DRAFT PERMIT

PERMITTEE:

Okeechobee Landfill, Inc.
c/o Waste Management Inc. of Florida
2700 Wiles Road
Pompano Beach, Florida 33073

Responsible Official:
Tim Hawkins, Vice President, South Area

Air Permit Modification No. 0930104-018-AC
Modifies and Replaces Air Permit No. 0930104-014-AC
Expires: June 30, 2015
PSD-FL-382A
SIC No. 4953
Okeechobee Landfill (OL)
Landfill Gas to Energy Project

PROJECT AND LOCATION:

This is the final modified air construction permit for a landfill gas (LFG) to energy (LFGTE) project at the Okeechobee Landfill (OL) in Okeechobee County, Florida. The OL is located at 10800 N.E. 128th Avenue, Okeechobee County, Florida. The OL UTM coordinates are Zone 17; 530.28 kilometer (km) East and 3023.96 km North.

This final permit modification is organized into the following sections: Section 1 - General Information; Section 2 - Administrative Requirements; Section 3 - Emissions Unit Specific Conditions; and, Section 4 - Appendices. Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix CF of Section 4 of this permit.

STATEMENT OF BASIS:

This air pollution construction permit modification is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. The project was previously reviewed in accordance with the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality, including a determination of Best Available Control Technology (BACT).

Upon issuance of this final permit modification, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida
For the Division of Air Resource Management

_____ _____
(Signature) (Date)

_____
(Printed Name of Above Designee)

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit Modification package (including the Final Determination and the Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on _____ to the persons listed below.

Tim Hawkins, Waste Management of Florida, Inc.: thawkins@wm.com
Heather Abrams, U.S. EPA Region 4: abrams.heather@epa.gov
Kathleen Forney, U.S. EPA Region 4: forney.kathleen@epa.gov
Dee Morse, National Park Service, Denver CO: dee_morse@nps.gov
Lennon Anderson, DEP SED: lennon.anderson@dep.state.fl.us
David Buff, Golder Associates, Inc.: dbuff@golder.com
Vickie Gibson, DEP BAR Reading File: victoria.gibson@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

_____ _____
(Clerk) (Date)

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SECTION I – GENERAL INFORMATION

FACILITY DESCRIPTION

Okeechobee Landfill, Inc. ~~(OLI, a Waste Management Company)~~ has operated a municipal solid waste (MSW) landfill in Okeechobee County since 1981. The 4,150 acre site contains the existing Berman Road landfill, the Clay Farms landfill and additional auxiliary services. The property boundary extends south to State Road (SR) 70 and east into neighboring St. Lucie County.

The presently active part of the landfill comprises ~~208~~ 309 acres. The total acreage for which solid waste permits have been issued comprises ~~847~~ 948 acres. Methane-rich LFG produced from the decomposition of waste materials placed in the active landfill is collected by a LFG collection system (LFGCS). The collected LFG is then flared. The facility is currently operating under Title V air permit No. 0930104-016-AV.

PROPOSED PROJECT

The permit requires construction of a LFG gas desulfurization plant (GDP) for existing LFG and flares and authorizes the future installation of a LFGTE plant using desulfurized LFG as fuel in combustion turbine generators (CTG) with back up open flares.

In addition, as a result of this project, the LFGCS will be expanded and the existing system of flares will be shut down and replaced by an expanded system of open back up flares in a central flaring area.

As a result of these changes, significant pollutant emission increases will occur for nitrogen oxides (NO_X), sulfur dioxide (SO_2), carbon monoxide (CO), and particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}).

~~This LFGTE project affects the following existing~~ The existing facility is comprised of the following emissions units (EU) at the OL.

Facility ID No. 0930104	
EU ID No.	**Emission Unit Description**
001	Municipal solid waste landfill with LFGCS.
003	Enclosed flare with a capacity of 3,000 scfm, including a leachate evaporation unit.
004	Backup open flare with a capacity of 2,800 scfm.
005	Enclosed flare with a capacity of 3,000 scfm, including a leachate evaporation unit.
006/CD*-04	Temporary open flare with a capacity of 3,300 scfm for odor control.
007/CD*-05	Temporary open flare with a capacity of 3,000 scfm for odor control. Not Constructed.

* Control Device (CD) number is used by the company to identify their flares.

The table on the following page is a list of the changes planned to the existing EU at the OL as well as the new EU authorized by this permit. ~~In the table, EU in underlined text represents new emissions units addressed by this permit.~~ EU 003, 004 and 005 will be deactivated as a result of this project.

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ARMS EU ID No.	New Emission Unit Description
001	Municipal solid waste landfill with LFGCS and GDP.
003	Existing enclosed flare with a capacity of 3,000 standard cubic feet per minute (scfm) and including a leachate evaporation unit. To be ultimately deactivated.
004	Existing backup open flare with a capacity of 2,800 scfm. To be ultimately deactivated.
~~004~~ ~~(004A)~~ ~~(004B)~~	~~Existing open backup flare with a capacity of 2,800 scfm to be relocated and replaced by two 1,500 scfm open flares (004A, 004B). Initially only 004A will be installed.~~
005	Enclosed flare with a capacity of 3,000 (scfm) and including a leachate evaporation unit. To be ultimately deactivated.
006/CD*-04	Temporary open flare with a capacity of 3,300 scfm for odor control. Deactivated.
007/CD*-05	Temporary open flare with a capacity of 3,000 scfm for odor control. Not constructed.
~~006~~ 008	New open flare with a total capacity of ~~3,000~~ 1,500 scfm. ~~In lieu of temporary odor control flare.~~ Initial installation.
~~007~~ 009	New open flare with a total capacity of 3,000 scfm. ~~In lieu of temporary odor control flare.~~ Initial installation.
~~008~~ 010	New open flare with a total capacity of 3,000 scfm. Initial installation.
~~009~~ 011	New open flare with a total capacity of 3,000 scfm. Initial installation.
012	New open flare with a total capacity of 3,000 scfm. Initial installation.
~~016~~ 013	One 15 MW Model Solar Titan 130 (T-130) CTG. Initial installation.
~~017-019~~ 014 – 016	Three 3.5 MW Model Solar Centaur 40 (C-40) CTG. Initial installation.

REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C., PSD.
- The facility is subject to 40 CFR 60 for New Source Performance Standards (NSPS) under Section 111 of the CAA.
- The facility is subject to 40 CFR 63 for National Emissions Standards for Hazardous Air Pollutants (NESHAP) under Section 112 of the Clean Air Act.

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SECTION II ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Air Resource Section of the Department's Southeast District Office, 400 North Congress Avenue, Suite 200, West Palm Beach, FL 33401.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Southeast District Office. The mailing address of the Southeast District Office is 400 North Congress Avenue, Suite 200, West Palm Beach, FL 33401 and the phone number is 561-681-6600.

3. Existing Permits: Unless otherwise specified, these conditions are in addition to all other applicable air permit conditions and regulatory requirements. The permittee shall continue to comply with the conditions of previous permits, which include other restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, record keeping, reporting, etc for the existing emissions units. The permittee shall continue to comply with all applicable conditions from valid air construction and Title V operation permits. [Application No. 0930104-014-AC and Rule 62-4.070 (3), F.A.C.]

4. Appendices: The following Appendices are attached as a part of this permit and must be complied with by the permittee:
   a. Appendix A: NSPS Subpart A and NESHAP Subpart A - Identification of General Provisions;
   b. Appendix AAAA: NESHAP Subpart AAAA for Municipal Solid Waste Landfills;
   c. Appendix CC: Common Conditions;
   d. Appendix CCD: Common Control Devices – Flares;
   ~~e. Appendix CEMS: Continuous Emissions Monitoring System (CEMS) Requirements;~~
   f. Appendix CF: Citation Formats and Glossary of Common Terms;
   g. Appendix CTR: Common Testing Requirements;
   h. Appendix GC: General Conditions;
   i. Appendix H_2S: Protocol for Daily Sampling to Measure H_2S Concentration in LFG;
   j. Appendix KKKK: NSPS Subpart KKKK – Requirements for Gas Turbines and Duct Burners;
   k. Appendix SC: Standard Conditions;
   l. Appendix WWW: NSPS Subpart WWW – for Municipal Solid Waste Landfills; and,
   m. Appendix YYYY: NESHAP Subpart YYYY Requirements for Gas Turbines.

5. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

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7. Installation of GDP Required: The Department finds good cause requiring the permittee to conform to new or additional conditions. Therefore, the permittee is required to install and operate by ~~December 31, 2011~~ June 30, 2012 a GDP such that all collected LFG shall be treated to a concentration less than or equal to 200 parts per million by volume (ppmv) of hydrogen sulfide (H_2S) ~~by volume (ppmv)~~ or 210 ppmv of total sulfur (TS) as determined by ~~a H_2S~~ continuous ~~emission~~ fuel monitor~~ing system~~ (~~CEMS~~CFM) prior to combustion whether or not the permittee builds a LFGTE plant.
[Rules 62-212.400, 62-4.070(3) and 62-4.080(1)(a), (b) and (c), F.A.C.]

8. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

9. Source Obligation:

   (a) The permittee is required to install and operate a GDP whether or not ~~a~~ CTG and flares are constructed. Authorization to construct the CTG and additional flares shall expire if within 18 months after receipt of this permit, their construction has not commenced; if construction is discontinued for a period of 18 months or more unless authorized by the Permitting Authority, or if construction is not completed within a reasonable time as defined by the Permitting Authority. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit or by written approval by the Department.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

10. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to each Compliance Authority.
[Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

{Permitting Note: The Title V Renewal Application Due Date is February 22, 2013, whereas this permit expires June 30, 2015. The described Title V Renewal Application should also include those emissions units for which the required work has been completed and have commenced operation. A subsequent application for a Title V operation permit revision should be submitted in accordance with the requirements given in the above paragraph.}

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11. Unconfined Emissions of Particulate Matter: No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter. Reasonable precautions include the following: a) Paving and maintenance of roads, parking areas and yards; b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing; c) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities; d) Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne; e) Landscaping or planting of vegetation; f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter; g) Confining abrasive blasting where possible; and, h.) Enclosure or covering of conveyor systems. In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice. [Rule 62-296.320(4)(c), F.A.C.]
12. Excess Emissions: Except as required by specific conditions of this permit dealing with excess emissions with regard to individual emission units, the following conditions apply to excess emissions at the OL.
    a. Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
    b. Malfunction: Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
    c. Department Discretion: Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
    d. Department Notification: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

    [Rule 62-210.700, F.A.C.]
13. Objectionable Odors Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
    [Rule 62-296.320(2), F.A.C. and Rule 62-4.070, F.A.C. Reasonable Assurance]

    {Permitting Note: An objectionable odor is defined in Rule 62-210.200(Definitions), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.}
14. Open Burning Prohibited: No person shall ignite, cause to be ignited, or permit to be ignited, any material which will result in any prohibited open burning as regulated by chapter 62-256, F.A.C.; nor shall any person suffer, allow, conduct or maintain any prohibited open burning.
    [Rule 62-256.300, F.A.C.]

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SUBSECTION A. MUNICIPAL SOLID WASTE LANDFILL, GDP AND LFGCS (EU 001)

The Specific Conditions listed in this subsection apply to the following emission unit:

EU ID NO.	EMISSION UNIT DESCRIPTION
001	Okeechobee Landfill (OL): The OL comprises two landfills sites, the Berman Road landfill and the Clay Farms landfill. Each landfill is subject to Air and Solid Waste regulations. This Air Permit regulates only air pollutant emissions from the OL. The Solid Waste permits regulate among other requirements the capacity, disposal rate and the number of cells constructed. A summary of the OL follows: • Berman Road Landfill: This is an existing emission unit ~~208~~ 309 acres in size. ~~This emission unit is expected to be closed by 2012.~~ Clay Farm Landfill: This is a new 639 acre landfill located in another portion of the overall existing stationary source. ~~This landfill is expected to be open by 2012. The maximum solid waste disposal rate at this landfill is specified at 7,000 TPD in the Solid Waste Permit No. 0247963-001-SC.~~ • GDP Plant: The OL is required to construct and operate a GDP plant to reduce H_2S concentrations in the LFG prior to its combustion. • LFGCS: The system used to collect the LFG prior to combustion in CTG or backup flares. The existing LFGCS will be expanded as a result of this project.

CONSTRUCTION

1. GDP: The permittee is required to install and operate by ~~December 31, 2011~~ June 30, 2012 a GDP such that all collected LFG shall be treated to a concentration less than or equal to 200 ppmv H_2S ~~(12 gr S/100 SCF)~~ or 210 ppmv of TS prior to combustion whether or not the permittee builds a LFGTE plant. [Rules 62-212.400, 62-4.070(3) and 62-4.080(1)(a), (b) and (c), F.A.C.]
2. LFGCS: By ~~December 31, 2011~~ June 30, 2012 all LFG generated at the OL shall be collected at a sufficient extraction rate, while minimizing off-site migration of subsurface gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 3 years or more. [Rules 62-212.400 (PSD), 62-210.200 (BACT), 62-4.070 (3) and 62-296.320(2), F.A.C.]

   {Permitting Note: The time requirement of 3 years based on BACT and odor control and is more stringent than the 5 year time requirement in 40 CFR 60, Subpart WWW.}

PERFORMANCE RESTRICTIONS

3. LFGCS Capacity: The permitted capacity of the LFGCS is 13,500 scfm on a 30 day rolling average basis. [Application No. 0930104-014-AC and Rules 62-212.400 and 62-4.070 (3), F.A.C]

   {Permitting Note: The 13,500 scfm of LFG flow is the maximum permitted flowrate, the LFGCS is capable of collecting more than 13,500 scfm of LFG, if available. The permitted flowrate of LFG is 13,500 scfm on a 30 day rolling average basis.}

4. GPD Capacity: The maximum permitted capacity of the GDP is 32,500 scfm of LFG on a 30 day rolling average basis ~~(see **Condition 15a** of Appendix CEMS for definition of 30 day rolling average)~~. [Application No. 0930104-014-AC and Rules 62-212.400 and 62-4.070 (3), F.A.C].

   {The permittee may construct a GDP of sufficient size to treat LFG throughout the projected lifetime of the OL even though the permitted capacity of the LFGCS is lower. Compliance shall be determined after each operating day by calculating the arithmetic average of all the valid hourly averages from that operating day and the prior 30-1 operating days.}

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5. ~~Restricted~~ Operation: The hours of operation of this emissions unit with regard to the GDP and LFGCS are not limited (8,760 hours per year).
[Application No. 0930104-014-AC and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS LIMITATIONS

6. H_2S or TS Concentration: The H_2S or TS concentration in the LFG after it is treated by the GDP shall not exceed 200 ppmv ~~(12 gr S/100 scf)~~ of H_2S or 210 ppmv of TS prior to combustion. The H_2S or TS content of the landfill gas shall be monitored in accordance with specific **Conditions ~~7 and~~ 8** of this subsection.
[Rules 62-212.400 and 62-4.070(3), F.A.C.]

MONITORING REQUIREMENTS

7. LFG Monitoring: The permittee shall comply with the monitoring requirements of 40 CFR 60 Subpart WWW. [Rules 62-4.070 (3) F.A.C. and 40 CFR Part 60, Subpart WWW]

8. H_2S- ~~Continuous Monitoring System (CEMS)~~ or TS-CFM: The permittee shall install a H_2S- ~~CEMS~~ or TS-CFM to continuously monitor and record the concentration of H_2S or TS in the LFG after it is processed by the GDP and before it is combusted in the CTG or the backup flares.

   a. The ~~CEMS~~ CFM shall be calibrated, maintained, and operated according to the manufacturer specifications.

   b. The LFG may be monitored at only one location if monitoring at this location accurately represents the concentration of H_2S or TS in the LFG being combusted. The applicant shall notify the Compliance Authority of the ~~CEMS~~ CFM location(s) 90 days before installation of the ~~CEMS~~ CFM.

   c. Within 30 days of initial startup of H_2S or TS ~~CEMS~~ CFM (or startup of any new or replacement H_2S or TS ~~CEMS~~ CFM), the performance evaluations for this H_2S or TS ~~CEMS~~ CFM shall be done using ~~Performance Specification 7~~ the manufacturer's specifications and procedures. ~~EPA Methods 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.~~

   d. When the CFM is not available, the permittee shall implement the alternative procedures described in Appendix H_2S to demonstrate compliance with H_2S concentration limits in **Condition 6** above and **Subsection B, Condition 6**. The permittee shall follow the sampling requirements of § 60.4360 and § 60.4370 to demonstrate compliance with the TS concentration limits **Condition 6** above and **Subsection B, Condition 6** when the CFM is unavailable.

   e. The H_2S or TS-CFM may be used to demonstrate compliance with the SO_2 emission limits applicable to the CTG (EU 13, 14, 15 and 16) provided the CFM meets the fuel monitoring requirements for CTG given in **Subsections C and D** of this permit.

   [Design; Rules 62-210.200 (BACT) and 62-4.070(3), F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

9. GDP Reports and Records: The permittee shall maintain the following reports and records on a monthly basis and submit a summary report to the compliance authority no later than 45 days after ~~each calendar month~~ the end of each calendar-quarter: total daily and monthly gas flow rates in scfm; average daily and monthly H_2S or TS concentration in the processed (cleaned) LFG in ppmv; and any GDP malfunctions and their cause along with the corrective actions taken. [Rules 62-4.070 (3) and 62-210.200 (BACT), F.A.C.]

10. H_2S or TS LFG Concentration Exceedance: If an exceedance of the allowed H_2S concentration of 200 ppmv or the allowed TS concentration of 210 ppmv from the 'cleaned' LFG from the GDP occurs, based on a 30 day rolling average, the following information must be reported within 7 days of the exceedance to the Compliance Authority:

    - The date that the exceedance occurred;

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- An explanation of the exceedance;
- A description of the action taken, if any;
- For any periods for which monitoring data are not available, any changes made in operation of the ~~CEMS~~ CFM system during the period of data unavailability which could affect the ability of the system to record the applicable H_2S or TS concentration limit. Operations of the ~~CEMS system~~ CFM and affected facility during periods of data unavailability are to be compared with operation of the ~~CMS system~~ CFM and affected facility before and following the period of data unavailability; and,
- A written statement, signed by a responsible official, certifying the accuracy and completeness of the information contained in the report.

[Rules 62-4.070 (3) and 62-210.200 (BACT), F.A.C.]

11. Reporting Requirements: At least five (5) working days prior to the completion of construction of the emissions source(s) authorized under this Permit, the owner/operator shall provide written notice to the Compliance Authority of the completion of the construction and its intent to commence operation. The notice shall specify when the construction will be completed and when the facility owner or operator expects to commence operation. [Rules 62-4.070 (3) F.A.C.]

12. Records and Reports. The permittee shall maintain a record of any information required by this Permit. Such records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request. [Rules 62-4.070 (3) F.A.C.]

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SUBSECTION B. OPEN FLARES (EU 004~~4~~8, 00~~6~~9, 0~~07~~10, 0~~08~~11, and 00~~9~~12)

The Specific Conditions listed in this subsection apply to the following emission units:

EU ID NO.	FLARES EMISSION UNIT DESCRIPTION
00~~4~~8	1,500 scfm Open Utility Flare
00~~6~~9	3,000 scfm Open Utility Flare
0~~07~~10	3,000 scfm Open Utility Flare
0~~08~~11	3,000 scfm Open Utility Flare
0~~09~~12	3,000 scfm Open Utility Flare

Operation of the flares described in this subsection shall meet all the applicable requirements specified in Appendix CCD of this permit.
[Application No. 0930104-014-AC and Rules 62-210.200(PTE), F.A.C., 62-212.400 and 62-4.070 (3), F.A.C.]

FLARES INSTALLATION AND CONSTRUCTION

1. Flares Installation and Construction: The permittee is authorized to install one 1,500 scfm open flare and four 3,000 scfm open flares ~~with a continuous pilots and combustion chambers~~ to combust LFG as necessary prior to the construction of and as ~~to~~ backup to the CTG that will combust the LFG to generate electrical power. The continuous presence of flare ~~pilot~~ flames shall be monitored using thermocouples or any other equivalent device to detect the presence of a flame pursuant to 40 CFR 60.756(c)(1).
[Application Nos. 0930104-014-AC and 0930104-018-AC; 40 CFR 60.756(c)(1); Rules 62-210.200(PTE), 62-212.400 and 62-4.070 (3), F.A.C]

2. Flare Design: Unless otherwise indicated, the construction and operation of the flares shall be in accordance with the capacities and specifications stated in Application No. 0930104-014-AC and shall comply with the minimum requirements of 40 CFR 60.18 and 40 CFR 60, Subpart WWW. [Rule 62-210.300, F.A.C.]

PERFORMANCE RESTRICTIONS

3. Shutdown of Existing Flares: ~~Ninety days before construction commences on the new flares authorized by this permit, the permittee shall submit to the Compliance Authority a flare shutdown plan detailing the schedule of how the existing flares will be shutdown as the new flares are constructed. Construction of the new flares cannot commence until the flare shutdown plan is approved by the Compliance Authority.~~ The permittee shall notify the Compliance Authority 7 days before each existing flare~~s~~ is shutdown and removed in accordance with the approved flare shutdown plan. This permit does not regulate existing flares while still in operation. The existing flares are regulated by the current Title V air permit. [Rule 62-4.070 (3) F.A.C]

4. Permitted Capacity: The maximum permitted capacities of the new flares are: 1,500 scfm of LFG for EU 00~~4~~8 and 3,000 scfm of LFG for EU 00~~6~~9, 0~~07~~10, 0~~08~~11 and 0~~09~~12.
[Rule 62-210.200(PTE), F.A.C. and Rule 62-4.070 (3) F.A.C.]

5. ~~Restricted~~ Operation: The hours of operation of these emission units are not limited (8,760 hours per year). ~~However, the flares may only be operated when the CTG are unavailable due to maintenance or malfunction or when LFG flow rate is insufficient to support operation of a CTG.~~
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

6. Flare H_2S or TS Limits: Only treated LFG containing no more than 200 ppmv of H_2S or 210 ppmv of TS on a 30 day rolling average shall be combusted in the flares.
[Rules 62-4.070(3), 62-212.400 (BACT) and 62-210.200(PTE), F.A.C.]

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SUBSECTION B. OPEN FLARES (EU 0048, 0069, 0071~~0~~, 0081~~1~~, and 0091~~2~~)

REGULATIONS

7. NSPS Requirements: These emissions units are subject to 40 CFR 60.18: General Control Devices" (see Appendix CCD of this permit), other applicable sections of 40 CFR 60, Subpart A (See Appendix A of this permit), and applicable provisions of 40 CFR 60 Subpart WWW (see Appendix WWW of this permit). [Rules 62-204.800, 62-210.300, F.A.C., and 40 CFR 60 Subparts WWW and A]

EMISSIONS STANDARDS

8. Visible Emissions (VE) Standard: The flares shall be designed for and operated with no visible emissions ~~(VE)~~ as determined by the methods specified in paragraph 40 CFR 60.18 (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
[Rules 62-4.070 (3) and 62-212.400 (BACT), F.A.C. and 40 CFR 60.18]

TESTING AND MONITORING REQUIREMENTS

9. VE Compliance Tests: New open flares shall be tested to demonstrate initial compliance with the VE standard given in **Condition 8** above no later than 180 days after initial operation and during each federal fiscal year (October 1st to September 30th) thereafter. The EPA Method 22 VE compliance test shall be used to determine the compliance of the flares with the VE standard. [Rule 62-4.070(3), F.A.C.]

10. Continuous Monitoring Devices: Proper devices for the continuous monitoring and recording of the total LFG flow rate and flame ~~temperature~~ presence at each flare, shall be installed prior to the collection and combustion of the LFG. Pursuant to 40 CFR 60.756(c), ~~T~~the permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

    (1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

    (2) A device that records flow to or bypass of the flare. The owner or operator shall either:

        (i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

        (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

    ~~(3) Flare alarm or auto dialer to notify the operator in case of a flare malfunctions or emergency.~~

    [Rule 62-4.070 (3) F.A.C. and 40 CFR 60.756(c)]

11. Flame Presence ~~Visual~~ Inspection Monitoring: Flares shall be operated with a flame present at all times as determined by the methods specified in 40 CFR 60.18(f). The permittee shall continuously monitor the presence of a flame with the flare operation. ~~The owner or operator shall perform a visual inspection of the flare on a daily basis.~~ Pursuant to 40 CFR 60.758(c)(4), for each flare, the permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under 40 CFR 60.756(c) and up-to-date readily accessible records of all periods of operation in which the flame or flare pilot flame is absent. [Rule 62-4.070 (3) F.A.C.; 40 CFR 60.18 and 40 CFR 60, Subpart WWW]

12. Flare Heat Content and Tip Velocity Specification: In accordance with 40 CFR 60.18(c)(3), for each open flare, the owner or operator of this facility shall select to adhere to the heat content specifications of 40 CFR 60.18(c)(3)(ii) or the maximum tip velocity specifications of 40 CFR 60.18(c)(4) or adhere to the requirements of 40 CFR 60.18(c)(3)(i). If the owner or operator decides to change the selected flare operating specification then the Compliance Authority shall be notified in writing within ten (10) calendar days of the change.

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13. Inspection and Maintenance of the Flares: The owner or operator shall conduct inspection and maintenance of the flares in accordance with the requirements of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA. ~~inspect all flare components on a monthly basis. Monitoring of the condensate pump shall be performed on a monthly basis. Maintenance of the flare and condensate pump on a quarterly basis. All gas monitoring equipment shall be calibrated on an as needed basis. If any problems are found during an inspection or maintenance, then the problem(s) and corrective action(s) taken shall be listed in the report. The inspection and maintenance reports shall be kept on site and made available to Department's Southeast District Office upon request. [Rule 62-4.070 (3) F.A.C., 40 CFR 60.756 (c)]~~ [40 CFR 60, Subpart WWW and 40 CFR 63, Subpart AAAA]

14. Flare Startup, Shutdown and Malfunction~~s~~ Plan ~~and Emergencies~~: In accordance with 40 CFR 60, Subpart WWW and 40 CFR 63, Subparts A and AAAA, a startup, shutdown and malfunction (SSM) plan shall be part of this facility. ~~When this facility is in operation, an on-site flare alarm or an auto dialer shall be maintained in working order at all times that notifies the appropriate on-site personnel the flare is out of service. Response to the alarm or auto dialer shall occur within eight (8) hours of receiving the alert. If the flare cannot be brought back online within ten (10) hours of the alert, the owner or operator shall notify the Department's Southeast District Office within 24 hours. All appropriate measures shall also be taken to limit emissions until the flare is again operating properly.~~
[~~Rule 62-4.070 (3) F.A.C.~~ 40 CFR 63.6 (e)(3) and 40 CFR 63.1955(c)]

15. Stack Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix CTR (Common Testing Requirements) of this permit.
[Rule 62-297.310(7)(a)9, F.A.C.]

16. Stack Test Methods: Any required stack tests shall be performed in accordance with the following methods:

Method	Description of Method and Comments
EPA 22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares, 2 Hour Duration

17. Work Practice: Good combustion practices will be utilized at all times to ensure emissions from the flare system are minimized. Therefore, all operators ~~and supervisors~~ shall be properly trained to operate and ensure maintenance of this system in accordance with the guidelines and procedures established by the manufacturer. The training shall include good operating practices as well as methods for minimizing excess emissions. [Rules 62-4.070(3) F.A.C.]

18. LFG Flow Rate: The permittee is required to record the total gas flow rate in scfm to each flare on a monthly average basis and measure the H_2S or ~~sulfur~~ TS content of the LFG on a 30 day rolling average basis, and report the flow rate and H_2S or ~~sulfur~~ TS results ~~monthly~~ quarterly to the Compliance Authority. [Rule 62-4.070(3) F.A.C.]

RECORDS AND REPORTS

19. Records: The permittee shall ~~record in a written log the duration of each flare event and the reason for flaring. If requested by the Compliance Authority, the permittee shall provide a copy of these records or a summary of these records~~ maintain records pursuant to the requirements of 40 CFR 63, Subparts A and AAAA and 40 CFR 60, Subpart WWW. ~~[Rule 62-4.070(3), F.A.C.]~~

20. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix CTR (Common Testing Requirements) of this permit.
[Rule 62-297.310(8), F.A.C.]

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SUBSECTION B. OPEN FLARES (EU 0048, 0069, 0071~~0~~, 0081~~1~~, and 0091~~2~~)

21. Reporting Requirements: At least five (5) working days prior to the completion of construction of the source(s) authorized under this Permit, the owner/operator shall provide written notice to the Department's Southeast District Office of its intent to commence operation. The notice shall specify when the construction will be completed and when the facility owner or operator expects to commence operation. [Rules 62-4.070 (3) F.A.C.]

22. Records and Reports: The permittee shall maintain a record of any information required by this Permit. Such records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request. [Rules 62-4.070 (3) F.A.C.]

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The Specific Conditions listed in this subsection apply to the following emission unit that is part of the LFGTE plant at the OL:

EU ID No.	Emission Units Description
0~~16~~13	15 MW Solar Titan 130 (T-130) CTG

EQUIPMENT

1. CTG: The permittee shall install, tune, operate and maintain a simple cycle CTG consisting of: one 15 MW LFG-fueled Solar T-130 CTG; an inlet air filtration system; one automated CTG control system; and one CTG stack. [Application No. 0930104-014-AC and Rule 62-4.070(3), F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment, including any equipment integral to the CTG, or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650 and Rule 62-4.070(3), F.A.C.]
3. ~~NO_X CEMS: In accordance with the BACT determination, and using the procedures described in §60.4335(b) and §60.4345 the permittee shall install, calibrate, operate and maintain a CEMS to continuously monitor and record NO_X emissions from the CTG exhaust. The CEMS shall be installed, calibrated and properly functioning within 60 calendar days of achieving permitted capacity as defined in Rule 62-297.310(2), F.A.C., but no later than 180 calendar days after initial startup and prior to the initial performance tests. [Rules 62-4.070(3) and 62-212.400, F.A.C.; 40 CFR 60, Subpart KKKK]~~
3. Continuous Parameter Monitoring System (CPMS): Using the procedures described in §60.4340 and §60.4355, the permittee shall establish, document, install, calibrate, maintain and operate a CPMS based upon defined parameters indicative of the CTG NO_X formation characteristics, and monitor these parameters continuously. [Rules 62-4.070(3) and 62-212.400, F.A.C.; 40 CFR 60, Subpart KKKK]

PERFORMANCE RESTRICTIONS

4. Authorized Fuels: In accordance with the BACT determination, ~~T~~the only authorized fuel for use in the CTG is treated LFG containing no more than 200 ppmv of H_2S ~~of~~ or 210 ppmv of TS as measured by a CFM on a 30 day rolling average basis.
   [Rules 62-4.070(3), 62-212.400 and 62-210.200(PTE), F.A.C.; 40 CFR 60, Subpart KKKK]
5. CTG Permitted Capacity: The ~~maximum~~ design heat input rate of the CTG is 150 million British thermal units per hour (mmBtu/hr) on a 4 hour averaging time basis and based on the lower heating value (LHV) of the LFG. This rate is based on a compressor inlet temperature of 59 °F, International Organization for Standardization (ISO) conditions of the LFG. The heat input rate will vary depending upon CTG characteristics, ambient conditions, alternate methods of operation and evaporative cooling (if installed). The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department.
   [Application No. 0930104-014-AC; and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
6. ~~Restricted~~ Operation: The hours of operation of this emission unit is not limited (8,760 hours per year).
   [Application No. 0930104-014-AC; and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

NSPS APPLICABILITY

7. NSPS Subpart KKKK Applicability: The CTG is subject to all applicable requirements of 40 CFR 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines which applies to combustion turbines and duct burners constructed after February 18, 2005.
   [Rule 62-204.800(7)(b), F.A.C. and 40 CFR 60.4300, NSPS - Subpart KKKK - Standards of Performance

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for Stationary Combustion Turbines (see Appendix KKKK)].

NESHAP APPLICABILITY

8. NESHAP Subpart YYYY Applicability: This facility is a major source of HAP. This CTG is potentially subject to 40 CFR 63, Subpart YYYY - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Combustion Turbines. The applicability of this rule has been stayed for lean premix and diffusion flame gas-fired combustion turbines such as planned for this project. For the applicable requirements of NESHAP, Subpart YYYY to this CTG see Appendix YYYY of this permit.

EMISSION LIMITS

9. Emission Standards: The following standards are at least as stringent as the Subpart KKKK limits described in **Condition 7** above and in Appendix KKKK of this permit. Emissions from this CTG shall not exceed the following standards.

Pollutant	**Method of Operation**	**Initial/Annual Stack Test 3-Run Average [a]**		**CPMS ~~CEMS~~-Based Averages [g]**	
		ppmvd [b]	**lb/hr [f]**	**ppmvd [b]**	**lb/hr [f]**
CO	LFG	100	78.4	N/A	N/A
NO_X [c]	LFG	72	46.4	72 4-hour rolling ~~block~~ average [g]	46.4 4-hour rolling ~~block~~ average [g]
PM/PM_{10} [d]	LFG	N/A	2.8	N/A	
		200 ppmv H_2S or 210 ppmv TS in LFG on a 30-day basis (BACT)			
		Visible emissions shall not exceed 10% opacity for each 6-minute block average.			
SAM/SO_2 [e]	LFG	200 ppmv H_2S or 210 ppmv TS in LFG on a 30-day basis (BACT)			
		0.15 lb SO_2/mmBtu (40 CFR 60, Subpart KKKK)			

a. All tests conducted at 90-100 percent (%) load.

b. Parts per million by volume dry corrected to 15% oxygen.

c. The initial and annual EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart KKKK ~~or certification of the CEMS instruments~~ shall ~~also~~ be used to demonstrate compliance with the individual standards during the time of those tests. NO_X mass emission rates are defined as oxides of nitrogen expressed as nitrogen dioxide (NO_2). Continuous compliance with the 4-hour rolling average NO_X standards shall be demonstrated based on data collected by the required CPMS ~~CEMS~~.

d. After the initial compliance test the sulfur fuel specification combined with the efficient combustion design and operation of the CTG shall indicate compliance. Compliance with the fuel specifications and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be demonstrated by keeping records of the fuel sulfur content. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.

e. The LFG H_2S or TS specification effectively limits the potential emissions of SAM and SO_2 from the CTG. Compliance with the LFG H_2S specification of 200 ppmv or 210 ppmv of TS shall be determined by ~~H_2S CEMS~~ a CFM. Such representative LFG ~~CEMS~~ CFM data will insure that the SO_2 emissions ~~sulfur content of the LFG (a type of biogas)~~ do~~es~~ not exceed the 0.15 lb SO_2/mmBtu heat input limitation of 40 CFR 60, Subpart KKKK provided the permittee follows the procedures given in 40 CFR 60.4415(a)(1)(ii).

f. The mass emission rate standards are based on a turbine inlet condition of 59 °F. Mass emission rate may be adjusted to actual test conditions in accordance with the performance curves and/or equations on file with the Department.

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g. ~~CEMS~~ CPMS-based ~~monitoring~~ compliance shall be conducted in accordance with the 40 CFR 60, NSPS, Subpart KKKK for NO_X.

[Application No. 0930104-014-AC; and Rules 62-4.070(3), 62-212.400 (BACT) and 62-210.200(PTE), F.A.C.]

EXCESS EMISSIONS

10. Definitions Related to Excess Emissions: Rule 62-210.200 (Definitions), F.A.C. defines the following terms.
    a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
    b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.
    c. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
11. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CPM~~CEMS~~ data. [Rule 62-210.700(4), F.A.C.]
12. Excess Emissions Calculations: The following conditions apply only to the SIP-based emissions standards specified above in this subsection. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary or supersede any federal NSPS or NESHAP. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions supersede the provisions in Rule 62-210.700(1), F.A.C.
    a. *NO_X Emissions*: Excess NO_X emissions based on a 4 hour rolling ~~block~~ average standard shall be calculated in accordance with the NSPS Subpart KKKK provisions.

TEST METHODS AND PROCEDURES

13. Initial Compliance Tests: The CTG shall be tested to demonstrate initial compliance with the emissions standards for CO, NO_X, PM/PM_{10} and opacity. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. The CTG shall demonstrate compliance with the NO_X standard in accordance with the methods specified in NSPS Subpart KKKK of 40 CFR 60. Compliance tests shall be performed in accordance with reference methods as described in 40 CFR 60, Appendix A and 40 CFR 51 Appendix M, adopted by reference in Chapter 62-204.800, F.A.C. [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]
14. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the CTG shall be tested to demonstrate compliance with the emissions standards for CO and opacity. The CTG shall demonstrate compliance with the NO_X standard in accordance with the methods specified in NSPS Subpart KKKK of 40 CFR 60. [Rule 62-297.310(7)(a)4, F.A.C.]
15. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix CTR (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

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16. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content.
7E	Determination of NO_X Emissions from Stationary Sources.
9	Visual Determination of the Opacity of Emissions from Stationary Sources.
10	Determination of CO Emissions from Stationary Sources. The method shall be based on a continuous sampling train.
19	Determination of SO_2 Removal Efficiency and PM, SO_2 and NO_X Emission Rates. Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

CONTINUOUS MONITORING REQUIREMENTS

17. Continuous Monitoring ~~CEMS~~: The permittee shall install, calibrate, maintain and operate CPMS ~~CEMS and a diluent monitor~~ to measure and record the emissions of NO_X from the CTG in a manner sufficient to demonstrate continuous compliance with the ~~CEMS~~ NO_X emission standards of this section. The monitoring system shall be installed, calibrated and properly functioning within 60 calendar days of achieving permitted capacity as defined in Rule 62-297.310(2), F.A.C., but no later than 180 calendar days after initial startup and prior to the initial performance tests. Within one working day of discovering emissions in excess of the NO_X standard (and subject to the specified averaging period), the permittee shall notify the Compliance Authority ~~(see Appendix CEMS of this permit)~~.

~~a. *NO_x Monitor:* The NO_x monitor shall be certified, operated, and maintained in accordance with the requirements of 40 CFR 75. Record keeping and reporting shall be conducted pursuant to Subparts F and G in 40 CFR 75. The RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.~~

~~b. *Diluent Monitor:* The oxygen (O_2) or carbon dioxide (CO_2) content of the flue gas shall be monitored at the location where CO and NO_x are monitored to correct the measured emissions rates to 15% oxygen. If a CO_2 monitor is installed, the oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.~~

OTHER MONITORING REQUIREMENTS

18. LFG Flow Measurements: The permittee shall install and maintain a device that measures the flow of LFG to the CTG. Total LFG flow to the CTG shall be continuously measured and recorded.
[Rules 62-4.070 (3) F.A.C.]

RECORDS AND REPORTS

19. Monitoring of Capacity: The permittee shall monitor and record the operating rate of CTG on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). This shall be achieved through monitoring daily rates of consumption and heat content of the allowable fuel in accordance with the provisions of Appendix D in 40 CFR 75 and recording the data using a monitoring component of the CEMS system required above.
[Rule 62-4.070(3), F.A.C. and 40 CFR 75]

{Permitting Note: While 40 CFR 75 deals with continuous emissions monitoring, including fuel

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monitoring, as part of the Acid Rain Program; this emission unit is not an acid rain unit. The provisions from Appendix D of 40 CFR 75 dealing with the LFG heat content and consumption rate are included for monitoring purposes only.}

20. Stack Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the applicable information specified in Rule 62-297.310(8), F.A.C. and summarized in Appendix CTR of this permit. [Rule 62-297.310(8), F.A.C.]

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The Specific Conditions listed in this subsection apply to the following emission units that are part of the LFGTE plant at the OL:

EU ID No.	Emission Units Description
0~~17~~14	3.5 MW Solar Centaur 40 (C-40) CTG
0~~18~~15	3.5 MW Solar Centaur 40 (C-40) CTG
0~~19~~16	3.5 MW Solar Centaur 40 (C-40) CTG

EQUIPMENT

1. CTG: The permittee shall install, tune, operate and maintain three simple cycle CTG consisting of: 3.5 MW LFG-fueled Solar C-40 CTG; inlet air filtration systems; automated CTG control systems; and CTG stack. [Application No. 0930104-014-AC and Rule 62-4.070(3), F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment, including any equipment integral to the CTG, or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650 and Rule 62-4.070(3), F.A.C.]
3. ~~NO_x CEMS or Continuous Parameter Monitoring System (CPMS): In accordance with the BACT determination, and using the procedures described in §60.4335(b) and §60.4345, the permittee shall install, calibrate, operate and maintain a CEMS to continuously monitor and record NO_x emissions from the exhaust of each CTG. Each CEMS shall be installed, calibrated and properly functioning within 60 calendar days of achieving permitted capacity as defined in Rule 62-297.310(2), F.A.C., but no later than 180 calendar days after initial startup and prior to the initial performance tests. As an alternative to a NO_x-CEMS and using the procedures described in §60.4340 and §60.4355, the permittee shall establish, document, install, calibrate, maintain and operate a CPMS based upon defined parameters indicative of the CTG NO_x formation characteristics, and monitor these parameters continuously.~~
~~[Rules 62-4.070(3) and 62-212.400, F.A.C.; 40 CFR 60, Subpart KKKK]~~

PERFORMANCE RESTRICTIONS

3. Authorized Fuels: In accordance with the BACT determination, ~~T~~the only authorized fuel for use in the CTG is treated LFG containing no more than 200 ppmv of H_2S ~~of~~ or 210 ppmv of TS as measured by a CFM on a 30 day rolling average basis.
[Rules 62-4.070(3), 62-212.400 and 62-210.200(PTE), F.A.C.; 40 CFR 60, Subpart KKKK]
4. CTG Permitted Capacity: The design heat input rate of each CTG is 45 mmBtu/hr (4 hour averaging time basis) based on lower heating value (LHV) of the LFG. This rate is based on a compressor inlet temperature of 59 °F, International Organization for Standardization (ISO) conditions. The heat input rate will vary depending upon combustion turbine characteristics, ambient conditions, alternate methods of operation and evaporative cooling. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department.
5. ~~Restricted~~ Operation: The hours of operation of these EUs are not limited (8,760 hours per year). [Application No. 0930104-014-AC; and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

NSPS APPLICABILITY

6. NSPS Subpart KKKK Applicability: These CTG are subject to all applicable requirements of 40 CFR 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines which applies to combustion turbines and duct burners constructed after February 18, 2005.
[Rule 62-204.800(7)(b), F.A.C. and 40 CFR 60.4300, NSPS - Subpart KKKK - Standards of Performance

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for Stationary Combustion Turbines (see Appendix KKKK)]

NESHAP APPLICABILITY

7. NESHAP Subpart YYYY Applicability: This facility is a major source of HAP. These CTG are potentially subject to 40 CFR 63, Subpart YYYY - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Combustion Turbines. The applicability of this rule has been stayed for lean premix and diffusion flame gas-fired combustion turbines such as planned for this project. For the applicable requirements of NESHAP, Subpart YYYY to these CTG see Appendix YYYY of this permit.

EMISSION LIMITS

8. Emission Standards: The following standards are at least as stringent as the Subpart KKKK limits described in **Condition 6 ~~7~~** above and in Appendix KKKK of this permit. Emissions from each of these CTG shall not exceed the following standards.

Pollutant	**Method of Operation**	**~~CEMS Based~~ ~~Averages~~ Initial/Annual Stack Test 3-Run Average [a]**	
		ppmvd [b]	**lb/hr [c]**
CO	LFG	250	28.6
NO_X [d]	LFG	42 ~~4 hour rolling average~~	7.9 ~~4 hour rolling average~~
PM/PM_{10} [e]	LFG	N/A	2.8
		200 ppmv H_2S or 210 ppmv TS in LFG on a 30-day basis (BACT)	
		Visible emissions shall not exceed 10% opacity for each 6-minute block average.	
SAM/SO_2 [f]	LFG	200 ppmv H_2S or 210 ppmv TS in LFG on a 30-day basis (BACT)	
		0.15 lb SO_2/mmBtu (40 CFR 60, Subpart KKKK)	

a. All tests conducted at 100 percent (%) load.

b. Parts per million by volume dry corrected to 15% oxygen

c. The mass emission rate standards are based on a turbine inlet condition of 59 °F. Mass emission rate may be adjusted to actual test conditions in accordance with the performance curves and/or equations on file with the Department.

d. The initial and annual EPA Method 7E or Method 20 tests shall be used to ~~associated with~~ demonstrate~~ion of~~ compliance ~~with 40 CFR 60, Subpart KKKK or certification of the CEMS instruments shall also be used to demonstrate compliance with the individual standards during the time of those tests. NO_x mass emission rates are defined as oxides of nitrogen expressed as nitrogen dioxide (NO_2). Continuous compliance with the 4 hour average NO_x standards shall be demonstrated based on data collected by the required CEMS~~.

e. After the initial compliance test the sulfur fuel specification combined with the efficient combustion design and operation of each CTG shall indicate compliance. Compliance with the fuel specifications and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be demonstrated by keeping records of the fuel sulfur content. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.

f. The LFG H_2S or TS specification effectively limits the potential emissions of SAM and SO_2 from the CTG. Compliance with the LFG H_2S specification of 200 ppmv or 210 ppmv of TS shall be determined by ~~H_2S CEMS~~ a CFM. Such representative LFG ~~CEMS~~CFM data will insure that the SO_2 emissions ~~sulfur content of the LFG (a type of biogas)~~ do~~es~~ not exceed the 0.15 lb SO_2/mmBtu heat input limitation of 40 CFR 60, Subpart KKKK provided the permittee follows the procedures given in 40 CFR 60.4415(a)(1)(ii).

~~g. CEMS or CPMS-based monitoring compliance shall be conducted in accordance with the 40 CFR 60, NSPS, Subpart KKKK for NO_x.~~

[Application No. 0930104-014-AC; and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

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EXCESS EMISSIONS

9. Definitions Related to Excess Emissions: Rule 62-210.200(Definitions), F.A.C. defines the following terms.
   a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
   b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.
   c. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
10. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]

~~11. Excess Emissions Calculations: The following conditions apply only to the State Implementation Plan (SIP) based emissions standards specified above in this subsection. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary or supersede any federal NSPS and NESHAP. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions supersede the provisions in Rule 62-210.700(1), F.A.C.~~

   ~~a. *NO_x Emissions*: Excess NO_x emissions based on the 4 hour block average standard shall be calculated in accordance with the NSPS Subpart KKKK provisions.~~

TEST METHODS AND PROCEDURES

11. Initial Compliance Tests: Each CTG shall be tested to demonstrate initial compliance with the emissions standards for CO, NO_X, PM/PM_{10} and opacity. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. Each CTG shall demonstrate compliance with the NO_X standard in accordance with the methods specified in NSPS Subpart KKKK of 40 CFR 60. Compliance tests shall be performed in accordance with reference methods as described in 40 CFR 60, Appendix A and 40 CFR 51 Appendix M, adopted by reference in Chapter 62-204.800, F.A.C. [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]
12. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), each CTG shall be tested to demonstrate compliance with the emissions standards for NO_X, CO and opacity. Each CTG shall demonstrate compliance with the NO_X standard in accordance with the methods specified in NSPS Subpart KKKK of 40 CFR 60. [Rule 62-297.310(7)(a)4, F.A.C.]
13. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix CTR (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]
14. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content.
7E	Determination of NO_X Emissions from Stationary Sources.
9	Visual Determination of the Opacity of Emissions from Stationary Sources.
10	Determination of CO Emissions from Stationary Sources. The method shall be based on a continuous sampling train.

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Method	Description of Method and Comments
19	Determination of SO_2 Removal Efficiency and PM, SO_2 and NO_X Emission Rates. Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

CONTINUOUS MONITORING REQUIREMENTS

~~15. CEMS: The permittee shall install, calibrate, maintain and operate a CPMS or CEMS and a diluent monitor to measure and record the emissions of NO_X from each CTG in a manner sufficient to demonstrate continuous compliance with the CEMS NO_X emission standards of this section. The monitoring systems shall be installed, calibrated and properly functioning within 60 calendar days of achieving permitted capacity as defined in Rule 62-297.310(2), F.A.C., but no later than 180 calendar days after initial startup and prior to the initial performance tests. Within one working day of discovering emissions in excess of the NO_X standard (and subject to the specified averaging period), the permittee shall notify the Compliance Authority (see Appendix CEMS of this permit).~~

~~a. NO_X CEMS Alternative:~~

- ~~*NO_X Monitor:* The NO_X monitor shall be certified, operated, and maintained in accordance with the requirements of 40 CFR 75. Record keeping and reporting shall be conducted pursuant to Subparts F and G in 40 CFR 75. The RATA tests required for the NO_X monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.~~
- ~~*Diluent Monitor:* The oxygen (O_2) or carbon dioxide (CO_2) content of the flue gas shall be monitored at the location where CO and NO_X are monitored to correct the measured emissions rates to 15% oxygen. If a CO_2 monitor is installed, the oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.~~

OTHER MONITORING REQUIREMENTS

15. LFG Flow Measurements: The permittee shall install and maintain a device that measures the flow of LFG to the ~~each~~ CTG. Total LFG flow to the ~~each~~ CTG shall be continuously measured and recorded. The LFG flow may be monitored at only one location if monitoring at this location accurately represents the total flow of LFG being combusted in all the CTG. The applicant shall notify the Compliance Authority of the monitoring device location 90 days before installation. [Rules 62-4.070 (3) F.A.C.]

RECORDS AND REPORTS

16. Monitoring of Capacity: The permittee shall monitor and record the operating rate of each CTG on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). This shall be achieved through monitoring daily rates of consumption and heat content of the allowable fuel in accordance with the provisions of Appendix D in 40 CFR 75 and recording the data using a monitoring component of the CEMS system required above.
[Rule 62-4.070(3), F.A.C. and 40 CFR 75]

{Permitting Note: While 40 CFR 75 deals with continuous emissions monitoring, including fuel monitoring, as part of the Acid Rain Program; this emission unit is not an acid rain unit. The provisions from Appendix D of 40 CFR 75 dealing with the LFG heat content and consumption rate are included for monitoring purposes only.}

17. Stack Test Reports: The owner or operator of an emissions unit for which a compliance test is required

shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the applicable information specified in Rule 62-297.310(8), F.A.C. and summarized in Appendix CTR of this permit. [Rule 62-297.310(8), F.A.C.]

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