilli, EH&S Engineer at MMWEC, both CI stationary engines (EU's 12 & 13) are rated at 2937 BHP at 100% load. Therefore MassDEP does not concur with EPA that the unit constructed on 3/16/2007 is subject to the requirements of 40 CFR §60.4214(a) for non-emergency engines greater than 3000 HP.

2. The permit specifies emergency engine operational requirements in Table 8b for units 8 and 9, and Table 8d for unit 11. On May 4, 2016, the U.S. Court of Appeals for the D.C. Circuit vacated the provisions in the RICE NESHAP and NSPS which allow emergency engines to operate for up to 100 hours for emergency demand response when the Reliability Coordinator has declared an Energy Emergency Alert Level 2 or for voltage or frequency deviations of 5 percent or greater below standard voltage or frequency. Therefore, we request you remove conditions 12(b)(ii)-(iii) in Table 8b, and conditions 22(b)(ii)-(iii) in Table 8d which allow the emergency engines to operate for demand response or voltage frequency deviations.

MassDEP has removed Conditions 12(b)(ii)-(iii) in Table 8b and Conditions 22(b)(ii)-(iii) in Table 8d from the Operating Permit.

3. The description of the facility operations specifies EU6 is a "unit designed to burn gas 1 fuel" under Part 63 Subpart DDDDD. Table 8a, permit condition 6 includes requirements from Part 63 Subpart DDDDD for Boiler EU6 to conduct fuel analysis under Section 63.7521. Section 63.7521(a) specifies fuel analyses are required only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Tables 1 and 2 or 11 through 13 to this subpart. In addition, Section 63.7521(f) requires fuel analyses for mercury for gaseous fuels, not including natural gas, to demonstrate the gaseous fuel qualifies as an "other gas 1 fuel". As long as EU6 is a "unit designed to burn gas 1 fuel" not subject to emission limits, and burns natural gas and no other gaseous fuels, EU6 would not be required to conduct fuel analyses for mercury under Subpart DDDDD.

MassDEP has removed Condition 6 from Table 8A of the Operating Permit.

4. The permit includes requirements from Part 63 Subpart DDDDD for Boiler EU6 to conduct an annual tune-up, and for Boilers EU7 and EU14 to conduct a tune-up every 5 years. We recommend the permit include the reporting requirements for these boilers from 63.7550(b)-(d) and 63.7550(h)(3). These provisions require annual or 5-year compliance reports which are to be submitted to EPA electronically through the Compliance and Emissions Data Reporting Interface (CEDRI). In addition, because EU6 and EU7 are "units designed to burn gas 1 fuels", we recommend the permit include the requirements from 63.7545(f) for reporting when units EU6 and EU7 are not burning natural gas due to a gas curtailment or supply emergency.

MassDEP has added the suggested language to page 22 Table 6b and page 23 Table 6c – Reporting Requirements for the notification of alternative fuel use when not burning natural gas as well as the electronic reporting, using EPA's CEDRI of annual and 5-year tune-up requirements. Reporting requirements for Boiler EU14 were not added as per the exemption of hot water heaters with a heat input capacity of less than 1.6 MMBtu/hr from Part 63 Subpart DDDDD, specifically Section 63.7491(d). This is also addressed in comment 5 of the EPA June 20, 2018 letter.

The additional conditions for EU's 6 and 7 include the following:

Table 6b- Reporting Requirements

"In accordance with 40 CFR §63.7545(f), submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in §63.7575.

The notification must include the following information:

- a. The company name and address.
- b. Identification of the affected unit.
- c. Reason unable to use natural gas or equivalent fuel, including when the natural gas curtailment was declared or the natural gas supply interruption began.
- d. Type of alternative fuel that the unit will use.
- e. Dates when the alternative fuel use is expected to begin and end."

"In accordance with 40 CFR §63.7550(b), units that are subject only to a requirement to conduct subsequent annual, biennial, or 5-year tune-up and not subject to emission limits or Table 4 to Subpart DDDDD of Part 63 operating limits, may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs §63.7550(b)(1) through (4)."

Table 6c- Reporting Requirements

"In accordance with 40 CFR $\S63.7550(c)(1)$, a compliance report must contain the information as specified in $\S63.7550(c)(5)(i)$ through (iii), $\S63.7550(c)(5)(xiv)$, and $\S63.7550(c)(5)(xvii)$. The report must contain the following information:

- 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 reporting period.
- d. The date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11) or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
- e. Statement by a responsible official with that officials name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report."

"In accordance with 40 CFR §63.7550(h)(3), submit all reports required by Table 9 to Subpart DDDDD, Part 63electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.)"

Also, an additional conditions for EU's 7 was added to Table 6c – Reporting Requirements to include the following:

Table 6c- Reporting Requirements

In accordance with 40 CFR $\S63.7550(c)(1)$, for limited use boilers report the total operating time during the reporting period in accordance with $\S63.7550(c)(5)(iv)$.

5. The description of facility operations specifies that EU14 is a #2 fuel oil-fired boiler rated at 0.644 million Btu per hour (MMBtu/hr) and table 8a condition 9 specifies a 5-year tune-up under Part 63 Subpart DDDDD. Under Section 63.7491(d), "hot water heaters" are not regulated under Subpart DDDDD and the definition of a "hot water heater" includes hot water boilers, not generating steam, which combust gaseous, liquid, or biomass fuel with a heat input capacity less than 1.6 MMBtu/hr. Therefore, we recommend the description of facility operations document whether EU14 is a steam or hot water boiler.

MassDEP modified the information in the Description of Facility and Operations to clarify that Boiler EU14 is a 0.644 MBtu/hr hot water boiler, which was confirmed via email from Louis Gilli, EH&S Engineer at MMWEC's Stony Brook Energy Center, on June 21, 2018. MassDEP has amended the Description of Facility and Operations paragraph on page 4 of the Operating Permit concerning Emission Unit (EU) 14 as follows:

"MMWEC also has a 0.644 MMBtu/hr #2 fuel oil-fired hot water boiler (EU 14) used for comfort heating which was installed in November of 2005. This boiler is exempt from the requirements of 40 CFR Subpart DDDDD and the plan approval requirements of 310 CMR 7.02 pursuant to 310 CMR 7.02 (2)(b)15."

In addition, with the information provided which states that Boiler EU14 is exempt from the requirements of Part 63, Subpart DDDDD, MassDEP has removed Condition 9 from Table 8A of the Operating Permit which required a tune-up every 5 years for boilers with a heat input capacity of less than 5 MMBtu/hr in accordance with 40 CFR 63.7500(d).

MassDEP also updated some requirements for the emergency engines (EUs 8, 9 and 11) due to the recently promulgated air pollution control regulations amended in March 2018. Changes were made to the Operational and/or Production Limits in Table 3b and 3c, Table 5b Record Keeping Requirements Condition 22, Table 6c Condition 22, and Table 8a Special Terms and Conditions – Condition #8 and Table 8c Special Terms and Conditions – Condition #19.

Attached for your review is the Proposed Renewal Operating Permit. It lists the applicable Federal and State Air Pollution Control Requirements and what is required of the facility in order for it to be considered in compliance with such applicable requirements.

Once EPA receives the Proposed Renewal Operating Permit, there is a minimum of 105 days before MassDEP can issue the FINAL permit. This period may be longer depending on objections from EPA and petitions from citizens. Should there be any issues raised during this period by EPA, MassDEP will notify you of any actions necessary. This time period, in no way, alters your facility's "application shield" nor the requirement for the facility to be operated in accordance with this Proposed Permit.

If you have any questions concerning this Proposed Renewal Operating Permit, please contact Todd Wheeler at (413) 755-2297.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Marc Simpson
Air Quality Permit Chief
Western Region

ecc: Eric Wortman, USEPA Region 1 Susan Lancy, USEPA Region 1 Marc Wolman, MassDEP Boston Yi Tian, MassDEP, Boston



Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

Charles D. Baker Governor

Karyn E. Polito Lieutenant Governor Matthew A. Beaton Secretary

> Martin Suuberg Commissioner

AIR QUALITY OPERATING PERMIT (PROPOSED)

Issued by the Massachusetts Department of Environmental Protection ("Department" or "MassDEP") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

ISSUED TO ["the Permittee"]:

Stony Brook Energy Center – MMWEC P. O. Box 426 327 Moody Street Ludlow, Massachusetts 01056

FACILITY LOCATION:

Stony Brook Energy Center – MMWEC 327 Moody Street Ludlow, Massachusetts 01056

NATURE OF BUSINESS:

Electric Power & Steam Generation

RESPONSIBLE OFFICIAL:

Name: Brian Quinn
Title: Director, Engineering and Generation Assets

INFORMATION RELIED UPON:

Application No. WE-17-006 Transmittal No. X275252

FACILITY IDENTIFYING NUMBERS:

AQ ID: 0420001 FMF FAC NO.: 131039 FMF RO NO.: 50000

Standard Industrial Classification (SIC): 4911 North American Industrial Classification System

(NAICS): 221112

FACILITY CONTACT PERSON:

Name: Louis Gilli

Title: Environmental Engineer

Phone: 413-308-1243 Email: lgilli@mmwec.org

This Operating Permit shall expire on		
For the Department of Environmental Protection	on	
Michael Gorski	Date	
Regional Director		
Department of Environmental Protection		
Western Regional Office		

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SPECIAL CONDITIONS FOR OPERATING PERMIT

1. PERMITTED ACTIVITIES

In accordance with the provisions of 310 CMR 7.00:Appendix C and applicable rules and regulations, the Permittee (hereinafter "MMWEC") is authorized to operate air emission units as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00:Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this Permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this Permit.

A. <u>DESCRIPTION OF FACILITY AND OPERATIONS</u>

The MMWEC facility is an electric power generation facility largely consisting of five General Electric MS7001E combustion turbines located on Moody Street in Ludlow, Massachusetts. MMWEC sells the electricity to twenty-five (25) Massachusetts municipal electric systems. Emission Units 1, 2, and 3 burn natural gas or #2 fuel oil and operate in combined-cycle mode with a net total output of 350-megawatts. Emission Units 4 and 5 burn #2 fuel oil and operate in peaking mode with a net total output of 170-megawatts. The five combustion turbines were approved by MassDEP on January 31, 1979 and constructed at the facility during December 1981.

The combustion turbines are subject to 40 CFR Part 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). On March 5, 2004, the United States Environmental Protection Agency (USEPA) published final standards in the Federal Register for the National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (40 CFR Part 63, Subpart YYYY) which apply to the five combustion turbines at the facility. The combustion turbines are defined as existing stationary combustion turbines since they were constructed prior to January 14, 2003. Since the combustion turbines are considered to be existing sources, there are no applicable requirements contained in 40 CFR Part 63, Subpart YYYY. The combustion turbines are not subject to the Title IV Acid Rain Program of the 1990 Clean Air Act Amendments because 40 CFR 72.6(b)(1) states that simple combustion turbines that commenced commercial operation before November 15, 1990 are exempt from the requirements of the program. The term simple combustion turbines, as defined in 40 CFR 72.2, include combined cycle units which do not have auxiliary firing (duct burners). The combined cycle combustion turbines at MMWEC do not have auxiliary firing and are therefore not subject to the Acid Rain Program.

As part of this operating permit renewal application review, a compliance assurance monitoring ("CAM") applicability determination was conducted. The determination concluded that the combustion turbines are exempt from complying with the CAM requirements of 40 CFR Part 64 since the emission limitations for which there is a control device are required to have a continuous compliance determination method, as defined in 40 CFR 64.1. This exemption is specified in 40 CFR 64.2(b)(1)(vi).

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MMWEC has two E. Keeler, DS-40, #2 fuel oil-fired, auxiliary boilers, Auxiliary Boiler A & B (EU's 6 and 7), which are both rated at a maximum of 49.8 million British thermal units per hour (MMBtu/hr) of heat input. The two auxiliary boilers were approved by MassDEP on February 9, 1981 and constructed at the facility during December 1981. MMWEC has indicated that they intend to incorporate the use of natural gas fuel for each of the auxiliary boilers. The conversion of the #2 fuel oil-fired auxiliary boilers to oil/natural gas dual-fuel capability or to natural gas as the only fuel is exempt from the plan approval requirements of 310 CMR 7.02 in accordance with 310 CMR 7.02(2)(b)14. The use of natural gas as an available fuel for the auxiliary boilers, in addition to #2 fuel oil, has been added to Table 3 herein.

The two existing auxiliary boilers and the 0.644 MMBtu/hr #2 fuel oil-fired boiler are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart DDDDD ("Boiler MACT") since they are located at a facility which is a major source of hazardous air pollutants (HAPs). According to the Boiler MACT, the compliance date for existing boilers is January 31, 2016, except as provided in §63.6(i).

Auxiliary Boilers A is classified as Gas 1 subcategory boiler in accordance with the definition in \$63.7575 by burning only natural gas and burn liquid fuel only during periods of gas curtailment or gas supply emergencies or periodic testing. In accordance with 40 CFR 63.7500(a)(1), Auxiliary Boiler A must perform a one-time energy assessment performed by a qualified energy assessor in accordance with the applicable work practice standards for existing boilers located at a major source facility as specified in 40 CFR 63 Subpart DDDDD Table 3, Item 4. MMWEC performed the energy assessment on existing Auxiliary Boiler A was performed on September 29, 2015. Also, in accordance with 40 CFR 63.7500(e), boilers and process heaters in the units designed to burn Gas 1 fuels subcategory are not subject to the emission limits in 40 CFR 63 Subpart DDDDD Tables 1, and 2 or 11 through 13, or the operating limits in Table 4 of 40 CFR 63 Subpart DDDDD.

In accordance with 40 CFR 63.7500(c), Auxiliary Boiler B (EU7) meets the definition of limited-use boiler under §63.7575 and is not subject to the emission limits in 40 CFR 63 Subpart DDDDD Tables 1 and 2 or 11 through 13, the annual tune-up, or the energy assessment requirements in 40 CFR Subpart DDDDD Table 3 or the operating limits in Table 4 of 40 CFR 63 Subpart DDDDD.

MMWEC also has a 0.644 MMBtu/hr #2 fuel oil-fired hot water boiler (EU 14) used for comfort heating which was installed in November of 2005. This boiler is exempt from the requirements of 40 CFR Subpart DDDDD and the plan approval requirements of 310 CMR 7.02 pursuant to 310 CMR 7.02 (2)(b)15.

MMWEC has a total of two #2 fuel oil-fired emergency stationary reciprocating internal combustion engines (RICEs) and one #2 fuel oil-fired emergency stationary RICE fire pump. The Penski-Detroit-Allison, Model: 12V-149TI, #2 fuel oil-fired emergency RICE, Emission Unit 8, has a maximum rating of 8.1 MMBtu/hr of heat input which was approved by MassDEP on February 25, 1982 and constructed at the facility during 1981. The Cummings, Model: VT-1710-F, #2 fuel oil-fired emergency RICE fire pump, Emission Unit 9, has a maximum rating of 3.5 MMBtu/hr of heat input and was constructed at the facility in 1981. Emission Units 8 and 9 are subject to the requirements of 310 CMR 7.02(8)(i). In 2004, MMWEC constructed a Kohler Power Systems, Model: 350REOZV, #2 fuel oil-fired emergency RICE with a maximum rating of 3.5 MMBtu/hr of heat input in accordance with the requirements of 310 CMR 7.03(10).

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In September 2007, MMWEC constructed two EPA TIER 2 Certified, Caterpillar Model #3516C #2 fuel oil-fired emergency compression ignition (CI) stationary engines (EU's 12 and 13) in accordance with MassDEP's Environmental Results Program, 310 CMR 7.26(42). Both engines are Model Year 2007, with EU 12 manufactured on Dec 1, 2006 and EU 13 manufactured on March 16, 2007, and have a displacement of 4.3 Liters per cylinder. Each CI stationary engine has a maximum rating of 19.3 MMBtu/hr of heat input, and rated mechanical power output 2937 brake horsepower at 100 percent load. In March 2016 MMWEC submitted and received approval for a Non-major Comprehensive Plan Approval to change the status of the Caterpillar CI stationary engines from a solely emergency function to one of providing power to the facility under both emergency and scheduled maintenance conditions. Such operation does not qualify as "emergency operation" of the engines under the requirements of 310 CMR 7.26(42). In addition, the new use for scheduled maintenance does not meet the definition of "emergency" or "black start" under 40 CFR 63, Subpart ZZZZ. In order to enable the operation of the two engines under non-emergency conditions, a carbon monoxide ("CO") oxidation catalyst was added to each unit to comply with 40 CFR 63, Subpart ZZZZ for non-emergency units and operating hours under non-emergency conditions will be limited.

The emergency stationary RICEs are also subject to the federal National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63 Subpart ZZZZ. According to Subpart ZZZZ, the Penski-Detroit-Allison, Model: 12V-149TI, RICE and the Cummings, Model: VT-1710-F, RICE fire pump are defined as existing stationary engines since they were constructed at the site prior to December 19, 2002. The only applicable requirement from Subpart ZZZZ to the existing emergency engines is 40 CFR 63.6640(f). The other three RICE engines are considered to be new stationary engines since they were constructed after December 19, 2002 and are required to comply with Subpart ZZZZ upon startup. In addition, the two EPA TIER 2 Certified, Caterpillar Model #3516C diesel-fired non-emergency RICEs are subject to 40 CFR Part 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines). These engines were previously utilized as emergency engines but were approved in Approval #WE-15-019 to be non-emergency.

The facility has a remote reservoir cold cleaning degreaser which is exempt from the plan approval requirements of 310 CMR 7.02 in accordance with 310 CMR 7.02(2)(b)24. However, the cold cleaning degreaser is subject to the applicable requirements of 310 CMR 7.03(8), 7.18(1) and 7.18(8)(a)

The facility is considered to be a major source since it has the potential to emit greater than 100 tons per year of particulate matter (PM) including PM10 (PM with an aerodynamic diameter equal to or less than 10 microns) and PM2.5 (PM with an aerodynamic diameter equal to or less than 2.5 microns), 50 tons per year of volatile organic compounds(VOCs), 50 tons per year of nitrogen oxides (NO_X), 100 tons per year of carbon monoxide, 100 tons per year of sulfur dioxide, 10 tons per year of any individual HAP (manganese) and 25 tons per year of any combination of HAPs. Therefore the facility is subject to the Operating Permit and Compliance Program pursuant to 310 CMR 7.00: Appendix C(2).

EPA issued MMWEC a Prevention of Significant Deterioration (PSD) Permit No. 002-042-MA01, governing the installation and operation of Emission Units 1, 2 and 3. The facility is a "major stationary source" pursuant to the Prevention of Significant Deterioration regulations of 40 CFR § 52.21 since it has the potential to emit more than 100 tons per year of a new source review regulated pollutant, .

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The owner/operator of MMWEC is subject to and shall comply with the Massachusetts Clean Air Interstate Rule (CAIR), 310 CMR 7.32 and has submitted a CAIR emission control application pursuant to 310 CMR 7.32(3). In response to a 2014 U.S. Court of Appeals decision, the U.S. Environmental Protection Agency (EPA) implemented the Cross-State Air Pollution Rule (CSPAR) to supersede its Clean Air Interstate Rule (CAIR), effective January 1, 2015. Although the federal CAIR program and consequently the MassCAIR program ended as a result, the monitoring, reporting, and record-keeping requirements of the Massachusetts program remain in effect.

The Permittee is subject to the requirements of the Massachusetts CO₂ Budget Trading Program for Emission Units 1 through 5 as defined by MassDEP in 310 CMR 7.70(1)(d).

Pursuant to 310 CMR 7.70(3), the Permittee was issued a CO₂ Budget Program Emissions Control Plan (ECP) X007552 on January 6, 2009. In accordance with 310 CMR 7.70(8)(a), the owner or operator shall install, maintain, operate, and report emissions data from a CO₂ emissions monitoring system. (State Only Requirement).

Massachusetts Greenhouse Gas Reporting Program

The Permittee is subject to the requirements of Greenhouse Gas Emissions Reporting as defined by MassDEP in 310 CMR 7.71(3)(a).

Pursuant to 310 CMR 7.71(2) Definitions:

Greenhouse Gas means any chemical or physical substance that is emitted into the air and that MassDEP may reasonably anticipate will cause or contribute to climate change including, but not limited to, CO₂, CH₄, N₂O, SF₆, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

Reducing CO₂ Emissions from Electricity Generating Facilities

The Permittee is subject to the requirements of the Reducing CO₂ Emissions from Electricity Generating Facilities regulation for Emission Units 1 through 5 as defined by MassDEP in 310 CMR 7.74(3).

The Permittee shall comply with the CO_2 emissions limits contained in 310 CMR 7.74(5) for calendar year 2018 and each year thereafter. The Permittee may offset all CO_2 emissions using allowances in the facility allowance registry account in accordance with 310 CMR 7.74(6)(b) or request deferred compliance due to an emergency in accordance with 310 CMR 7.74(6)(d). (State Only Requirement).

The requirements in 310 CMR 7.74 supersede the declining annual GHG or CO2 emissions limits in an electricity generating facility's plan approved issued pursuant to 310 CMR 7.02. All other terms and conditions of such plan approval remains in effect unless a modification of such plan approval is issued by MassDEP in accordance with 310 CMR 7.02.

EMISSION UNIT IDENTIFICATION 2.

The following emission units (Table 1) are subject to and regulated by this Operating Permit:

	Table 1					
Emission Unit (EU#)	Description of Emission Unit	EU Design Capacity	Pollution Control Device (PCD)			
	Natural Gas and #2 Fuel Oil- Fired General Electric MS7001E Combined Cycle Combustion Turbine 1A	952 MMBtu/hr ⁽¹⁾	Steam Injection			
	Natural Gas and #2 Fuel Oil- Fired General Electric MS7001E Combined Cycle Combustion Turbine 1B	952 MMBtu/hr ⁽¹⁾	Natural Gas-Dry Low NO _X Burner #2 Fuel Oil-Water Injection			
	Natural Gas and #2 Fuel Oil- Fired General Electric MS7001E Combined Cycle Combustion Turbine 1C	952 MMBtu/hr ⁽¹⁾	Steam Injection			
	#2 Fuel Oil-Fired General Electric MS7001E Simple Cycle Combustion Turbine 2A	952 MMBtu/hr ⁽¹⁾	Water Injection			
	#2 Fuel Oil-Fired General Electric MS7001E Simple Cycle Combustion Turbine 2B	952 MMBtu/hr ⁽¹⁾	Water Injection			
	E. Keeler, DS-40, #2 Fuel Oil- Fired and Natural Gas Auxiliary Boiler A	49.8 MMBtu/hr	None			
	E. Keeler, DS-40, #2 Fuel Oil- Fired and Natural Gas Auxiliary Boiler B	49.8 MMBtu/hr	None			
	Penski-Detroit-Allison, 12V- 149TI, #2 Fuel Oil-Fired Emergency Generator	8.1 MMBtu/hr	None			
EU 9	Cummings, VT-1710-F, #2 Fuel Oil-Fired Engine Fire Pump	3.5 MMBtu/hr	None			
EU 10	Remote Reservoir Cold Cleaning Degreaser	n/a	None			
	Kohler ,#2 Fuel Oil-Fired Emergency Generator	3.5 MMBtu/hr	None			
	Caterpillar Model#3516, #2 Fuel Oil-Fired Engine	19.3 MMBtu/hr	Oxidation Catalyst			
	Caterpillar Model#3516, #2 Fuel Oil-Fired Engine	19.3 MMBtu/hr	Oxidation Catalyst			
	Bryan Boilers, Model: DR650- W-FDO, #2 Fuel Oil-Fired Boiler	0.644 MMBtu/hr	None			

 $\frac{Table\ 1\ Key:}{NO_x = Nitrogen\ Oxides}$

MMBtu/hr = Million British thermal units per hour

Table 1 Foot Notes:

(1) At ISO conditions (59°F, 60% relative humidity, and 29.92 inches Hg)

3. <u>IDENTIFICATION OF EXEMPT ACTIVITIES</u>

Table	2
Description of Current Exempt Activities	Reason
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the Permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the MassDEP's Regional Office. Emissions from these activities shall be reported on the	310 CMR 7.00:Appendix C(5)(h)
annual emissions statement pursuant to 310 CMR 7.12.	

4. <u>APPLICABLE REQUIREMENTS</u>

A. OPERATIONAL AND/OR PRODUCTION EMISSION LIMITS AND RESTRICTIONS

The Permittee is subject to the limits/restrictions as contained in Table 3 below:

	Table 3a				
EU#	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
1	#2 Fuel Oil	PM ⁽¹⁾	None	0.04 lb/MMBtu ⁽²⁾	DEP Approval #PV-78-C-004 (1/31/79)
2 3	And Natural Gas	NO_X	None	Oil: \leq 65 ppmvd @ 15% O ₂ ⁽³⁾ Gas: \leq 42 ppmvd @15% O ₂ ⁽³⁾	DEP Approval #1-B-94-021 (10/4/94) Regulation 310 CMR 7.19(7)(a)1. [a. & b.]
				Oil/Gas: ≤ 75 ppmvd @ 15% $O_2^{(4)}$	40 CFR 60 Subpart GG
		СО	None	\leq 50 ppmvd @15% O ₂ ⁽³⁾	DEP Approval #1-B-94-021 (10/4/94) Regulation 310 CMR 7.19(7)(a)1.c.
		sulfur in natural gas	None	≤ 0.8% sulfur by weight	40 CFR 60.333(b)
4	#2 Fuel Oil	PM ⁽¹⁾	None	0.04 lb/MMBtu ⁽²⁾	DEP Approval #PV-78-C-004 (1/31/79)
3		СО	None	$\leq 100 \text{ ppmvd } @15\% \text{ O}_2^{(4)}$	DEP Approval #1-B-94-021 (10/4/94) Regulation 310 CMR 7.19(7)(a)2.c.
		NO _X	None	Oil: ≤ 75 ppmvd @ 15% $O_2^{(4)}$	DEP Approval #PV-78-C-004 (1/31/79) Regulation 310 CMR 7.19(2)(e) 40 CFR 60 Subpart GG

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			Table 3	b	
EU#	Fuel/Raw Material/	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
1-5	All	CO ₂	The Permittee shall hold CO2 allowances in a compliance account in an amount not less than the CO2 Budget Emissions Limitation.	None	310 CMR 7.70(1)(e)3
			The Permittee shall hold CO ₂ allowances in an allowance registry account in an amount equal to or greater than the sum of either: (1) The prior calendar year CO ₂ emissions, minus any emissions for which compliance is deferred in accordance with 310 CMR 7.74(6)(d); or (2) Twice the amount of CO ₂ emissions emitted during the year before the prior calendar year if compliance was deferred pursuant to 310 CMR 7.74(6)(d).	None	310 CMR 7.74(6)(e) (State Only Requirement)
7	#2 Fuel Oil And Natural Gas	Limited Use	Average Annual Capacity Factor <10%	None	40 CFR 63.7575
6 7	#2 Fuel Oil And Natural Gas	PM ⁽¹⁾	None	≤ 0.10 lb/MMBtu ⁽²⁾	Regulation 310 CMR 7.02(8) TABLE 6 DEP Approval #PV-80-C-015 (2/9/81) Regulation 310 CMR 7.19(6) 40 CFR 63 Subpart DDDDD
1-7	#2 Fuel Oil	sulfur in fuel	None	≤0.05% by weight – July 1, 2014 through June 30, 2018 ≤0.0015% by weight – On and after July 1, 2018	Regulation 310 CMR 7.05(1)(a)1.
8	#2 Fuel Oil	sulfur in fuel	Refer to Table 8	≤15 ppm (≈0.0015% sulfur by weight)	Regulation 310 CMR 7.02(8)(i)2. through 5.
9	#2 Fuel Oil	sulfur in fuel	Refer to Table 8	weight)	Regulation 310 CMR 7.02(8)(i)2. through 5.
10	degreasing solvent	VOC ⁽⁵⁾	Each degreaser shall use less than 100 gallons of solvent per calendar month	See Table 8b Special Terms and Conditions Items #13- #18	Regulation 310 CMR 7.18(8)(a) Regulation 310 CMR 7.18(1) Regulation 310 CMR 7.03(8)

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			Table 3	Bc .	
EU#	Fuel/Raw Material/	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
11	#2 Fuel Oil	sulfur in fuel	Refer to Table 8	≤15 ppm (≈0.0015% sulfur by weight)	Regulation 310 CMR 7.03(10)
12 13	#2 Fuel Oil	NO_X	Operate each engine no more than 265 hours per year (in any consecutive rolling 12 month total ⁷)	2.17 lb/MMBtu 0.57 lb/hr 0.076 TPY ⁽⁷⁾	DEP Approval #WE-15-019 (3/24/16)
		СО	This operating restriction includes normal maintenance and testing procedures as recommended by the manufacturer.	≥ 70% Removal Efficiency ⁽⁸⁾ 0.34 lb/MMBtu 1.22 lb/hr 0.16 TPY ⁽⁷⁾	DEP Approval #WE-15-019 (3/24/16) 40 CFR 63 Subpart ZZZZ Tables 2a & 2b
		VOC	Pressure drop across the catalyst shall not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during	0.28 lb/MMBtu 1.13 lb/hr 0.15 TPY ⁽⁷⁾	DEP Approval #WE-15-019 (3/24/16)
		PM/PM _{2.5} ¹	the initial performance test The stationary RICE exhaust catalyst inlet	0.12 lb/MMBtu 0.57 lb/hr 0.076 TPY ⁽⁷⁾	DEP Approval #WE-15-019 (3/24/16)
		Sulfur in Fuel	temperature shall be \geq 450 °F and \leq 1350 °F	≤15 ppm (≈0.0015% sulfur by weight)	Regulation 310 CMR 7.26(43)
Facility- wide	#2 Fuel Oil & Natural Gas	Smoke	None	No. 1 of "the Chart" no more than 6 minutes during any one hour, no time to exceed No. 2 of "the Chart"	Regulation 310 CMR 7.06(1)(a)
		Opacity	None	≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour	Regulation 310 CMR 7.06(1)(b)
		Greenhouse gas ⁶		N/A	Regulation 310 CMR 7.71 (state only)

Table 3 Key:

 NO_X = Nitrogen Oxides

NMHC = Non-Methane Hydrocarbon

CO = Carbon Monoxide

VOC = Volatile Organic Compounds

PM = Particulate Matter

PM2.5 = Particulate Matter less than or equal to 2.5 microns in diameter

Opacity = exclusive of uncombined water vapor

ppm = parts per million

Table 3 Key(Cont'd):

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lbs/MMBtu = pounds per Million British thermal units
lb/hr = pounds per hour
ppmvd @ 15% O2 = parts per million by volume, corrected to 15 percent oxygen
≤ = less than or equal to

% = percent CI = Compression Ignition TPY = tons per consecutive 12-month period

Table 3 Notes:

- (1) Particulate matter shall be measured according to 40 CFR Part 60 Appendix A, Method 5 and Condensable Particulate Measured by EPA Method 202.
- (2) Compliance & compliance averaging times are determined in accordance with the applicable procedures specified in 40 CFR Part 60 Appendix A.
- (3) Based on a calendar-day (24 hours) averaging time in accordance with 310 CMR 7.19(7)(a)3.
- (4) Based on a one-hour block averaging time.
- (5) Petroleum hydrocarbon (contains no halogens)
- (6) <u>Greenhouse Gas</u> means any chemical or physical substance that is emitted into the air and that the MassDEP may reasonably anticipate will cause or contribute to climate change including, but not limited to, CO₂, CH₄, N₂O, SF₆, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs)
- (7) To calculate the amount of a consecutive 12 month rolling period take the current calendar month amount and add it to the previous 11 calendar months total amount
- (8) For CI RICE (which commenced construction after 12/19/2002) at a major source, MACT for CO is an oxidation catalyst meeting the requirements of Subpart ZZZZ with 70% CO removal. Maximum CO emissions not to exceed 1.22 lb/hr based on 70% removal.
- (9) Chart means the Ringleman Scale for grading the density of smoke, as published by the United States Bureau of Mines and as referred to in the Bureau of Mines Information Circular No. 8333, or any smoke inspection guide approved by MassDEP.

B. <u>COMPLIANCE DEMONSTRATION</u>

The Permittee is subject to the monitoring/testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10) and applicable requirements contained in Table 3:

		Table 4a
EU#		Monitoring And Testing Requirements
1 2 3	1.	In accordance with DEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(13)(a)5., calibrate, test, and operate continuous emissions monitors (CEMs) and Data Acquisition System (DAS) to continuously monitor and record flue gas emissions of NO _X , CO, and CO ₂ .
	2.	In accordance with DEP Approval #1-P-93-035 (2/8/94; amended 2/14/94), calibrate, test, and operate a continuous opacity monitoring system (COMs) including a DAS to continuously monitor and record the opacity of each unit.
	3.	In accordance with DEP Approval #1-B-94-021 ($10/4/94$), 310 CMR 7.19(13)(b)8., and an alternative monitoring schedule approved by USEPA on April 7, 2005 (in accordance with 40 CFR 60.13(i)(2)), operate and maintain the NO _X , CO, and CO ₂ CEMs in accordance with the quality assurance provisions of 40 CFR 60 Appendix B and F except that MMWEC shall not be required to conduct a RATA or CGA for NO _X , CO and CO ₂ in any calendar quarter that the combustion turbine operates less than 168 hours. However, MMWEC must conduct a CGA at least once every four calendar quarters and a RATA at least once every eight calendar quarters, regardless of the operating hours.
		If 310 CMR 7.19(13)(b) is modified by the DEP and the modification is approved by the USEPA, MMWEC may comply with the requirements of this provision via any applicable, alternate procedures specified therein.
	4.	In accordance with DEP Approval #1-B-94-021 (10/4/94), ensure that the alarms (audible and visual) for the CEMs activate when emissions exceed the "ppmvd" limits established by Table 3.
	5.	In accordance with DEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(13)(b)10., ensure that the flue gas CEM equipment operates at all times the emission unit is operating, except for periods of calibration checks, zero span adjustments, and preventive maintenance. Notwithstanding such exceptions, in all cases obtain valid data for at least 75% of the hours per day, 75% of the days per month, and 90% of the hours per quarter during which the emission unit is operating.
	6.	In accordance with DEP Approval #1-B-94-021 ($10/4/94$) and 310 CMR 7.19(13)(b)9., calculate a calendar day average of NO _X and CO emissions from a block hourly average for each hour the emission unit is operating. If 310 CMR 7.19(13)(b) is modified by the DEP and the modification is approved by the USEPA, MMWEC may comply with the requirements of this provision via any applicable, alternate procedures specified therein.
	7.	In accordance with DEP Approval #1-B-94-021 (10/4/94), continuously monitor the fuel consumption of each unit.
	8.	In accordance with DEP Approval #1-P-93-035 (2/8/94; amended 2/14/94), operate and maintain the opacity COMs in accordance with the quality assurance provisions of 40 CFR 60 Appendix B and F, except that the opacity monitor location requirements are waived since a location conforming exactly to the requirements does not exist.
	9.	In accordance with DEP Approval #1-P-93-035 (2/8/94; amended 2/14/94) and 310 CMR 7.00 Appendix C(9)(b)3., ensure that the flue gas opacity monitoring equipment operates at all times the emission unit is operating, except for periods of calibration checks, zero span adjustments, and preventive maintenance. Notwithstanding such exceptions, in all cases obtain valid data for at least 90% of the hours per calendar year quarter during which the emission unit is operating.

		Table 4b
EU#		Monitoring And Testing Requirements
1 2 3	10.	In accordance with 40 CFR §60.334(h)(4) and a custom sampling schedule approved in EPA Permit Number 002-042-MA-01 (as amended 11/2/81), monitor the sulfur content of the natural gas taken from the supply lines leading to the MMWEC facility on a semi-annual basis.
		Compliance with % sulfur-in-fuel requirement will be demonstrated through <u>testing certification</u> , which shall document that sulfur testing has been done in accordance with the applicable ASTM test methods (D129-95, D1266-91, D1552-95, D2622-92, and D4294-90 for sulfur), or any other method approved by MassDEP and EPA.
	11.	In accordance with 40 CFR §60.334(h)(4) and a custom sampling schedule approved in EPA Permit Number 002-042-MA-01 (as amended 11/2/81), analyze the natural gas taken from the supply lines leading to the MMWEC facility for heating value at least once per calendar-quarter.
4 5	12.	In accordance with DEP Approval #PV-78-C-004 ($1/31/79$) and 40 CFR Part 60, Subpart GG, operate for each unit a continuous monitoring system (accurate to within $\pm 5\%$) for the fuel consumption and the ratio of water to fuel being fired in each unit.
	13.	In accordance with DEP Approval #1-B-94-021 (10/4/94) and correspondence from MassDEP to MMWEC dated 7/14/95, use parametric monitoring (water-to-fuel ratio) to maintain NOx and CO emissions below the limits specified in Table 3 of this Operating Permit and as the means of demonstrating compliance with the referenced emission limits.
	14.	In accordance with DEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(13)(b)10., ensure that the parametric monitoring equipment operates at all times the emission unit is operating, except for periods of preventive maintenance. Notwithstanding such exceptions, in all cases obtain valid data for at least 90% of the hours per quarter during which the emission unit is operating.
	15.	In accordance with DEP Approval #1-B-94-021 ($10/4/94$), equip the units with visual and audible alarms which will activate when NO _X (water-to-fuel ratios) limits are exceeded
	16.	In accordance with DEP Approval #PV-78-C-004 (1/31/79), operate a continuous opacity monitor (COMs) including a DAS to continuously monitor and record the opacity of each unit, and to sound an alarm when opacity limits are exceeded.
	17.	In accordance with DEP Approval #PV-78-C-004 (1/31/79) and 310 CMR 7.19(13)(b)10., ensure that the COMs operates at all times the emission unit is operating, except for periods of calibration checks, zero span adjustments, and preventive maintenance. Notwithstanding such exceptions, in all cases obtain valid data for at least 90% of the hours per quarter during which the emission unit is operating.
1 2 3 4 5	18.	In accordance with 40 CFR §60.334(h)(4) and a custom sampling schedule approved in EPA Permit Number 002-042-MA-01 (as amended 11/2/81), DEP Approval #1-B-94-021 (10/4/94), 310 CMR 7.05(1)(a)2., monitor the sulfur, nitrogen content, and higher heating value of fuel oil received at the facility.
	*	Compliance with % sulfur-in-fuel and % nitrogen-in-fuel requirements will be demonstrated through testing certification, which shall document that sulfur and nitrogen testing has been done in accordance with the applicable ASTM test methods (D129-95, D1266-91, D1552-95, D2622-92, and D4294-90 for sulfur; D3228 or D4629 for nitrogen) or any other method approved by MassDEP and EPA.
	19.	The Permittee shall maintain a quality assurance/ quality control (QA/QC) program for the long-term operation of the COMS serving EU's 1-5 which conform with 40 CFR Appendix F, Procedure 3.
	20.	In accordance with 310 CMR 7.70(8) and ECP Approval #X007552 the Permittee shall comply with all monitoring and testing requirements for annual CO2 emissions, net electrical output, and net steam output. (State only Requirement).

	Table 4c				
EU#	Monitoring And Testing Requirements				
6 7	21. In accordance with 310 CMR 7.04(4)(a), inspect and maintain each boiler in accordance with the manufacturer's recommendations and test each boiler in accordance with the manufacturer's recommendations for efficient operation (consistent with the requirements for the annual tune-up in provision 22 below) once each calendar year.				
	22. In accordance with DEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(6)(a), tune each boiler annually according to the procedure detailed in 310 CMR 7.19(6)(a) 1. thru 12.				
	23. In accordance with DEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(6)(b), at least once per month verify that the settings determined during the tune-up have not changed.				
	24. In accordance with DEP Approval #1-B-94-021 (10/4/94), continuously monitor and record the fuel consumption of each unit.				
	25. In accordance with 310 CMR 7.04(2)(a), ensure the boiler stack is equipped with a smoke density sensing instrument and recorder which are properly maintained in an accurate operating condition, operates continuously and is equipped with an audible alarm to signal the need for combustion equipment adjustment or repair when the smoke density is ≥ No. 1 of "the Chart". Such smoke density equipment shall be available for inspection at reasonable times by a representative of MassDEP.				
8	26. In accordance with DEP Approval #1-B-94-021 (10/4/94), monitor the hours of operation of this engine.				
10	27. In accordance with 310 CMR 7.18(8)(h), upon request by MassDEP, perform or have performed tests to demonstrate compliance. Testing shall be conducted in accordance with a method approved by MassDEP and EPA.				
12	28. In accordance with DEP Approval #WE-15-019 (3/24/16), The Permittee shall install, operate, and maintain in good working order a non-resettable hour meter on each engine.				
13	29. In accordance with 40 CFR §63.6610(a), the initial performance test or other initial compliance demonstrations that apply in Table 4 of Subpart ZZZZ must be conducted within 180 days after the compliance date that is specified in §63.6595 and according to the provisions in §63.7(a)(2).				
	30. In accordance with 40 CFR 63 Subpart ZZZZ Table 4, conduct an initial performance test to demonstrate compliance with the CO reduction requirement and emission limit as applicable.				
	31. In accordance with 40 CFR §63.6620(b), each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary rice listed in paragraphs §63.6620(b)(1) through (4).				
	32. In accordance with 40 CFR \$63.6620(d), conduct three separate runs for each performance test required in 40 CFR 63 Subpart ZZZZ, as specified in \$63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in Subpart ZZZZ.				
	33. In accordance with 40 CFR §63.6620(e), utilize the equations in (e)(1) and (e)(2) of this section to determine compliance with the percent reduction requirement.				
	34. In accordance with 40 CFR 63 Subpart ZZZZ Table 3, Item 1 and Table 6, Item 1 conduct subsequent performance tests semiannually for CO to demonstrate that the required CO percent reduction is achieved.				

		Table 4d
EU#		Monitoring And Testing Requirements
12 13	35.	In accordance with 40 CFR 63 Subpart ZZZZ Table 5, Item 2, install a continuous parameter monitoring system ("CPMS") on each engine to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR §63.6625(b).
	36.	In accordance with 40 CFR 63 Subpart ZZZZ Table 5, Item 2, measure pressure drop across the catalyst and the catalyst inlet temperature during the initial performance test.
	37.	In accordance with 40 CFR 63 Subpart ZZZZ Table 6, Item 1, measure the pressure drop across the catalyst one per month to demonstrate that the pressure drop across the catalyst is within the operating limitation established during the performance test.
	38.	In accordance with 40 CFR 63 Subpart ZZZZ Table 6, Item 1 and 40 CFR §63.6625(b), catalyst inlet temperature shall be continuously monitored and data shall be reduced to 4-hour rolling averages.
	39.	In accordance with 40 CFR 63.7(c), before conducting a required performance test, develop and, if requested by the administrator, shall submit a site-specific test plan for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance ("QA") program. Data quality objectives are the pretest expectations of precision, accuracy and completeness of data.
	40.	In accordance with DEP Approval #WE-15-019 (3/24/16), the Permittee shall monitor fuel oil purchases such that only fuel oil containing no greater than 0.0015 percent by weight is purchased for use in each unit.
	41.	In accordance with DEP Approval #WE-15-019 (3/24/16), the Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	42.	In accordance with DEP Approval #WE-15-019 (3/24/16), at least 30 days prior to emission testing, the Permittee shall submit to MassDEP for approval a stack emission pretest protocol.
	43.	In accordance with DEP Approval #WE-15-019 (3/24/16), within 45 days after emission testing, the Permittee shall submit to MassDEP a final stack emission test results report.
6 7 8 9	44.	In accordance with 310 CMR 7.05(1)(a)2. And 7.00 Appendix C(9)(b), monitor the sulfur content of each new shipment of #2 fuel oil received. Compliance with % sulfur-in-fuel requirements can be demonstrated through testing (testing certification) or by maintaining a shipping receipt from the fuel supplier (shipping receipt certification).
11 12 13		The <u>testing certification</u> or <u>shipping receipt certification</u> of % sulfur-in-fuel shall document that sulfur testing has been done in accordance with the applicable ASTM test methods (D129-95, D1266-91, D1552-95, D2622-92, and D4294-90 for sulfur), or any other method approved by MassDEP and EPA.
Facility -wide	45.	In accordance with 310 CMR 7.13 <u>Stack Testing</u> conduct stack testing, upon written request of MassDEP, for any air contaminant for which MassDEP has determined testing is necessary, to ascertain compliance with MassDEP's regulations or design approval provisos. All such testing shall be conducted in accordance with 310 CMR 7.13 (1) and (2), and in accordance with the applicable procedures specified in 40 CFR 60 Appendix A or other method if approved by MassDEP and EPA.
		In accordance with 310 CMR 7.00 Appendix C(9)(b), any emission testing to demonstrate compliance with the allowable emission limits shall be in accordance with EPA Methods 1-5 for particulate matter, Method 7E for NO _X , Method 10 for CO, and Method 9 for smoke/opacity, as specified in 40 CFR 60, Appendix A.
	46.	In accordance with 310 CMR 7.71(1) and Appendix C(9) establish and maintain data systems or record keeping practices (e.g. fuel use records, SF6 usage documentation, Continuous Emissions Monitoring System) for greenhouse gas emissions to ensure compliance with the reporting provisions of M.G.L. c. 21N, the Climate Protection and Green Economy Act, St. 2008, c. 298, § 6. (State only requirement)

Table 4 Key: EU = Emission Unit

 $CGA = Cylinder\ Gas\ Audit$ $CO_2 = Carbon\ Dioxide$ $CFR = Code\ of\ Federal\ Regulations$ $CMR = Code\ of\ Massachusetts\ Regulations$ $HAP\ (single) = maximum\ single\ Hazardous\ Air\ Pollutant$ $HAPs\ (total) = total\ Hazardous\ Air\ Pollutants$ $lbs/hr = pounds\ per\ hour$ $lbs/MMBtu = pounds\ per\ Million\ British\ thermal\ units$

ASTM = American Society for Testing and Materials

$$\begin{split} SO_2 &= Sulfur\ Dioxide \\ RATA &= Relative\ Accuracy\ Test\ Audit \\ VOC &= Volatile\ Organic\ Compounds \\ TPM &= tons\ per\ month \\ TPY &= tons\ per\ consecutive 12-month\ period\ ^2 \\ ppmvd &= parts\ per\ million\ by\ volume. \\ \% &= percent \\ \leq &= less\ than\ or\ equal\ to \end{split}$$

	Table 5a
EU#	Record Keeping Requirements
1 2 3	1. In accordance with MassDEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(13)(d)3., maintain daily records for each unit of the fuel type(s) burned, heat content of each fuel, total heating value of the fuel consumed, actual emission rate, and the allowable emission rate.
	2. In accordance with MassDEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(13)(d)1., maintain a record of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEM.
	3. In accordance with DEP Approval #1-B-94-021 (10/4/94), continuously record the fuel consumption of each unit.
	4. In accordance with MassDEP Approval #1-B-94-021 (10/4/94) (for CEMs), and DEP Approval #1-P-93-035 (2/8/94; amended 2/14/94) and 310 CMR 7.00 Appendix C(10) (for COMs), keep daily records of:
	 a. CEMs/COMs data of flue gas emissions of NO_X, CO, CO₂, fuel consumption, MW, and opacity. b. calibration reports for NO_X, CO and CO₂ analyzers and opacity meters. c. excess emissions of NO_X, CO and opacity. d. the number and duration of all excess emissions including those attributable to startups/shutdowns and malfunctions. e. the reasons for and corrective actions taken for any periods of excess emissions or equipment malfunctions f. all periods that CEMs and COMs are unavailable, and the reasons for the unavailability.
	5. In accordance with MassDEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(13)(b)10. (for CEMs), and DEP Approval #1-P-93-035 (2/8/94; amended 2/14/94) and 310 CMR 7.00 Appendix C(10) (for COMs), maintain records of % availability of NO _x , CO, CO ₂ and opacity monitors sufficient to demonstrate compliance with the "hours per day", "days per month", and/or "hours per quarter" data capture requirements in Table 4a.
	6. In accordance with MassDEP Approval #1-B-94-021 (10/4/94), maintain quarterly records of the results of all cylinder gas audits (CGAs) and relative accuracy test audits (RATAs) performed on the NO _X , CO and CO ₂ CEMs.
	7. In accordance with 40 CFR §60.334(h)(4) and a custom sampling schedule approved in EPA Permit Number 002-042-MA-01 (as amended 11/2/81), maintain a file of the certificates of analysis for each analysis (sulfur content analysis done semiannually and heating value done quarterly) of natural gas supplied to the facility.
1 2 3 4	8. In accordance with 40 CFR §60.334(h)(4) and a custom sampling schedule approved in EPA Permit Number 002-042-MA-01 (as amended 11/2/81), DEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.00 Appendix C(9)(b)2., maintain a file of the certificates of analysis which shall document the sulfur content, nitrogen content and higher heating value for each shipment of #2 fuel oil received at the facility.
5	9. Comply with all applicable recordkeeping requirements contained in 40 CFR 60.

Table 5b		
EU#	Record Keeping Requirements	
1 2 3	10. In accordance with 310 CMR 7.70(1), (2), (8) and ECP Approval #X007552 the Permittee shall keep onsite at the source all records required under 310 CMR 7.70(1), 310 CMR 7.70(2) and 7.70(8), or unless otherwise stated by MassDEP for a period of 10 years. (State Only Requirement).	
4 5	11. In accordance with 310 CMR 7.74(8) the Permittee shall keep on site at the source all records required under 310 CMR 7.74, for a period of 3 years, unless otherwise required by MassDEP. (State Only Requirement).	
4 5	 12. In accordance with MassDEP Approval #1-B-94-021 (10/4/94), maintain daily records of the following: a. water-to-fuel ratio and fuel consumption, b. all periods of excess emissions of NO_X including periods due to startup/shutdown or malfunctions, and c. the reasons for and the corrective action taken for any periods of excess emissions. 	
	13. In accordance with MassDEP Approval #PV-78-C-004 (1/31/79) and 40 CFR Part 60, Subpart GG, operate for each unit a continuous recording system (accurate to within ±5%) for the fuel consumption and the ratio of water to fuel being fired in each unit.	
	 14. In accordance with MassDEP Approval #PV-78-C-004 (1/31/79) and 310 CMR 7.00 Appendix C(10), maintain the daily records of the following: a. opacity monitor recordings, b. all periods of excess emissions of opacity including periods due to startup/shutdown or malfunctions, and c. the reasons for and the corrective action taken for any periods of excess emissions. 	
6 7	15. In accordance with MassDEP Approval #1-B-94-021 (10/4/94), maintain daily records of fuel consumption.	
	16. In accordance with MassDEP Approval #1-B-94-021 (10/4/94), continuously record the fuel consumption of each unit.	
	17. In accordance with MassDEP Approval #1-B-94-021 (10/4/94) and 310 CMR 7.19(6)(b), maintain for five years the records of the results and data from the annual tune-up.	
	18. In accordance with 310 CMR 7.19(6)(b), maintain for five years the records of the monthly verification that the settings determined during the tune-up have not changed.	
	19. In accordance with 310 CMR 7.04(4)(a), maintain records of the results of the inspection, maintenance, and annual testing required by this Regulation and shall post these results conspicuously on or near the boiler.	
	20. In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of all smoke density indicator charts and supporting information on-site for a period of at least five years from the date of the measurement or initial operating permit application.	
8	21. In accordance with MassDEP Approval #1-B-94-021 (10/4/94), maintain weekly records of the hours of operation for the engine.	
8 9 11	 22. In accordance with 310 CMR 7.02(8)(i)3, maintain on site the following records for each engine: a. Information on equipment type, make and model, and maximum power input/output; b. A log of operations, including date, time and duration of operation and reason for each start, fuel type and supplier; c. Purchase orders, invoices, and other documents to support information in the log; and d. A log of conditions under which the engine operated pursuant to 310 CMR 7.02(8)(i)2. 	
10	23. In accordance with 310 CMR 7.03(6), establish and maintain a recordkeeping system on-site and in sufficient detail to document the date of construction, substantial reconstruction or alteration and that the respective emission rates, operational limitations, equipment specifications and other requirements pursuant to 310 CMR 7.03 are met. All records shall be maintained up-to-date such that year-to-date information is readily available for Department examination.	

Table 5c		
EU#	Record Keeping Requirements	
10	24. In accordance with alternative recordkeeping items requested by the Permittee and 310 CMR 7.00 Appendix C(10)(b), prepare and maintain records indicating that the solvent reservoir (35 gallon capacity) for each degreaser (parts washer) is not changed out more than twice per calendar month.	
12 13	25. In accordance with MassDEP Approval #WE-15-019 (3/24/16), the Permittee shall record the hourly, monthly, and twelve month rolling hours of operation for each engine using a non-resettable hour meter recorder.	
	26. In accordance with WE-15-019 (3/24/16), the owner or operator shall maintain the records described in 310 CMR7.26(43)(f)1. through 4. as specified below. Such records shall be maintained on site and shall be made available to MassDEP or its designee upon request. The owner or operator shall certify that records are accurate and true in accordance with 301 CMR 7.01(2)(a) through (c). a. Information on equipment type, make and model, and rated power output; and b. A monthly log of hours of operation, fuel type heating value and sulfur content for fuel oil. A monthly calculation of the total hours operated in the previous 12 months; and c. Purchase orders, invoices, and other documents to substantiate information in the monthly log; and d. Copies of certificates and documents from the manufacturer related to certificates.	
	27. In accordance with MassDEP Approval #WE-15-019 (3/24/16), the Permittee shall maintain oil analysis results used to demonstrate compliance with fuel oil sulfur content requirements.	
	 28. In accordance with 40 CFR 63.6655, maintain the following records: a. A copy of each notification and report submitted to comply with 40 CFR 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement 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 air pollution control and monitoring equipment. c. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(xiii). d. Records of all required maintenance performed on the air pollution control and monitoring equipment. e. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6606(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. 	
	 29. In accordance with 40 CFR 63.6655(b), the Permittee must keep the following records for each CEMS or CPMS: a. Records described in §63.10(b)(2)(vi) through (xi). b. Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3). c. Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable. 30. In accordance with 40 CFR 63.6655(d) and 40 CFR Subpart ZZZZ, Table 6, Item 1, maintain records of all required performance tests, pressure drop measurements across the catalysts, and catalyst inlet 	
	temperature measurements. 31. In accordance with MassDEP Approval #WE-15-019 (3/24/16), the Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 3 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15th 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 32. The Permittee shall maintain records of monitoring and testing as required by Table 4.	

Table 5d		
EU#	Record Keeping Requirements	
12 13	33. In accordance with MassDEP Approval #WE-15-019 (3/24/16), the Permittee shall maintain a copy of Plan Approval WE-15-019, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved in WE-15-019 on-site.	
	34. In accordance with MassDEP Approval #WE-15-019 (3/24/16), the Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) 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.	
	35. In accordance with MassDEP Approval #WE-15-019 (3/24/16), the Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s), PCD(s) 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.	
6 7 8 9 11 12 13	36. In accordance with 310 CMR 7.00 Appendix C(10)(b), record the certification from the fuel supplier for each shipment of #2 fuel oil to be used which shall include the following information: a. The name of the oil supplier; b. Percent sulfur content (by weight); and c. The location where the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility or other location. As an alternative, MMWEC may elect to analyze the oil immediately after the fuel storage tank is filled and before any oil is combusted for each new shipment according to methods approved by the MassDEP. These records shall be maintained on-site.	
Facility -wide	37. In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of all monitoring data and supporting information on-site for a period of at least five years from the date of the monitoring sample, measurement, report or initial operating permit application.	
	38. In accordance with 310 CMR 7.12(3)(b), maintain copies of Source Registration and other information supplied to the Department to comply with 310 CMR 7.12, which shall be retained by the facility owner or operator for five years from the date of submittal.	
	39. In accordance with 310 CMR 7.71 (6) b. and c. the Permittee shall keep on-site at the facility documents of the methodology and data used to quantify emissions for a period of 5 years from the date the document is created. The Permittee shall make these documents available to MassDEP upon request. (State only requirement)	

Table 5 Key:

EU = Emission Unit

CO = Carbon Monoxide

 CO_2 = Carbon Dioxide

CEMS = Continuous Emission Monitoring System

COMS = Continuous Opacity Monitoring System

CMR = Code of Massachusetts Regulations

CFR = Code of Federal Regulations

CPMS = Continuous Performance Monitoring System

 $NO_X = Nitrogen Oxides$

PCD = Pollution Control Device

 $SO_2 = Sulfur Dioxide$

SOMP = Site Operation and Maintenance Plan

Table 6a		
EU#	Reporting Requirements (1)	
1 2 3	 In accordance with MassDEP Approval #1-B-94-021 (10/4/94), 310 CMR 7.19(13)(d)2., and 310 CMR 7.00 Appendix C(10), submit a report to MassDEP and EPA regional office by the 30th day of the month following the preceding calendar year quarter. The report shall, as a minimum, include: a. the date and time of commencement and completion of each period of excess emission and the magnitude of the excess emissions for each hour; b. identification of the suspected reason for the excess emissions and any corrective action taken; c. the date and time that any CEMs stopped collecting valid data and when it started to collect valid data again, except for zero and span checks; d. the nature and date of system repairs e. the total number of fired hours for each unit; f. a summary of any excursions caused by startup, shutdown and malfunctions; g. a summary of the daily, monthly and quarterly availability of the NO_X, CO, CO₂ and opacity analyzers of each unit and an explanation of any period(s) which does not meet the applicable requirement; h. summary results of any applicable quality assurance testing (i.e., CGA, RATA). In accordance with an alternative monitoring schedule approved by USEPA on April 7, 2005 (in accordance with 40 CFR 60.13(i)(2)), comply with all reporting requirements for all quarters regardless of hours of 	
4 5	operation. 3. In accordance with MassDEP Approval #1-B-94-021 (10/4/94), 310 CMR 7.19(13)(d)2., and 310 CMR 7.00 Appendix C(10), submit a report to MassDEP and EPA regional office by the 30 th day of the month following the preceding calendar year quarter. The report shall, as a minimum, include: a. the date and time of commencement and completion of each period of excess emission and the magnitude of the excess emissions for each hour; b. identification of the suspected reason for the excess emissions and any corrective action taken; c. the date and time that any CEMs stopped collecting valid data and when it started to collect valid data again; d. the nature and date of system repairs; e. the total number of fired hours for each unit; and f. a summary of any excursions from permitted emissions levels (as measured by the CEMs and COMs) including those caused by startup, shutdown and malfunctions, and an explanation of these excursions.	
1 2 3 4	 4. In accordance with 310 CMR 7.19(13)(d)9., submit compliance records within ten days of written request by MassDEP or EPA. 5. Comply with all applicable reporting requirements contained in 40 CFR 60. 	
5	 In accordance with 310 CMR 7.70(8)(d) the Permittee shall submit to the appropriate MassDEP Regional Office and EPA any notification of testing or any testing protocol in compliance with the requirements of 40 CFR 75.61. (State Only Requirement). In accordance with 310 CMR 7.70(8)(e)3 and ECP Approval #X007552 (dated 01/06/09), the Permittee shall submit a Monitoring System Certification to the Appropriate MassDEP Regional Office within 45 days after completing all CO₂ monitoring system initial certification or recertification tests required under 310 CMR 7.70(8)(b). (State Only Requirement). In accordance with 310 CMR 7.70(4)(a)1 and ECP Approval #X007552 (dated 01/06/09), the Permittee shall submit a Triennial Compliance Certification Report for each control period electronically in the RGGI CO₂ Allowance Tracking System (COATS) to MassDEP by March 1st of the calendar year following the control period. (State Only Requirement). In accordance with 310 CMR 7.70(8)(h)6.c and ECP Approval #X007552 (dated 01/06/09), the Permittee shall submit an Annual Net Output Report for each calendar year electronically to MassDEP's agent in a format prescribed by MassDEP by March 1st of the preceding calendar year. (State Only Requirement). 	

	Table 6b		
EU#	Reporting Requirements ⁽¹⁾		
1 2 3	10. In accordance with 310 CMR 7.70(8)(e)4.b and ECP Approval #X007552 (dated 01/06/09). Permittee shall submit a Quarterly CO2 Emissions Report electronically to EPA within 30 following the end of the calendar quarter covered by the report. (State Only Requirement).) days	
4 5	11. In accordance with 310 CMR 7.74(7)(a) the Permittee shall submit to MassDEP by February each February 1st thereafter, a CO2 Emissions Report. (State Only Requirement).	1st, 2019, and	
	12. In accordance with 310 CMR 7.74(7)(b) the Permittee shall submit to MassDEP by March 1st each March 1st thereafter, a Compliance Certification Report. (State Only Requirement).	et, 2019 and	
	13. In accordance with 40 CFR 75.73(f)(1), Report NO _X emissions data directly to EPA's National Center mainframe computer in a method acceptable to EPA. The deadline to submit data to E after the end of each calendar quarter.		
	14. Provide notification of QA testing for Relative Accuracy Test Audits (RATAs) and 40 CFI Appendix E/LME (Low Mass Emission) unit tests. Notification must be made at least 21d scheduled test date to the EPA as required by 40 CFR 75.61 and to the MassDEP Regional o BWP Permit Chief. If tests must be rescheduled, 24 hours' notice must be given, as specif 75.61(a)(5).	lays prior to the ffice, Attn:	
	A previously approved RATA protocol may be referenced at the time of test notification preferenced protocol was completed in accordance with current 40 CFR Part 75 procedures previous MassDEP protocol comments to the satisfaction of MassDEP, and none of the ir changed. If a revised protocol must be submitted, it must be submitted at least 21 days prischeduled test date.	s, addresses all nformation has	
	15. Submit a hardcopy of the QA RATA or 40 CFR Part 75 Appendix E/LME test results to t Regional offices within 45 days of completion of tests. The electronic results must be sul quarterly electronic data report (EDR).		
	16. Report results from QA daily Calibrations, quarterly Linearity checks and 40 CFR Part 7 Fuel Flow-meter tests electronically in the EDR submittal for the quarter in which the test		
6 7	17. In accordance with 40 CFR §63.7545(f), submit a notification of alternative fuel use with the declaration of each period of natural gas curtailment or supply interruption, as define		
	The notification must include the following information: a. The company name and address. b. Identification of the affected unit.		
	 c. Reason unable to use natural gas or equivalent fuel, including when the natural gas curta declared or the natural gas supply interruption began. d. Type of alternative fuel that the unit will use. 	ilment was	
	e. Dates when the alternative fuel use is expected to begin and end. 18. In accordance with 40 CFR §63.7550(b), units that are subject only to a requirement to c subsequent annual, biennial, or 5-year tune-up and not subject to emission limits or Tabl DDDDD of Part 63 operating limits, may submit only an annual, biennial, or 5-year com as applicable, as specified in paragraphs §63.7550(b)(1) through (4).	e 4 to Subpart	

Table 6c		
EU#	Reporting Requirements ⁽¹⁾	
6 7	19. In accordance with 40 CFR \$63.7550(c)(1), a compliance report must contain the information as specified in \$63.7550(c)(5)(i) through (iii), \$63.7550(c)(5)(xiv), and \$63.7550(c)(5)(xvii). The report must contain the following information:	
	 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 reporting period. d. The date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11) or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. e. Statement by a responsible official with that officials name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. 	
	20. In accordance with 40 CFR §63.7550(h)(3), submit all reports required by Table 9 to Subpart DDDDD, Part 63electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.)	
7	21. In accordance with 40 CFR §63.7550(c)(1), for limited use boilers report the total operating time during the reporting period in accordance with §63.7550(c)(5)(iv).	
8 9 11	22. In accordance with 310 CMR 7.02(8)(i)4., make available the log(s) and records established under 310 CMR 7.02(8)(i)3. to MassDEP or its designee upon request. The owner or operator shall certify that the log is accurate and true in accordance with 310 CMR 7.01(2)(c).	
10	23. In accordance with 310 CMR 7.03(5) report to MassDEP any construction, substantial reconstruction or alteration, as described in 310 CMR 7.03, on the next required source registration.	
12 13	24. In accordance with MassDEP Approval #WE-15-019 (3/24/16), make available the monthly log(s) and records established under 310 CMR 7.26(43)(f) to MassDEP or its designee upon request. The owner or operator shall certify that the log is accurate and true in accordance with 310 CMR 7.01(2).	
	25. In accordance with 40 CFR §63.7b, notify MassDEP and the US EPA in writing of the intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan as required pursuant to 40 CFR 63.7(c), and to have an observer present during the test.	
	26. In accordance with 40 CFR §63.6650(b)(5), for each stationary RICE that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, the first and subsequent compliance reports shall be submitted at least every six months (January 30 and July 30 of each calendar year) in accordance with the requirements in CMR 7.00 Appendix C(10)(c).	
	27. In accordance with 40 CFR 63 Subpart ZZZZ Table 7, semi-annual compliance reports shall be submitted every six months (January 30 and July 30 of each calendar year) containing information as required by Subpart ZZZZ Table 7.1.ac.	

Table 6d		
EU#	Reporting Requirements ⁽¹⁾	
12 13	 In accordance with §63.6650(c), the Permittee shall include the following information in the semi-annual compliance reports: a. Company name and address. b. Statement by a responsible official, with that officials name, title, and signature, certifying the accuracy of the content of the report. c. Date of report beginning and ending dates of the reporting period. d. If a malfunction occurred during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused and any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b) including actions taken to correct a malfunction. e. If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. f. If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control, as specified in seasons. 	
	during which the CMS was out-of-control during the reporting period. 29. In accordance with §63.6650(d), for each deviation from an emission or operating limitation occurring for a stationary RICE which is not using a CMS to comply with the emission or operating limitations in this subpart, the compliance report must contain the information in paragraphs 5a through 5d above and the information in paragraphs (d)(1) and (2) of §63.6650: a. The total operating time of the stationary RICE at which the deviation occurred during the reporting period. b. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable and the corrective action taken.	
	30. In accordance with \$63.6650(f), the Permittee must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If the Permittee submits a compliance report pursuant to 40 CFR 63 Subpart ZZZZ Table 7 along with, or as part of, 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 this subpart, 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 Permittee may have to report deviations from permit requirements to MassDEP and the US EPA.	
	 31. In accordance with MassDEP Approval #WE-15-019 (3/24/16), submit to MassDEP all information required by this Plan Approval 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). 32. In accordance with MassDEP Approval #WE-15-019 (3/24/16), notify the Western Regional Office of MassDEP, Permit Chief by telephone: 413-755-2115, email: Marc.Simpson@.state.ma.us, or fax: 413-784-1149, as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Permit Chief at MassDEP 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). 	

Table 6e		
EU#		Reporting Requirements ⁽¹⁾
Facility- wide	33.	Submit a Source Registration/Emission Statement Form to MassDEP on an annual basis as required by 310 CMR 7.12.
	34.	In accordance with 310 CMR 7.13(1) and 7.13(2), if determined by MassDEP that stack testing is necessary to ascertain compliance with MassDEP's regulations or design approval provisos shall cause such stack testing to be summarized and submitted to MassDEP as prescribed in the agreed to pretest protocol.
	35.	In accordance with 310 CMR 7.00 Appendix C(10)(a), submit to MassDEP any record relevant to this operating permit or to the emissions of any air contaminant from the facility within 30 days of the request by MassDEP or EPA.
	36.	In accordance with 310 CMR 7.00: Appendix C(10)(c), the Permittee shall report a summary of all monitoring data and related supporting information to MassDEP at least every six months (January 30 and July 30 of each calendar year).
	37.	Submit Annual Compliance report to MassDEP and EPA by January 30 of each year and as required by General Condition 10 of this Permit.
	38.	In accordance with 310 CMR 7.71(5), the Permittee shall electronically submit and certify by April 15 th of each year a greenhouse gas emissions report to MassDEP. (State only requirement)

Table 6 Key:

EU = Emission Unit

CO = Carbon Monoxide

 CO_2 = Carbon Dioxide

CEMS = Continuous Emission Monitoring System

COMS = Continuous Opacity Monitoring System

CMR = Code of Massachusetts Regulations

CGA = Cylinder Gas Audit

CFR = Code of Federal Regulations

CPMS = Continuous Performance Monitoring System

 NO_X = Nitrogen Oxides

PCD = Pollution Control

QA = Quality Assurance

RICE = Reciprocating Internal Combustion Engine

 $SO_2 = Sulfur Dioxide$

SOMP = Site Operation and Maintenance Plan

RATA = Relative Accuracy Test Audit

USEPA = United States Environmental Protection Agency

Table 6 Foot Notes:

(1) The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office.

C. GENERAL APPLICABLE REQUIREMENTS

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et seq. and 310 CMR 8.00 et. Seq., when subject.

<u>D.</u> <u>REQUIREMENTS NOT CURRENTLY APPLICABLE</u>

The Permittee is currently not subject to the following requirements:

	Table 7
Regulation	Reason
40 CFR Part 64 –Compliance Assurance Monitoring	Not applicable
40 CFR 63 Subpart T: National Emission Standards for Halogenated Solvent Cleaning	Not applicable
310 CMR 7.16: Reduction of Single Occupant Commuter Vehicle Use	Facility employs fewer than 250 people.

5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to and shall comply with the following special terms and conditions that are not contained in Table 3, 4, 5, and 6:

Table 8a		
EU#	Special Terms and Conditions	
1 2 3	1. In accordance with MassDEP Approval #1-B-94-021 (10/4/94; amended 10/18/95) and 310 CMR 7.19(7)(a)3., exclude periods of start-up, shut-down, or malfunction from the calculation to determine the calendar-day average NO _X and CO emissions from the affected gas turbines, provided that the duration of start-up, shut-down, or malfunction shall not exceed three (3) hours per occurrence. The definitions of start-up, shut-down, and malfunction are those which are found in 40 CFR 60.2.	
4 5	2. In accordance with MassDEP Approval #1-B-94-021 (amendment dated 10/18/95), adhere to the emission limits in Table 3 except for periods of start-up, shut-down, or malfunction provided that the duration of start-up, shut-down, or malfunction shall not exceed one (1) hour per occurrence. The definitions of start-up, shut-down, and malfunction are those which are found in 40 CFR 60.2.	
1 2	3. EU # 1,2,3,4 and 5 are subject to the federal Standards of Performance for Stationary Gas Turbines, 40 CFR Part 60 Subpart GG, Parts 60.330 through 60.335 and shall comply with all applicable standards.	
3 4 5	4. The owner/operator of EU#1 2,3,4 and 5 are subject to the Massachusetts CO ₂ Budget Trading Program, 310 CMR 7.70 and shall comply with all applicable requirements therein.	
6	5. In accordance with 40 CFR 63.7540(a)(10), comply with the following applicable work practice standards as specified in 40 CFR 63 Subpart DDDDD Table 3, Item 3.	
7	6. In accordance with 40 CFR 63.7500(c), limited use boilers must complete a tune-up every 5 years as specified in 40 CFR 63.7540(a)(12).	
6 7	7. In accordance with MassDEP Approval #PV-80-C-015 (2/9/81), only operate one of these units at a time.	
8	8. In accordance with 310 CMR 7.02(8)(i)2., each engine shall be operated only:	
9	a. for up to 100 hours per calendar year, or as otherwise approved by EPA, 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;	
	b. as part of the 100 hours, for up to 50 hours per calendar year for non-emergency situations; and	
	c. during periods of electric power outage due to failure of the electrical supply, in whole or in part, onsite disaster, local equipment failure, flood, fire or natural disaster, or when the imminent threat of a power outage is likely due to failure of the electrical supply.	
	9. In accordance with 40 CFR 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake horsepower located at a major source of HAP emissions does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ and of 40 CFR Part 63 Subpart A including initial notification requirements of 40 CFR 63.6645(f).	

Table 8b		
EU#	Special Terms and Conditions	
8 9	10. In accordance with 40 CFR 63.6640(f)(1) through (3), operate the engine according to the conditions described in 40 CFR 63.6640(f)(1) through (3). If the Permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (3), as specified in a. through c. below, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.	
	a. There is no time limit on the use of emergency stationary RICE in emergency situations.	
	 b. The emergency stationary RICE may operate for any combination of the purposes specified in paragraphs (b)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (c) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (b). (i) Emergency stationary RICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. 	
	c. The emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (b) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, 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.	
10	11. In accordance with 301 CMR 7.18(1)(c), store and dispose of volatile organic compounds (VOCs) in a manner which will minimize evaporation to the atmosphere. Proper storage shall be in a container with a tight fitting cover. Proper disposal shall include incineration in an incinerator approved by MassDEP, transfer to another person licensed by MassDEP to handle VOC, or any other equivalent method approved by MassDEP.	
	 12. In accordance with 310 CMR 7.18(8)(a)1., use solvent in the cold cleaning degreaser which has a vapor pressure that does not exceed 1.0 mm Hg measured at 20 degrees Celsius. This requirement shall not apply to the following: a. cold cleaning degreasers used in special and extreme solvent metal cleaning; b. cold cleaning degreasers for which the owner or operator has received Department approval of a demonstration that compliance with the requirement to use a solvent with a vapor pressure of 1.0 mm Hg or less at 20 degrees Celsius will result in unsafe operating condition; and c. cold cleaning degreasers that are located in a permanent total enclosure having control equipment that is designed and operated with an overall VOC control efficiency of 90% or greater. 	

Table 8c		
EU#	Special Terms and Conditions	
10	13. In accordance with 310 CMR 7.18(8)(a)2., immediately repair any leaks, or the degreaser shall be shut down.	
	14. In accordance with 310 CMR 7.18(8)(a)3., ensure the remote solvent reservoir has an open drain area less than 100 square centimeters, otherwise the requirements of 310 CMR 7.18(8)(a)3.ae. shall apply.	
	15. In accordance with 310 CMR 7.18(8)(e)1. through 3, operate any solvent metal degreaser using procedures which minimize evaporative emissions and prohibit spills from the use of said degreaser. Such procedures include but are not limited to:	
	 a. notification to operators of the performance requirements that must be practiced in the operation of the degreaser, including the permanent and conspicuous posting of labels in the vicinity of the degreaser detailing performance requirements; and b. storage of waste degreasing solvent in closed containers, and disposal or transfer of waste degreasing solvent to another party, in a manner such that less than 20% of the waste degreasing solvent by weight can evaporate in to the atmosphere; and c. where applicable, supplying a degreasing solvent spray which is a continuous fluid stream (not a fine, 	
	atomized or shower type spray) at a pressure which does not exceed ten pounds per square inch as measured at the pump outlet, and use any such spray within the confines of the degreaser.	
	16. In accordance with 310 CMR 7.18(8)(f), maintain instantaneous and continuous compliance at all times.	
11	17. In accordance with 310 CMR 7.03(10)(a)2., ensure the engine is equipped with an exhaust silencer so that sound emissions do not cause or contribute to a condition of air pollution.	
	18. In accordance with 310 CMR 7.03(10)(a)3, ensure that the engine utilizes an exhaust stack that discharges so as to not cause or contribute to a condition of air pollution	
	19. In accordance with 310 CMR 7.03(10)(a)4., operate the engine only:	
	a. for up to 100 hours per calendar year, or as otherwise approved by EPA, 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;	
	 b. as part of the 100 hours, for up to 50 hours per calendar year for non-emergency situations; and c. during periods of electric power outage due to failure of the electrical supply, in whole or in part, onsite disaster, local equipment failure, flood, fire or natural disaster, or when the imminent threat of a power outage is likely due to failure of the electrical supply. 	

Table 8d		
EU#	Special Terms and Conditions	
11	20. In accordance with 40 CFR 63.6640(f)(1) through (3), operate the engine according to the conditions described in 40 CFR 63.6640(f)(1) through (3). If the Permittee does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (3), as specified in a. through c. below, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.	
	a. There is no time limit on the use of emergency stationary RICE in emergency situations.	
	 b. The emergency stationary RICE may operate for any combination of the purposes specified in paragraphs (b)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (c) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (b). (i) Emergency stationary RICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. 	
	c. The emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (b) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, 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.	
	21. In accordance with 40 CFR 63.6590(b)(1)(i), a new emergency stationary RICE with a site rating of more than 500 brake horsepower located at a major source of HAP emissions does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ and of 40 CFR Part 63 Subpart A except for the initial notification requirements of 40 CFR 63.6645(f).	
12 13	22. In accordance with 40 CFR 63.6600(b), the Permittee shall comply with the emission limitations in Subpart ZZZZ, Table 2a and the operating limitations in Subpart ZZZZ, Table 2b.	
	23. In accordance with 40 CFR Subpart ZZZZ Table 2b(1)(a), the Permittee shall maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load (plus or minus 10 percent) from the pressure drop across the catalyst that was measured during the initial performance test.	
	24. In accordance with 40 CFR Subpart ZZZZ Table 2b(1)(b), the Permittee shall maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.	
	25. In accordance with 40 CFR 63.6625(b), install a CPMS as specified in 40 CFR Subpart ZZZZ Table 5.	

Table 8e		
EU#	Special Terms and Conditions	
12 13	 26. In accordance with 40 CFR 63.6625(b), the Permittee shall install, operate and maintain each CPMS in accordance with the following requirements: a. Prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) and in §63.8(d). As specified in §63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (b)(5) of 40 CFR 63.6625 in their site specific monitoring plan. b. Install, operate and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan. c. The CPMS must collect data at least once every 15 minutes. d. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of measurement range, whichever is larger. e. Conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually. 	
	f. Conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan. 27. In accordance with 40 CFR 63 Subpart ZZZZ Table 8, EU #12 and #13 are subject to the requirements of 40 CFR 63 Subpart A "General Provisions". Compliance with all applicable provisions of 40 CFR 63 Subpart A therein is required.	
	28. EU #12 and #13 are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200 through 60.4219 and shall comply with all applicable requirements.	
	29. In accordance with 40 CFR §60.4204(b), owners and operator of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.	
	30. In accordance with 40 CFR §60.4207(b), beginning October 1, 2010, owners and operators of stationary CI ICE, subject to 40 CFR 60 Subpart IIII, with a displacement of less than 30 liters per cylinder that use diesel fuel must 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 October 1, 2010, may be used until depleted.	
	 31. In accordance with 40 CFR 60.4211(a): a. operate and maintain each engine according to the manufacturer's emission-related written instructions; b. change only those emission –related settings that are permitted by the manufacturer; and c. meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you. 	
	32. In accordance with 40 CFR 60.4211(g)(3), if you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows: you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 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 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.	

Table 8f	
EU#	Special Terms and Conditions
12 13	33. In accordance with 40 CFR 60.4212(c), exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:
	NTE requirem ent for each pollutant = $(1.25) \times (STD)$ (Eq. 1) Where:
	STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.
	Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.
	34. In accordance with MassDEP Approval #WE-15-019 (3/24/16), each engine shall be operated and maintained in accordance with the manufacturer's recommended operating and maintenance procedures.
	35. In accordance with MassDEP Approval #WE-15-019 (3/24/16), each engine and its associated equipment shall be constructed, located, operated and maintained in a manner to comply with the requirements of 310 CMR 7.10: <i>Noise</i> .
	36. In accordance with MassDEP Approval #WE-15-019 (3/24/16), each engine shall utilize an exhaust stack that discharges so as to not cause a condition of air pollution (310 CMR 7.01(1)). Exhaust stacks shall be configured to discharge the combustion gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted combustion gases, including but not limited to rain protection devices "shanty caps" and "egg beaters". Any emission impacts of exhaust stacks upon sensitive receptors including, but not limited to, people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices. Such practices include without limitation:
	a. Avoiding location that may be subject to downwash of the exhaust; and
	b. Installing stack(s) of sufficient height in locations that will prevent and minimize flue gas impacts upon sensitive receptors.
	37. In accordance with MassDEP Approval #WE-15-019 (3/24/16), each engine with a rated power output equal to or greater than one megawatt shall be equipped with a stack with a minimum stack height of 1.5 times the height of the building on which the stack is located. If the stack is lower than 1.5 times the building height or lower than the height of a structure that is within 5L of the stack (5L being five times the lesser of the height or maximum projected width of the structure), an EPA Guideline air quality model shall be run to document that the operation of the applicable emergency engine will not cause an exceedance of any National Ambient Air Quality Standard.
8 9 11 12 13	38. EU #8, 9, 11, 12 and 13 are subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR Part 63.6580 through 63.6675 and shall comply with all applicable requirements.

Table 8 Key:

EU = Emission Unit CO = Carbon Monoxide $CO_2 = Carbon Dioxide$ CI = Compression Ignition

CPMS = Continuous Parameter Monitoring System

HAP = Hazardous Air Pollutant

 NO_X = Nitrogen Oxides PCD = Pollution Control mm Hg = Millimeters of Mercury % = percent °F = degrees Fahrenheit MW = Megawatt

6. ALTERNATIVE OPERATING SCENARIOS

The Permittee did not request alternative operating scenarios in its Operating Permit application.

7. EMISSIONS TRADING

A. <u>INTRA-FACILITY EMISSION TRADING</u>

The Permittee did not request intra-facility emissions trading in its Operating Permit application.

B. INTER-FACILITY EMISSION TRADING

The Permittee did not request inter-facility emissions trading in its Operating Permit application.

8. COMPLIANCE SCHEDULE

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the Permit term.

GENERAL CONDITIONS FOR OPERATING PERMIT

9. FEES

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

10. COMPLIANCE CERTIFICATION

All documents submitted to the MassDEP shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the MassDEP's web site, http://www.mass.gov/dep/air/approvals/aqforms.htm#op.

A. Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this Operating Permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1) the terms and conditions of the Permit that are the basis of the certification;
- 2) the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- 3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- 4) any additional information required by the MassDEP to determine the compliance status of the source.

B. Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this Permit. The report shall be postmarked or delivered by January 30 and July 30 to the MassDEP. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1) the terms and conditions of the Permit that are the basis of the certification;
- 2) the current compliance status during the reporting period;
- 3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- 4) whether there were any deviations during the reporting period;
- 5) if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- 6) whether deviations in the reporting period were previously reported;
- 7) if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- 8) if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- 9) any additional information required by the MassDEP to determine the compliance status of the source.

11. NONCOMPLIANCE

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for Permit termination or revocation, or for denial of an Operating Permit renewal application by the MassDEP and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

12. PERMIT SHIELD

A. This facility has a permit shield provided that it operates in compliance with the terms and conditions of this Permit. Compliance with the terms and conditions of this Permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the Permittee's application and as identified in this Permit.

Where there is a conflict between the terms and conditions of this Permit and any earlier approval or Permit, the terms and conditions of this Permit control.

- B. The MassDEP has determined that the Permittee is not currently subject to the requirements listed in Section 4, Table 7.
- C. Nothing in this Permit shall alter or affect the following:
 - 1) the liability of the source for any violation of applicable requirements prior to or at the time of Permit issuance.
 - 2) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
 - 3) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

13. ENFORCEMENT

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22, 7.70 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A

All other terms and conditions contained in this Permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the MassDEP, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense 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 Permit.

14. PERMIT TERM

This Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date 5 years after issuance of this Permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this Permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

15. PERMIT RENEWAL

Upon the MassDEP's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the MassDEP on the renewal application.

In the event the MassDEP has not taken final action on the Operating Permit renewal application prior to this Permit's expiration date, this Permit shall remain in effect until the MassDEP takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

16. REOPENING FOR CAUSE

This Permit may be modified, revoked, reopened, and reissued, or terminated for cause by the MassDEP and/or EPA. The responsible official of the facility may request that the MassDEP terminate the facility's Operating Permit for cause. The MassDEP will reopen and amend this Permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an Operating Permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any Operating Permit condition.

17. DUTY TO PROVIDE INFORMATION

Upon the MassDEP's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the MassDEP copies of records that the Permittee is required to retain by this Permit.

18. DUTY TO SUPPLEMENT

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The Permittee shall promptly, on discovery, report to the MassDEP a material error or omission in any records, reports, plans, or other documents previously provided to the MassDEP.

19. TRANSFER OF OWNERSHIP OR OPERATION

This Permit is not transferable by the Permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the Permit is necessary and provided that a written agreement containing a specific date for transfer of Permit responsibility, coverage and liability between current and new Permittee, has been submitted to the MassDEP.

20. PROPERTY RIGHTS

This Permit does not convey any property rights of any sort, or any exclusive privilege.

21. <u>INSPECTION AND ENTRY</u>

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow

authorized representatives of the MassDEP, and EPA to perform the following:

- A. enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this Permit;
- B. have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit:
- C. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- D. Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the Operating Permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

22. PERMIT AVAILABILITY

The Permittee shall have available at the facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the Operating Permit, including any amendments or attachments thereto, upon request by the MassDEP or EPA.

23. SEVERABILITY CLAUSE

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

24. <u>EMERGENCY CONDITIONS</u>

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based¹ emission limitations specified in this Permit as a result of an emergency². In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. an emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. the permitted facility was at the time being properly operated;

¹ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

² An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the 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 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 any of these things.

- C. during the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and
- D. the Permittee submitted notice of the emergency to the MassDEP within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response, immediate notification to the appropriate parties should be made as required by law.

25. <u>PERMIT DEVIATION</u>

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this Permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6. of this Operating Permit shall supersede the following deviation reporting requirements, if applicable.

The Permittee shall report to the MassDEP's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone, fax or electronic mail (e-mail), within three (3) days of discovery of such deviation:

- A. Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- B. Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the Permit or approval as surrogate for an emission limit.
- C. Exceedances of Permit operational limitations directly correlated to excess emissions.
- D. Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- E. Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the MassDEP Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via the MassDEP's web site, http://www.mass.gov/dep/air/approvals/aqforms.htm#op.

This report shall include the deviation, including those attributable to upset conditions as defined in the Permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone, fax or electronic mail (e-mail) within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations, which do not require 3-day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the

aforementioned Semi-Annual Monitoring Summary and Certification.

26. OPERATIONAL FLEXIBILITY

The Permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the Permit and in compliance with all applicable requirements provided the Permittee gives the EPA and the MassDEP written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(h) and (i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's Permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

27. MODIFICATIONS

- A. Administrative Amendments The Permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- B. Minor Modifications The Permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2.,provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- C. Significant Modifications The Permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- D. No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this Operating Permit. A revision to the Permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an Operating Permit revision under any other applicable requirement.

28. OZONE DEPLETING SUBSTANCES

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

- A. The Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - All containers containing a class I or class II substance that is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR 82.106.
 - 2) The placement of the required warning statement must comply with the requirements of 40 CFR 82.108.

- 3) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR 82.110.
- 4) No person may modify, remove or interfere with the required warning statement except as described in 40 CFR 82.112.
- B. The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVAC) in Subpart B:
 - 1) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
 - 2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
 - 3) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - 4) Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40 CFR 82.166.
 - 5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair equipment requirements of 40 CFR 82.156.
 - 6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- C. If the Permittee manufactures, transforms, imports or exports a class I or class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part82, Subpart A, "Production and Consumption Controls".
- D. If the Permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners". The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.
- E. The Permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

29. PREVENTION OF ACCIDENTAL RELEASES

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

Your facility is subject to the requirements of the General Duty Clause, under 112(r)(1) of the CAA Amendments of 1990. This clause specifies that owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR Part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.

APPEAL CONDITIONS FOR OPERATING PERMIT

This Permit is an action of the MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this Permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the MassDEP's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a Permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

The Commonwealth of Massachusetts Department of Environmental Protection P.O. Box 4062 Boston, MA 02211

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.