LANE REGIONAL AIR PROTECTION AGENCY  
1010 Main Street, Springfield, Oregon 97477  
(541) 736-1056

Standard  
AIR CONTAMINANT DISCHARGE PERMIT

Issued in accordance with provisions of Title 37, Lane Regional Air Protection Agency’s Rules and Regulations, and based on the land use compatibility findings included in the permit record.

Issued To:  
Equilon Enterprises LLC dba  
Shell Oil Products US (SOPUS)  
150 N. Dairy Ashford Road  
Houston, Texas 77079

Information Relied Upon:  
Renewal Application Number: 61237  
Date Received: February 8, 2016

Modification Application Number: 64258  
Date Received: September 28, 2018

Land Use Compatibility Statement:  
From: Lane County  
Dated: June 22, 2010

Fee Basis:  
Title 37, Table 1:  
Part B.25: Electric Power Generation from Combustion (excluding units used exclusively as emergency generators)  
Part B.48: Natural gas and oil production and processing and associated fuel burning equipment

Permitted Sources:  
1 Engine Generator, Biogas-fired  
4 Flares, Biogas/Gas-fired  
2 Boilers, 10 MMBtu/hr, Gas-fired  
2 Stand-by Generators, Gas-fired  
1 Baghouse  
2 Carbon Filters  
1 Ozone-UV Filter  
Biogas generation and upgrade system

Issued By:  
Merlyn L. Hough, Director

Effective Date: AUG 28 2019
Permitted Activities

1. Until this permit expires or is revoked, the permittee is herewith allowed to discharge exhaust gases containing contaminants only in accordance with the permit application and the requirements, limitations, and conditions contained in this permit. This specific listing of requirements, limitations, and conditions does not relieve the permittee from complying with all other rules of Lane Regional Air Protection Agency (LRAPA).

Emission Unit Description

2. The emission units regulated by this permit are the following:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Emission Unit Description</th>
<th>Pollution Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-1</td>
<td>Biogas-fired Generator, Combined Heat and Power manufactured by 2G/MWM in 2012, Rated at 1,550 ekW, (at 1800 rpm, 60Hz)</td>
<td>None</td>
</tr>
<tr>
<td>EU-2</td>
<td>Two (2) enclosed waste biogas flares</td>
<td>None</td>
</tr>
<tr>
<td>EU-3</td>
<td>Two (2) boilers, manufactured 2018, natural gas-fired, 10 MMBtu/hr</td>
<td>None</td>
</tr>
<tr>
<td>EU-4</td>
<td>Type 1 Feedstock Handling System</td>
<td>Baghouse, BH1</td>
</tr>
<tr>
<td>EU-5</td>
<td>Type 2 Feedstock Handling System</td>
<td>Carbon Filter, Odor Control</td>
</tr>
<tr>
<td>EU-6</td>
<td>Type 3 Feedstock Handling System</td>
<td>Ozone-UV, Odor Control</td>
</tr>
<tr>
<td>EU-7</td>
<td>Solid/Liquid Mixing Pump Unit Hoppers</td>
<td>Carbon Filter, Odor Control</td>
</tr>
<tr>
<td>EU-8</td>
<td>CO₂ Stripper Vessel, biogas upgrade vent</td>
<td>None</td>
</tr>
<tr>
<td>EU-9</td>
<td>Boiler #3, Propane, Stand-by</td>
<td>None</td>
</tr>
<tr>
<td>EU-10</td>
<td>Two (2) open waste biogas flares</td>
<td>None</td>
</tr>
<tr>
<td>Fugitive Emissions</td>
<td>Paved Road Dust</td>
<td>None</td>
</tr>
</tbody>
</table>

Categorically Insignificant Activities

- Dewatering Tank Vent
- Anaerobic digesters using green feedstock
- Diesel Storage Tank
- Four (4) Condensate Tanks
- Emergency (2) Stand-by generators, natural gas-fired, 250 KW each
- Fire pump engine, diesel-fired, 210 HP
Plant Site Emission Limits (PSELs)

3. The total emissions from the plant site must not exceed the following 12-month rolling limits: [LRAPA 42-0040]

### Annual Plant Site Emissions Limits (PSELs)
(tons/year)

<table>
<thead>
<tr>
<th>PM</th>
<th>PM$_{10}$</th>
<th>PM$_{2.5}$</th>
<th>SO$_2$</th>
<th>NO$_x$</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP</th>
<th>Total HAP</th>
<th>GHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>14</td>
<td>9</td>
<td>39</td>
<td>39</td>
<td>99</td>
<td>9</td>
<td>24</td>
<td>74,000</td>
<td></td>
</tr>
</tbody>
</table>

PSEL Monitoring and Compliance

4. The permittee must calculate the pollutant mass emissions listed in Condition 3, except for GHGs, on a 12-month rolling basis using the following equation for all processes: [LRAPA 42-0080(4)(c)]

\[
E = \sum_{i=1}^{12} \frac{EF \cdot P_i}{K}
\]

where,

- $E$ = Emissions in tons/year;
- $\Sigma$ = Symbol representing "summation of";
- $i$ = Month, beginning with the most recent, summing for 12 preceding, consecutive calendar months;
- $EF$ = Pollutant emissions factor (see Condition 23);
- $P$ = Process production (recorded per Condition 22);
- $K$ = Conversion factor of 2000 pounds per 1 ton.

Performance Standards and Limitations

5. The permittee must not allow emissions from any air contaminant source to equal or exceed 20 percent opacity for a period or periods aggregating more than three minutes in any one hour. [LRAPA 32-010(3)]

6. The permittee must ensure that particulate matter emissions from any air contaminant source, other than fuel burning equipment and fugitive emissions, that is installed, constructed or modified after April 16, 2015 do not exceed 0.10 grains per dry standard cubic foot. [LRAPA 32-015(2)(c)]

7. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified on or after June 1, 1970 but prior to April 16, 2015 must not exceed 0.14 grains per dry standard cubic foot, corrected to 12% CO$_2$ or 50% excess air. [LRAPA 32-030(1)(b)]
8. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified on or after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot, corrected to 12% CO$_2$ or 50% excess air. [LRAPA 32-030(2)]

EU-1 Biogas Generator Requirements

9. The combined heat and power generator in EU-1 must be tuned at least once per calendar year. The tune-up must include an inspection of the gas conditioning systems, including the desulfurization scrubbing towers and the carbon filter canisters. [LRAPA 32-007]

10. The permittee must operate the generator in EU-1 in accordance with the requirements specified in the Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE) NSPS (40 CFR 60 Subpart JJJJ).

   a. The engine must meet the following emission standards from Subpart JJJJ, Table 1 for landfill/digester gas engines with maximum engine power greater than or equal to 500 Hp and manufactured after July 1, 2010: [40 CFR 60.4233(f)(5)]

      i. NO$_x$ emissions must be less than 2.0 g/Hp-hr or 150 ppmvd at 15% O$_2$;

      ii. CO emissions must be less than 5.0 g/Hp-hr or 610 ppmvd at 15% O$_2$; and

      iii. VOC emissions must be less than 1.0 g/Hp-hr or 80 ppmvd at 15% O$_2$.

   For purposes of this condition, when calculating VOC emissions, emissions of formaldehyde should not be included.

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

   c. The permittee must conduct performance testing every 8,760 hours or 3 years, whichever comes first, to demonstrate compliance with the emission standards in Condition 10.a. [40 CFR 60.4243(b)(2)(iii)]

   d. All testing must be in accordance with the requirements and methods specified in 40 CFR 60.4244 and the Oregon DEQ Source Sampling Manual. [LRAPA 35-0120(3)]

EU-2 and EU-10 Waste Gas Flares Requirements

11. The permittee must operate the excess biogas flares in EU-2 and EU-10 in a manner to maximize efficiency, as follows: [LRAPA 32-007(1)]

   a. The flares must be operated with a continuous pilot flame, utilizing biogas or natural gas, when there is a demand to combusbt biogas. The pilot flame must be continuously monitored using a thermocouple, or equivalent device, and the monitoring procedures must be included in the O&M Plan required by Condition 16. The flame must be monitored for on/off status and for flame failure, and the system equipped with alarms to signal such events. If any excess emission events occur due to pilot flame ignition malfunction, then the flare must be operated with a continuous pilot flame regardless of the demand to combusbt biogas.

   b. The flares must be operated with supplemental fuel, either natural gas or propane, to assist biogas combustion unless the heating value of the biogas is 200 btu/scf or greater.
As necessary, the net heating value is determined by the method described in 40 CFR 60.18(f)(3).

c. The flares must be designed and operated with no visible emissions, as determined by EPA Method 22, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

EU-3 Boiler Requirements

12. The permittee must operate the boilers in EU-3 in accordance with the following reporting and recordkeeping requirement specified in the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units NSPS (40 CFR 60 Subpart Dc):

a. The permittee must record and maintain records of the amount of each fuel combusted during each calendar month. [40 CFR 60.48c(g)(2)]

EU-4 Baghouse Operation and Maintenance Requirements

13. The permittee must demonstrate continuous operation of the baghouse BH1 to control particulate matter emissions from the Type 1 Feedstock handling process while EU-4 is operating. To assure proper operation of the baghouse, the permittee must: [LRAPA 32-007(1)]

a. Document monthly pressure drop observations (in inches of water);

b. Conduct monthly inspections of all baghouses for wear, plugging, abrasion and integrity of mechanical and ancillary systems; and

c. Follow an LRAPA-approved parameter action level program for the baghouse in EU-4. The plan must be included with the Operation and Maintenance (O&M) Plan required by Condition 16.

EU-5, EU-6 and EU-7 Odor Control Systems Operation and Maintenance Requirements

14. The permittee must continuously operate the EU-5, EU-6 and EU-7 odor control systems unless an operational schedule is established and allowed under the Operation and Maintenance (O&M) Plan required by Condition 16. [LRAPA 32-007(1)]

15. The operation of the carbon filter or ozone-UV odor control systems must be in accordance with the excess emissions provisions in Conditions G11 through G18. [LRAPA Title 36]

Operation and Maintenance (O&M) Plan

16. The permittee must follow an O&M Plan for air pollution control devices at the facility and submit it to LRAPA for approval. The O&M Plan must include, but is not limited to, the following: [LRAPA 32-007]

a. Description of operating and maintenance procedures, including startup and shutdown, of air emission control equipment such as piping, ductwork, fans, carbon units, ozone generators, UV light, baghouse and flares. A schedule of control equipment inspections and routine maintenance must be provided in the O&M Plan.
b. Corrective actions that will be used in the event that the control equipment is not performing at the highest reasonable efficiency and effectiveness to minimize emissions.

c. Flow rates, temperatures, or other physical or chemical parameters related to the operation of air pollution control equipment and emission reduction processes.

d. An appendix containing example forms used to record inspections, maintenance, and corrective actions.

17. The O&M Plan must be reviewed by the permittee at least annually and updates must be submitted to LRAPA by March 15th each year. [LRAPA 32-007]

18. A log of inspections, routine maintenance, and corrective actions must be maintained by the permittee for a period of at least five (5) years. [LRAPA 32-007]

Categorically Insignificant Activity – Stand-by Generators

19. The permittee must operate the gas-fired stand-by generators in the Categorically Insignificant Activity emission unit in accordance with the requirements specified in the Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE) NSPS (40 CFR 60 Subpart JJJJ).

   a. The permittee must comply with the emission standards in Table 1 of the subpart for the stand-by stationary spark ignition internal combustion engines (SI ICE) in the Categorically Insignificant Activity emission unit: [40 CFR 60.4233(e)]

<table>
<thead>
<tr>
<th>Maximum Engine Power</th>
<th>Manufacture date</th>
<th>Emission Standards&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
</tr>
<tr>
<td>100≤HP&lt;500</td>
<td>1/1/2011</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<sup>a</sup>The permittee may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

b. The permittee must operate and maintain stationary SI ICE that achieve the emissions standards as required in Condition 19.a over the entire life of the engine. [40 CFR 60.4234]

c. The permittee must demonstrate compliance with Condition 19.a according to one of the methods specified in Conditions 19.c.i and Condition 19.c.ii below. [40 CFR 60.4243(b)]

   i. The permittee purchases an engine certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in Conditions 19.c.i.A or 19.c.i.B. [40 CFR 60.4243(b)(1)]

      A. If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer’s emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If
the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. [40 CFR 60.4243(a)(1)]

B. If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the permittee must demonstrate compliance according to Condition 19.c.i.B.a. [40 CFR 60.4243(a)(2)]

   a. The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test within one (1) year of engine startup to demonstrate compliance. [40 CFR 60.4243(a)(2)(ii)]

   ii. The permittee purchases a non-certified engine, demonstrating compliance with the emission standards specified in Condition 19.a according to the testing requirements specified in 40 CFR 60.4244, as applicable, and according to Condition 19.c.ii.A. [40 CFR 60.4243(b)(2)]

   A. The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance. [40 CFR 60.4243(b)(2)(i)]

   d. If the permittee is required to conduct a performance test per Conditions 19.c.i.B.a or 19.c.ii.A, the following procedures must be followed: [40 CFR 60.4244]

   i. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 to the subpart. [40 CFR 60.4244(a)]

   ii. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If the stationary SI internal combustion engine is non-operational, the permittee does not need to startup the engine solely to conduct a performance test; however, the permittee must conduct the performance test immediately upon startup of the engine. [40 CFR 60.4244(b)]

   iii. The permittee must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 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 one (1) hour. [40 CFR 60.4244(c)]

   iv. All testing must be in accordance with the requirements and methods specified in 40 CFR 60.4244 and the Oregon DEQ Source Sampling Manual. [LRAPA 35-0120(3)]
e. If the permittee purchases a non-certified engine or does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing as indicated in Conditions 19.c.i.B.a and 19.c.ii.A, but the permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [40 CFR 60.4244(f)]

f. The permittee may operate the stationary SI natural gas fired engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the permittee is required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. [40 CFR 60.4243(e)]

20. The permittee must keep records of the following information for all the stationary SI ICE in the Categorically Insignificant emission unit: [40 CFR 60.4245(a)]

   a. All notifications submitted to comply with the subpart and all documentation supporting any notification; [40 CFR 60.4245(a)(1)]

   b. Maintenance conducted on the engine; [40 CFR 60.4245(a)(2)]

   c. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable; and [40 CFR 60.4245(a)(3)]

   d. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4)]

Categorically Insignificant Activity – Fire Pump Engine

21. The diesel-fired fire pump engine in the Categorically Insignificant Activity emission unit must meet all applicable requirements for a fire pump engine and an “emergency stationary ICE” as defined in 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. [40 CFR 60.4219]

   a. The permittee must comply with following emissions standards from Table 4 of the subpart for the diesel-fired fire pump engine in the Categorically Insignificant Activity emission unit: [40 CFR 60.4205(c)]

<table>
<thead>
<tr>
<th>Maximum Engine Power</th>
<th>Model Year(s)</th>
<th>Emission Standards (g/HP-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NMHC+NOx</td>
</tr>
<tr>
<td>175&lt;HP&lt;300</td>
<td>2009+</td>
<td>3.0</td>
</tr>
</tbody>
</table>

   b. The permittee must use diesel fuel with a maximum sulfur content of 15 ppm, meeting the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [40 CFR 60.4207(b)]
c. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]

d. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor or the insurance company associated with the engine. Required maintenance and testing of such units is limited to 50 hours per year.

e. The permittee is prohibited from using the emergency stationary ICE for any non-emergency use including but not limited to peak shaving, demand response operation, and/or generation of income from the sale of power. To perform such an activity, the permittee must first obtain a modified permit that appropriately addresses and allows this activity. [40 CFR 60.4211(f)(3)]

f. The permittee 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 used for maintenance checks and readiness testing. [40 CRF 60.4214(b)]

Monitoring and Recordkeeping Requirements

22. **By the fifteenth (15th) day of each month**, the permittee must record the following information, maintain the records for a period of five (5) years at the plant site, and make the records available for inspection by authorized representatives of LRAPA upon request: [LRAPA 34-016 and 42-0080]

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Recordkeeping</th>
<th>Minimum Recording Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biogas Generator (EU-1)</td>
<td>Biogas burned in the engine generator (MMBtu)</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Hours of Operation for the engine generator (hrs)</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Maintenance performed in accordance with the Subpart JJJJ NSPS in Condition 10.b</td>
<td>Upon occurrence</td>
</tr>
<tr>
<td></td>
<td>Results of biogas fuel analysis for heat content and/or composition</td>
<td>Upon occurrence</td>
</tr>
<tr>
<td>Waste Biogas Flares, Enclosed (EU-2)</td>
<td>Biogas burned by the excess biogas flares (MMBtu)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Boilers (EU-3)</td>
<td>Natural gas burned in the boilers (cubic feet)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Stand-by Generator (Categorically Insignificant Activity)</td>
<td>Maintenance conducted</td>
<td>As performed</td>
</tr>
<tr>
<td></td>
<td>Maintenance Plan</td>
<td>Maintain current (non-certified engines only)</td>
</tr>
<tr>
<td></td>
<td>Propane usage (hours)</td>
<td>Upon occurrence</td>
</tr>
<tr>
<td>Emission Source</td>
<td>Recordkeeping</td>
<td>Minimum Recording Frequency</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Baghouse (EU-4)</td>
<td>Pressure drop readings (inches of water)</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Inspections as required by Condition 13.b</td>
<td>Monthly</td>
</tr>
<tr>
<td>Carbon Filter Odor Control (EU-5 and EU-7) Ozone–UV Odor Control (EU-6)</td>
<td>Updated and Reviewed O&amp;M Plan</td>
<td>Annually</td>
</tr>
<tr>
<td>Upgrade Vent (EU-8)</td>
<td>Hours of operation</td>
<td>Monthly</td>
</tr>
<tr>
<td>Boiler #3, Propane, Stand-by (EU-9)</td>
<td>Propane burned in the boilers (gallons)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Waste Biogas Flares, Open (EU-10)</td>
<td>Biogas burned by the gas upgrade start-up biogas flares (MMBtu)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Type 1 Feedstock, Type 2 Feedstock and Digestate Removal (Fugitive Emissions)</td>
<td>Number of loads received/outgoing</td>
<td>Annually</td>
</tr>
<tr>
<td>All Emission Units</td>
<td>Odor complaints received by the permittee</td>
<td>Upon occurrence</td>
</tr>
<tr>
<td></td>
<td>EPA Method 9 or Method 22 visible emission observations</td>
<td>As performed</td>
</tr>
</tbody>
</table>

23. The permittee must use the following emission factors to estimate emissions in accordance with Condition 4: [LRAPA 34-016 and 42-0080]

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Pollutant</th>
<th>Emission Factor</th>
<th>Emission Factor Units</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biogas Generator (EU-1)</td>
<td>PM/PM&lt;sub&gt;10&lt;/sub&gt;/PM&lt;sub&gt;2.5&lt;/sub&gt;</td>
<td>0.008</td>
<td>lb/MMBtu</td>
<td>Manufacturer</td>
</tr>
<tr>
<td></td>
<td>SO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>0.2395</td>
<td>lb/MMBtu</td>
<td>Source Gas Analyzer Data</td>
</tr>
<tr>
<td></td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>0.552</td>
<td>lb/MMBtu</td>
<td>ST Data 2014-2018</td>
</tr>
<tr>
<td></td>
<td>VOC&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0.017</td>
<td>lb/MMBtu</td>
<td>ST Data 2014-2018</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>0.554</td>
<td>lb/MMBtu</td>
<td>ST Data 2014-2018</td>
</tr>
<tr>
<td>Waste Gas Flares (EU-2 &amp; EU-10)</td>
<td>PM/PM&lt;sub&gt;10&lt;/sub&gt;/PM&lt;sub&gt;2.5&lt;/sub&gt;</td>
<td>17</td>
<td>lb/MMscf Methane</td>
<td>AP-42 Table 2.4-5</td>
</tr>
<tr>
<td></td>
<td>SO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>0.2395</td>
<td>lb/MMBtu</td>
<td>Source Gas Analyzer Data</td>
</tr>
<tr>
<td></td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>40</td>
<td>lb/MMscf Methane</td>
<td>AP-42 Table 2.4-5</td>
</tr>
<tr>
<td></td>
<td>VOC</td>
<td>0.084</td>
<td>lb/MMBtu Biogas</td>
<td>AP-42 Table 1.4-2</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>750</td>
<td>lb/MMscf Methane</td>
<td>AP-42 Table 2.4-5</td>
</tr>
<tr>
<td>Emission Unit</td>
<td>Pollutant</td>
<td>Emission Factor</td>
<td>Emission Factor Units</td>
<td>Reference</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>-----------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Boiler #1 &amp; Boiler #2</strong>&lt;br&gt;(EU-3)</td>
<td>PM/PM\textsubscript{10}/PM\textsubscript{2.5}</td>
<td>7.6</td>
<td>lb/MMscf</td>
<td>AP-42 Table 1.4-2</td>
</tr>
<tr>
<td></td>
<td>SO\textsubscript{x}</td>
<td>0.6</td>
<td>lb/MMscf</td>
<td>AP-42 Table 1.4-2</td>
</tr>
<tr>
<td></td>
<td>NO\textsubscript{x}</td>
<td>50</td>
<td>lb/MMscf</td>
<td>AP-42 Table 1.4-1</td>
</tr>
<tr>
<td></td>
<td>VOC</td>
<td>5.5</td>
<td>lb/MMscf</td>
<td>AP-42 Table 1.4-2</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>84</td>
<td>lb/MMscf</td>
<td>AP-42 Table 1.4-1</td>
</tr>
<tr>
<td><strong>Boiler #3</strong>&lt;br&gt;(EU-9)</td>
<td>PM/PM\textsubscript{10}/PM\textsubscript{2.5}</td>
<td>0.7</td>
<td>lb/\texttimes 10\textsuperscript{3} gallon</td>
<td>AP-42 Table 1.5-1</td>
</tr>
<tr>
<td></td>
<td>SO\textsubscript{x}</td>
<td>0.054</td>
<td>lb/\texttimes 10\textsuperscript{3} gallon</td>
<td>AP-42 Table 1.5-1</td>
</tr>
<tr>
<td></td>
<td>NO\textsubscript{x}</td>
<td>13</td>
<td>lb/\texttimes 10\textsuperscript{3} gallon</td>
<td>AP-42 Table 1.5-1</td>
</tr>
<tr>
<td></td>
<td>VOC</td>
<td>1.0</td>
<td>lb/\texttimes 10\textsuperscript{3} gallon</td>
<td>AP-42 Table 1.5-1</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>7.5</td>
<td>lb/\texttimes 10\textsuperscript{3} gallon</td>
<td>AP-42 Table 1.5-1</td>
</tr>
<tr>
<td><strong>Fugitive Emissions</strong>&lt;br&gt;(Type 1 Feedstock, Type 2 Feedstock, Facility Traffic)</td>
<td>PM</td>
<td>1.6388</td>
<td>lb/VMT</td>
<td>AP-42 13.2.1</td>
</tr>
<tr>
<td></td>
<td>PM\textsubscript{10}</td>
<td>0.3278</td>
<td>lb/VMT</td>
<td>AP-42 13.2.1</td>
</tr>
<tr>
<td></td>
<td>PM\textsubscript{2.5}</td>
<td>0.0804</td>
<td>lb/VMT</td>
<td>AP-42 13.2.1</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>0.45</td>
<td>VMT/load</td>
<td>Source Estimate</td>
</tr>
<tr>
<td><strong>Upgrade Vent</strong>&lt;br&gt;(EU-8)</td>
<td>VOC</td>
<td>0.31</td>
<td>lb/hr</td>
<td>Source Estimate</td>
</tr>
</tbody>
</table>

\(^1\text{NOTE:}\) Emission factors are not listed for the Categorically Insignificant Activity emission units since emissions from these types of activities are excluded from PSEL compliance monitoring. [LRAPA 42-0035(5)]

\(^2\text{NOTE:}\) VOC as defined in 40 CFR 51.100(s). For the purposes of Subpart JJJJ, when calculating emissions of VOC of EU-1, emissions of formaldehyde should not be included.

**Reporting Requirements**

24. **By March 15th of each year,** an annual report must be submitted with the information as required per Conditions 4, 17, 22, and G15. The annual report must also include greenhouse gas emissions calculations as required by OAR 340-215-0030. [LRAPA 34-016]

25. **Unless otherwise specified,** all reports, test results and notifications required by this permit must be submitted to the following office: [LRAPA 34-016]

Lane Regional Air Protection Agency  
1010 Main Street  
Springfield, Oregon 97477  
(541) 736-1056
Outdoor Burning

26. The permittee is prohibited from conducting outdoor burning, except as may be allowed by LRAPA Title 47. [LRAPA 47-001]

Fee Schedule

27. In accordance with adopted regulations, the permittee will be invoiced by October 1st of each year for the annual fees due December 1st of each year. [LRAPA 37-8020 Table 2]

KE/cmw
08/28/2019
ABBREVIATIONS, ACRONYMS AND DEFINITIONS

ACDP  Air Contaminant Discharge Permit
Btu   British thermal unit
CFR   Code of Federal Regulations
CO    Carbon monoxide
CO₂   Carbon dioxide
CO₂e  Carbon dioxide equivalent
DEQ   Oregon Department of Environmental Quality
dscf  Dry standard cubic foot of gas volume
EF    Emission factor
EPA   US Environmental Protection Agency
EU    Emission unit
FCAA  Federal Clean Air Act
GHG   Greenhouse gases
gr/dscf Grains per dry standard cubic foot (1 pound=7000 grains)
HAP   Hazardous Air Pollutant as defined by LRAPA Title 44
lb    Pound(s)
LRAPA Lane Regional Air Protection Agency
MM    Million
MMBtu Million British thermal units
N/A   Not applicable
NAICS North American Industry Classification System
NESHAP National Emissions Standards for Hazardous Air Pollutants
NOₓ   Nitrogen oxides
NSPS  New Source Performance Standard
NSR   New Source Review
O₂    Oxygen
OAR   Oregon Administrative Rules
ORS   Oregon Revised Statutes
O&M   Operation and maintenance
PM    Particulate matter
PM₁₀  Particulate matter less than 10 microns in size
PM₂.₅ Particulate matter less than 2.5 microns in size
ppm   Part per million
PSD   Prevention of Significant Deterioration
PSEL  Plant Site Emission Limit
PTE   Potential to Emit
scf   Standard cubic foot
SDS   Safety Data Sheet
SER   Significant Emission Rate
Short ton Equivalent to ton/year (1 short ton=2000 pounds)
SIC   Standard Industrial Code
SIP   State Implementation Plan
SO₂   Sulfur dioxide
TACT  Typically Achievable Control Technology
Type 1 Feedstock Yard and garden wastes, wood wastes, agricultural crop residues, wax-coated cardboard, vegetative food wastes; digestate from Type 1 feedstocks
Type 2 Feedstock Manure and bedding; also digestate from Type 2 feedstocks
Type 3 Feedstock Source-separated mixed food waste, meat, eggs, dairy products, mortality; also, digestate from Type 3 feedstocks
VE    Visible emissions
VOC   Volatile organic compound
year  A period consisting of any 12-consecutive calendar months
GENERAL PERMIT CONDITIONS

General Conditions and Disclaimers

G1. A copy of the permit application and this Air Contaminant Discharge Permit (ACDP) must be available on site for inspection upon request. [LRAPA 37-0020(3)]

G2. The permittee must allow the Director or his/her authorized representatives access to the plant site and pertinent records at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant discharge records and otherwise conducting necessary functions related to this permit in accordance with ORS 468.095. [LRAPA 13-020(1)(h)]

G3. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

Performance Standards and Emission Limits

G4. The permittee must not cause or permit the deposition of any particulate matter which is larger than 250 microns in size at sufficient duration and quantity, as to create an observable deposition upon the real property of another person. [LRAPA 32-055]

G5. The permittee must not discharge from any source whatsoever such quantities of air contamination which cause injury or damage to any persons, the public, business or property. Such determination to be made by LRAPA. [LRAPA 32-090(1)]

G6. The permittee must not cause or permit emission of water vapor if the water vapor causes or tends to cause detriment to the health, safety or welfare of any person or causes, or tends to cause damage to property or business. [LRAPA 32-090(2)]

G7. The permittee must not willfully cause or permit the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminants emitted, conceals emissions of air contaminants which would otherwise violate LRAPA rules. [LRAPA 32-050(1)]

G8. The permittee must not cause or permit the installation or use of any device or use of any means designed to mask the emissions of an air contaminant which causes or tends to cause detriment to health, safety or welfare of any person. [LRAPA 32-050(2)]

G9. The permittee must not allow any materials to be handled, transported, or stored; or a building, its appurtenances or road(s) to be used, constructed, altered, repaired, or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from being airborne. [LRAPA 48-015(1)]

G10. The permittee may not cause or allow air contaminants from any source subject to regulation by LRAPA to cause nuisance. [LRAPA 49-010(1)]

Excess Emissions: General Policy

G11. Emissions of air contaminants in excess of applicable standards or permit conditions are unauthorized and are subject to enforcement action, pursuant to LRAPA 36-010 and 36-030.
These rules apply to any permittee operating a source which emits air contaminants in violation of any applicable air quality rule or permit condition, including but not limited to excess emissions resulting from the breakdown of air pollution control devices or operating equipment, process upset, startup, shutdown, or scheduled maintenance. Sources that do not emit air contaminants in excess of any applicable rule or permit condition are not subject to the recordkeeping and reporting requirements in LRAPA Title 36. Emissions in excess of applicable standards are not excess emissions if the standard is in an NSPS or NESHAP and the NSPS or NESHAP exempts startups, shutdowns and malfunctions as defined in the applicable NSPS or NESHAP. [LRAPA 36-001(1)]

Excess Emissions: Notification and Record-keeping

G12. For all other excess emissions not addressed in LRAPA Sections 36-010, 36-015, or 36-040, the following requirements apply: [LRAPA 36-020(1)]

a. The owner or operator, of a small source, as defined by LRAPA 36-005(7), need not notify LRAPA of excess emissions events immediately unless otherwise required by permit condition, written notice by LRAPA, or if the excess emission is of a nature that could endanger public health.

b. Notification must be made to the LRAPA office. The current LRAPA telephone number during regular business hours (8 a.m. - 5 p.m., M-F) is (541) 736-1056. During nonbusiness hours, weekends, or holidays, the permittee must immediately notify LRAPA by calling the LRAPA Upset/Complaint Line. The current number is (541) 726-1930.

c. Follow-up reporting, if required by LRAPA, must contain all information required by Condition G15.

G13. At each annual reporting period specified in this permit, or sooner if required by LRAPA, the permittee must submit a copy of the upset log entries for the reporting period, as required by Condition G15. [LRAPA 36-025(4)(a)]

G14. Any excess emissions which could endanger public health or safety must immediately be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.

G15. The permittee must keep an upset log of all planned and unplanned excess emissions. The upset log must include the following: [LRAPA 36-025(3) and 36-030(1)]

a. date and time each event was reported to LRAPA;

b. whether the process handling equipment and the air pollution control equipment were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

c. whether repairs or corrections were made in an expeditious manner when the permittee knew or should have known that emission limits were being or were likely to be exceeded;

d. whether the event was one in a recurring pattern of incidents which indicate inadequate design, operation, or maintenance; and

e. final resolution of the cause of the excess emissions.

Upset logs must be kept by the permittee for five (5) calendar years. [LRAPA 36-025(3)]
Excess Emissions: Scheduled Maintenance

G16. If the permittee anticipates that scheduled maintenance of air contaminant sources or air pollution control devices may result in excess emissions, the permittee must obtain prior LRAPA authorization of procedures that will be used to minimize excess emissions. Application for approval of procedures associated with the scheduled maintenance must be submitted and received by LRAPA in writing at least seventy-two (72) hours prior to the event. The application must include the following: [LRAPA 36-015(1)]

a. reasons explaining the need for maintenance, including but not limited to: why the maintenance activity is necessary; why it would be impractical to shut down the source operation during the maintenance activity; if applicable, why air pollution control devices must be by-passed or operated at reduced efficiency during the maintenance activity; and why the excess emissions could not be avoided through better scheduling for maintenance or through better operation and maintenance practices;

b. identification of the specific production or emission control device or system to be maintained;

c. identification of the nature of the air contaminants likely to be emitted during the maintenance period, and the estimated amount and duration of the excess emissions, including measures such as the use of overtime labor and contract services and equipment that will be taken to minimize the length of the maintenance period; and

d. identification of specific procedures to be followed which will minimize excess emissions at all times during the scheduled maintenance.

G17. No scheduled maintenance associated with the approved procedures in Condition G16 that is likely to result in excess emissions may occur during any period in which an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency has been declared, or during an announced yellow or red woodstove advisory period, in areas determined by LRAPA as PM\(_{2.5}\) or PM\(_{10}\) nonattainment areas. [LRAPA 36-015(6)]

G18. In cases where LRAPA has not received notification of scheduled maintenance that is likely to cause excess emissions within the required seventy-two (72) hours prior to the event, or where such approval has not been waived pursuant to LRAPA 36-015(3), the permittee must immediately notify LRAPA by telephone of the situation, and must be subject to the requirements of Conditions G12 and G13. [LRAPA 36-015(7)]

Air Pollution Emergencies

G19. The permittee must, upon declaration of an air pollution alert, air pollution warning, or air pollution emergency, take all emission reduction measures specified in Tables 1, 2, and 3 of LRAPA Title 51. Permittees responsible for a source of air contamination within a Priority I AQCR must, upon declaration of an episode condition affecting the locality of the air contamination source, take all appropriate actions specified in the applicable table and must take all appropriate actions specified in an LRAPA-approved preplanned abatement strategy for such condition which has been submitted and is on file with LRAPA. [LRAPA 51-015]

Notification of Construction/Modification

G20. The permittee must notify LRAPA in writing using an LRAPA “Notice of Intent to Construct” form, or other permit application forms and obtain approval in accordance with LRAPA 34-010 and 34-
034 through 34-038 before:

a. constructing, installing or establishing a new stationary source that will cause an increase in regulated pollutant emissions
b. making any physical change or change in the operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. constructing or modifying any pollution control equipment.

Notification of Name Change

G21. The permittee must notify LRAPA in writing, using an LRAPA Application for Administrative Amendment to ACDP form, within 60 days after legal change of the registered name of the company with the Corporation Division of the State of Oregon. [LRAPA 37-0030(4)]

Applicable administrative fees must be submitted with an application for the name change.

Permit Renewal

G22. Application for renewal of this permit must be submitted not less than 120 days prior to the permit expiration date for Simple ACDPs, and 180 days prior to the permit expiration date for Standard ACDP. [LRAPA 37-0040(2)(b)]

G23. A source may not be operated after the expiration date of a permit, unless any of the following occur prior to the expiration date of the permit: [LRAPA 37-0082(1)(a)]

a. A timely and complete application for renewal or for an LRAPA Title V Operating Permit has been submitted; or
b. Another type of permit, ACDP or Title V, has been issued authorizing operation of the source.

G24. For a source operating under an ACDP or LRAPA Title V Operating Permit, a requirement established in an earlier ACDP remains in effect notwithstanding expiration of the ACDP, unless the provision expires by its terms or unless the provision is modified or terminated according to the procedures used to establish the requirement initially. [LRAPA 37-0082(1)(c)]

G25. Any permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. [LRAPA 37-0040(4)]

Termination Conditions

G26. This permit will be automatically terminated upon: [LRAPA 37-0082(2)]

a. Issuance of a renewal or new ACDP for the same activity or operation;
b. Written request of the permittee, if LRAPA determines that a permit is no longer required;
c. Failure to submit a timely application for permit renewal. Termination is effective on the permit expiration date; or;
d. Failure to pay annual fees within 90 days of invoice by LRAPA, unless prior arrangements for payment have been approved in writing by LRAPA.

G27. If LRAPA determines that a permittee is in noncompliance with the terms of the permit, submitted false information in the application or other required documentation, or is in violation of any applicable rule or statute, LRAPA may revoke the permit. LRAPA will provide notice of the intent to revoke the permit to the permittee under LRAPA Title 31. The notice will include the reasons why the permit will be revoked, and include an opportunity for the permittee to request a contested case hearing prior to the revocation. A written request for hearing must be received by LRAPA within 60 days from service of the notice on the permittee, and must state the grounds of the request. The hearing will be conducted as a contested case hearing under ORS 183.413 through 183.470 and LRAPA Title 14. The permit will continue in effect until the 60th day after service of the notice on the permittee, if the permittee does not timely request a hearing, or until a final order is issued if the permittee timely requests a hearing. [LRAPA 37-0082(4)(a)]

G28. A permit automatically terminated under LRAPA 37-0082(2)(b) through (2)(d) may only be reinstated by the permittee by applying for a new permit. The permittee must also pay the applicable new source permit application fees in this title unless the owner or operator submits the renewal application within three months of the permit expiration date. [LRAPA 37-0082(3)]

G29. If LRAPA finds there is a serious danger to the public health, safety or the environment caused by a permittee’s activities, LRAPA may immediately revoke or refuse to renew the permit without prior notice or opportunity for a hearing. If no advance notice is provided, notification will be provided to the permittee as soon as possible as provided under LRAPA Title 31. The notification will set forth the specific reasons for the revocation or refusal to renew and will provide an opportunity for the permittee to request a contested case hearing for review of the revocation or refusal to renew. A permittee’s written request for hearing must be received by LRAPA within 90 days of service of the notice on the permittee and must state the grounds for the request. The hearing will be conducted as a contested case hearing under ORS 183.413 through 183.470 and LRAPA Title 14. The revocation or refusal to renew becomes final without further action by LRAPA if a request for a hearing is not received within the 90 days. If a request for a hearing is timely received, the revocation or refusal to renew will remain in place until issuance of a final order. [LRAPA 37-0082(4)(b)]

G30. Any hearing requested must be conducted pursuant to the rules of LRAPA. [LRAPA Title 14]

Asbestos

G31. The permittee must comply with the asbestos abatement requirements in LRAPA Title 43 for all activities involving asbestos-containing materials, including, but not limited to, demolition, renovation, repair, construction, and maintenance. [LRAPA Title 43]

[Revised 1/12/18]