New Mexico
ENVIRONMENT DEPARTMENT
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505
Phone (505) 476-4300
Fax (505) 476-4375
www.env.nm.gov

AIR QUALITY BUREAU
NEW SOURCE REVIEW PERMIT
Issued under 20.2.72 NMAC

Note to Applicant for Draft Permit Reviews: The AQB permit specialist provides this draft permit to the applicant as a courtesy to assist AQB with developing practically enforceable permit terms & conditions and correcting any technical errors. Please note that the draft permit may change following completion of the Department’s internal reviews. If AQB makes additional changes, and as time allows, the applicant may be provided an opportunity for additional review before the permit is issued.

Certified Mail No: Draft, revised 8-23-18
Return Receipt Requested

NSR Permit No: 3275-M2
Facility Name: Four Peaks Energy, LLC

Owner: Four Peaks Energy, LLC
Operator: ENGERGYneering Solutions, Inc

Mailing Address: 15820 Barclay Drive
Sisters, OR 97759

TEMPO/IDEA ID No: 24483-PRN20180001
AIRS No: 35 0130046

Permitting Action: Significant Permit Revision
Source Classification: Title V Facility

Facility Location: 1000 Camino Real Rd,
Sunland Park, NM
County: Doña Ana

Air Quality Bureau Contact Cember Hardison
Main AQB Phone No. (505) 476-4300
Liz Bisbey-Kuehn  Date
Bureau Chief
Air Quality Bureau
TABLE OF CONTENTS

Part A  FACILITY SPECIFIC REQUIREMENTS ................................................................. 4
A100  Introduction ........................................................................................................... 4
A101  Permit Duration (expiration) ................................................................................ 4
A102  Facility: Description ............................................................................................... 4
A103  Facility: Applicable Regulations .......................................................................... 5
A104  Facility: Regulated Sources ................................................................................... 6
A105  40 CFR 60, Subpart WWW and Cf LFG Control Requirements ......................... 6
A106  Facility: Emission Limits ........................................................................................ 6
A107  Facility: Allowable Startup, Shutdown, & Maintenance (SSM) pph and tpy Limits ... 7
A108  Limits on Operating Hours – Not Applicable ....................................................... 7
A109  Facility: Reporting Schedules ................................................................................ 7
A110  Facility: Fuel and Fuel Sulfur Requirements – See Section A601 ......................... 7
A111  Facility: 20.2.61 NMAC Opacity ......................................................................... 7

EQUIPMENT SPECIFIC REQUIREMENTS ................................................................. 8

Landfill Gas to Energy Facility .......................................................................................... 8
A600  Landfill Gas to Energy Facility (LFGTE) .............................................................. 8
A601  Generator Engines ................................................................................................. 8
A602  LFG Pre-Treatment, LFG Fuel Requirements, and Fuel Monitoring, Bypass Valve 10

PART B  GENERAL CONDITIONS (Attached)

PART C  MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)
PART A FACILITY SPECIFIC REQUIREMENTS

A100 Introduction

A. This permit, NSR 3275-M2, supersedes all portions of Air Quality Permit NSR 3275M1R1 issued 12-28-2006, except portions requiring compliance tests. Compliance test conditions from previous permits, if not completed, are still in effect, in addition to compliance test requirements contained in this permit.

B. Fee Requirement: This permit is not effective until the Department receives the permit fee specified in the attached invoice. Pursuant to 20.2.75.12 NMAC, the permittee shall pay this invoice no later than thirty (30) days after the permit issue date (invoicing), unless the Department has granted an extension. The permit fee must be paid by this date regardless of the permittee’s intended use or non-use of the permit or of the Department’s cancellation of the permit. The permittee’s failure to pay this fee when due will automatically void the permit and the Department may initiate enforcement action to collect the fee and assess a civil penalty for non-payment.

A101 Permit Duration (expiration)

A. The term of this permit is permanent unless withdrawn or cancelled by the Department.

A102 Facility: Description

A. The function of the facility is to generate up to 3.2 MW of commercial electric power using landfill gas to fuel two Caterpillar engine-run generators.

B. This facility is located at 1000 Camino Real Blvd, Sunland Park, Doña Ana County, New Mexico.

C. Purpose of Permit Application: The existing permit requires a control device, called an oxidation catalyst, that is used to reduce Carbon Monoxide (CO) emissions from the engines. However, oxidation catalysts don’t work when landfill gas is used as fuel. Therefore, they are requesting to remove the requirement to reduce CO emissions with a control device which will result in an increase in CO emission limits. The emission limits of the other pollutants are lower based on more accurate information. The facility also has a new owner and operator, Four Peaks Energy LLC and ENERGYneering Solutions Inc who specialize in this industry.

D. Tables 102.A and Table 102.B show the total potential emission rates (PER) from this facility for information only. This is not an enforceable condition and excludes emissions from Minor NSR exempt activities per 20.2.72.202 NMAC.
Table 102.A: Total Potential Emission Rate (PER) from Entire Facility

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions (tons per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen Oxides (NOx)</td>
<td>39.7</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>182.7</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
<td>43.3</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>11.3</td>
</tr>
<tr>
<td>Total Suspended Particulates (TSP)</td>
<td>7.6</td>
</tr>
<tr>
<td>Particulate Matter 10 microns or less (PM₁₀)</td>
<td>7.6</td>
</tr>
<tr>
<td>Particulate Matter 2.5 microns or less (PM₂.₅)</td>
<td>7.6</td>
</tr>
<tr>
<td>Hydrogen Sulfide (H₂S)</td>
<td>0.0</td>
</tr>
<tr>
<td>Lead</td>
<td>0.0</td>
</tr>
<tr>
<td>Greenhouse Gas (GHG) as CO₂e</td>
<td>38,058.9</td>
</tr>
</tbody>
</table>

* Hazardous air pollutants (HAPs) emissions that are also VOCs are included in the VOC emissions listed in Table 102.A.

Table 102.B: Total Potential Emissions Rate (PER) for Hazardous Air Pollutants (HAPs) that exceed 1.0 ton per year

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions (tons per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total HAPs**</td>
<td>0.25</td>
</tr>
</tbody>
</table>

** HAP emissions are already included in the VOC emission total. Total HAPs emissions listed in Table 102.B do not include HAPs that are also VOCs. HAPs that are also VOCs are included in the VOC emissions in Table 102.A.

A103 Facility: Applicable Regulations

A. The permittee shall comply with all applicable sections of the requirements listed in Table 103.A.

Table 103.A: Applicable Requirements

<table>
<thead>
<tr>
<th>Applicable Requirements</th>
<th>Federally Enforceable</th>
<th>Unit No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.2.1 NMAC General Provisions</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.3 NMAC Ambient Air Quality Standards</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.7 NMAC Excess Emissions</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.61 NMAC Smoke and Visible Emissions</td>
<td>X</td>
<td>E1 and E2</td>
</tr>
<tr>
<td>20.2.70 NMAC Operating Permits</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.71 NMAC Operating Permit Fees</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.72 NMAC Construction Permit</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.75 NMAC Construction Permit Fees</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>20.2.77 NMAC New Source Performance</td>
<td>X</td>
<td>Units subject to 40 CFR 60</td>
</tr>
<tr>
<td>20.2.82 NMAC MACT Standards for Source Categories of HAPS</td>
<td>X</td>
<td>Units subject to 40 CFR 63</td>
</tr>
</tbody>
</table>
Table 103.A: Applicable Requirements

<table>
<thead>
<tr>
<th>Applicable Requirements</th>
<th>Federally Enforceable</th>
<th>Unit No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR 50 National Ambient Air Quality Standards</td>
<td>X</td>
<td>Entire Facility</td>
</tr>
<tr>
<td>40 CFR 60, Subpart A, General Provisions</td>
<td>X</td>
<td>Gas Pre-Treatment System</td>
</tr>
<tr>
<td>40 CFR 60, Subpart WWW</td>
<td>X</td>
<td>Gas Pre-Treatment System</td>
</tr>
<tr>
<td>40 CFR 60, Subpart Cf</td>
<td>X</td>
<td>Gas Pre-Treatment System</td>
</tr>
<tr>
<td>40 CFR 63, Subpart A</td>
<td>X</td>
<td>E1 and E2</td>
</tr>
<tr>
<td>40 CFR 63, Subpart ZZZZ</td>
<td>X</td>
<td>E1 and E2</td>
</tr>
</tbody>
</table>

A104 Facility: Regulated Sources

A. Table 104.A lists the emission units authorized for this facility. Emission units identified as exempt activities (as defined in 20.2.72.202 NMAC) and/or equipment not regulated pursuant to the Act are not included.

Table 104.A: Regulated Sources List

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>Source Description</th>
<th>Make</th>
<th>Model</th>
<th>Serial No.</th>
<th>Construction/Reconstruction Date</th>
<th>Manufacture Date</th>
<th>Manufacturer Rated Capacity Equals Permitted Capacity</th>
</tr>
</thead>
</table>

A105 40 CFR 60, Subpart WWW and Cf LFG Control Requirements

A. The Landfill Gas (LFG) pre-treatment system is an approved LFG control device pursuant to 40 CFR 60, Subpart WWW, to eventually be replaced by Subpart Cf. The permittee shall operate the LFG pre-treatment system pursuant to 60.752(b)(2)(iii)(C) (WWW) or 60.33f(c)(3) and (4) (Cf).

A106 Facility: Emission Limits


Table 106.A: Allowable Emissions

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>NOX ppm</th>
<th>NOX tpy</th>
<th>CO ppm</th>
<th>CO tpy</th>
<th>VOC ppm</th>
<th>VOC tpy</th>
<th>SO2 ppm</th>
<th>SO2 tpy</th>
<th>TSP ppm</th>
<th>TSP tpy</th>
<th>PM10 ppm</th>
<th>PM10 tpy</th>
<th>PM2.5 ppm</th>
<th>PM2.5 tpy</th>
<th>H2S ppm</th>
<th>H2S tpy</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>4.5</td>
<td>20.0</td>
<td>20.9</td>
<td>91.4</td>
<td>4.9</td>
<td>21.7</td>
<td>1.3</td>
<td>5.6</td>
<td>0.9</td>
<td>3.8</td>
<td>0.9</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
Table 106.A: Allowable Emissions

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>NOx₁ pph</th>
<th>NOx₁ tpy</th>
<th>CO pph</th>
<th>CO tpy</th>
<th>VOC pph</th>
<th>VOC tpy</th>
<th>SO₂ pph</th>
<th>SO₂ tpy</th>
<th>TSP pph</th>
<th>TSP tpy</th>
<th>PM₁₀ pph</th>
<th>PM₁₀ tpy</th>
<th>PM₂·₅ pph</th>
<th>PM₂·₅ tpy</th>
<th>H₂S pph / tpy</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2</td>
<td>4.5</td>
<td>20.0</td>
<td>20.9</td>
<td>91.4</td>
<td>4.9</td>
<td>21.7</td>
<td>1.3</td>
<td>5.6</td>
<td>0.9</td>
<td>3.8</td>
<td>0.9</td>
<td>3.8</td>
<td>0.9</td>
<td>3.8</td>
<td>0</td>
</tr>
</tbody>
</table>

1. Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.
2. For Title V facilities, the Title V annual fee assessments are based on the sum of the ton per year emission limits in Section A106.
3. To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110F.

B. Engine Units E1 and E2 are subject to emissions standards at 40 CFR 63.6603(a), Table 2.d, requirement 13. The permittee shall ensure that the units comply with these emissions standards in 40 CFR 63, Subpart ZZZZ.

A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM) pph and tpy Limits

A. Separate allowable Neither pound per hour nor ton per year SSM emission limits are not required for this facility since emission rates during SSM events are equal to or less than the limits in Table 106.A. The permittee shall maintain records in accordance with the requirements Condition B109.C(1) and (4) for emission limits listed in Table 106.A.

A108 Limits on Operating Hours – Not Applicable

A. This facility is authorized for continuous operation. The permittee is not required to monitor, record, or report operating hours.

A109 Facility: Reporting Schedules

A. The permittee shall report according to the Specific Conditions and General Conditions of this permit.

A110 Facility: Fuel and Fuel Sulfur Requirements – See Section A601

A111 Facility: 20.2.61 NMAC Opacity

A. 20.2.61 NMAC Opacity Limit (Units E1 and E2)

Requirement: Visible emissions from Units E1 and E2 emission stacks shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.

Monitoring:

(1) At least once each calendar quarter Any time visible emissions are observed from an...
engine's emissions stack after startup mode, the permittee shall monitor for visible emissions from each engine’s combustion stack for at least 12 minutes according to EPA Method 22 in 40 CFR 60, Appendix A or the permittee shall monitor the percent opacity using EPA Reference Method 9 in 40 CFR 60, Appendix A for at least 10 minutes pursuant to 20.2.61.114 NMAC.

(2) Alternative to completing an EPA Method 22 or 9 observation, if visible emissions are observed after completion of engine startup, the operator may shut down the unit to perform maintenance or repair to eliminate the visible emissions.

(a) Following completion of equipment maintenance or repair, the operator shall conduct visible emission observations for at least 12 minutes using EPA Method 22 or measure opacity using EPA Method 9 for at least 10 minutes.

(3) For the purposes of this condition, Startup mode is defined as the startup period that is described in the facility’s startup plan.

Recordkeeping:
(1) The permittee shall keep records in accordance with the requirements of Section B109 and as follows:
   (a) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.
   (b) For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.
   (c) Anytime an engine is shut down for maintenance or repair when visible emissions are observed.

Reporting: The permittee shall report in accordance with Section B110.

EQUIPMENT SPECIFIC REQUIREMENTS

LANDFILL GAS TO ENERGY FACILITY

A600 Landfill Gas to Energy Facility (LFGTE)

   A. This section applies to common equipment found at Landfill Gas to Energy Facilities (SIC-4911).

A601 Combustion Generator Engines

   A. 40 CFR 63, Subpart ZZZZ (Units E1 and E2)

Requirement:
Engines E1 and E2 are subject to the following MACT ZZZZ emissions standards at 63.6603(a), Table 2.d, item 13 and the permittee shall ensure compliance with these standards:

(a) Change oil and filter every 1,440 hours of operation or annually, whichever comes first;
(b) Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and
(c) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

(2) The permittee shall also develop a work or management practices plan (i) according to the manufacturer’s emission related operating and maintenance; or (ii) develop and follow your own maintenance plan meeting the requirements in 63.6640, Table 6, number 9.

(3) The permittee shall minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes (63.6625(h)).

Monitoring: The permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including at 63.6625(c) that states “if you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel.

In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.”

Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.10, 63.6655, and 63.6660.

Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart A and ZZZZ, including but not limited to 63.6645, 63.6650(a), Table 7 number 2, 63.9, and 63.10.

B. Periodic Emissions Tests for NOx and CO (Units E1 and E2)

Requirement: The permittee shall demonstrate compliance with the NOx and CO emission limits in Table 106.A by completing periodic emission tests on engines E1 and E2.

Monitoring:

(1) The permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements.
(2) Emission testing is required for NOx and CO.
(3) Testing frequency shall be once per calendar year.

Commented [CH4]: ENERGYneering Solutions may complete the portable analyzer tests using their own equipment. Pre-test notification for periodic tests are not required unless requested by AQ&R per General Condition B111.C(6) The portable analyzer SOP on the AQ&R’s website does not apply to this permit. That SOP applies to older permits that reference the SOP in the permit.
(4) The first periodic test shall occur within the first calendar year occurring after completing the initial compliance tests required at A601.C.

(5) Each periodic test shall occur no closer than three months apart.

(6) The permittee shall follow the General Testing Procedures of Section B111.

**Recordkeeping:** The permittee shall maintain records in accordance with Section B109, B110, and B111.

**Reporting:** The permittee shall report in accordance with Section B109, B110, and B111.

### C. Initial Compliance Tests for NOx, CO, and VOCs (Units E1 and E2)

**Requirement:**

(1) Within 180 days of the issue date of permit number By June 1, 2019, the permittee shall demonstrate compliance with the NOx, CO, and VOC emission limits in Table 106.A by performing initial compliance tests on Engines E1 and E2. This time frame is needed to allow the gas flow rate to stabilize after completion of the upgrades to Camino Real’s Gas Collection and Control System and time for adjustments and repairs to Engines E1 and E2 necessary to operate on the adjusted gas flow rate and composition.

(4)(2) Condition B111.A(2) time frame does not apply since these units are operating.

- ii) Request extension via admin

**Monitoring:**

(1) The permittee shall perform initial compliance tests for NOx, CO, and VOCs according to the initial compliance and general testing requirements in Section B111.

(4) The monitoring exemptions of Section B108 do not apply to these compliance test requirements.

**Recordkeeping:** The permittee shall maintain records in accordance with the applicable Sections in B109, B110, and B111.

**Reporting:** The permittee shall report in accordance with the applicable Sections in B109, B110, and B111.

### D. Compliance with Engine SOx Emission Limits (Units E1 and E2) – To demonstrate compliance with the SOx emission limits in Table 106.A for Units E1 and E2, the permittee shall limit the total reduced fuel sulfur content to the limit required in Condition A602.AB.

A602 **LFG Pre-Treatment, LFG Fuel Requirements, and Fuel Monitoring, Bypass Valve**

A. 40 CFR 60, Subparts WWW and Cf (Landfill Gas Pre-Treatment System and LFG Bypass Requirements)
**Requirement:**

1. To demonstrate compliance with emission limits for Units E1 and E2 in Table 106.A and 40 CFR 60, Subparts WWW and Cf, the permittee shall meet the requirements of this condition.

2. The Landfill Gas (LFG) pre-treatment system is an approved LFG control device pursuant to 40 CFR 60, Subpart WWW, to eventually be replaced by Subpart Cf.

3. The permittee shall operate the LFG pre-treatment system pursuant to 60.752(b)(2)(iii)(C) (NSPS WWW) or 60.33f(c)(3) and (4) NSPS (Cf).

4. At no time shall the permittee vent LFG directly to the atmosphere, including through the pre-treatment system bypass valve. If LFG must be vented, it shall be routed to an LFG control system described in 40 CFR 60.752 (b)(2)(iii) (A) or (B) or 60.33f(c)(1) and (2).

4.5 Pursuant to 60.755(e) The provisions of 40 CFR 60, subpart WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 1 hour for treatment or control devices.

**Monitoring:** The permittee shall demonstrate compliance with monitoring requirements at 40 CFR 60.39f(g).

**Recordkeeping:** These records requirements are found at 40 CFR 60.39f(b)(5) (NSPS Cf) and apply regardless if the LFG pre-treatment system is subject to this regulation.

The permittee shall keep the following records of the LFG pre-treatment system to demonstrate compliance with pursuant to LFG treatment systems at 60.39f(b)(5) (NSPS Cf):

1. Bypass records. Records of the flow of landfill gas to, and bypass of, the treatment system. 60.39f(b)(5) (ii) Site-specific treatment monitoring plan, to include:
   
   A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.
   
   B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.
   
   C) Documentation of the monitoring methods and ranges, along with justification for their use.
   
   D) Identify who is responsible (by job title) for data collection.
   
   E) Processes and methods used to collect the necessary data.
   
   F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

**Reporting:** The permittee shall report according to Section B110. Reports are not required by 40 CFR 60, Subparts WWW or Cf.
B. Landfill Gas (LFG) Pre-Treatment, Gas Analysis, and Fuel Sulfur Limit

**Requirement:**

1. To demonstrate compliance with the SO2 emission limits in Table 106.A and ensure efficient combustion in the units, engines E1 and E2 shall combust only pre-treated landfill gas (LFG) containing no more than 47,345 ppmv of total reduced sulfur (S).

2. This permit does not authorize supplemental fuel, such as propane. Only pre-treated LFG shall be used.

3. The permittee shall maintain and calibrate the LFG Pre-Treatment system according to Condition A602.A that incorporates the requirements in 40 CFR 60, Subpart CF.

**Monitoring:**

1. Within 180 days of issuance of permit number 3275-M2, the permittee shall complete an extended gas analysis of the post-treated LFG that measures the quantity of reduced sulfur compounds, non-methane organic compounds (NMOC), VOCs, metals, and siloxanes.

   The gas analysis shall also include the heat rate of the fuel, in British Thermal Units (BTU).

2. Subsequent extended gas analyses measuring total sulfur content shall be completed at least once every two calendar years.

**Recordkeeping:** Records shall be kept of the LFG fuel test reports and gas analysis results.

**Reporting:** The permittee shall report in accordance with Section B110.

C. LFG Fuel Flow and Heat Content Monitoring

**Requirement:**

To ensure efficient combustion of the LFG, the permittee-pre-treatment system shall be equipped with an electronic data system that measures the flow rate and methane or heat content of the post-treated LFG. Fuel flow rate to each engine in cubic feet (cf) and shall use a gas analyzer to measure the heat content of the LFG fuel.

To provide a consistent and sufficient heat content of the LFG fuel, the LFG fuel system shall be capable of automatically adjusting the fuel flow rate to offset changes in CH4 concentration.

**Monitoring:** The permittee shall monitor the LFG fuel flow rate to the engines and the concentrations of CH4, O2, and CO2 methane or the heat content of the fuel.

**Recordkeeping:**

Every seven days, the permittee shall calculate and record the hourly, average fuel flow rate and the hourly, average concentrations of CH4, O2, and CO2.

The average fuel flow rate shall be calculated using the fuel flow total over 7 days, divided by the number of operating hours over seven days (cf/hour = cf/week / number of operating hours/week). The average concentrations shall be 

Each month, the permittee shall record the monthly rolling 12-month total fuel flow rate...
(cf/year) and the average concentrations of CH\textsubscript{4}, O\textsubscript{2}, and CO\textsubscript{2} during the month. The permittee shall keep electronic records of the LFG fuel flow rate, methane or heat content, and records when engines were shut down.

**Reporting:** The permittee shall report in accordance with Section B110.

**Reporting:** The permittee shall report according to Section B110.

**PART B**  GENERAL CONDITIONS (Attached)

**PART C**  MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)