



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

RICHARD K. SULLIVAN JR.  
Secretary

KENNETH L. KIMMELL  
Commissioner

February 22, 2012

Permit Manager  
Air Permits Program  
U.S. EPA – Region 1  
5 Post Office Square  
Mail Code OEP05-2  
Boston, MA 02109-3912

### **FINAL AIR QUALITY OPERATING PERMIT**

Application for: BWP AQ 14  
310 CMR 7.00: Appendix C  
Application No. 4V07019  
Transmittal No. W133150  
Source No. 120 0217

Dear Permit Manager:

In accordance with 310 CMR 7.00 – Appendix C(6) of the Air Pollution Control Regulations (“the Regulations”), the Massachusetts Department of Environmental Protection (“Department” or “MassDEP”), is forwarding to the U.S. Environmental Protection Agency (“EPA”) the attached Final Air Quality Operating Permit for the MM Taunton Energy LLC facility located at the Taunton Sanitary Landfill, 340 East Britannia Street, Taunton, Massachusetts.

Public notice of the Draft Air Quality Operating Permit was published by MassDEP in The Taunton Gazette on May 9, 2011 and the Environmental Monitor on May 9, 2011, in accordance with the requirements of 310 CMR 7.00: Appendix C. Accordingly, the public comment period ended on June 9, 2011. During the public comment period, no public hearing was requested pursuant to 310 CMR 7.00: Appendix C(6)(f).

On July 1, 2011, MassDEP forwarded to EPA Region 1 the Proposed Air Quality Operating Permit for this facility. On July 12, 2011, EPA provided written comments to MassDEP on the Proposed Air Quality Operating Permit, requesting revisions to be made regarding Emission Unit (EU) Nos. 4 and 5 regulatory applicability requirements. In response to EPA comments, the MassDEP made changes to the Proposed Air Quality Operating Permit by removing the requirements of 40 CFR 63 Subpart ZZZZ for EU Nos. 4 and 5 and

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868  
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in its place, adding the applicable requirements of 40 CFR 60 Subpart JJJJ. Subsequently, the MassDEP issued a revised Proposed Air Quality Operating Permit dated September 26, 2011. Since issuance of the revised Proposed Air Quality Operating Permit on September 26, 2011, the EPA did not receive a petition to object to the Proposed Air Quality Operating Permit within the regulatory timelines. As such, the MassDEP is issuing the Final Air Quality Operating Permit.

The attached Final Air Quality Operating Permit contains all of the Federal and State Air Pollution Control Requirements the facility is subject to, and the terms and conditions for compliance with such applicable requirements.

Should you have any questions concerning this Final Air Quality Operating Permit, please contact Mark Poudrier at the Southeast Regional Office at (508) 946-2783 at your earliest convenience.

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.

John K. Winkler, Chief

Permit Section

Bureau of Waste Prevention

W/MP

Enclosure

cc: Anthony J. Falbo, Senior Vice President - Operations  
MM Taunton Energy LLC  
FORTISTAR Methane Group  
5087 Junction Road  
Lockport, NY 14094  
(w/enclosure and copy of Transmittal No. W133150)

John Winkler, MassDEP/BWP-SERO

ecc: Suparna Chakladar, FORTISTAR  
Ida McDonnell, U.S. EPA Region 1  
Donald Dahl, U.S. EPA Region 1  
Karen Regas, MassDEP/Boston  
Yi Tian, MassDEP/Boston  
Laura Black, MassDEP-SERO



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Commissioner

### FINAL AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection (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"]:

MM Taunton Energy LLC  
FORTISTAR Methane Group  
5087 Junction Road  
Lockport, NY 14094

#### FACILITY LOCATION:

MM Taunton Energy LLC  
Taunton Sanitary Landfill  
340 East Britannia Street  
Taunton, Massachusetts 02780

#### NATURE OF BUSINESS:

Landfill Gas to Energy Facility

#### RESPONSIBLE OFFICIAL:

Mr. Anthony J. Falbo  
Senior Vice President - Operations  
FORTISTAR Methane Group  
Phone: (716) 713-4135  
Email: ajfalbo@fortistar.com

#### INFORMATION RELIED UPON:

Application No. 4V07019  
Transmittal No. W133150

#### FACILITY IDENTIFYING NUMBERS:

AQ ID: 1200217  
FMF FAC NO. 285997  
FMF RO NO. 285998

#### STANDARD INDUSTRIAL CODE (SIC):

4911

#### NORTH AMERICAN INDUSTRIAL CLASSIFICATION SYSTEM (NAICS):

221119

#### FACILITY CONTACT PERSON:

Ms. Suparna Chakladar  
Vice President  
FORTISTAR Methane Group  
Phone: (951) 833-4153  
Email: schakladar@fortistar.com

**This Operating Permit shall expire on 02/22/2017**

For the Department of Environmental Protection, Bureau of Waste Prevention

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.

02/22/2012

Date

John K. Winkler, Chief  
Permit Section

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# SPECIAL CONDITIONS FOR OPERATING PERMIT

A Legend to Abbreviated terms found in the following Tables is located in Section 28 of the Operating Permit.

## 1. PERMITTED ACTIVITIES

In accordance with the provisions of 310 CMR 7.00: Appendix C, and applicable rules and regulations, the Permittee 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.

## DESCRIPTION OF FACILITY AND OPERATIONS

MM Taunton Energy LLC (MM Taunton Energy or Permittee) is a landfill gas (LFG) to energy facility. The MM Taunton Energy facility consists of six (6) Emission Units (EU) identified in this Operating Permit (OP) No. 4V07019, as follows: one (1) stationary LFG-burning open flare (EU-1), four (4) stationary LFG-burning Reciprocating Internal Combustion Engine (RICE) electrical generator sets (EU-2, EU-3, EU-4 and EU-5) and one (1) stationary distillate fuel oil-fired RICE electrical generator used for emergency purposes (EU-6). EU-1, EU-2, EU-3 and EU-6 are installed and operate as necessary. EU-4 and EU-5 are installed and commenced operation on May 9, 2011. EU-2, EU-3, EU-4 and EU-5 are 4-stroke spark ignition (SI) lean burn (LB) turbocharged engines, each having a heat input rating of 10,640,000 Btu per hour (Btu/hr). EU-6 is a 4-stroke compression ignition (CI) turbocharged diesel engine that operates for emergency purposes. EU-6 burns Ultra Low Sulfur Distillate (ULSD) fuel oil (15 ppm maximum sulfur content) and has an approximate heat input rating of 766,000 Btu/hr. EU-1 flare operates as a secondary or backup pollution control device to thermally destroy the LFG when the supply from the landfill exceeds the demand by EU-2, EU-3, EU-4 and EU-5. EU-1 has a heat input rating of 60,000,000 Btu/hr. MassDEP issued MM Taunton Energy a Revised Conditional Approval No. 4B05026 dated March 11, 2011 (Revised Conditional Approval No. 4B05026) superseding MassDEP approvals (4B98003, 4B96069 and 4B05026) dated October 25, 1996, July 6, 1998 and October 27, 2006 issued pursuant to 310 CMR 7.00. The MM Taunton Energy facility is a major source of carbon monoxide (CO) and an area source of Hazardous Air Pollutants (HAP) as defined in 310 CMR 7.00: Appendix C. EU-2 and EU-3 SI RICE are subject to 40 CFR Part 63, Subpart ZZZZ with a compliance date of October 19, 2013. EU-6 emergency CI RICE is subject to 40 CFR Part 63, Subpart ZZZZ with a compliance date of May 3, 2013. EU-6 is not subject to 310 CMR 7.26(42). EU-4 and EU-5 SI RICE are subject to 40 CFR 63 Subpart ZZZZ Section 63.6590(c)(1) which requires each EU to comply with 40 CFR 60 Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, as applicable. MM Taunton Energy is subject to 310 CMR 7.71 Reporting of Greenhouse Gas Emissions to a Regional Registry (GHG).

Operating Permit Section 4, Tables 3, 4, 5, and 6 list the facility emission limits along with monitoring, testing, record-keeping and reporting requirements. Operating Permit Section 4, Table 7 lists regulations that are not applicable to the facility at this time.

## 2. EMISSION UNIT IDENTIFICATION

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

<b>Table 1</b>				
<b>Emission Unit (EU)</b>	<b>Description of Emission Unit</b>	<b>EU Design Capacity</b>	<b>Date of Manufacture</b>	<b>Pollution Control Device (PCD)</b>
EU-1	<u>LFG Open Flare</u> John Zink Model No. EEF-U	60,000,000 Btu/hr	N/A	N/A
EU-2	<u>LFG Reciprocating Internal Combustion Engine (RICE) No. 2</u> Caterpillar Model No. 3516 SITA (to Stack No. 2)	10,640,000 Btu/hr 1148 hp	11/13/96	
EU-3	<u>LFG Reciprocating Internal Combustion Engine (RICE) No. 3</u> Caterpillar Model No. 3516 SITA (to Stack No. 3)	10,640,000 Btu/hr 1148 hp	11/20/95	
EU-4	<u>LFG Reciprocating Internal Combustion Engine (RICE) No. 4</u> Caterpillar Model No. 3516 SITA (to Stack No. 4)	10,640,000 Btu/hr 1148 hp	10/02/07	
EU-5	<u>LFG Reciprocating Internal Combustion Engine (RICE) No. 5</u> Caterpillar Model No. 3516 SITA (to Stack No. 5)	10,640,000 Btu/hr 1148 hp	10/03/07	
EU-6	<u>Emergency Reciprocating Internal Combustion Engine (RICE)</u> Olympian/Caterpillar/Perkins Model XQ-75	117 hp	N/A	

### 3. **IDENTIFICATION OF EXEMPT ACTIVITIES**

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

<b>Table 2</b>	
<b>Description of Current Exempt Activities</b>	<b>Reason</b>
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 the exempt activities list shall be kept on-site at the facility and a copy shall be submitted to MassDEP's Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00, Appendix C(5)(h)

## 4. APPLICABLE REQUIREMENTS

### A. EMISSION LIMITS AND RESTRICTIONS

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

<b>Table 3</b>						
<b>Emission Unit (EU)</b>	<b>Fuel/Raw Material</b>	<b>Pollutant</b>	<b>Emission Limit/Standard</b>			<b>Applicable Regulation and/or Approval No.</b>
EU-1	LFG	NO <sub>x</sub>	0.080 lb/MMBtu	1.79 tons/mo <sup>(1)</sup>	21.0 TPY <sup>(2)</sup>	Revised Conditional Approval No. 4B05026
		CO	0.300 lb/MMBtu	6.70 tons/mo <sup>(1)</sup>	78.8 TPY <sup>(2)</sup>	
		NMOC	0.068 lb/MMBtu	1.52 tons/mo <sup>(1)</sup>	17.9 TPY <sup>(2)</sup>	
		PM	0.055 lb/MMBtu	1.23 tons/mo <sup>(1)</sup>	14.5 TPY <sup>(2)</sup>	
		SO <sub>2</sub>	0.066 lb/MMBtu	1.47 tons/mo <sup>(1)</sup>	17.3 TPY <sup>(2)</sup>	
		Visible Emissions	Zero visible emissions, except for periods not to exceed a total of five (5) minutes during any two(2) consecutive hours			



**Table 3 (continued)**

Emission Unit (EU)	Fuel/Raw Material	Pollutant	Emission Limit/Standard			Applicable Regulation and/or Approval No.
EU-1	LFG	N/A	Maximum heat input of LFG shall not exceed 44,640 MMBtu per month			Revised Conditional Approval No. 4B05026
			Maximum heat input of LFG shall not exceed 525,600 MMBtu per year <sup>(4)</sup>			
			The pilot flame shall operate continuously whenever LFG is directed to the flare			
EU-2 <sup>(3)</sup> or EU-3 <sup>(3)</sup>	LFG	NO <sub>x</sub>	0.167 lb/MMBtu	0.66 tons/mo <sup>(1)</sup>	7.8 TPY <sup>(2)</sup>	Revised Conditional Approval No. 4B05026
			0.60 g/bhp-hr			
		CO	0.830 lb/MMBtu	3.29 tons/mo <sup>(1)</sup>	38.7 TPY <sup>(2)</sup>	
		NMOC	0.083 lb/MMBtu	0.33 tons/mo <sup>(1)</sup>	3.9 TPY <sup>(2)</sup>	
		PM	0.061 lb/MMBtu	0.24 tons/mo <sup>(1)</sup>	2.9 TPY <sup>(2)</sup>	
		SO <sub>2</sub>	0.066 lb/MMBtu	0.26 tons/mo <sup>(1)</sup>	3.1 TPY <sup>(2)</sup>	
		N/A	Maximum heat input of LFG shall not exceed 7,916 MMBtu per month per engine			
Maximum heat input of LFG shall not exceed 93,206 MMBtu per year <sup>(4)</sup> per engine						

**Table 3 (continued)**

Emission Unit (EU)	Fuel/Raw Material	Pollutant	Emission Limit/Standard			Applicable Regulation and/or Approval No.
EU-4 <sup>(3)</sup> or EU-5 <sup>(3)</sup>	LFG	NO <sub>x</sub>	0.167 lb/MMBtu	0.66 tons/mo <sup>(1)</sup>	7.8 TPY <sup>(2)</sup>	Revised Conditional Approval No. 4B05026
			0.60 g/bhp-hr			
		CO	0.830 lb/MMBtu	3.29 tons/mo <sup>(1)</sup>	38.7 TPY <sup>(2)</sup>	
		NMOC	0.083 lb/MMBtu	0.33 tons/mo <sup>(1)</sup>	3.9 TPY <sup>(2)</sup>	
		PM	0.061 lb/MMBtu	0.24 tons/mo <sup>(1)</sup>	2.9 TPY <sup>(2)</sup>	
		SO <sub>2</sub>	0.066 lb/MMBtu	0.26 tons/mo <sup>(1)</sup>	3.1 TPY <sup>(2)</sup>	
		N/A	Maximum heat input of LFG shall not exceed 7,916 MMBtu per month per engine			
	Maximum heat input of LFG shall not exceed 93,206 MMBtu per year <sup>(4)</sup> per engine					

**Table 3 (continued)**

Emission Unit (EU)	Fuel/Raw Material	Pollutant	Emission Limit/Standard		Applicable Regulation and/or Approval No.
EU-2 EU-3 EU-4 EU-5	LFG	Visible Emissions	Stack emissions shall not exceed 0% opacity (no visible emissions) exclusive of uncombined water vapor, with the exception of up to five (5) minutes during startup. During startup visible emissions, other than water, shall not exceed ten (10) consecutive seconds as per 310 CMR 7.06.		Revised Conditional Approval No. 4B05026 and 310 CMR 7.06(5)(a)1.
EU-6	ULSD <sup>(6)</sup>	Smoke <sup>(5)</sup>	< No. 1 of Chart, except ≥ No.1 to < No. 2 of Chart for ≤ 6 minutes during any one hour, no time to equal or exceed No. 2 of the Chart		310 CMR 7.06(1)(a)
		Opacity	≤ 20 percent, except >20 to ≤ 40 percent for ≤ 2 minutes during any one hour, at no time to exceed 40 percent		310 CMR 7.06(1)(b)
EU-1 EU-2 EU-3 EU-4 EU-5	LFG	N/A	The maximum heat input of LFG for EU-1, EU-2, EU-3, EU-4 and EU-5 combined shall not exceed 75,947 MMBtu per month.		Revised Conditional Approval No. 4B05026
			The maximum heat input of LFG for EU-1, EU-2, EU-3, EU-4 and EU-5 combined shall not exceed 529,980 MMBtu per year <sup>(4)</sup> .		
			The Permittee shall operate each unit at all times when the collected LFG is routed to the unit.		
			H <sub>2</sub> S level of LFG burned shall not exceed 200 ppmv		
EU-1 EU-2 EU-3 EU-4 EU-5	LFG	NO <sub>x</sub>	4.41 tons/mo <sup>(1)</sup>	37.4 TPY <sup>(2)</sup>	Revised Conditional Approval No. 4B05026
		CO	19.78 tons/mo <sup>(1)</sup>	178.3 TPY <sup>(2)</sup>	

Table 3 (continued)					
Emission Unit (EU)	Fuel/Raw Material	Pollutant	Emission Limit/Standard		Applicable Regulation and/or Approval No.
EU-1 EU-2 EU-3 EU-4 EU-5	LFG	NMOC	2.82 tons/mo <sup>(1)</sup>	20.8 TPY <sup>(2)</sup>	Revised Conditional Approval No. 4B05026
			The flare (EU-1) and each LFG RICE (EU-2, EU-3, EU-4 and EU-5) shall reduce NMOC emissions by 98 percent by weight, or reduce the stack NMOC concentration to less than 20 ppm (as hexane) by volume, dry basis at 3% oxygen		
		PM	2.19 tons/mo <sup>(1)</sup>	15.7 TPY <sup>(2)</sup>	
		SO <sub>2</sub>	2.50 tons/mo <sup>(1)</sup>	17.5 TPY <sup>(2)</sup>	
EU-2 EU-3	LFG	N/A	See Section 5. <u>Special Terms and Conditions</u> B.(1)		40 CFR 63 Subpart A and Subpart ZZZZ
EU-4 EU-5	LFG	N/A	See Section 5. <u>Special Terms and Conditions</u> B.(3)		40 CFR 63.6590(c)(1) and 40 CFR 60 Subpart JJJJ
EU-6	ULSD <sup>(6)</sup>	N/A	See Section 5. <u>Special Terms and Conditions</u> B.(2)		40 CFR 63 Subpart A and Subpart ZZZZ
Facility wide	All	Greenhouse Gas (GHG) Emission <sup>(7)</sup>	N/A		310 CMR 7.71 (State only)

**Table 3 Notes:**

- (1) tons/mo = tons per calendar month
- (2) TPY = tons per year, enforced as tons per consecutive 12-month period.
- (3) Emission limits are for **each** Emission Unit
- (4) Year = a consecutive 12-month period of time
- (5) Chart means the Ringelmann 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 Circular No. 8333, or any smoke inspection guide approved by the MassDEP.

- (6) Ultra Low Sulfur Distillate fuel oil (ULSD) having a sulfur content of 15 ppm or less
- (7) Greenhouse gas (GHG) means any chemical or physical substance that is emitted into the air and that the Department may reasonably anticipate will cause or contribute to climate change including, but not limited to, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>).

B. COMPLIANCE DEMONSTRATION

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), as well as applicable requirements contained in Table 3:

<b>Table 4</b>	
<b>Emission Unit (EU)</b>	<b>Monitoring/Testing Requirements</b>
EU-1	In accordance with Revised Conditional Approval No. 4B05026 Proviso C.6., the flare shall be operated with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. 40 CFR 60 Appendix A Method 22 shall be used to determine compliance with the visible emission limit.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.1., the pilot flame shall be monitored by thermocouple and recorded to document that there is a pilot flame whenever LFG is directed to the flare, and must provide detail sufficient to document date and clock time. Records of this information shall be maintained on-site.
EU-2	In accordance with Revised Conditional Approval No. 4B05026, during startup, visible emissions shall comply with the provisions 310 CMR 7.06(5)(a)1. 40 CFR 60 Appendix A Method 22 shall be used to determine compliance with the visible emissions limit.
EU-3	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.8, at least one operable oxygen analyzer shall be maintained on-site and a record shall be maintained of the stack outlet oxygen levels at least once per week on each engine.
EU-4 EU-5	
EU-4 EU-5	In accordance with Revised Conditional Approval No. 4B05026 Proviso E.3., a NO <sub>x</sub> /CO optimization/minimization diagnostic emission test program shall be conducted on each new engine prior to emission compliance testing required by Revised Conditional Approval No. 4B05026 Provisos E.4., E.5. and F.3.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso E.4., emission testing shall be performed to determine compliance with CO, NMOC, and NO <sub>x</sub> emission limits contained in Revised Conditional Approval No. 4B05026.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso E.5., all emission testing shall be completed within ninety (90) days from the date that each engine commences LFG burning.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso E.1., the facility shall be constructed to accommodate the emission testing requirements contained in 40 CFR Part 60 Appendix A.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso E.2., all compliance emission testing shall be conducted in accordance with the test methods and procedures contained in 40 CFR Part 60 Appendix A.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso F.3., a stack test protocol shall be submitted to MassDEP at least thirty (30) days prior to the commencing compliance emission testing. The test program shall conform to <u>Department of Environmental Protection Guidelines for Source Emission Testing</u> . The final emission test report shall be submitted to MassDEP within thirty (30) days from the completion of on-site testing.

**Table 4 (continued)**

<b>Emission Unit (EU)</b>	<b>Monitoring/Testing Requirements</b>
EU-1 EU-2 EU-3 EU-4 EU-5	<p>In accordance with Revised Conditional Approval No. 4B05026 Proviso D.2., a LFG flow recorder(s) shall be maintained so that an on-site record of the volume of LFG fired in each unit will be available by date and time period.</p> <p>In accordance with Revised Conditional Approval No. 4B05026 Proviso D.4., the heat input of LFG (Btu) fired in EU-1 through EU-5, individually and in total, for each month and for each 12-month rolling period records shall be maintained on-site. These heat input records may be generated by gas chromatograph and/or field measurements.</p> <p>In accordance with Revised Conditional Approval No. 4B05026 Proviso No. D.10, the LFG to be burned in EU-1, EU-2, EU-3, EU-4 and EU-5 shall be sampled and analyzed on an annual basis to determine the H<sub>2</sub>S ppmv level. Monitoring of the H<sub>2</sub>S level shall be conducted using indicator tubes (a minimum of three tube average), laboratory analysis (ASTM Method D 5504-01) or equivalent.</p>
EU-2 EU-3	<p>Monitor and test as necessary to demonstrate compliance with 40 CFR 63 Subpart A and Subpart ZZZZ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(1)</u></p>
EU-4 EU-5	<p>Monitor and test as necessary to demonstrate compliance with 40 CFR 63.6590(c)(1) and 40 CFR 60 Subpart JJJJ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(3)</u>.</p>
EU-6	<p>Monitor and test as necessary to demonstrate compliance with 40 CFR 63 Subpart A and Subpart ZZZZ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(2)</u>.</p>
Facility Wide	<p>Monitor operations such that information may be compiled for the annual Source Registration required by 310 CMR 7.12.</p> <p>In accordance with Revised Conditional Approval No. 4B05026 Proviso E.1., the facility shall be constructed to accommodate the testing requirements contained in 40 CFR Part 60 Appendix A.</p> <p>In accordance with Revised Conditional Approval No. 4B05026 Proviso E.2., all compliance emission testing shall be conducted in accordance with the test methods and procedures contained in 40 CFR Part 60 Appendix A.</p> <p>In accordance with Revised Conditional Approval No. 4B05026 Proviso F.3., a stack test protocol shall be submitted to MassDEP at least thirty (30) days prior to the commencing compliance emission testing. The test program shall conform to <u>Department of Environmental Protection Guidelines for Source Emission Testing</u>. The final emission test report shall be submitted to MassDEP within thirty (30) days from the completion of on-site testing.</p>

Emissions stack testing, if and when requested by MassDEP or U.S. EPA, to be conducted in accordance with 310 CMR 7.13 and 40 CFR 60.

**Table 4 (continued)**

**Emission Unit (EU)**

**Monitoring/Testing Requirements**

Facility Wide

In accordance with 310 CMR 7.13(1), any person owning, leasing, operating, or controlling a facility for which MassDEP has determined that stack testing is necessary to ascertain compliance with MassDEP’s regulations or design approval provisos shall cause such stack testing:

- (a) to be conducted by a person knowledgeable in stack testing,
- (b) to be conducted in accordance with the procedures contained in a test protocol which has been approved by MassDEP,
- (c) to be conducted in the presence of a representative of MassDEP when such is deemed necessary, and
- (d) to be summarized and submitted to MassDEP with analyses and report within such time as agreed to in the approved test protocol.

In accordance with 310 CMR 7.13(2), any person having control of a facility, relative to which MassDEP determines that stack testing (to ascertain the mass emission rates of air contaminants emitted under various operating conditions) is necessary for the purposes of regulation enforcement or determination of regulation compliance shall cooperate with MassDEP to provide:

- (a) entrance to a location suitable for stack testing,
- (b) sampling ports at locations where representative samples may be obtained,
- (c) staging and ladders to support personnel and equipment for performing the tests,
- (d) a suitable power source at the sampling location for the operation of sampling equipment, and
- (e) such other reasonable facilities as may be requested by MassDEP.

In accordance with 310 CMR 7.00, Appendix C(9)(b):

1. Comply with all emissions monitoring and analysis procedures or test methods required under the applicable requirements, including those promulgated pursuant to 42 U.S.C. 7401, §§ 504(a) and 504(b) or 114(a)(3).
2. If the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), then the Permittee shall perform periodic monitoring sufficient to yield reliable data from the relevant time period that is representative of the source’s compliance with the permit. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements.
3. Comply with requirements concerning the use, maintenance and installation of monitoring equipment or methods as MassDEP deems appropriate.

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, SF<sub>6</sub> 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 5**

<b>Emission Unit (EU)</b>	<b>Record Keeping Requirements</b>
EU-1	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.1, maintain records on-site of the pilot flame thermocouple that indicate that there is a pilot flame present whenever LFG is directed to the flare.
EU-2 EU-3 EU-4 EU-5	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.8., at least one operable oxygen analyzer shall be on hand to measure and record the stack outlet oxygen levels at least once per week on each engine.  In accordance with Revised Conditional Approval No. 4B05026 Proviso D.9., a copy of the NO <sub>x</sub> /CO optimization/minimization program reports shall be maintained on-site.
EU-2 EU-3	Maintain records as necessary to demonstrate compliance with 40 CFR 63 Subpart A and Subpart ZZZZ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(1)</u> .
EU-4 EU-5	Maintain records as necessary to demonstrate compliance with 40 CFR 63.6590(c)(1) and 40 CFR 60 Subpart JJJJ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(3)</u> .
EU-6	Maintain records as necessary to demonstrate compliance with 40 CFR 63 Subpart A and Subpart ZZZZ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(2)</u> .
EU-1 EU-2 EU-3 EU-4 EU-5	<p>In accordance with Revised Conditional Approval No. 4B05026 Proviso H.7., a recordkeeping system shall be established and maintained on-site. All records shall be maintained up to date such that the year-to-date information is readily available for MassDEP examination. Recordkeeping shall, at a minimum, include:</p> <p>(a) A record of routine maintenance activities performed on emission unit control and monitoring equipment including, at a minimum, the type or description of the maintenance performed and the date and time the work was completed.</p> <p>(b) A record of all malfunctions on emission unit control and monitoring equipment shall include, at a minimum, the date and time the malfunctions occurred, a description of the malfunctions and the corrective actions taken, the date and time corrective actions were initiated, and the date and time corrective actions were completed and the emission unit returned to compliance.</p> <p>(c) All records shall be kept on-site for five (5) years and shall be made available to MassDEP personnel upon request.</p> <p>In accordance with Revised Conditional Approval No. 4B05026 Proviso D.3., records of the volume of LFG (scf) fired in each unit for each month and for each 12-month rolling period shall be maintained on-site.</p>

**Table 5 (continued)**

<b>Emission Unit (EU)</b>	<b>Record Keeping Requirements</b>
EU-1 EU-2 EU-3 EU-4 EU-5	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.5., maintain on-site monthly and 12-month rolling period emission rate records for each unit for NO <sub>x</sub> , CO, NMOC, PM and SO <sub>2</sub> .
	In accordance with Revised Conditional Approval No. 4B05026, Proviso No. D.11. all operating and monitoring records, including emission test results, reports and H <sub>2</sub> S levels in LFG burned shall be maintained for the life of the facility; the five (5) most recent years of data/records shall be maintained on-site.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.4., the heat input of LFG (Btu) fired in EU-1 through EU-5, individually and in total, for each month and for each 12-month rolling period records shall be maintained on-site. These heat input records may be generated by gas chromatograph and/or field measurements.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.6., maintain on-site a copy of the Standard Operating and Maintenance Procedures (SOMP) for EU-1thru EU-5.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso D.7., maintain on-site an operation log, or other recordkeeping system, at a level of detail sufficient to document that all operational and emission limits contained in Revised Conditional Approval No. 4B05026 as specified therein and Operating Permit No. 4V07019 are not exceeded.
Facility Wide	Maintain records to facilitate compilation of data for the annual Source Registration required by 310 CMR 7.12. These records must be maintained for a period of five (5) years from the date of the Source Registration submittal.
	In accordance with 310 CMR 7.71 (6) b. and c. retain at the facility for five (5) years and make available to the MassDEP upon request copies of the documentation of the methodology and data used to quantify emissions. <b>(State-only requirement)</b>

**Table 6**

<b>Emission Unit (EU)</b>	<b>Reporting Requirements<sup>(1)</sup></b>
EU-1 EU-2 EU-3 EU-4 EU-5	In accordance with Revised Conditional Approval No. 4B05026 Proviso F.4., Final Standard Operating and Maintenance Procedures (SMOP) for EU-1 thru EU-5 shall be submitted forty-five (45) days from the completion of stack testing required by Revised Conditional Approval No. 4B05026 Section E. <u>Testing</u> . In addition, any subsequent revisions to the Final SOMP shall be submitted to the MassDEP within seven (7) days from their initial use.
EU-4 EU-5	In accordance with Revised Conditional Approval No. 4B05026 Proviso F.2., notification to MassDEP, in writing, shall be made within ten (10) days from the date that each unit commences LFG burning.
EU-2 EU-3	Report as necessary to demonstrate compliance with 40 CFR 63 Subpart A and Subpart ZZZZ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(1)</u> .
EU-4 EU-5	Report as necessary to demonstrate compliance with 40 CFR 63.6590(c)(1) and 40 CFR 60 Subpart JJJJ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(3)</u> .
EU-6	Report as necessary to demonstrate compliance with 40 CFR 63 Subpart A and Subpart ZZZZ, which includes but is not limited to Operating Permit No. 4V07019 <u>Special Terms and Conditions B.(2)</u> .
Facility-Wide	In accordance with Revised Conditional Approval No. 4B05026 Proviso F.3., a stack test protocol shall be submitted to MassDEP at least thirty (30) days prior to commencing compliance testing. The test program shall conform to the <u>Department of Environmental Protection Guidelines for Source Emission Testing</u> . The final emission test report shall be submitted to MassDEP within thirty (30) days from the completion of on-site testing.
	In accordance with Revised Conditional Approval No. 4B05026 Proviso F.5., MassDEP shall be notified by telephone or fax within 24 hours, and written notification within ten (10) days, after the occurrence of any exceedance of an emission limitation contained in Revised Conditional Approval No.4B05026.
	In accordance with 310 CMR 7.12, submit annually information pertinent to the nature and amounts of emissions on forms provided by MassDEP, and in addition, ensure that the facility is available for inspection by MassDEP and/or U.S.EPA personnel at any reasonable time.

**Table 6**

<b>Emission Unit (EU)</b>	<b>Reporting Requirements<sup>(1)</sup></b>
Facility-Wide	<p>In accordance with 310 CMR 7.13(1) and 7.13(2), the Permittee, if determined by MassDEP that stack testing is necessary to ascertain compliance with MassDEP's shall cause such stack testing to be summarized and submitted to MassDEP as prescribed in the agreed-to test protocol.</p>
	<p>In accordance with 310 CMR 7.00, Appendix C(10)(a), the Permittee, upon MassDEP's request shall transmit any record relevant to the Operating Permit within thirty (30) days of the request by MassDEP or within a longer time period if approved in writing by MassDEP. The record shall be transmitted on paper, on computer disk, or electronically at the discretion of MassDEP.</p>
	<p>In accordance with 310 CMR 7.00, Appendix C(10)(c), report a summary of all monitoring data and related supporting information to MassDEP every six months (January 30<sup>th</sup> and July 30<sup>th</sup>) of each calendar year.</p>
	<p>In accordance with 310 CMR 7.00, Appendix C(10)(f), report to MassDEP all instances of deviations from permit requirements. This report shall include the deviation itself, including those attributable to upset conditions as defined in the permit, the probable cause of the deviation, and any corrective actions or preventive measures taken.</p>
	<p>In accordance with 310 CMR 7.00, Appendix C(10)(h), all required reports must be certified by a responsible official consistent with 310 CMR 7.00, Appendix C(5)(c).</p>

**Table 6 (continued)**

<b>Emission Unit (EU)</b>	<b>Reporting Requirements<sup>(1)</sup></b>
Facility-Wide	<p>In accordance with Revised Conditional Approval No. 4B05026 Proviso F.1. and Operating Permit No. 4V07019, all notifications and reporting required in accordance with Section No. 25 of this Operating Permit shall be sent directly to:</p> <p align="center">                     Department of Environmental Protection                      Bureau of Waste Prevention                      Southeast Regional Office                      20 Riverside Drive                      Lakeville, MA 02347                 </p> <p align="center">ATTN: Permit Chief</p> <p align="center">                     Telephone: (508) 946-2770                      Fax: (508) 947-6557                      (508) 946-2865                 </p>
	<p>In accordance with 310 CMR 7.71(5), by April 15<sup>th</sup>, 2010 and April 15<sup>th</sup> of each year thereafter report emissions of greenhouse gases from stationary emissions sources including, but not limited to, emissions from factory stacks, manufacturing processes and vents, fugitive emissions, and other process emissions; and owned or leased motor vehicles when stationary source greenhouse gas emissions are greater than 5,000 short tons CO<sub>2</sub>e. Report greenhouse gas emissions electronically in a format that can be accommodated by the registry. <b>(State-only requirement)</b></p>
	<p>In accordance with 310 CMR 7.71(6), certify greenhouse gas emissions reports using a form provided by the MassDEP or the registry. <b>(State-only requirement)</b></p>
	<p>In accordance with 310 CMR 7.71(7), by December 31<sup>st</sup> of the applicable year submit to the MassDEP documentation of triennial verification of the greenhouse gas emissions report. <b>(State-only requirement)</b></p>

**Note:**

1. The annual Source Registration/Emission Statement 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 Southeast Regional Office address, as specified on the letterhead of this Operating Permit.*

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.

D. REQUIREMENTS NOT CURRENTLY APPLICABLE

The Permittee shall comply with any applicable requirements that become effective during the permit term.

The Permittee is currently not subject to the following requirements:

<b>Table 7</b>	
<b>Regulation</b>	<b>Description</b>
310 CMR 7.16	Reduction of Single Occupant Commuter Vehicle Use
42 USC 7401, §112(r)(7)	Accidental Release Prevention Requirements: Risk Management under the Clean Air Act §112(r)
310 CMR 7.25	Consumer and Commercial Products
42 USC 7401 §601	Protection of Stratospheric Ozone
40 CFR 64	Compliance Assurance Monitoring

## 5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to the following special provisions that are not contained in Tables 3, 4, 5 and 6.

### A. Equipment and Design:

In accordance with Revised Conditional Approval No. 4B05026, construction and design shall be consistent with the following Equipment and Design schedule:

#### (1) Emission Units

##### (a) EU-1 Open Flare (existing equipment)

- |    |                      |                      |
|----|----------------------|----------------------|
| 1. | Manufacturer:        | John Zink            |
| 2. | Model No.:           | EEF-U                |
| 3. | Max. Heat Input:     | 60 MMBtu/hr          |
| 4. | Fuel:                | LFG                  |
| 5. | Stack Material:      | Steel                |
| 6. | Stack Height:        | 25 feet above ground |
| 7. | Stack Exit Diameter: | 10 inches            |

##### (b) EU-2 and EU-3 Engine/Electric Generator Sets (existing equipment)

- |     |                         |                             |
|-----|-------------------------|-----------------------------|
| 1.  | Manufacturer:           | Caterpillar, Inc.           |
| 2.  | Model No.:              | 3516 SITA                   |
| 3.  | Max Heat Input:         | 10.64 MMBtu/hr/engine       |
| 4.  | Fuel:                   | LFG                         |
| 5.  | Max. Output:            | 950 kW/generator            |
| 6.  | Max. Stack Exit Temp.:  | 960°F                       |
| 7.  | Stack Material:         | Steel                       |
| 8.  | Stack Height:           | 28.0 feet above ground      |
| 9.  | Stack Exit Diameter:    | 10 inches                   |
| 10. | Silencer Manufacturer.: | EM Products (or equivalent) |
| 11. | Silencer Model No.:     | JCS12-X2608 (or equivalent) |

##### (c) EU-4 and EU-5 Engine/Electric Generator Sets (existing equipment)

- |     |                        |                             |
|-----|------------------------|-----------------------------|
| 1.  | Manufacturer:          | Caterpillar, Inc.           |
| 2.  | Model No.:             | 3516 SITA                   |
| 3.  | Max. Heat Input:       | 10.64 MMBtu/hr/engine       |
| 4.  | Fuel:                  | LFG                         |
| 5.  | Max. Output:           | 925 kW/generator            |
| 6.  | Max. Stack Exit Temp.: | 960°F                       |
| 7.  | Stack Material:        | Steel                       |
| 8.  | Stack Height:          | 25.0 feet above ground      |
| 9.  | Stack Exit Diameter:   | 12 inches                   |
| 10. | Silencer Manufacturer: | EM Products (or equivalent) |
| 11. | Silencer Model No.:    | JCS12-X2608 (or equivalent) |

### B. 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines:

#### (1) EU-2 and EU-3 (LFG SI RICE):

**EU-2 and EU-3 are subject to 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 63 Subpart A, which include but are not limited to the following requirements: Subpart ZZZZ, Table 2d: Requirements for Existing Non-Emergency Landfill Gas Burning Spark Ignition Stationary Reciprocating Internal Combustion Engine (RICE) Located at Area Sources of HAP Emissions:**

(a) In accordance with Subpart ZZZZ, Table 2d, No. 11.a.: Change oil and filter every 1,440 hours of operation or annually, whichever comes first. As specified in Table 2d Footnote No. 1, sources have the option to utilize an oil analysis program as described in Subpart ZZZZ Section 63.6625(j) in order to extend the specified oil change requirement in Table 2d of this subpart. Pursuant to Subpart ZZZZ 63.6625(j), if you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(b) In accordance with Subpart ZZZZ, Table 2d, No. 11.b: Inspect spark plugs every 1,440 hours of operation or annually whichever comes first.

(c) In accordance with Subpart ZZZZ, Table 2d, No. 11.c.: Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

(d) In accordance with Subpart ZZZZ, 63.6625(e) and Subpart ZZZZ Table 6: Continuous Compliance with Emission Limitations, Operating Limitations, Work Practices and Management Practices, No. 9.a. (Work or Management Practices):

1. Operate and maintain each stationary RICE according to the manufacturer's emission-related operation and maintenance instructions **OR**

2. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(e) In accordance with Subpart ZZZZ 63.6625(h): If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(f) In accordance with Subpart ZZZZ 63.6640:

1. You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

2. You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(g) In accordance with Subpart ZZZZ Section 63.6655:

1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

2. Records of the occurrence and duration of each malfunction of operation ( *i.e.*, process equipment) or the air pollution control and monitoring equipment.

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

4. Records of all required maintenance performed on the air pollution control and monitoring equipment.

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



6. You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

7. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate:

- an existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

**(2) EU-6 (Emergency CI RICE):**

**EU-6 is subject to 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 63 Subpart A**, which include **but are not limited to** the following requirements: Subpart ZZZZ, Table 2d: Requirements for Existing Emergency Compression Ignition Stationary Reciprocating Internal Combustion Engine (RICE) Located at Area Sources of HAP Emissions:

(a) In accordance with Subpart ZZZZ, Table 2d, No. 4.a.: Change oil and filter every 500 hours of operation or annually, whichever comes first. As specified in Table 2d Footnote No. 1, sources have the option to utilize an oil analysis program as described in Subpart ZZZZ Section 63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart. Pursuant to Subpart ZZZZ 63.6625(i), if you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(b) In accordance with Subpart ZZZZ, Table 2d, No. 4.b.: Inspect air cleaner every 1000 hours of operation or annually whichever comes first.

(c) In accordance with Subpart ZZZZ, Table 2d, No. 4.c.: Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

(d) In accordance with Subpart ZZZZ, 63.6625(e) and Subpart ZZZZ Table 6: Continuous Compliance with Emission Limitations, Operating Limitations, Work Practices and Management Practices, No. 9.a. (Work or Management Practices):

1. Operate and maintain each stationary RICE according to the manufacturer's emission-related operation and maintenance instructions **OR**

2. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(e) In accordance with Subpart ZZZZ 63.6625(h): If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(f) In accordance with Subpart ZZZZ 63.6640:

1. You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

2. You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in

§63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

3. *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of 40 CFR63.6640. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of 40 CFR63.6640, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of 40 CFR63.6640, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

4. There is no time limit on the use of emergency stationary RICE in emergency situations.

5. You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. 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 year.

6. You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii) of 40CFR 63.6640, as long as the power provided by the financial arrangement is limited to emergency power.

(g) In accordance with Subpart ZZZZ Section 63.6655:

1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

2. Records of the occurrence and duration of each malfunction of operation ( *i.e.*, process equipment) or the air pollution control and monitoring equipment.

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

4. Records of all required maintenance performed on the air pollution control and monitoring equipment.

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

6. You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

7. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

- An existing stationary emergency RICE.
- An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

8. If you own or operate any of the stationary RICE in paragraphs Subpart ZZZZ 63.6655(f)(1) or (2) you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(h) In accordance with Subpart ZZZZ Section 63.6625(f), install a non-resettable hour meter.

**(3) EU-4 and EU-5 (LFG SI RICE):**

**EU-4 and EU-5 are subject to 40 CFR Part 63, Subpart ZZZZ Section 63.6590 (c)(1), which requires each EU to comply with 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, which include **but are not limited to** the following requirements:**

(a) In accordance with 40 CFR 60.4233, the permittee must comply with the emission standards in Table 1 to this subpart for EU-4 and EU-5 stationary Spark Ignited (SI) Internal Combustion Engine (ICE):

**Table 1 to Subpart JJJJ of Part 60 - NO<sub>x</sub>, CO and VOC Emission Standards for Stationary Non-Emergency SI Engines > 100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines > 25 HP**

Engine Type and Fuel	Maximum Engine Power	Manufacture Date	Emission standards <sup>(i)</sup>					
			g/hp-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>(ii)</sup>	NO <sub>x</sub>	CO	VOC <sup>(ii)</sup>
Landfill/Digester Gas Lean Burn	500 ≤ HP < 1,350	1/1/2008	3.0	5.0	1.0	220	610	80

Table 1 footnotes:

(i) Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15% O<sub>2</sub>

(ii) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

(b) In accordance with 40 CFR 60.4243(b)(2)(ii), the permittee must keep a maintenance plan and must to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emissions.

(c) In accordance with 40 CFR 60.4234, the permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233(e) over the entire life of the engine.

(d) In accordance with 40 CFR 60.4243(g), the permittee shall maintain and operate the AFR controller in order to ensure proper operation of the engine and control device to minimize emissions at all times.

(e) In accordance with 40 CFR 60.4245 (a)(1) and (2) of this section, the permittee shall keep records of Maintenance conducted on each SI engine. Records for a period of at least five years shall be maintained on-site and be made available to MassDEP and EPA representatives upon request.

(f) In accordance with 40 CFR 60.4243 (b)(2)(ii), the owner or operator shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance on each engine.

(g) In accordance with 40 CFR 60.8 and 40 CFR 60 Subpart JJJJ, the permittee shall conduct the initial performance test within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup.

(h) In accordance with 40 CFR 60.4244 (testing methods and procedures), the permittee shall follow the procedures:

1. As stated in 40 CFR 60.4244 (a), the permittee must comply with the requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified in Table 2 to Subpart JJJJ.

2. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however you must conduct the performance test immediately upon startup of the engine.

3. The permittee must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

4. To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation for each engine, the permittee shall convert the concentration of NO<sub>x</sub> in the engine exhaust using the following Equation No.1 (Eq. 1) as per 40 CFR 60.4244(d):

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

1.912 x 10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter @ 20°C.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr)

5. To determine compliance with the CO mass per unit output emission limitation, the permittee shall convert the concentration of CO in the engine exhaust using the following Equation No. 2 (Eq. 2) as per 40 CFR 60.4244(e):

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C<sub>d</sub> = Measured CO concentration in ppmv.

1.164 x 10<sup>-3</sup> = Conversion constant for ppm CO to grams per standard cubic meter @ 20°C.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

6. When calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, the permittee shall convert the concentration of VOC in the engine exhaust using the following Equation No. 3 (Eq. 3) as per 40 CFR 60.4244(f):

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C<sub>d</sub> = VOC concentration measured as propane in ppmv.

1.833 x 10<sup>-3</sup> = Conversion constant for ppm VOC measured as propane to grams per standard cubic meter @ 20 °C.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(i) In accordance with 60.4245 (d), the permittee must submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed.

(j) In accordance with 40 CFR 60.4245, the permittee must meet the following notification, reporting and recordkeeping requirements:

If the SI engines have not been certified by an engine manufacturer to meet the emission standards of 40 CFR 60.4231, the permittee must submit an initial notification as required in §60.7(a)(1). The notification must include the following information:

1. Name and address of the owner or operator;
2. The address of the affected source;
3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
4. Emission control equipment; and
5. Fuel used.

(k) In accordance with 40 CFR 60.4246, the permittee shall comply with the applicable General Provisions of 40 CFR 60 as specified in Operating Permit No. 4V07019, Special Terms and Conditions 5.B.(3) "Table 3 to Subpart JJJJ of Part 60 - Applicability of General Provisions to Subpart JJJJ".

**Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests**

As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

<b>For Each</b>	<b>Complying with the requirement to</b>	<b>You Must</b>	<b>Using</b>	<b>According to the following requirements</b>
1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244	a. limit the concentration of NO <sub>x</sub> in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A or ASTM Method D6522–00(2005) <sup>a</sup>	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005) <sup>a</sup>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture must be made at the same time as the measurement for NO <sub>x</sub> concentration.
		v. Measure NO <sub>x</sub> at the exhaust of the stationary internal combustion engine	(5) Method 7E of 40 CFR part 60, appendix A, Method D6522–00(2005) <sup>a</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) Results of this test consist of the average of the three 1-hour or longer runs.

**Table 2 (continued) to Subpart JJJJ of Part 60—Requirements for Performance Tests**

As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

For Each	Complying with the requirement to	You Must	Using	According to the following requirements
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A or ASTM Method D6522–00(2005) <sup>a</sup>	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005) <sup>a</sup>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.
		v. Measure CO at the exhaust of the stationary internal combustion engine	(5) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00(2005) <sup>a</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.

**Table 2 (continued) to Subpart JJJJ of Part 60—Requirements for Performance Tests**

As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

<b>For Each</b>	<b>Complying with the requirement to</b>	<b>You Must</b>	<b>Using</b>	<b>According to the following requirements</b>
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B <sup>b</sup> of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005) <sup>a</sup>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.
		v. Measure VOC at the exhaust of the stationary internal combustion engine	(5) Methods 25A and 18 of 40 CFR part 60, appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 or 40 CFR part 60, appendix A <sup>c,d</sup> , Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) Results of this test consist of the average of the three 1-hour or longer runs.

**Table 2 (continued) to Subpart JJJJ of Part 60—Requirements for Performance Tests**

**Table 2 Footnotes:**

<sup>a</sup> ASTM D6522–00 is incorporated by reference; see 40 CFR 60.17. Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

<sup>b</sup> You may use ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses, for measuring the O<sub>2</sub> content of the exhaust gas as an alternative to EPA Method 3B.

<sup>c</sup> You may use EPA Method 18 of 40 CFR part 60, appendix A, provided that you conduct an adequate presurvey test prior to the emissions test, such as the one described in OTM 11 on EPA’s Web site (<http://www.epa.gov/ttn/emc/prelim/otm11.pdf>).

<sup>d</sup> You may use ASTM D6420–99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic.



**Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ**

[As stated in §60.4246, you must comply with the following applicable General Provisions]

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4248.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

**C. Other:**

(1) In accordance with Revised Conditional Approval No. 4B05026 Proviso C.2., sound impacts shall not exceed 10 dB(A) above background and shall not cause a puretone condition as defined in MassDEP's DAQC Policy No. 90-001 (State-Only Requirement)

(2) In accordance with Revised Conditional Approval No. 4B05026 Proviso G.2., Revised Conditional Approval (4B05026) dated March 11, 2011 supersedes all previous Department approvals issued pursuant to Section 7.02 as contained in 310 CMR 7.00 Air Pollution Control Regulations.

**6. ALTERNATIVE OPERATING SCENARIOS**

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

**7. EMISSIONS TRADING**

(a) Intra-facility emission trading

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 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 MassDEP's web site,

<http://www.ma.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 permit. The report shall be postmarked or delivered by January 30 to 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:

- (i) The terms and conditions of the permit that are the basis of the certification;
- (ii) the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- (iii) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and,
- (iv) any additional information required by 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 MassDEP. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- (i) the terms and conditions of the permit that are the basis of the certification;
- (ii) the current compliance status during the reporting period;
- (iii) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- (iv) whether there were any deviations during the reporting period;
- (v) if there were any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- (vi) whether deviations in the reporting period were previously reported;
- (vii) if there were any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- (viii) if the deviations in the reporting period have returned to compliance and date of such return to compliance; and,
- (ix) any additional information required by 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 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 permit, the terms and conditions of this permit control.

- (b) 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:

- (i) the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.
- (ii) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
- (iii) 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 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 five (5) years after the 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 MassDEP's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by MassDEP on the renewal application.

In the event 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 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 MassDEP and/or EPA. The responsible official of the facility may request that MassDEP terminate the facility's operating permit for cause. 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 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 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 that 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 MassDEP a material error or omission in any records, reports, plans, or other documents previously provided to 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, liability between current and new Permittee has been submitted to MassDEP.

## **20. PROPERTY RIGHTS**

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

## **21. INSPECTION AND ENTRY**

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of 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 permit, including any amendments or attachments thereto, upon request by 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. EMERGENCY CONDITIONS**

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this permit as a result of an emergency<sup>2</sup>. 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;
- (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 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. PERMIT DEVIATION**

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 MassDEP's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- 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.
- 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.
- Exceedances or permit operational limitations directly correlated to excess emissions.
- 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.

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<sup>1</sup> 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.

<sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, 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.



- 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 Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts Department of Environmental Protection, Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via 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 preventive measures taken.

Deviations that were reported by telephone or fax 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 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. LEGEND OF ABBREVIATED TERMS IN OPERATING PERMIT

SSEIS ID	Stationary Source Emission Inventory Identification Number		
FMF FAC NO.	Facility Master File Facility Number		
FMF RO NO.	Facility Master File Regulated Object Number		
MW	Megawatts		
LFG	Landfill gas		
EU		Emission Unit	
Btu/hr			British
thermal units per hour			
TPY			Tons
per year (based on a consecutive 12-month period)			
NO <sub>x</sub>			Oxides
of nitrogen			
CO			Carbon
monoxide			
NMOC			Non-
methane organic compound			
VOC			Volatile
organic compound			
PM		Particulate matter	
SO <sub>2</sub>			Sulfur
dioxide			
CO <sub>2</sub>	Carbon dioxide		
HAP	Hazardous Air Pollutant		
lb/MMBtu		Pounds per million Btu	
HHV			Higher
heating value			
g/bhp-hr		Grams per brake horsepower-hour	
ppmvd			Parts
per million by volume, dry			
Btu/scf			British
thermal units per standard cubic foot			
%			Percent
<			Less
than			
>			Greater
than			
≤			Less
than or equal to			
≥			Greater
than or equal to			
RICE	Reciprocating Internal Combustion Engine (RICE)		
ft <sup>3</sup>	Cubic foot		
°C	Degrees Celsius		
°F	Degrees Fahrenheit		
EPA	U.S. Environmental Protection Agency		
U.S.C.	United States Code		
CFR	Code of Federal Regulations		
CMR	Code of Massachusetts Regulations		
§	Section		

O <sub>2</sub>	Oxygen	
PCD	Pollution Control Device	
MM m <sup>2</sup>	Million square meters	
MM Mg	Million Megagrams	
N/A		Not
Applicable		
IA	Insignificant activity	
FORTISTAR	FORTISTAR Methane Group	
FMG	FORTISTAR Methane Group	

### APPEAL CONDITIONS FOR OPERATING PERMIT

This permit is an action of 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 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. Additionally, the request must state why the permit is not consistent with applicable laws and regulations.

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.

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.