Permit Application

APPLICATION FOR TITLE V RENEWAL

Lakeland Electric
Charles Larsen Memorial Power Plant

Prepared For: Lakeland Electric
501 East Lemon Street, MS-AS2
Lakeland, FL 33801

Submitted By: Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA

Distribution: 4 copies – FDEP
2 copies – Lakeland Electric
1 copy – Golder Associates Inc.

May 2012

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Golder Associates

APPLICATION FOR AIR PERMIT

LONG FORM

Department of Environmental Protection

Division of Air Resource Management

RECEIVED
MAY 21 2012
DIVISION OF AIR RESOURCE MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **Lakeland Electric**	
2. Site Name: **Charles Larsen Memorial Power Plant**	
3. Facility Identification Number: **1050003**	
4. Facility Location... Street Address or Other Locator: **2002 Highway 92 East** City: **Lakeland** County: **Polk** Zip Code: **33801**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **Farzie Shelton, Assoc. General Manager of Technical Support**
2. Application Contact Mailing Address... Organization/Firm: **Lakeland Electric** Street Address: **501 East Lemon Street, LE-ENVIR** City: **Lakeland** State: **FL** Zip Code: **33801-5079**
3. Application Contact Telephone Numbers... Telephone: **(863) 834-6603** ext. Fax: **(863) 834-6362**
4. Application Contact E-mail Address: **farzie.shelton@lakelandelectric.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 5-21-2012	3. PSD Number (if applicable):
2. Project Number(s): 1050003-017-AV	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

☐ Air construction permit.

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

☐ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☒ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

☐ Air construction permit and Title V permit revision, incorporating the proposed project.

☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

This application is for the renewal of Title V Permit No. 1050003-015-AV for the Charles Larsen Memorial Power Plant, which expires on December 31, 2012.

The facility consists of two simple-cycle turbine peaking Units 2 & 3 (EUs 006 and 005), and one combined-cycle combustion turbine (CT) No. 8 (EU 008). Unit 7 (EU 004) has been removed from the facility and Lakeland Electric requests to remove the emissions unit from the renewed Title V permit.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
005	Simple Cycle CT Peaking Unit No. 3	AF2A	N/A
006	Simple Cycle CT Peaking Unit No. 2	AF2A	N/A
008	Combined-Cycle or Simple Cycle CT No. 8	AF2B	N/A

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: ( ) ext. Fax: ( )
4. Owner/Authorized Representative E-mail Address:
5. Owner/Authorized Representative Statement: *I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.* _____ _____ Signature Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   Mr. Tony Candales, Assoc. General Manager of Production

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☒ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source or CAIR source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **City of Lakeland**
   Street Address: **501 East Lemon Street**
   City: **Lakeland** State: **FL** Zip Code: **33801 - 5079**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 834-6559** ext. Fax: **(863) 834-6362**

5. Application Responsible Official E-mail Address: **Tony.Candales@lakelandelectric.com**

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

Signature

5/18/12
Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14996**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6026 NW 1st Place**
   City: **Gainesville** State: **FL** Zip Code: **32607**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext. Fax: **(352) 336-6603**
4. Professional Engineer E-mail Address: **kkosky@golder.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☒, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature 5/17/12 Date

(seal) 14996

* Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone **17** East (km) **408.9** North (km) **3102.5**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **28/02/56** Longitude (DD/MM/SS) **81/55/25**	
3. Governmental Facility Code: **4**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **49**	6. Facility SIC(s): **4911**
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: **Farzie Shelton, Assoc. General Manager of Technical Support**
2. Facility Contact Mailing Address... Organization/Firm: **Lakeland Electric** Street Address: **501 East Lemon Street, LE-ENVIR** City: **Lakeland** State: **FL** Zip Code: **33801-5079**
3. Facility Contact Telephone Numbers: Telephone: **(863) 834-6603** ext. Fax: **(863) 834-6362**
4. Facility Contact E-mail Address: **farzie.shelton@lakelandelectric.com**

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) ext. Fax: ( )
4. Facility Primary Responsible Official E-mail Address:

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. ☐ Small Business Stationary Source	☐ Unknown
2. ☐ Synthetic Non-Title V Source	
3. ☒ Title V Source	
4. ☒ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. ☐ Major Source of Hazardous Air Pollutants (HAPs)	
7. ☐ Synthetic Minor Source of HAPs	
8. ☒ One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. ☐ One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. ☒ One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	
Combined-Cycle CT 8 (EU 008) is subject to NSPS Subpart GG-Standards of Performance for Stationary Gas Turbines.	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	**B**	**N**
PM10	**B**	**N**
SO2	**A**	**N**
NOX	**A**	**N**
CO	**A**	**N**
VOC	**B**	**N**

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility-Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-FI-C1** ☐ Previously Submitted, Date:_____

2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **See EU Sections** ☐ Previously Submitted, Date:_____

3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-FI-C3** ☐ Previously Submitted, Date:_____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location:
   ☐ Attached, Document ID:_____ ☐ Not Applicable (existing permitted facility)

2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):
   ☐ Attached, Document ID:_____

3. Rule Applicability Analysis:
   ☐ Attached, Document ID:_____

4. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☐ Not Applicable (no exempt units at facility)

5. Fugitive Emissions Identification:
   ☐ Attached, Document ID:_____ ☐ Not Applicable

6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.):
   ☐ Attached, Document ID:_____ ☐ Not Applicable

7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.):
   ☐ Attached, Document ID:_____ ☐ Not Applicable

8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):
   ☐ Attached, Document ID:_____ ☐ Not Applicable

9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):
   ☐ Attached, Document ID:_____ ☐ Not Applicable

10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
    ☐ Attached, Document ID:_____ ☐ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☐ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)
   ☒ Attached, Document ID: **LE-FI-CV1** ☐ Not Applicable (revision application)

2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-FI-CV2**
   ☐ Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
   ☒ Attached, Document ID: **LE-FI-CV3**
   Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)
   ☒ Attached, Document ID: **LE-FI-CV4**
   ☐ Equipment/Activities Onsite but Not Required to be Individually Listed
   ☐ Not Applicable

5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
   ☐ Attached, Document ID:_____ ☒ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☒ Attached, Document ID: **LE-FI-CV6** ☐ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms

   Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: **July 02, 2007**
   ☐ Not Applicable (not an Acid Rain source)

   Phase II NO_X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable

   New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: **April 23, 2008**
   ☐ Not Applicable (not a CAIR source)

Additional Requirements Comment

ATTACHMENT LE-FI-C1

FACILITY PLOT PLAN

LEGEND

APPROXIMATE PROPERTY BOUNDARY

REFERENCES

1. PROPERTY BOUNDARY: POLK COUNTY PROPERTY APPRAISER, 2012
2. AERIAL: ARC GIS ONLINE-BING MAPS HYBRID; MICROSOFT CORPORATION AND ITS DATA SUPPLIERS, 2010

150 75 0 150
Feet

REV.	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RVW

PROJECT

LAKELAND ELECTRIC, LARSEN PLANT
POLK COUNTY, FL

TITLE

FACILITY PLOT PLAN

Golder Associates

PROJECT No. 123-87597			FILE No. 123-87597A001		
DESIGN	JDG	05/16/2012	SCALE: AS SHOWN	REV.	0
GIS	JDG	05/16/2012	ATTACHMENT LE-FI-C1		
CHECK	SKM	05/16/2012			
REVIEW	SKM	05/16/2012			

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ATTACHMENT LE-FI-C3

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

ATTACHMENT LE-FI-C3

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

The facility has negligible amounts of unconfined particulate matter as a result of the operation of the facility. Sources of particulate matter include:

a) Fugitive dust from paved and unpaved roads
b) Fugitive particulates from the use of bagged chemical products

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with 62-296.320(4)(c)2, F.A.C.:

c) Maintenance of paved areas
d) Regular mowing of grass and care of vegetation
e) Limiting access to plant property by unnecessary vehicles

ATTACHMENT LE-FI-CV1

LIST OF INSIGNIFICANT ACTIVITIES

ATTACHMENT LE-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES

A list of existing units and/or activities that are considered to be insignificant and are exempted from Title V permitting under Rule 62-213.430(6) is presented below. The exempt activities listed are also those activities that are included in Rule 62-210.300(3)(a) which would not exceed the thresholds in Rule 62-213.430(6)(b)3.

Brief Description of Emissions Units and/or Activities:

1. Tank T-01 Distillate Fuel Oil No. 2.
2. Tank T-02 Distillate Fuel Oil No. 2.
3. Tank T-03 Residual Oil No. 6.
4. Tank T-04 Residual Oil No. 6.
5. Comfort heating with a maximum heat output of less than 1 MMBtu per hour.
6. Internal combustion engines used for the transportation of passengers or freight.
7. Refrigeration units not using ozone-depleting substance.
8. Vacuum pumps for laboratory operations.
9. Steam cleaning equipment.
10. Sanders of less than 5 square feet used exclusively on wood, plastic, or their products.
11. Space heating equipment other than boilers.
12. Laboratory equipment.
13. Brazing, soldering, or welding equipment.
14. Laundry dryers.
15. Fire and safety equipment.
16. Surface coatings with VOC content <5% by volume, 6 gallons per day or less.

ATTACHMENT LE-FI-CV2

IDENTIFICATION OF APPLICABLE REQUIREMENTS

ATTACHMENT LE-FI-CV2
IDENTIFICATION OF APPLICABLE REQUIREMENTS
TITLE V CORE LIST

Effective: 03/01/02

(Updated based on current version of FDEP Air Rules)

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: ***(description)***

40 CFR 60, Subpart GG: Standards of Performance for Stationary gas turbines.

40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82, Subpart F: Recycling and Emissions Reduction.
40 CFR 98, Subpart A: Mandatory Reporting of Greenhouse Gases.
40 CFR 98, Subpart C: General Stationary Combustion Sources.

State: ***(description)***

CHAPTER 62-4, F.A.C.: PERMITS, effective 03-16-08

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application.
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Transferability of Definitions.
62-4.150, F.A.C.: Review.
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 03-28-12

62-210.300, F.A.C.: Permits Required.
62-210.300(1), F.A.C.: Air Construction Permits.
62-210.300(2), F.A.C.: Air Operation Permits.
62-210.300(3), F.A.C.: Exemptions.
62-210.300(5), F.A.C.: Notification of Startup.
62-210.300(6), F.A.C.: Emissions Unit Reclassification.
62-210.300(7), F.A.C.: Transfer of Air Permits.
62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.

62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.
62-210.370, F.A.C.: Emissions Computation and Reporting.
62-210.400, F.A.C.: Emission Estimates.
62-210.650, F.A.C.: Circumvention.
62-210.700, F.A.C.: Excess Emissions.

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1), F.A.C.: Application for Air Permit – Title V Source, Form and Instructions.
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
62-210.900(7), F.A.C.: Application for Transfer of Air Permit – Title V and Non-Title V Source.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 03-28-12

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 02-16-12

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.415, F.A.C.: Trading of Emissions Within a Source.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.450, F.A.C.: Permit Review by EPA and Affected States
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
62-213.900(7), F.A.C.: Statement of Compliance Form.

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 02-16-12

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 02-16-12

62-297.310, F.A.C.: General Test Requirements.
62-297.310(4), F.A.C.: Applicable Test Procedures.
62-297.310(7), F.A.C.: Frequency of Compliance Tests.
62-297.310(6), F.A.C.: Repaired Stack Sampling Facilities.
62-297.310(5), F.A.C.: Determination of Process Variables.
62-297.510(8), F.A.C.: Test Report.
62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests
CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98
CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 10-06-08
CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 10-12-08
CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96

ATTACHMENT LE-FI-CV3

COMPLIANCE REPORT AND PLAN

LAKELAND ELECTRIC

Your Essential Link to a Quality Life

CERTIFIED MAIL – RECEIPT REQUESTED

March 1, 2012

Ms. Danielle Henry
Compliance Supervisor
Florida Department of Environmental Protection
Division of Air Resource Management
Southwest District
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Re: Charles Larsen Memorial Power Plant, Facility ID No. 1050003
Annual Statement of Compliance - Calendar Year 2011

Dear Ms. Henry:

In compliance with the Title V permit for the above-referenced facility, enclosed please find the annual Statement of Compliance (SOC) for calendar year 2011.

Accordingly, the SOC has been certified by Mr. Antonio D. Candales, the Responsible Official and Designated Representative. Additionally, a copy of these documents has been forwarded to the Environmental Protection Agency, per the instructions provided in DEP Form No. 62-213.900(7).

If you should have any questions, please don't hesitate to contact me at (863) 834-8180.

Sincerely,

Bret Galbraith, E.I.
Environmental Permitting
Bret.galbraith@lakelandelectric.com

Enclosures

Cc: U.S. EPA Region IV
Air and EPCRA Enforcement Branch
61 Forsyth St.
Atlanta, GA 30303

501 E. Lemon St. ✦ Lakeland, Florida 33801
Phone: 863.834.6300 ✦ Fax: 863.834.6344

Lakeland Electric

Charles Larsen Memorial Power Plant
Facility ID No. 1050003

2011 Annual Statement of Compliance
TV Source

LAKELAND ELECTRIC
2011 ANNUAL STATEMENT OF COMPLIANCE

Charles Larsen Memorial Power Plant, Facility ID 1050003

Professional Engineer Certification

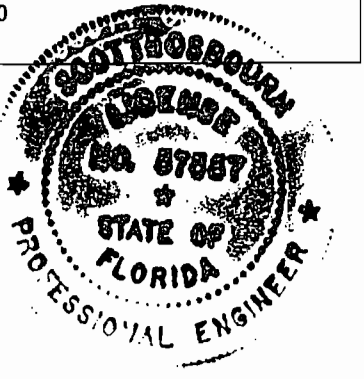
1. Professional Engineer Name: **Scott Osbourn**
   Registration Number: **57557**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **5100 W. Lemon St, Suite 208**
   City: **Tampa** State: **FL** Zip Code: **33609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(813) 287-1717** ext. **53304** Fax: **(813) 287-1716**
4. Professional Engineer Email Address: **SOsbourn@golder.com**
5. Professional Engineer Statement:

   I, the undersigned, hereby certify that to the best of my knowledge, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in the Lakeland Electric 2011 Annual Statements of Compliance for the Charles Larsen Memorial Power Plant, the C.D. McIntosh, Jr. Power Plant and the Winston Peaking Station are true, accurate and complete.

Signature
(seal)

Date 2/28/12

** Board of Professional Engineers Certificate of Authorization #00001670



Department of Environmental Protection

Division of Air Resource Management

STATEMENT OF COMPLIANCE - TITLE V SOURCE

REASON FOR SUBMISSION (Check one to indicate why this statement of compliance is being submitted)

× **Annual Requirement**	☐ **Transfer of Permit**	☐ **Permanent Facility Shutdown**

REPORTING PERIOD*	REPORT DEADLINE**
January 1 through December 31 of 2011 (year)	March 1, 2012

*The statement of compliance must cover all conditions that were in effect during the indicated reporting period, including any conditions that were added, deleted, or changed through permit revision.

**See Rule 62-213.440(3)(a)2., F.A.C.

Facility Owner/Company Name: Lakeland Electric

Site Name: Charles Larsen Memorial Power Plant Facility ID No. 1050003 County: Polk

COMPLIANCE STATEMENT (Check only one of the following three options)

____ **A.** This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, and there were no reportable incidents of deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above.

__/__ **B.** This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part; however, there were one or more reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each incident of deviation, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident.

____ **C.** This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, EXCEPT those identified in the pages attached to this report and any reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each item of noncompliance, the following information is included:

1. Emissions unit identification number.
2. Specific permit condition number (note whether the permit condition has been added, deleted, or changed during certification period).
3. Description of the requirement of the permit condition.
4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent).
5. Beginning and ending dates of periods of noncompliance.
6. Identification of the probable cause of noncompliance and description of corrective action or preventative measures implemented.
7. Dates of any reports previously submitted identifying this incident of noncompliance.

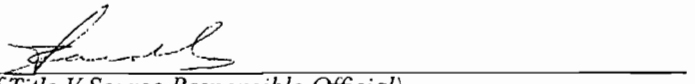
For each incident of deviation, as described in paragraph **B.** above, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident.

STATEMENT OF COMPLIANCE - TITLE V SOURCE

RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am a responsible official (Title V air permit application or responsible official notification form on file with the Department) of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

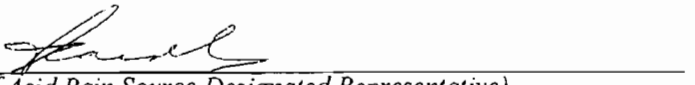


(Signature of Title V Source Responsible Official) 3/1/12 *(Date)*

Name: Mr. Antonio D. Candales Title: Responsible Official

DESIGNATED REPRESENTATIVE CERTIFICATION (only applicable to Acid Rain source)

I, the undersigned, am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.



(Signature of Acid Rain Source Designated Representative) 3/1/12 *(Date)*

Name: Mr. Antonio D. Candales Title: Designated Representative

{Note: Attachments, if required, are created by a responsible official or designated representative, as appropriate, and should consist of the information specified and any supporting records. Additional information may also be attached by a responsible official or designated representative when elaboration is required for clarity. This report is to be submitted to both the compliance authority (DEP district or local air program) and the U.S. Environmental Protection Agency(EPA) (U.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta GA 30303).}

Lakeland Electric
Charles Larsen Memorial Power Plant
Statement of Compliance

Regulatory Reference	Requirement	Description of Incident
Title V Operating Permit 1050003-014-AV, Condition C.33 (EU 008, Unit #8)	Excess emissions reports shall be submitted quarterly. However, this report does not relieve the owner or operator of the legal liability for violations. C.33 Excess NOx Emissions – Based on NOx CEMS data, any 3-hour average that exceeds the permitted standards shall be recorded and reported to the Compliance Authority within one working day of: the nature, extent and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. For additional recordkeeping, reporting and notification requirements, see Appendices CC, NA and TV-6 [Rules 62-4.070(3), 62-4.130, 62-210.700(6), and 62-213.440(1)(b), FAC; 40 CFR 60.7; and 40 CFR 60.11(g)].	According to records on file for the past 4 quarters, excess emissions were within allowable standards and were due to startup and shutdown periods when water injection was not available. Excess emissions and monitor system (MS) downtime occurred as follows: Q1 2011 NOx- Excess emissions -- None reported NOx-MS downtime- Monitor equipment failure, non-monitor equipment failure, QA Q2 2011 NOx- Excess emissions -- None reported NOx-MS downtime- None reported Q3 2011 NOx- Excess emissions -- None reported. NOx-MS downtime- Monitor equipment malfunction, QA Q4 2011 NOx- Excess emissions -- None reported NOx-MS downtime- Monitor equipment malfunction, QA

ATTACHMENT LE-FI-CV4

EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI

ATTACHMENT LE-FI-CV4

LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI (STRATOSPHERIC OZONE PROTECTION)

The City of Lakeland Larsen Plant currently has no equipment or activities regulated under Title VI.

ATTACHMENT LE-FI-CV6

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

ATTACHMENT LE-FI-CV6
REQUESTED ADMINISTRATIVE CHANGES

Lakeland Electric (LE) requests the following changes to the Title V permit for the Charles Larsen Memorial Power Plant.

Subsection A. Boiler 7

Fossil fuel-fired steam generator No. 7 (EU 004) is retired and has been removed from the facility. As a result, LE requests that the emission unit and Subsection A of the current Title V permit, which lists the specific conditions for the unit, be removed from the renewed Title V permit. An Acid Rain/CAIR/Hg Budget Retired Unit Exemption form was previously submitted to FDEP in the letter dated July 3, 2008.

Specific Condition No. C.24: CAM Plan

Specific Condition No. C.24 states that a Continuous Assurance Monitoring (CAM) Plan is required to monitor the operations of the CT No. 8 (EU 008). The CAM Plan is for the purpose of monitoring the water injection system in Unit 8 that controls NO_x emissions. However, the unit is equipped with a continuous emissions monitoring system (CEMS) for NO_x emissions. The water-to-fuel ratio for the unit is also continuously monitored. According to the CAM requirements contained in 40 CFR 64, emissions limitations for which a continuous compliance determination method is specified in the Title V permit can be exempt from CAM requirements. Although Specific Condition No. C.27.a. does not say that compliance with the NO_x emission shall be determined by the CEMS, it states at the end of the second paragraph – "this provision does not preclude the Department from using the NO_x CEMS data as an indicator of compliance and noncompliance." LE requests that language stating that compliance with the NO_x emission limit shall be determined by CEMS be added in Specific Condition C.27.a, and that the CAM be removed from the renewed Title V permit.

Appendix U-1, List of Unregulated Emissions Units and/or Activities

The facility currently has emergency generators (EU 009) listed in Appendix U-1, List of Unregulated Emissions Units and Activities. There is one propane-fired emergency engine at the site that is used for site lighting in case of an emergency. This unit is subject to 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). The applicability analysis and details of the engine are presented in the following section. LE requests that EU 008 be removed from Appendix U-1.

40 CFR 63 Subpart ZZZZ Applicability

LE has prepared an inventory of stationary RICE at the Larsen facility and has conducted an applicability analysis of 40 CFR 63 Subpart ZZZZ for each engine. There are three stationary RICE at the facility:

- Startup diesel engine for CT Unit 2 (Cummins VT903-C, 430 HP)

- Startup diesel engine for CT Unit 3 (Cummins VT903-C, 430 HP)
- Emergency propane engine for site lighting (International Harvester V8, 94.5 HP)

The following tables present the detailed information on the engines including manufacturer, serial number, horsepower rating, and applicability of emissions, monitoring, reporting, and recordkeeping requirements associated with Subpart ZZZZ.

LE requests that the Subpart ZZZZ applicability requirements be included in the renewed Title V permit.

TABLE 1
APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
EU 009- Startup Diesel for SC CT#2

	Permit Requirements	Citation
Engine Description	Startup diesel engine for Peaking Unit	
CI or SI	CI	
Located in an Area Source or Major Source of HAPS	Area Source	
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Startup	
Engine Serial Number	99525	
Engine Manufacturer	Cummins	
Engine Model	VT903-C	
Engine Power (bhp)	430	
Compliance Date	May 3, 2013	Rule § 63.6595(a)
Emissions Limitations	None	
Operating/Maintenance Requirements	Change oil and filter every 500 hrs of operation or annually, whichever first Inspect air cleaner every 1,000 hrs of operation or annually, whichever first Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first	Rule § 63.6603(a), Table 2d (4a, 4b, 4c)
Fuel Requirements	None	Rule § 63.6604
Performance Tests	None	
Monitoring, installation, collection, operation, and maintenance requirements	Minimize idle & startup time to <30 min Operate and maintain according to manufacturer's instructions or develop and follow GCP Install a non-resettable hour meter	Rule § 63.6625(e)(3), (f), (h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Comply with work or management practices by operating and maintaining according to manufacturer's instructions or develop and follow own plan for operation and maintenance consistent with good air pollution control practices	Rule § 63.6640(a) Table 6 (9.a.i and 9.a.ii)
Notification Requirements	None	Rule § 63.6645(a)(2)
Recordkeeping Requirements	Records of maintenance conducted Records of operating hours	Rule § 63.6655(a), (e)(3)
Reporting Requirements	None	Rule § 63.6650(a) Table 7

TABLE 2
APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
EU 009- Startup Diesel for SC CT#3

	Permit Requirements	Standards
Engine Description	Startup diesel engine for Peaking Unit	
CI or SI	CI	
Located in an Area Source or Major Source of HAPS	Area Source	
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Startup	
Engine Serial Number	37112271	
Engine Manufacturer	Cummins	
Engine Model	VT903-C	
Engine Power (bhp)	430	
Compliance Date	May 3, 2013	Rule § 63.6595(a)
Emissions Limitations	None	
Operating/Maintenance Requirements	Change oil and filter every 500 hrs of operation or annually, whichever first Inspect air cleaner every 1,000 hrs of operation or annually, whichever first whichever first	Rule § 63.6603(a), Table 2d (4a, 4b, 4c)
Fuel Requirements	None	Rule § 63.6604
Performance Tests	None	
Monitoring, installation, collection, operation, and maintenance requirements	Minimize idle & startup time to <30 min Operate and maintain according to manufacturer's instructions or develop and follow GCP Install a non-resettable hour meter	Rule § 63.6625(e)(3), (f), (h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Comply with work or management practices by operating and maintaining according to manufacturer's instructions or develop and follow own plan for operation and maintenance consistent with good air pollution control practices	Rule § 63.6640(a) Table 6 (9.a.i and 9.a.ii)
Notification Requirements	None	Rule § 63.6645(a)(2)
Recordkeeping Requirements	Records of maintenance conducted Records of operating hours	Rule § 63.6655(a), (e)(3)
Reporting Requirements	None	Rule § 63.6650(a) Table 7

TABLE 3
APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
Emergency Engine

	Permit Requirements	Standards
Engine Description	Propane-fired Emergency Engine for Site Lighting	
CI or SI	CI	
Located in an Area Source or Major Source of HAPS	Area Source	
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	
Engine Serial Number	755790	
Engine Manufacturer	International Harvester V8	
Engine Model		
Engine Power (bhp)	94.5	
Compliance Date	May 3, 2013	Rule § 63.6595(a)
Emissions Limitations	None	
Operating Limitations	Change oil and filter every 500 hrs of operation or annually, whichever first Inspect air cleaner every 1,000 hrs of operation or annually, whichever first Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first Minimize idle & startup time to <30 min	Rule § 63.6600(d), Table 2d (4a, 4b , 4c)
Fuel Requirements	None	Rule § 63.6604
Performance Tests	None	Rule § 63.6610
Monitoring, installation, collection, operation, and maintenance requirements	Operate and maintain according to manufacturer's instructions or develop and follow GCP	Rule § 63.6625(e()
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Non-emergency use including maintenance checks and readiness testing limited to 100 hr/yr. Non-emergency use limited to 50 hr/yr.	Rule § 63.6640(f)
Notification Requirements	None	Rule § 63.6645
Reporting Requirements	None	Rule § 63.6650
Recordkeeping Requirements	Copies of each notification and report to comply with the subpart Records of occurrence and duration of each malfunction of operation Records of maintenance conducted Records of operating hours	Rule § 63.6655

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

   ☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Simple Cycle CT Peaking Units 2 & 3

3. Emissions Unit Identification Number: **005 & 006**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A		**1962**	**49**

8. Federal Program Applicability: (Check all that apply)

   ☐ Acid Rain Unit

   ☐ CAIR Unit

9. Package Unit:
   Manufacturer: Model Number:

10. Generator Nameplate Rating: **23** MW **(11.5 MW per unit)**

11. Emissions Unit Comment:
    Emission units consist of two simple cycle CT peaking units firing natural gas or No. 2 distillate fuel oil.

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

B. EMISSIONS UNIT CAPACITY INFORMATION
(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate: **23 MW**	
3. Maximum Heat Input Rate: **418** million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year
6. Operating Capacity/Schedule Comment:	

Maximum heat input rate is combined for gas turbine units No. 2 and No. 3.

Each turbine rated as follows:
Natural gas firing – 209 MMBtu/hr (based on 20°F inlet temperature)
No. 2 fuel oil firing – 209 MMBtu/hr (based on 25°F inlet temperature)

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **UNIT 2 & UNIT 3**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Each gas turbine exhausts through a single emission point.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **31** feet	7. Exit Diameter: **11.8** feet
8. Exit Temperature: **800**°F	9. Actual Volumetric Flow Rate: **662,400** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **408.9** North (km): **3,102.9**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) **28/02/56** Longitude (DD/MM/SS) **81/55/25**	
15. Emission Point Comment: **Stack parameters based on Title V permit application dated May 2007.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines; Electric Generation; Natural Gas; Turbine**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million cubic feet natural gas burned**	
4. Maximum Hourly Rate: **0.41**	5. Maximum Annual Rate: **3,591.6**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,020**
10. Segment Comment: **Maximum Hourly rate = 2 turbines x 209 MMBtu/hr / 1,020 MMBtu/MMcf = 0.41 MMcf/hr** **Maximum Annual rate = 0.41 MMcf/hr x 8,760 hr/yr = 3,591.6 MMcf/yr**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Internal combustion engines; Electric Generation; Distillate Oil (Diesel); Turbine**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **1,000 gallons burned**	
4. Maximum Hourly Rate: **3.03**	5. Maximum Annual Rate: **26,542**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.5**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **138**
10. Segment Comment: **Maximum hourly rate = 2 turbines x 209 MMBtu/hr / 138 MMBtu/Mgal = 3.03 Mgal/hr** **Maximum annual rate = 3.03 Mgal/hr x 8,760 hr/yr = 26,542 Mgal/yr**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			NS
PM10			NS
CO			NS
VOC			NS
SO2			NS*
NOx			NS

***Sulfur content limited to 0.5%; not federally enforceable.**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour tons/year		4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year		
6. Emission Factor: Reference:		7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years	
10. Calculation of Emissions:		
11. Potential, Fugitive, and Actual Emissions Comment:		

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _ of _

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation **1** of **2**

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **VE test using EPA Method 9**	
5. Visible Emissions Comment: **Rule 62-296.320(4)(b)1, F.A.C. and Permit No. 1050003-015-AV.** **Annual VE test required if oil-firing >400 hr/yr.**	

Visible Emissions Limitation: Visible Emissions Limitation **2** of **2**

1. Visible Emissions Subtype: **VE99**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Best operational practices**	
5. Visible Emissions Comment: **Excess emissions for startup, shutdown, or malfunction permitted for 2 hours in any 24-hour period. Rule 62-296.700(1), F.A.C.**	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-EU1-I1** ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-EU1-I2** ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-EU1-I4** ☐ Previously Submitted, Date _____
   ☐ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   ☐ Attached, Document ID: _____ ☒ Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

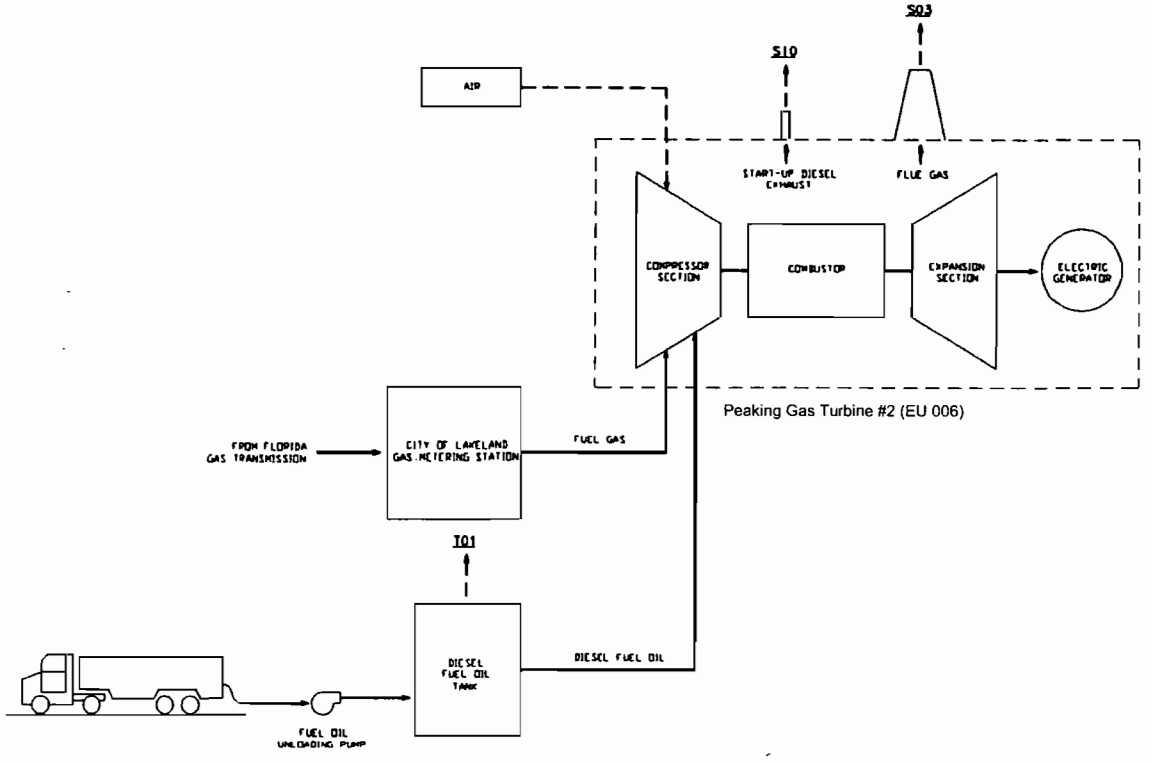
1. Identification of Applicable Requirements: ☒ Attached, Document ID: **LE-EU1-IV1**
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Alternative Methods of Operation: ☒ Attached, Document ID: **LE-EU1-IV3** ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements Comment

ATTACHMENT LE-EU1-I1

PROCESS FLOW DIAGRAM

ATTACHMENT LE-EU1-I1a



REV. NO.	BY	DATE	APPR.	REVISION
0	MG	11-2-94		ISSUED FOR TITLE V PERMIT APPLICATION
1	MG	5-15-96	MP	CHANGE TITLE
2	MG	5-29-98	MP	ISSUED FOR TITLE V

LAKELAND ELECTRIC & WATER

DESCRIPTION

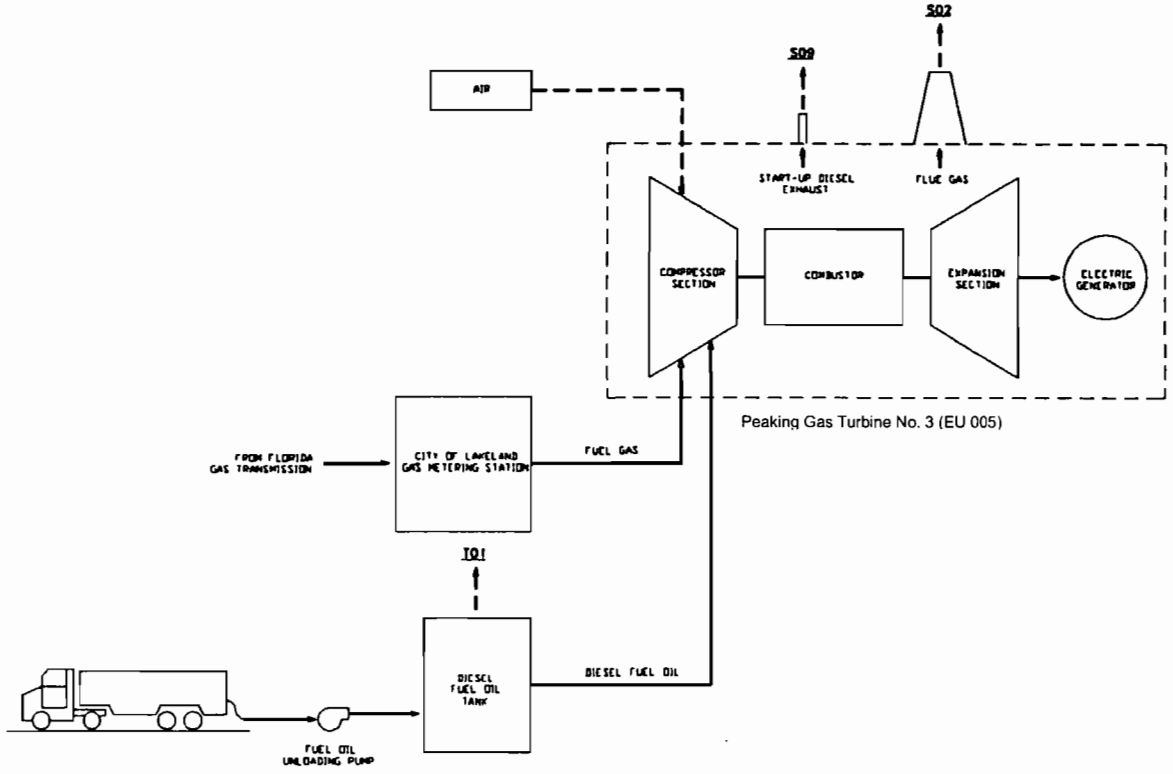
LAKELAND ELECTRIC & WATER UTILITIES
LARSEN POWER PLANT
GAS TURBINE GENERATOR NO. 3
TITLE V PROCESS FLOW DIAGRAM

DIVISION PRODUCTION ENGINEERING
ENGINEER PATTERSON
DRN. BY: MGIEGER
DATE 9-19-94
APPR. BY:

CAD | SCALE NONE
PROJ. NO AIR PERMIT
DWG. NO Attachment LE-EU1-I1a
REV. 2

SIZE B

ATTACHMENT LE-EU1-I1b



REV. NO	BY	DATE	APPR.	REVISION
0	MG	11-2-94		ISSUED FOR TITLE V PERMIT APPLICATION
1	MG	5-15-96	MP	CHANGE TITLE
2	MG	5-29-96	MP	ISSUED FOR TITLE V

LAKELAND ELECTRIC & WATER

DESCRIPTION: LAKELAND ELECTRIC & WATER UTILITIES
LARSEN POWER PLANT
GAS TURBINE GENERATOR NO. 2
TITLE V PROCESS FLOW DIAGRAM

DIVISION: PRODUCTION ENGINEERING
ENGINEER: PATTERSON
DRN. BY: MGIEGER
DATE: 9-19-94
APPR. BY:

CAD | SCALE: NONE
PROJ. NO.: AIR PERMIT
DWG NO.: Attachment LE-EU1-I1b
REV.: 2

SIZE B

ATTACHMENT LE-EU1-I2

FUEL ANALYSIS OR SPECIFICATION

SGS

Analysis Report

January 12, 2009

LAKELAND ELECTRIC CO
3030 EAST LAKE PARKER DRIVE
LAKELAND FL 33805

ATTN: DIANE DIMONACO

Client Sample ID:	U8 Stack Test 1-3	Sample ID By:	Lakeland Electric
Date Sampled:	Dec 18, 2008	Sample Taken At:	Unit 8
Date Received:	Dec 29, 2008	Sample Taken By:	LPP
Product Description:	FUEL OIL	P. O. #:	226969
		Sample ID:	8121905-02A

SGS Minerals Sample ID: 491-0832250-001

Tests	Result	Unit	Method
Sulfur, S	0.054	%	ASTM D4294
Specific Gravity	0.8550	---	ASTM D4052
API Gravity	34.0	°API	ASTM D4052
Gross Calorific Value (Btu/lb), AR	19418	Btu/lb	ASTM D240
Gross Calorific Value (Btu/gal)	138265	Btu/gal	ASTMD240
Pounds per gallon	7.120	---	ASTM D4052

VANESSA_CHAMBLISS

SGS North America Inc. | Minerals Services Division
16130 Van Drunen Road South Holland IL 60473 t (708) 331-2900 f (708) 333-3060 www.sgs.com/minerals

SGS

Analysis Report

January 12, 2009

LAKELAND ELECTRIC CO
3030 EAST LAKE PARKER DRIVE
LAKELAND FL 33805

ATTN: DIANE DIMONACO

Client Sample ID:	U8 Stack Test 4-6	Sample ID By:	Lakeland Electric
Date Sampled:	Dec 18, 2008	Sample Taken At:	Unit 8
Date Received:	Dec 29, 2008	Sample Taken By:	LPP
Product Description:	FUEL OIL	P. O. #:	226969
		Sample ID:	8121905-01A

SGS Minerals Sample ID: 491-0832250-002

Tests	Result	Unit	Method
Sulfur, S	0.053	%	ASTM D4294
Specific Gravity	0.8550	---	ASTM D4052
API Gravity	34.0	°API	ASTM D4052
Gross Calorific Value (Btu/lb), AR	19484	Btu/lb	ASTM D240
Gross Calorific Value (Btu/gal)	138733	Btu/gal	ASTMD240
Pounds per gallon	7.120	---	ASTM D4052

VANESSA_CHAMBLISS

SGS North America Inc | Minerals Services Division
16130 Van Drunen Road South Holland IL 60473 t (708) 331-2900 f (708) 333-3060 www.sgs.com/minerals

Florida Gas Transmission

Total Sulfur Previous Day

05/17/2012 08:00 AM

Florida Gas makes no warranty or representation whatsoever as to the accuracy of the information provided.
This information is provided on a best efforts basis and is an estimate.
The information is not used for billing purposes.
Florida Gas is not responsible for any reliance on this information by any party.

Stream History

	Perry 36" Stream #1		Perry 30" Stream #2		Perry 24" Stream #3		Brooker 24" Stream	
Gas Day	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf
05/15/2012	0.889	0.056	0.823	0.051	0.984	0.061	2.195	0.137
05/15/2012	0.807	0.050	1.144	0.072	0.984	0.061	3.327	0.208
05/14/2012	0.809	0.051	1.157	0.072	0.984	0.061	3.542	0.221
05/13/2012	0.795	0.050	1.130	0.071	0.984	0.061	2.297	0.144
05/12/2012	0.772	0.048	1.013	0.063	0.984	0.061	2.576	0.161
05/11/2012	0.791	0.049	1.008	0.063	0.984	0.061	2.827	0.177
05/10/2012	0.763	0.048	1.143	0.071	0.984	0.061	0.014	0.001
05/09/2012	0.738	0.046	1.020	0.064	0.984	0.061	0.011	0.001
05/08/2012	0.748	0.047	1.009	0.063	0.984	0.061	0.016	0.001
05/07/2012	0.764	0.048	1.059	0.066	0.984	0.061	0.013	0.001
05/06/2012	0.719	0.045	1.023	0.064	0.984	0.061	0.019	0.001
05/05/2012	0.661	0.041	1.157	0.072	0.984	0.061	0.014	0.001
05/04/2012	0.697	0.044	1.193	0.075	0.984	0.061	0.013	0.001
05/03/2012	0.752	0.047	1.226	0.077	0.984	0.061	1.021	0.064
05/02/2012	0.699	0.044	1.340	0.084	0.984	0.061	2.029	0.127
05/01/2012	0.708	0.044	1.080	0.067	0.984	0.061	1.899	0.119
04/30/2012	0.728	0.045	1.184	0.074	0.984	0.061	1.945	0.122
04/29/2012	0.697	0.044	1.195	0.075	0.984	0.061	1.745	0.109
04/28/2012	0.693	0.043	1.246	0.078	0.984	0.061	1.838	0.115
04/27/2012	0.641	0.040	1.050	0.066	0.984	0.061	1.492	0.093
04/26/2012	0.630	0.039	1.225	0.077	0.984	0.061	1.524	0.095
04/25/2012	0.623	0.039	1.382	0.086	0.984	0.061	1.488	0.093
04/24/2012	0.630	0.039	1.455	0.091	0.984	0.061	1.268	0.079
04/23/2012	0.630	0.039	1.550	0.097	0.984	0.061	1.252	0.078
04/22/2012	0.765	0.048	1.531	0.096	0.984	0.061	1.456	0.091
04/21/2012	0.717	0.045	1.395	0.087	0.984	0.061	1.841	0.115
04/20/2012	0.690	0.043	1.408	0.088	0.984	0.061	2.010	0.126
04/19/2012	0.863	0.054	1.484	0.093	0.984	0.061	2.088	0.131
04/18/2012	1.461	0.091	1.911	0.119	0.984	0.061	2.203	0.138
04/17/2012	1.219	0.076	1.703	0.106	0.984	0.061	2.098	0.131
04/16/2012	1.597	0.100	1.789	0.112	0.984	0.061	2.018	0.126
04/15/2012	1.362	0.085	1.509	0.094	0.984	0.061	1.865	0.117
04/14/2012	1.299	0.081	1.611	0.101	0.984	0.061	1.818	0.114
04/13/2012	1.568	0.098	1.952	0.122	0.984	0.061	1.521	0.095
04/12/2012	1.490	0.093	1.625	0.102	0.984	0.061	0.014	0.001
04/11/2012	1.240	0.078	1.560	0.098	0.984	0.061	0.447	0.028
04/10/2012	0.781	0.049	1.339	0.084	0.984	0.061	1.690	0.106
04/09/2012	0.824	0.052	1.462	0.091	0.984	0.061	1.595	0.100
04/08/2012	0.827	0.052	1.393	0.087	0.984	0.061	0.896	0.056
04/07/2012	0.883	0.055	1.335	0.083	0.984	0.061	1.279	0.080

Florida Gas Transmission

Total Sulfur Previous Day

05/17/2012 08:00 AM

	Perry 36" Stream #1		Perry 30" Stream #2		Perry 24" Stream #3		Brooker 24" Stream	
Gas Day	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf
04/06/2012	0.887	0.055	1.352	0.084	0.984	0.061	1.557	0.097
04/05/2012	0.909	0.057	1.380	0.086	0.984	0.061	1.837	0.115
04/04/2012	0.907	0.057	1.531	0.096	0.984	0.061	1.913	0.120
04/03/2012	0.867	0.054	1.444	0.090	0.984	0.061	2.019	0.126
04/02/2012	0.909	0.057	1.471	0.092	0.984	0.061	2.000	0.125
04/01/2012	0.937	0.059	1.530	0.096	0.984	0.061	1.771	0.111
03/31/2012	0.965	0.060	1.555	0.097	0.984	0.061	1.537	0.096
03/30/2012	0.967	0.060	1.582	0.099	0.984	0.061	1.792	0.112
03/29/2012	1.020	0.064	1.549	0.097	0.984	0.061	1.935	0.121
03/28/2012	1.109	0.069	1.779	0.111	0.984	0.061	1.756	0.110
03/27/2012	1.084	0.068	1.534	0.096	0.984	0.061	1.725	0.108
03/26/2012	1.019	0.064	1.465	0.092	0.984	0.061	1.602	0.100
03/25/2012	1.056	0.066	1.522	0.095	0.984	0.061	1.553	0.097
03/24/2012	1.048	0.065	1.476	0.092	0.984	0.061	1.598	0.100
03/23/2012	1.067	0.067	1.488	0.093	0.984	0.061	1.850	0.116
03/22/2012	0.979	0.061	1.089	0.068	0.984	0.061	1.758	0.110
03/21/2012	1.074	0.067	1.437	0.090	0.984	0.061	1.855	0.116
03/20/2012	1.109	0.069	1.442	0.090	0.984	0.061	1.706	0.107
03/19/2012	1.065	0.067	1.502	0.094	0.984	0.061	1.742	0.109
03/18/2012	1.079	0.067	1.590	0.099	0.984	0.061	1.683	0.105
03/17/2012	1.170	0.073	1.632	0.102	0.984	0.061	1.714	0.107
03/16/2012	1.176	0.073	1.590	0.099	0.984	0.061	1.957	0.122
03/15/2012	1.223	0.076	1.565	0.098	0.984	0.061	1.804	0.113
03/14/2012	1.095	0.068	1.145	0.072	0.984	0.061	1.323	0.083
03/13/2012	1.127	0.070	1.181	0.074	0.984	0.061	1.142	0.071
03/12/2012	1.135	0.071	1.323	0.083	0.984	0.061	1.360	0.085
03/11/2012	1.152	0.072	1.391	0.087	0.984	0.061	1.108	0.069
03/10/2012	1.141	0.071	1.336	0.084	0.984	0.061	1.279	0.080
03/09/2012	1.240	0.078	1.326	0.083	0.984	0.061	1.617	0.101
03/08/2012	1.198	0.075	1.458	0.091	0.984	0.061	1.620	0.101
03/07/2012	1.199	0.075	1.465	0.092	0.984	0.061	1.292	0.081
03/06/2012	1.268	0.079	1.449	0.091	0.984	0.061	1.108	0.069
03/05/2012	1.153	0.072	1.360	0.085	0.984	0.061	0.962	0.060
03/04/2012	1.163	0.073	1.328	0.083	0.984	0.061	0.015	0.001
03/03/2012	1.127	0.070	1.180	0.074	0.984	0.061	0.014	0.001
03/02/2012	1.098	0.069	1.300	0.081	0.984	0.061	0.014	0.001
03/01/2012	1.158	0.072	1.378	0.086	0.984	0.061	0.990	0.062
02/29/2012	1.066	0.067	1.353	0.085	0.984	0.061	1.607	0.100
02/28/2012	1.128	0.070	1.518	0.095	0.984	0.061	1.877	0.117
02/27/2012	1.139	0.071	1.592	0.099	0.984	0.061	1.924	0.120
02/26/2012	1.127	0.070	1.693	0.106	0.984	0.061	1.436	0.090
02/25/2012	1.083	0.068	1.623	0.101	0.984	0.061	1.560	0.097
02/24/2012	1.060	0.066	1.414	0.088	0.984	0.061	2.030	0.127
02/23/2012	1.013	0.063	1.340	0.084	0.984	0.061	2.072	0.129
02/22/2012	1.036	0.065	1.418	0.089	0.984	0.061	1.728	0.108
02/21/2012	1.033	0.065	1.492	0.093	0.984	0.061	1.779	0.111

Florida Gas Transmission

Total Sulfur Previous Day

05/17/2012 08:00 AM

	Perry 36" Stream #1		Perry 30" Stream #2		Perry 24" Stream #3		Brooker 24" Stream	
Gas Day	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/hcf
02/20/2012	1.014	0.063	1.583	0.099	0.984	0.061	1.677	0.105
02/19/2012	0.942	0.059	1.338	0.084	0.984	0.061	1.870	0.117
02/18/2012	0.900	0.056	1.061	0.066	0.984	0.061	2.030	0.127
02/17/2012	0.959	0.060	1.031	0.064	0.984	0.061	1.900	0.119
02/16/2012	0.999	0.062	0.992	0.062	0.984	0.061	1.552	0.097
02/15/2012	0.909	0.057	0.994	0.062	0.984	0.061	1.450	0.091
02/14/2012	0.782	0.049	0.951	0.059	0.984	0.061	1.411	0.088
02/13/2012	0.845	0.053	1.058	0.066	0.984	0.061	0.902	0.056
02/12/2012	0.872	0.054	1.521	0.095	0.984	0.061	0.470	0.029

ATTACHMENT LE-EU1-I4

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT LE-EU1-I4
PROCEDURES FOR STARTUP/SHUTDOWN

Startup and shutdown for these units are fully automatic.

Startup for the combustion turbine begins with turning on the machines on either natural gas or light distillate oil.

Corrective actions may include switching the unit from automatic (remote) to local control, or changing fuel combination(s). Best operating practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (electrical production) to a minimum level, opening the breaker (which disconnects the unit from the system electrical grid), shutting off the fuel, and coasting down to stop. The CT is then put "on turning gear" to prevent possible disfiguration of the turbine components.

ATTACHMENT LE-EU1-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS

Lakeland Electric
Charles Larsen Memorial Power Plant
Facility ID No. 1050003
Polk County

Title V Air Operation Permit Renewal
FINAL Permit No. 1050003-014-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Permitting North Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Compliance Authority:
Department of Environmental Protection
Southwest District Office
Air Resource Section
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Phone: 813/632-7600
Fax: 813/632-7668

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Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

Permittee:
Lakeland Electric
501 East Lemon Street
Lakeland, Florida 33801-5079

FINAL Permit No. 1050003-014-AV
Facility ID No. 1050003
SIC Nos. 49, 4911
Project: Title V Air Operation Permit Renewal

This purpose of this permitting action is to renew the Title V Air Operation Permit for the Charles Larsen Memorial Power Plant. The existing facility is located at 2002 Hwy 92 East, Lakeland, Polk County; UTM Coordinates: Zone 17, 408.9 km East and 3102.5 km North; and, Latitude: 28° 02' 56" North and Longitude: 81° 55' 25" West.

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Effective Date: January 01, 2008
Renewal Application Due Date: July 5, 2012
Expiration Date: December 31, 2012

Trina L Vielhauer for

Joseph Kahn, Director
Division of Air Resource Management

JK/tlv/jfk/bm

Subsection A. Facility Description.

This facility consists of one fossil fuel-fired steam generator (#7), two simple cycle combustion turbine (CT) peaking units (#2 and #3), one simple and combined cycle CT (#8), some fuel oil storage tanks and associated equipment.

Based on the Title V Air Operation Permit Renewal application received June 26, 2007, this facility is not a major source of hazardous air pollutants (HAP).

Subsection B. Emissions Unit Summary.

Regulated Emissions Units and Activities

EU No.	Description
-004	Fossil Fuel Fired Steam Generator #7
-005	Simple Cycle CT Peaking Unit #3
-006	Simple Cycle CT Peaking Unit #2
-008	Combined or Simple Cycle CT #8

Unregulated Emissions Units and Activities

EU No.	Description
-009	Emergency generators
-010	General purpose engines
-011	Surface coatings with VOC content <5% by volume
-012	Sand blasting
-013	Parts washing

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit ID Nos. on all correspondence, test report submittals, applications, etc.

1. Appendices. The Appendices identified in the Table of Contents are attached as an enforceable part of the permit unless otherwise indicated.

2. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 1515, Lanham-Seabrook, MD 20703-1515; and telephone: 301/429-5018.
and,
b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]

3. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C. This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. See Condition 51. of Appendix TV-6, Title V Conditions. [Rules 62-213.440(3) and 62-213.900, F.A.C.]

4. Compliance Authority. The permittee shall submit all compliance related notifications and reports required of this permit to: Department of Environmental Protection, Southwest District Office, Air Resource Section, 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926. The District telephone number is 813/632-7600 and facsimile number is 813/632-7668.

5. U.S. EPA Region 4. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: United States Environmental Protection Agency, Region 4, Air, Pesticides & Toxics Management Division, Air & EPCRA Enforcement Branch, Air Enforcement Section, 61 Forsyth Street, Atlanta, Georgia 30303-8960. The telephone number is 404/562-9155 and the facsimile number is 404/562-9163.

6. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

EU No.	Brief Description
-004	Fossil Fuel-Fired Steam Generator #7

Fossil fuel-fired steam generator #7 is a nominal 50 megawatt (electric) steam generator designated as Charles Larsen Memorial Power Plant Unit #7. Unit #7 began commercial service in 1966. This emissions unit is fired on No. 6 fuel oil at a maximum heat input of 728.0 MMBtu per hour or natural gas at a maximum heat input of 763.0 MMBtu per hour based on the higher heating value (HHV) of each fuel. A CAM plan is not required because there are no add-on control devices installed to meet the applicable emission limiting standards. The emissions unit is regulated under Acid Rain, Phase II and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 MMBtu per Hour Heat Input.

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

A.1. Permitted Capacity. The maximum heat input rates are as follows:

MMBtu/hr Heat Input	Fuel Type
763.0 (HHV)	Natural Gas
728.0 (HHV)	No. 6 Fuel Oil

Compliance with the heat input limits shall be determined based on the HHV of the fuels used and fuel flow meter data.

{Permitting Note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.} [Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

A.2. Emissions Unit Operating Rate Limitation After Testing. The operating rate of an emissions unit may be restricted based on compliance testing. See Appendix STR (Stack Testing Requirements) of this permit. [Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation. Fuels.

a. Startup: The only fuels allowed to be burned are propane, No. 2 fuel oil, natural gas, No. 6 fuel oil, or any combination of these fuels.

b. Normal: The only fuels allowed to be burned are natural gas, No. 6 fuel oil, or a combination of natural gas and No. 6 fuel oil. When a blend of liquid and gaseous fuel is fired, the heat input is prorated based on the percent heat input of each fuel.

[Rule 62-213.440(1), F.A.C.]

A.4. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

EMISSION LIMITATIONS AND STANDARDS

{Permitting Note: Unless otherwise specified, the averaging time is based on the specified averaging time of the applicable test method.}

A.5. Visible Emissions (VE). VE shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent. Emissions units governed by this VE limit shall compliance test for PM emissions annually and as otherwise required by Chapter 62-297, F.A.C. [Rule 62-296.405(1)(a), F.A.C.]

A.6. VE - Soot Blowing and Load Change. VE shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. [Rule 62-210.700(3), F.A.C.]

A.7. Particulate Matter (PM). PM emissions shall not exceed 0.1 pound per MMBtu heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(b), F.A.C.]

A.8. PM - Soot Blowing and Load Change. PM emissions shall not exceed an average of 0.3 pound per MMBtu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.]

A.9. Sulfur Dioxide (SO_2). When burning liquid fuel, SO_2 emissions shall not exceed 2.75 pounds per MMBtu heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(c)1.j., F.A.C.]

A.10. Fuel Oil Sulfur Content. The No. 6 fuel oil sulfur content shall not exceed 2.50 percent, by weight. [Rule 62-296.405(1)(e)3., F.A.C.; and, requested in a letter dated February 7, 1997.]

EXCESS EMISSIONS

A.11. Excess Emissions – Permitted Standards. For excess emissions regarding the permitted standards, see also Appendix CC of this permit. Excess emissions from existing fossil fuel steam generators resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rules 62-210.700(1), (2) and (4), F.A.C.]

MONITORING OF OPERATIONS

A.12. SO_2 - Fuel Oil Sulfur Content. The permittee elected to demonstrate compliance with the SO_2 emissions standard by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01, or the latest edition. [Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.; and 40 CFR 60, Subpart GG]

TEST METHODS AND PROCEDURES

A.13. Stack Testing Requirements (STR). See Appendix STR of this permit for notification, testing, recordkeeping and reporting requirements regarding a performance test. [Chapter 62-297, F.A.C.]

A.14. VE. The test method for VE shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. In lieu of Method 9 testing, a transmissometer utilizing a 6-minute block average for opacity measurement

may be used, provided such transmissometer is installed, certified, calibrated, operated and maintained in accordance with the provisions of 40 C.F.R. Part 75.

DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

a. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

b. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

(1) For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

(2) For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken. In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.

[Rules 62-296.405(1)(e)1. and 62-297.401, F.A.C.]

A.15. PM. For demonstration of compliance, the test methods for PM emissions shall be EPA Reference Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Reference Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Reference Method 17, stack temperature shall be less than 375 degrees Fahrenheit (°F). EPA Reference Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Reference Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Reference Method 5 or 17. [Rules 62-296.405(1)(e)2. and 62-297.401, F.A.C.]

A.16. SO_2. For demonstration of compliance with the SO_2 emissions standard, the permittee is allowed to use either a performance test or sampling and analysis. As such, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor upon each fuel delivery. The Department retains the authority to require EPA Reference Method 6 or 6C, incorporated by reference in Chapter 62-297, F.A.C., if it has reason to believe that exceedences of the SO_2 emissions limiting standard are occurring. Results of the approved fuel sampling and analysis program shall have the same effect as an EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with the SO_2 emissions standard. [Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.401, F.A.C.]

A.17. VE – Annual Testing. For any emissions unit that fires distillate oil for 400 hours or more during the federal fiscal year, the permittee shall conduct a VE test while firing distillate oil. [Rule 62-297.310(7)(a)4., F.A.C.; and application No. 1050003-014-AV]

A.18. PM - Annual and Permit Renewal Testing. For any emissions unit that fires distillate oil for 400 hours or more during the federal fiscal year, the permittee shall conduct a PM test while firing distillate oil. [Rules 62-297.310(7)(a)3. & 5., F.A.C.; and ASP Number 97-B-01]

A.19. Cold Standby. If the emissions unit is on cold standby when the annual compliance test is required, the compliance test may be postponed until after startup. Compliance testing shall be conducted within 30 days of startup. [Rules 62-4.070(3) and 62-210.300(2)(a)4., F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

A.20. Excess Emissions. Submit to the Compliance Authority a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file for a period of five years. [Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

A.21. Recordkeeping, Reporting and Notification Requirements. For additional recordkeeping, reporting and notification requirements, see Appendices CC and STR. [Rule 62-4.070(3), F.A.C.]

EU No.	Brief Description
-005	Simple Cycle CT Peaking Unit #3
-006	Simple Cycle CT Peaking Unit #2

Simple cycle CT peaking units #2 and #3 are fired with natural gas or No. 2 distillate fuel oil with a maximum sulfur content of 0.50 percent, by weight. CT #2 and #3 began commercial service in 1962. The maximum heat input rate for each CT is 209 MMBtu per hour. Each unit is rated at 11.5 megawatts (electric). Emissions from each CT are uncontrolled. Each CT has its own stack. A CAM plan is not required because there are no specific limiting standards and there are no add-on control devices installed. These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines.

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

B.1. Permitted Capacity. The maximum heat input rates, at an inlet temperature of 20 degrees Fahrenheit (°F) when firing natural gas and at an inlet temperature of 25 °F when firing No. 2 fuel oil, are as follows:

EU No.	CT #	MMBtu/hr Heat Input	Fuel Type
-005	3	209	Natural Gas
		209	No. 2 Distillate Fuel Oil
-006	2	209	Natural Gas
		209	No. 2 Distillate Fuel Oil

{Permitting Note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.} [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.2. Emissions Unit Operating Rate Limitation After Testing. The operating rate of an emissions unit may be restricted based on compliance testing. See Appendix STR (Stack Testing Requirements) of this permit. [Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation - Fuels. Only natural gas or No. 2 distillate fuel oil shall be fired in the CT. {Permitting Note: Application No. 1050003-014-AV indicates a maximum fuel oil sulfur content of 0.5%, by weight} [Rules 62-4.160(2) and 62-213.440(1), F.A.C.; AO 53-238714; and application No. 1050003-014-AV]

B.4. Hours of Operation. Each CT may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

EMISSION LIMITATIONS AND STANDARDS

{Permitting Note: Unless otherwise specified, the averaging time is based on the specified averaging time of the applicable test method.}

B.5. VE. VE from each CT shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C.; and AO 53-238714]

EXCESS EMISSIONS

B.6. Excess Emissions – Permitted Standards. For excess emissions regarding the permitted standards, see Appendix CC of this permit. [Rules 62-210.700(1) & (4), F.A.C.]

TEST METHODS AND PROCEDURES

B.7. Stack Testing Requirements. See Appendix STR of this permit for notification, testing, recordkeeping and reporting requirements regarding a performance test. [Chapter 62-297, F.A.C.]

B.8. VE. The test method for VE shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

B.9. VE – Annual Testing. For any emissions unit that fires distillate oil for 400 hours or more during the federal fiscal year, the permittee shall conduct a VE test while firing distillate oil. [Rule 62-297.310(7)(a)4., F.A.C.; and application No. 1050003-014-AV]

RECORDKEEPING AND REPORTING REQUIREMENTS

B.10. Recordkeeping, Reporting and Notification Requirements. For additional recordkeeping, reporting and notification requirements, see Appendices CC and STR. [Rule 62-4.070(3), F.A.C.]

EU No.	Brief Description
-008	Combined or Simple Cycle CT #8

This emissions unit is a 120 megawatt combined or simple cycle CT with an unfired heat recovery steam generator (HRSG) designated as Larsen Unit #8. CT #8 began commercial service in July, 1992. The CT fires natural gas as the primary fuel and No. 2 distillate fuel oil with a maximum sulfur content of 0.20 percent, by weight, as a limited auxiliary fuel. The CT is a GE Model PG7111 Frame 7EA unit equipped with low-NO_x burners and water injection, to reduce nitrogen oxides (NO_x) emissions, and an inlet fogger system, to boost flow output. A duct module was installed that is suitable for future installation of selective catalytic reduction (SCR) equipment. The HRSG powers an existing steam turbine-generator. The emissions unit can exhaust through the HRSG or through a by-pass stack. CAM applies because the NO_x emissions are greater than 100 TPY before control, post control of NO_x is by water injection, and there is no CEMS used for compliance purposes (except for use under any credible evidence at 40 CFR 60.11(g)). Compliance is demonstrated annually by stack testing, by using a continuous monitoring system to monitor and record the fuel consumption and the ratio of water-to-fuel being fired in the turbine, and by the 40 CFR Part 75 acid rain NO_x continuous emissions monitoring system (CEMS).

The emissions unit is regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; Prevention of Significant Deterioration (PSD), Permit No. PSD-FL-166, and as amended (A thru D); and, Best Available Control Technology (BACT), signed July 26, 1991.

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

C.1. Permitted Capacity - Base Mode Heat Input. At an inlet temperature of 25 °F, the maximum heat input rates are 1075 MMBtu per hour firing natural gas or 1060 MMBtu per hour firing No. 2 distillate fuel oil. The inlet fogger system may be operated any time Unit #8 is in operation. [1050003-012-AC/PSD-FL-166D; and Rule 62-210.200(PTE), F.A.C.]

C. 2. Permitted Capacity - Peaking Mode Heat Input. At an inlet temperature of 25 °F, the maximum heat input rates are 1161 MMBtu per hour firing natural gas or 1149 MMBtu per hour firing No. 2 distillate fuel oil. [1050003-012-AC/PSD-FL-166D; and Rule 62-210.200(PTE), F.A.C.]

C.3. Emissions Unit Operating Rate Limitation After Testing. The operating rate of an emissions unit may be restricted based on compliance testing. See Appendix STR (Stack Testing Requirements) of this permit. [Rule 62-297.310(2), F.A.C.]

C.4. Methods of Operation. Fuels.

a. This emissions unit fires natural gas as the primary fuel and No. 2 distillate fuel oil as the secondary fuel.

b. The consumption of No. 2 distillate fuel oil shall not exceed 8,190 gallons per hour and 23,914,800 gallons per year.

c. The maximum annual firing of No. 2 distillate fuel oil shall not exceed 1/3 of the annual capacity factor.

d. The maximum sulfur content of the No. 2 distillate fuel oil shall not exceed 0.20 percent, by weight.

e. The maximum sulfur content of the natural gas shall not exceed 2 grains sulfur/100 standard cubic feet.

{Permitting Note: Compliance with the fuel sulfur content limits specific above show compliance with the fuel sulfur content limit of 40 CFR 60.332., which is 0.8% by weight}

[Rules 62-210.200(PTE), 62-212.400, and 62-212.410, F.A.C.; AC53-190437/PSD-FL-166; and 1050003-012-AC/PSD-FL-166D]

C.5. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

C.6. Hours of Operation - Peaking Mode. During any consecutive 12 months, Unit #8 shall operate in a peaking mode for no more than 3000 hours, of which a maximum of 500 hours can be used while firing No. 2 distillate fuel oil. [1050003-012-AC/PSD-FL-166D]

EMISSION LIMITATIONS AND STANDARDS

{Permitting Note: Unless otherwise specified, the averaging time is based on the specified averaging time of the applicable test method.}

C.7. NO_x - Base Mode. The NO_x emissions shall not exceed 25 parts per million by volume on a dry basis (ppmvd) at 15 percent oxygen, 107 pounds per hour (lbs/hr), and 425 tons per year (TPY) when firing natural gas. The NO_x emissions shall not exceed 42 ppmvd at 15 percent oxygen, 180 lbs/hr, and 244 TPY when firing No. 2 distillate fuel oil. [Rule 62-212.400, F.A.C.; and 1050003-012-AC/PSD-FL-166D]

C.8 NO_x - Peaking Mode. The NO_x emissions shall not exceed 25 ppmvd at 15 percent oxygen, 115 lbs/hr, and 425 TPY when firing natural gas. The NO_x emissions shall not exceed 42 ppmvd at 15 percent oxygen, 192 lbs/hr, and 244 TPY when firing No. 2 distillate fuel oil. [Rule 62-212.400, F.A.C.; and 1050003-012-AC/PSD-FL-166D]

C.9. SO_2 - Base Mode. The SO_2 emissions shall not exceed 3.5 lbs/hr and 12.9 TPY when firing natural gas. The SO_2 emissions shall not exceed 215 lbs/hr and 316 TPY when firing No. 2 distillate fuel oil. [Rule 62-212.400, F.A.C.; and 1050003-012-AC/PSD-FL-166D]

C.10. SO_2 - Peaking Mode. The SO_2 emissions shall not exceed 3.5 lbs/hr and 12.9 TPY when firing natural gas. The SO_2 emissions shall not exceed 234 lbs/hr and 316 TPY when firing No. 2 distillate fuel oil. [Rule 62-212.400, F.A.C.; and 1050003-012-AC/PSD-FL-166D]

C.11. PM - Base Mode. The PM emissions shall not exceed 0.006 lb/MMBtu heat input, 6.5 lbs/hr, and 22 tons per year when firing natural gas. The PM emissions shall not exceed 0.025 lb/MMBtu heat input, 27 lbs/hr, and 22 TPY when firing No. 2 distillate fuel oil. [Rule 62-212.400, F.A.C.; and 1050003-012-AC/PSD-FL-166D]

C.12. PM - Peaking Mode. The PM emissions shall not exceed 0.006 lb/MMBtu heat input, 7.0 lbs/hr, and 22 TPY when firing natural gas. The PM emissions shall not exceed 0.025 lb/MMBtu heat input, 29 lbs/hr, and 22 TPY when firing No. 2 distillate fuel oil. [Rule 62-212.400, F.A.C.; and 1050003-012-AC/PSD-FL-166D]

C.13. Sulfuric Acid Mist (SAM). The SAM emissions shall be limited by firing only natural gas or No. 2 distillate fuel oil, as authorized by this permit. [1050003-005-AC/PSD-FL-166B]

C.14. VE. VE shall not exceed 10 percent opacity. [AC53-190437/PSD-FL-166; and 1050003-012-AC/PSD-FL-166D]

C.15. Volatile Organic Compounds (VOC) - Base Mode. VOC emissions shall not exceed 0.0018 lb/MMBtu, 1.9 lbs/hr, and 9 TPY when firing natural gas. VOC emissions shall not exceed 0.0045 lb/MMBtu, 4.8 lbs/hr, and 6.7 TPY when firing No. 2 distillate fuel oil. [AC53-190437/PSD-FL-166; and 1050003-012-AC/PSD-FL-166D]

C.16. VOC - Peaking Mode. VOC emissions shall not exceed 1.4 ppmvd at 15 percent oxygen, 2.1 lbs/hr, and 9 TPY when firing natural gas. VOC emissions shall not exceed 3.5 ppmvd, 5.1 lbs/hr, and 6.7 TPY when firing No. 2 distillate fuel oil. [AC53-190437/PSD-FL-166; and 1050003-012-AC/PSD-FL-166D]

C.17. Carbon Monoxide (CO) - Base Mode. CO emissions shall not exceed 25 ppmvd at 15 percent oxygen, 59 lbs/hr, and 232 TPY when firing natural gas. CO emissions shall not exceed 25 ppmvd at 15 percent oxygen, 60 lbs/hr, and 79 TPY when firing No. 2 distillate fuel oil. [AC53-190437/PSD-FL-166; and 1050003-012-AC/PSD-FL-166D]

C.18. CO - Peaking Mode. CO emissions shall not exceed 25 ppmvd at 15 percent oxygen, 63 lbs/hr, and 232 tons per year when firing natural gas. CO emissions shall not exceed 25 ppmvd at 15 percent oxygen, 64 lbs/hr, and 79 tons per year when firing No. 2 distillate fuel oil. [AC53-190437/PSD-FL-166; and 1050003-012-AC/PSD-FL-166D]

C.19. Mercury (Hg). Emissions of Hg shall be limited by firing only natural gas or No. 2 distillate fuel oil. [1050003-005-AC/PSD-FL-166B]

EXCESS EMISSIONS

C.20. Excess Emissions – Permitted Standards. For excess emissions regarding the permitted standards, see Appendix CC of this permit. [Rules 62-210.700(1), (4) & (6), F.A.C.]

C.21. Excess Emissions - NSPS. For excess emissions regarding the NSPS Subpart GG provisions, see Appendix NA (NSPS Subpart A - General Provisions) and Appendix NGG (NSPS Subpart GG – Stationary Gas Turbines). [40 CFR 60.7 and 40 CFR 60, Subpart GG]

MONITORING OF OPERATIONS

C.22. Fuel Consumption and Water-to-Fuel Ratio Monitoring. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, and using water injection to control NO_x emissions shall calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water-to-fuel being fired in the turbine. [40 CFR 60.334(a) and Rule 62-4.070(3), F.A.C.]

C.23. Custom Fuel Monitoring Schedule for Natural Gas.

a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the EPA approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, 90 (Reapproved 1994); ASTM D3246-81, 92, 96; ASTM D4468-85 (Reapproved 2000); and ASTM D6667-01 (see 40 CFR 60.17) as referenced in 40 CFR 60.335(b)(10).

b. If the sulfur monitoring for natural gas shows little variability and the calculated sulfur dioxide emissions represent consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sampling and analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.

c. Should any sulfur analysis indicate noncompliance with 40 CFR 60.333 and the limit in specific condition **C.4.e.**, the permittee shall notify the Compliance Authority of such excess emissions and the customized fuel monitoring schedule shall be re-examined.

d. Notwithstanding the sulfur limitation in specific condition **C.4.e.**, the permittee shall notify the Compliance Authority of any change in the natural gas supply for re-examination of this monitoring schedule. A substantial change in natural gas quality (i.e., sulfur content varying greater than 10 grains/1000 cubic feet of gas) shall be considered as a change in the natural gas supply. The sulfur content of the natural gas shall be monitored weekly during the interim period when this monitoring schedule is being re-examined.

e. Records of sampling analysis and natural gas supply pertinent to this monitoring schedule shall be retained by the permittee for a period of five years, and shall be available for inspection by appropriate regulatory personnel.

f. The permittee may obtain the sulfur content of the natural gas from the pipeline vendor.

[40 CFR 60.334(b)(2) & (h)(2); 40 CFR 60.335(b)(10); Rule 62-213.400, F.A.C.; AC53-190437/PSD-FL-166A; and requested by applicant]

C.24. CAM Plan. Appendix CAM, Compliance Assurance Monitoring, shall be used to monitor the operations of the CT. All excursions and corresponding actions shall be recorded for future reference and reporting purposes. [Rules 62-4.070(3) and 62-213.(1)(b)1., F.A.C.; 40 CFR 64; and 1050003-014-AV]

C.25. SO_2 - Fuel Sulfur Content. To meet the requirements of 40 CFR 60.334(i)(1), the owner or operator shall determine compliance with the No. 2 distillate fuel oil sulfur content standard of 0.20 percent, by weight, using ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see 40 CFR 60.17) and ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (incorporated by reference - see 40 CFR 60.17) shall be used to determine compliance with the sulfur content standard of the natural gas. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.335(b)(10) & (11); AC53-190437/PSD-FL-166; and 1050003-012-AC/PSD-FL-166D]

TEST METHODS AND PROCEDURES

C.26. Stack Testing Requirements. See Appendix STR of this permit for notification, testing, recordkeeping and reporting requirements regarding a performance test. [Rule 62-297.310, F.A.C.]

C.27. Compliance Test Methods. The permittee shall use the following test methods for demonstrating compliance with the emissions limiting standards:

a. NO_x and Diluent. EPA Reference Method 20, ASTM D6522-00 (see 40 CFR 60.17), or EPA Reference Method 7E and either EPA Method 3 or 3A in Appendix A, 40 CFR 60, shall be used for compliance and to determine the NO_x and diluent concentrations. EPA Reference Method 7E may be used provided there is no stack stratification. The Department may request correction to ISO conditions for comparison to the NSPS Subpart GG standards.

Since water injection is used to control NO_x with no additional post-combustion NO_x control and the owner or operator chose to monitor the water-to-fuel ratio in accordance with 40 CFR 60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00

(incorporated by reference, see 40 CFR 60.17), or EPA Reference Method 7E run and shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the NO_x emission limits. This provision does not preclude the Department from using the NO_x CEMS data as an indicator of compliance and noncompliance.

The CEMS shall be in continuous operation except for breakdowns, repairs, calibration checks, and zero and span adjustments. The CEMS shall meet minimum frequency of operation requirements: one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data average.

[Rules 62-4.070(3) and 62-213.440(1)(b), F.A.C.; AC53-190437/PSD-FL-166; 1050003-012-AC/PSD-FL-166D; 40 CFR 60.11(g); 40 CFR 64; 40 CFR 75; and 40 CFR 60.335(a) & (b)(4)]

b. SO_2. Compliance with the SO_2 standards shall be determined using EPA Reference Method 20, 40 CFR 60, Appendix A, and incorporated by reference in Chapter 62-297, F.A.C. [1050003-012-AC/PSD-FL-166D; and 40 CFR 60.335(a)]

c. VE. Compliance with the VE standard shall be determined using EPA Reference Method 9, 40 CFR 60, Appendix A, incorporated by reference in Chapter 62-297, F.A.C. [Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and AC53-190437/PSD-FL-166]

d. PM/Opacity. When firing No. 2 distillate fuel oil, compliance with the PM standards shall be determined using EPA Reference Method 5, 5B or 17, 40 CFR 60, Appendix A, incorporated by reference in Chapter 62-297, F.A.C. However, the VE test shall serve as a surrogate for PM compliance testing. If 10% opacity is exceeded, the Department may require the permittee to determine PM emissions by conducting EPA Reference Method 5, 5B or 17. [Rules 62-213.440, 62-297.310, and 62-297.401, F.A.C.; and 1050003-012-AC/PSD-FL-166D]

e. CO. Compliance with the CO standards shall be determined using EPA Reference Method 10, 40 CFR 60, Appendix A, incorporated by reference in Chapter 62-297, F.A.C. [AC53-190437/PSD-FL-166 and 1050003-012-AC/PSD-FL-166D]

f. VOC. Compliance with the VOC standard shall be determined using EPA Reference Method 25A, 40 CFR 60, Appendix A, incorporated by reference in Chapter 62-297, F.A.C. The permittee may also elect to conduct EPA Reference Method 18 on a concurrent sample to determine emissions of methane and ethane, which may be excluded from the determination of VOC emissions as determined by EPA Reference Method 25A. Otherwise, all organic compounds measured by EPA Reference Method 25A are assumed to be regulated VOC emissions. Testing for VOC is not required as long as the emissions unit complies with the CO standards. [1050003-012-AC/PSD-FL-166D]

g. Hg, Lead and Beryllium. The initial compliance test requirement for these pollutants has been satisfied and no further tests are required. [AC53-190437/PSD-FL-166 and 1050003-005-AC/PSD-FL-166B]

C.28. Annual Compliance Tests Required. Annual compliance tests shall be conducted for VE, CO, NO_x and diluent. Depending on the compliance test results for VE and CO, compliance tests may be required for PM and VOC, respectively. [1050003-012-AC/PSD-FL-166D]

C.29. Compliance Tests Required for Permit Renewal. For permit renewal, compliance tests shall be required for VE, CO, NO_x and diluent, and possibly PM and VOC depending the results of the compliance tests results for VE and CO, respectively. [1050003-012-AC/PSD-FL-166D]

RECORDKEEPING AND REPORTING REQUIREMENTS

C.30. Hours of Operation: The applicant shall record the hours of operation for each fuel type and for operation in peaking mode. [1050003-012-AC/PSD-FL-166D]

C.31. Future Emissions. The owner or operator shall submit to the Permitting Authority on an annual basis, for a period of 5 years representative of normal post-change operations of the emissions unit and within the period not longer than 10 years following the change, information demonstrating that the physical or operational change did not result in an emissions increase. The definition of "representative actual annual emissions" is found in 40 CFR 52.21(b)(33), adopted and incorporated by reference in Rule 62-204.800, F.A.C. [1050003-012-AC/PSD-FL-166D, issued 12/09/2003; 1050003-014-AV; and Rule 62-210.200(Definitions), F.A.C.]

C.32. Recordkeeping, Reporting and Notification Requirements. For additional recordkeeping, reporting and notification requirements, see Appendices CC, STR, NA, NGG and TV-6. [Rule 62-4.070(3) and 62-213.440(1)(b), F.A.C.; 40 CFR 60.7; and 40 CFR 60.11(g)]

C.33. Excess NO_x Emissions – Notification. Based on NO_x CEMS data, any 3-hour average that exceeds the permitted standards shall be recorded and reported to the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. For additional recordkeeping, reporting and notification requirements, see Appendices CC, NA and TV-6. [Rules 62-4.070(3), 62-4.130, 62-210.700(6) and 62-213.440(1)(b), F.A.C.; 40 CFR 60.7; and 40 CFR 60.11(g)]

C.34. Excess Emissions - NSPS. Following the NSPS format, 40 CFR 60.7, Subpart A, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards. With regard to the emissions standards in Subpart GG of 40 CFR 60, quarterly excess emission reports shall be submitted to the Compliance Authority in accordance with 40 CFR 60.7(c). Quarterly reports are due within 30 days following each calendar quarter. [Rules 62-4.130 and 62-204.800, F.A.C.; 40 CFR 60.7; and 40 CFR 60.11(g)]

Operated by: Lakeland Electric
ORIS code: 0675

SUBSECTION A. ACID RAIN UNITS

The emissions units listed below are regulated under Acid Rain Program, Phase II.

EU No.	Brief Description
-004	Fossil Fuel Fired Steam Generator #7
-008	Combined or Simple Cycle CT #8

A.1. Acid Rain Applications. The permit applications submitted for this facility, as approved by the Department, are a part of this permit. The owners and operators of these acid rain units must comply with the standard requirements and special provisions set forth in the application received on 07/02/2007. [Chapter 62-213 and Rule 62-214.320, F.A.C.]

A.2. Summary of SO_2 Allowances. SO_2 allowance allocations requirements for each Acid Rain unit are as follows:

EU No.	EPA ID	SO_2 Allowances* for Each Year				
		2008	2009	2010	2011	2012
-004	7	307*	307*	308*	308*	308*
-008	8	665*	665*	666*	666*	666*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

c. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

A.4. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 days after the end of the calendar year. [Rule 62-214.420(11), F.A.C.]

A.5. Comments, Notes, and Justifications. None.

SECTION V. APPENDICES

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SECTION V. APPENDIX A
CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001" identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Florida Statutes (F.S.)

Example: [Section 403.161, F.S.]

Means: Chapter 403, Section 161 of the Florida Statutes

Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

MISCELLANEOUS

ARMS: Air Resource Management System

SECTION V. APPENDIX I

LIST OF INSIGNIFICANT EMISSIONS UNITS AND ACTIVITIES

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62-210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities:

1. Tank T-01 Distillate Fuel Oil No. 2
2. Tank T-02 Distillate Fuel Oil No. 2
3. Tank T-03 Residual Oil No. 6
4. Tank T-04 Residual Oil No. 6
5. Comfort heating with a maximum heat output of less than 1 MMBtu per hour
6. Internal combustion engines used for the transportation of passengers or freight
7. Non-industrial vacuum cleaning equipment
8. Refrigeration units not using ozone-depleting substance
9. Vacuum pumps for laboratory operations
10. Steam cleaning equipment
11. Sanders of less than 5 square feet used exclusively on wood, plastic or their products
12. Space heating equipment other than boilers
13. Laboratory equipment
14. Brazing, soldering or welding equipment
15. Laundry dryers
16. Fire and safety equipment
17. Surface coatings with VOC content <5% by volume, 6 gallons per day or less

SECTION V. APPENDIX U
LIST OF UNREGULATED EMISSIONS UNITS AND ACTIVITIES

Unregulated Emissions Units and/or Activities. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

ARMS No.	Brief Description of Emissions Units and/or Activity
-009	Emergency generators
-010	General purpose engines
-012	Sand blasting
-013	Parts washing

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

3. Excess Emissions - Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) 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. This state provision cannot be used to vary any applicable NSPS requirements from 40 CFR 60. [Rule 62-210.700(1), F.A.C.]

4. 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. This state provision cannot be used to vary any applicable NSPS requirements from 40 CFR 60. [Rule 62-210.700(4), F.A.C.]

5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program (designee) 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 or its designee. This state provision cannot be used to vary any applicable NSPS requirements from 40 CFR 60. [Rule 62-210.700(6), F.A.C.]

6. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department or its designee.

   Such controls include the following:

   a. Tightly cover or close all VOC containers when they are not in use.
   b. Tightly cover all open tanks which contain VOC when they are not in use.
   c. Maintain all pipes, valves, fittings, etc., which handle VOC in good operating condition.
   d. Confine rags used with VOC to tightly closed, fire-proof containers when not in use.
   e. Immediately confine and clean up VOC spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

   [Rule 62-296.320(1), F.A.C.]

7. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means 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. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

8. General Particulate Emissions Limiting Standard. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

9. Unconfined Particulate Emissions: No person shall cause, let, permit, suffer or allow the emission 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 emission.

   Reasonable precautions include the following:

   a. Paving and maintenance of roads, parking areas and yards.
   b. Application of water or other dust suppressants to control emission from such activities as demolition of buildings, grading roads, construction, and land clearing.
   c. Application of asphalt, water, 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 reentrainment, 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.
   h. Enclosure or covering of conveyor systems.
   i. Posting and enforcing a speed limit for vehicles traveling on roadways on site.

   [Rule 62-296.320(4)(c), F.A.C.]

RECORDS AND REPORTS

10. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department or its designee upon request. [Rule 62-213.440(1)(b)2., F.A.C.]

11. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(3), F.A.C.]

12. Day 1 for Recording, Monitoring and Reporting Requirements. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

   a. Have access to and copy and records that must be kept under the conditions of the permit;
   b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
   c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

   Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

   a. A description of and cause of non-compliance; and

   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

   The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the

F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

    a. Determination of Best Available Control Technology (Not Applicable);
    b. Determination of Prevention of Significant Deterioration (Not Applicable); and,
    c. Compliance with New Source Performance Standards (NSPS Subparts A and GG).

14. The permittee shall comply with the following:

    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

    c. Records of monitoring information shall include:

        (1) The date, exact place, and time of sampling or measurements;
        (2) The person responsible for performing the sampling or measurements;
        (3) The dates analyses were performed;
        (4) The person responsible for performing the analyses;
        (5) The analytical techniques or methods used; and
        (6) The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

COMPLIANCE TESTING REQUIREMENTS

1. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
2. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
3. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
4. Applicable Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
   a. *Required Sampling Time.*
      (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
      (2) Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
         (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
         (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
         (c) The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
   b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

c. *Required Flow Rate Range.* For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sample volume will be obtained.

d. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

Table 297.310-1 CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calibration liquid in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings 0.004"
Dry Gas Meter and Orifice Meter	1. Full Scale: Annually - When received; - When 5% change observed. 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter Comparison check	2% 5%

e. *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

5. Determination of Process Variables [Rule 62-297.310(5), F.A.C.]

a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

6. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also

comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. [Rule 62-297.310(6), F.A.C.]

a. *Permanent Test Facilities.* The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

b. *Temporary Test Facilities.* The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

c. *Sampling Ports.*

(1) All sampling ports shall have a minimum inside diameter of 3 inches.

(2) The ports shall be capable of being sealed when not in use.

(3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

(4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

(5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

d. *Work Platforms.*

(1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

(2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

(3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

(4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

e. *Access to Work Platform.*

(1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

(2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.

f. *Electrical Power.*

(1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

(2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

g. *Sampling Equipment Support.*

(1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

(a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

(b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

(c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

(2) A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.

(3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

7. Frequency of Compliance Tests: The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required. [Rule 62-297.310(7), F.A.C.]

a. *General Compliance Testing.*

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

(a) Did not operate; or

(b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,

4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

(a) Visible emissions, if there is an applicable standard;

(b) Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

(c) Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

b. *Special Compliance Tests.* When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

c. *Waiver of Compliance Test Requirements.* If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

RECORDS AND REPORTS

8. Test Reports: [Rule 62-297.310(8), F.A.C.]
   a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
   b. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
   c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
      1. The type, location, and designation of the emissions unit tested.
      2. The facility at which the emissions unit is located.
      3. The owner or operator of the emissions unit.
      4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.

5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

ATTACHMENT LE-EU1-IV3

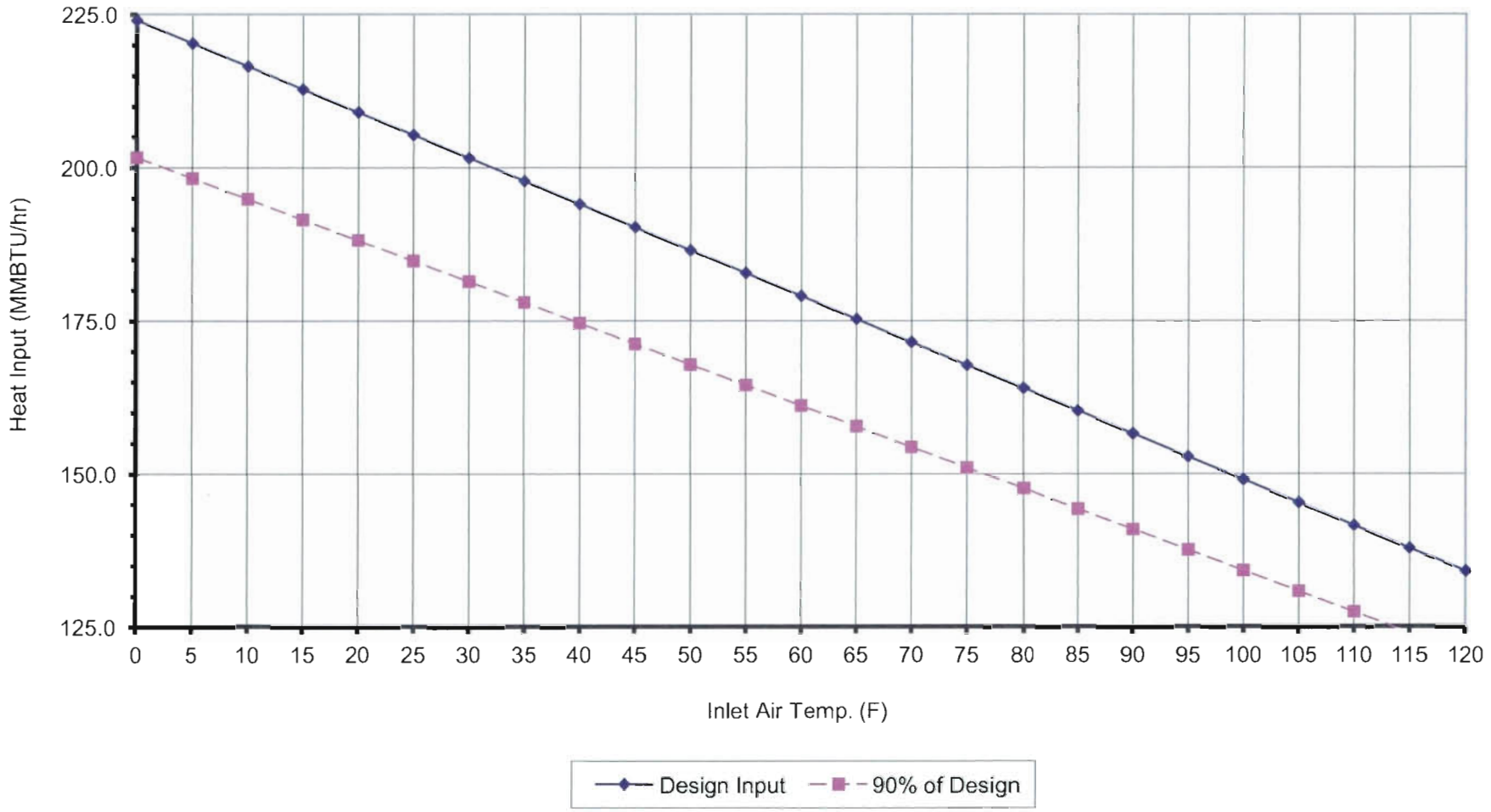
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT LE-EU1-IV3A

ALTERNATIVE METHODS OF OPERATION
PEAKING GAS TURBINES 2 AND 3

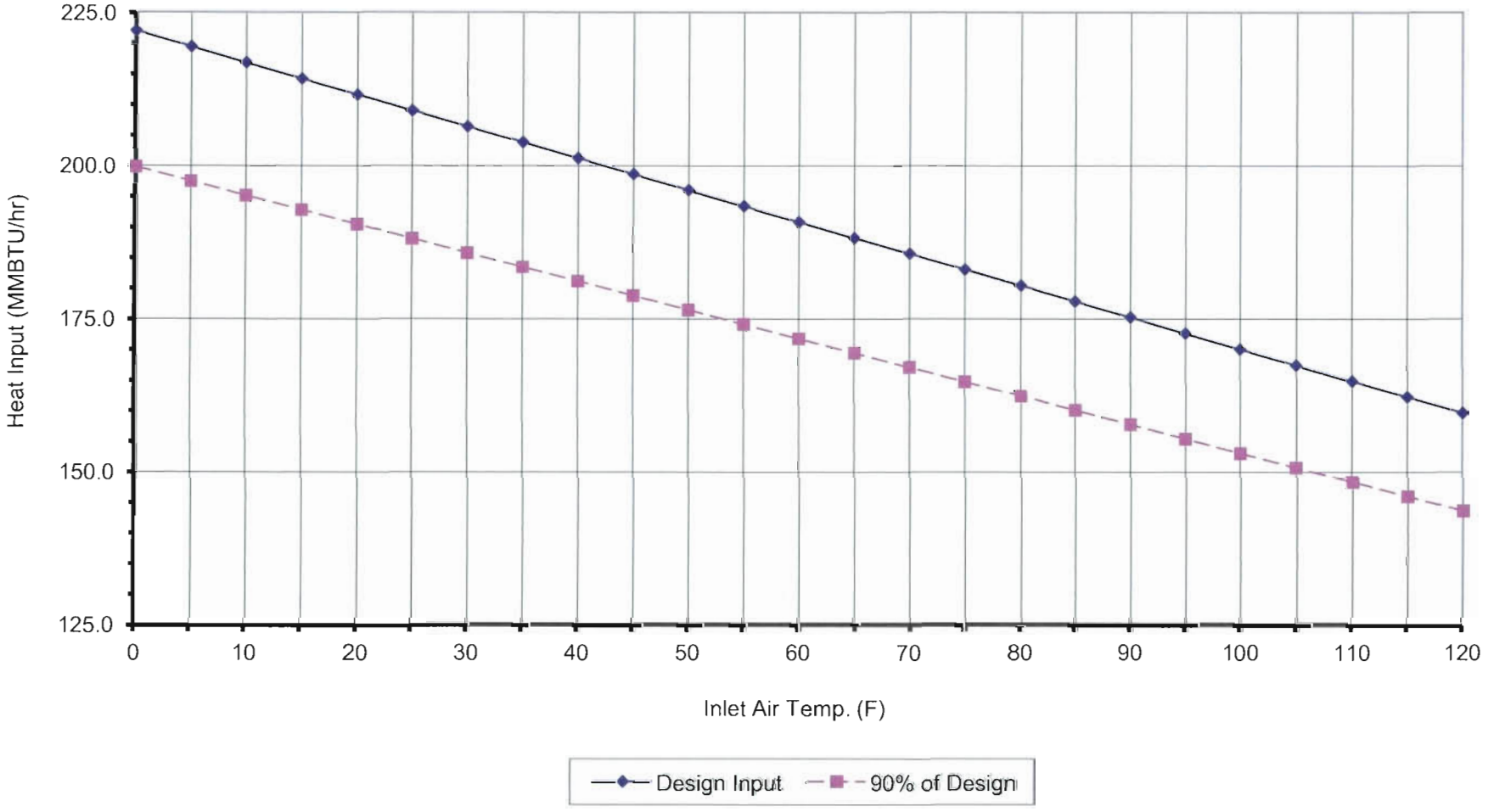
The peaking gas turbine units (No. 2 and No. 3) can be fired with natural gas or No. 2 fuel oil. The maximum heat input rate for each gas turbine is limited to 209 MMBtu/hr for either natural gas or No. 2 fuel oil firing based on 20°F inlet temperature from natural gas firing and 25°F inlet temperature for No. 2 fuel oil firing. The sulfur content of No. 2 fuel oil is limited to 0.5 percent by weight. Graphs of heat input versus inlet temperature for both natural gas and No. 2 fuel firing are attached.

Attachment LE-EU1-IV3b
Larsen Peaking Gas Turbine 2 & 3
Heat Input vs. Compressor Inlet Temperature
Peak Mode Using LHV of Natural Gas



Golder Associates

Attachment LE-EU1-IV3c
Larsen Peaking Gas Turbine 2 & 3
Heat Input vs. Compressor Inlet Temperature
Peak Mode Using LHV of No. 2 Oil



III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [2]
Combined Cycle Combustion Turbine 8

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

   ☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

   ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Combined Cycle Combustion Turbine 8

3. Emissions Unit Identification Number: **008**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A		**7/7/92**	**49**

8. Federal Program Applicability: (Check all that apply)

   ☒ Acid Rain Unit

   ☒ CAIR Unit

9. Package Unit:
   Manufacturer: **GE** Model Number: **PG7111 EA**

10. Generator Nameplate Rating: **120** MW

11. Emissions Unit Comment:
    Emission unit is a GE 7EA, natural gas or No. 2 fuel oil-fired combined or simple cycle gas turbine with a heat recovery steam generator (HRSG). Initial startup date is emission unit's commercial in-service date.

EMISSIONS UNIT INFORMATION
Section [2]
Combined Cycle Combustion Turbine 8

Emissions Unit Control Equipment/Method: Control **1** of **2**

1. Control Equipment/Method Description: **Water Injection**
2. Control Device or Method Code: **28**

Emissions Unit Control Equipment/Method: Control **2** of **2**

1. Control Equipment/Method Description: **Low-NOx Burners**
2. Control Device or Method Code: **205**

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

B. EMISSIONS UNIT CAPACITY INFORMATION
(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: **1,161** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year

6. Operating Capacity/Schedule Comment:

Maximum heat input rate based on peaking operation mode, natural gas firing and inlet temperature of 25°F.
Maximum heat input rate at peaking mode while firing No. 2 fuel oil and at inlet temperature of 25°F is 1,149 MMBtu/hr.
Peaking operation mode limited to 3,000 hours per consecutive 12 months of which a maximum of 500 hours can be of firing oil.

Maximum heat input rates during base mode operations at inlet temperature of 25°F:
Natural gas firing - 1,075 MMBtu/hr
No. 2 fuel oil firing - 1,060.0 MMBtu/hr

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU 008**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Emission unit can exhaust through either a by-pass stack (simple-cycle mode) or heat recovery steam generator (HRSG) stack (combined-cycle mode).**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **008**		
5. Discharge Type Code: **V**	6. Stack Height: **155** feet	7. Exit Diameter: **16** feet
8. Exit Temperature: **481**°F	9. Actual Volumetric Flow Rate: **1,034,053** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **408.9** North (km): **3,102.9**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) **28/02/56** Longitude (DD/MM/SS) **81/55/25**	

15. Emission Point Comment:

Stack parameters for the by-pass stack:
Height : 100 ft
Diameter : 17.6 ft (equivalent diameter, stack is rectangular 18.3' x 13.3')
Temperature : 950°F
Flow : 1,549,432 acfm
Stack and operating parameters based on Title V renewal application dated May 2007.

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines; Electric Generation; Natural Gas; Turbine**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million cubic feet natural gas burned**	
4. Maximum Hourly Rate: **1.22**	5. Maximum Annual Rate: **9,913**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **950**
10. Segment Comment: **Maximum hourly rate = 1,161 MMBtu/hr / 950 MMBtu/MMcf (LHV) = 1.22 MMcf/hr** **Maximum annual rate = 1,075 MMBtu/hr / 950 MMBtu/MMcf x 8,760 hr/yr = 9,913 MMcf/yr** **Based on 25°F turbine inlet and peak (hourly) and base (annual) modes.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines; Electric Generation; Distillate Oil (Diesel); Turbine**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **1,000 Gallons burned**	
4. Maximum Hourly Rate: **8.19**	5. Maximum Annual Rate: **23,914.8**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.2**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **138**
10. Segment Comment: **Maximum hourly No. 2 oil consumption limited to 8,190 gallons/hr.** **Maximum annual No. 2 oil consumption limited to 23,914,800 gallons/yr.**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
PM10			NS
SO2			EL
NOx	028, 205		EL
CO			EL
VOC			EL
SAM			EL
Hg			EL

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **29** lb/hour **36.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.025 lb/MMBtu** Reference: **Permit Nos. 1050003-015-AV / 1050003-012-AC**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Hourly emissions = 0.025 lb/MMBtu x 1,149 MMBtu/hr = 29 lb/hr (Oil firing, Peaking mode).
Hourly emissions = 0.006 lb/MMBtu x 1,161 MMBtu/hr = 7.0 lb/hr (NG firing, Peaking mode).
Hourly emissions = 0.025 lb/MMBtu x 1,060 MMBtu/hr = 27 lb/hr (Oil firing, Base mode).
Hourly emissions = 0.006 lb/MMBtu x 1,075 MMBtu/hr = 6.5 lb/hr (NG firing, Base mode).
Annual emissions = 22 TPY x 2/3 (gas) + 22 TPY (oil) = 36.7 TPY

11. Potential Fugitive and Actual Emissions Comment:

Potential hourly emissions based on oil firing during peaking mode.

Potential annual emissions based on 2,920 hr/yr (1/3 of year) of oil firing and 5,840 hr/yr (2/3 of year) of natural gas firing. Permit No. 1050003-015-AV / 1050003-012-AC.
See Attachment LE-EU2-F1.11 for a summary of emissions limits for Unit 8.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.006 lb/MMBtu**	4. Equivalent Allowable Emissions: **6.5** lb/hour **22** tons/year
5. Method of Compliance: **None**	
6. Allowable Emissions Comment (Description of Operating Method) **Allowable emissions based on natural gas firing during base mode.** **Permit No. 1050003-015-AV / 1050003-12-AC**	

Allowable Emissions Allowable Emissions **2** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: **27** lb/hour **22** tons/year
5. Method of Compliance: **VE test used as surrogate, If opacity >10% PM test using EPA Methods 5, 5B, or 17**	
6. Allowable Emissions Comment (Description of Operating Method): **VE test shall serve as a surrogate for PM testing.** **Allowable emissions based on No. 2 fuel oil firing during base mode.** **Permit No. 1050003-015-AV / 1050003-16-AC** **VE compliance test using EPA Method 9 required only if oil firing >400 hr/yr.**	

Allowable Emissions Allowable Emissions **3** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.006 lb/MMBtu**	4. Equivalent Allowable Emissions: **7.0** lb/hour **22** tons/year
5. Method of Compliance: **None**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on natural gas firing during peaking mode.** **Permit No. 1050003-015-AV / 1050003-12-AC**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **4** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.025 lb/MMBtu**	4. Equivalent Allowable Emissions: **29** lb/hour **22** tons/year
5. Method of Compliance: **VE test used as surrogate, If opacity >10% PM test using EPA Methods 5, 5B, or 17**	
6. Allowable Emissions Comment (Description of Operating Method): **VE test shall serve as a surrogate for PM testing. Allowable emissions based on No. 2 fuel oil firing during peaking mode. Permit No. 1050003-014-AV / 1050003-16-AC VE compliance test using EPA Method 9 required only if oil firing >400 hr/yr.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **SO2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **234** lb/hour **325.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.2% Sulfur No. 2 fuel oil** Reference: **Permit Nos. 1050003-015-AV / 1050003-012-AC**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Hourly emissions = 8,190 gal/hr x 7.132 lb/gal x 0.2 lb S/100 lb fuel x 64 lb SO_2/32 lb S = 234 lb/hr

Annual emissions = 12.9 TPY x 2/3 (gas) + 316 TPY (oil) = 324.6 TPY

11. Potential, Fugitive, and Actual Emissions Comment:
Hourly emissions based on hourly oil consumption limit of 8,190 gallons/hr. Annual emissions based on 2,920 hr/yr (1/3 of year) of oil firing and 5,840 hr/yr (2/3 of year) of natural gas firing. Permit No. 1050003-015-AV / 1050003-012-AC.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 gr S/100 scf**	4. Equivalent Allowable Emissions: **3.5** lb/hour **12.9** tons/year
5. Method of Compliance: **Fuel Analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on natural gas firing in base mode. Permit Nos. 1050003-015-AV / 1050003-012-AC.**	

Allowable Emissions Allowable Emissions **2** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 gr S/100 scf**	4. Equivalent Allowable Emissions: **3.5** lb/hour **12.9** tons/year
5. Method of Compliance: **Fuel Analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on natural gas firing in peaking mode. Permit Nos. 1050003-015-AV / 1050003-012-AC.**	

Allowable Emissions Allowable Emissions **3** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.2% sulfur No. 2 fuel oil**	4. Equivalent Allowable Emissions: **234** lb/hour **316** tons/year
5. Method of Compliance: **Fuel Oil Analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on No. 2 fuel oil firing in base mode. Permit No. 1050003-014-AV / 1050003-012-AC.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **4** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.2% sulfur No. 2 fuel oil**	4. Equivalent Allowable Emissions: **234** lb/hour **316** tons/year
5. Method of Compliance: **Fuel Oil Analysis**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on No. 2 fuel oil firing in peak mode. Permit No. 1050003-015-AV / 1050003-012-AC.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **NOx**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **192** lb/hour **527.3** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **42 ppmvd at 15 percent O_2** Reference: **Permit Nos. 1050003-015-AV / 1050003-012-AC**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Annual emissions = 425 TPY x 2/3 (gas) + 244 TPY (oil) = 527.3 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential Hourly emissions based on oil firing during peaking mode.
Annual emissions based on 2,920 hr/yr (1/3 of year) of oil firing and 5,840 hr/yr (2/3 of year) of natural gas firing. Permit Nos. 1050003-015-AV / 1050003-012-AC.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **25 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **107** lb/hour **425** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 20, or 7E and either EPA Method 3 or 3A in Appendix A, 40 CFR 60.** **EPA method 7E may be used if there is no stack stratification.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on natural gas firing in base mode.** **Permit Nos. 1050003-015-AV / 1050003-016-AC**	

Allowable Emissions Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **25 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **115** lb/hour **425** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 20, or 7E and either EPA Method 3 or 3A.** **EPA method 7E may be used if there is no stack stratification.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on natural gas firing in peaking mode.** **Permit Nos. 1050003-015-AV / 1050003-016-AC**	

Allowable Emissions Allowable Emissions 3 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **42 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **180** lb/hour **244** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 20, or 7E and either EPA Method 3 or 3A.** **EPA method 7E may be used if there is no stack stratification.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on No. 2 fuel oil firing in peaking mode.** **Permit Nos. 1050003-015-AV / 1050003-016-AC**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **4** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **42 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **192** lb/hour **244** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 20, or 7E and either EPA Method 3 or 3A. EPA method 7E may be used if there is no stack stratification.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on No. 2 fuel oil firing in peaking mode. Permit Nos. 1050003-015-AV / 1050003-016-AC**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **64** lb/hour **254** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **25 ppmvd at 15 percent O_2** Reference: **Permit Nos. 1050003-015-AV / 1050003-012-AC**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Annual emissions = 232 TPY x 2/3 (gas) + 79 TPY (oil) = 254 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential Hourly emissions based on oil firing during peaking mode. Annual emissions based on 2,920 hours (1/3 of year) of oil firing and 5,840 hours (2/3 of year) of natural gas firing. Permit Nos. 1050003-015-AV / 1050003-012-AC.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **25 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **59** lb/hour **232** tons/year
5. Method of Compliance: **Annual Compliance test using EPA Method 10 , 40 CFR 60, Appendix A.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on natural gas firing in base mode. Permit Nos. 1050003-015-AV / 1050003-012-AC**	

Allowable Emissions Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **25 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **63** lb/hour **232** tons/year
5. Method of Compliance: **Annual Compliance test using EPA Method 10 , 40 CFR 60, Appendix A.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on natural gas firing in peaking mode. Permit Nos. 1050003-015-AV / 1050003-012-AC**	

Allowable Emissions Allowable Emissions 3 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **25 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **60** lb/hour **79** tons/year
5. Method of Compliance: **Annual Compliance test using EPA Method 10 , 40 CFR 60, Appendix A. Testing required if oil firing >400 hr/yr.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on No. 2 fuel oil firing in peaking mode. Permit Nos. 1050003-015-AV / 1050003-012-AC**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **4** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **42 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **64** lb/hour **79** tons/year
5. Method of Compliance: **Annual Compliance test using EPA Method 10 , 40 CFR 60, Appendix A. Testing required if oil firing >400 hr/yr.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions based on No. 2 fuel oil firing in peaking mode. Permit Nos. 1050003-014-AV / 1050003-016-AC**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **5.1** lb/hour **12.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **3.5 ppmvd** Reference: **Permit Nos. 1050003-015-AV / 1050003-012-AC**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Annual emissions = 9 TPY x 2/3 (gas) + 6.7 TPY (oil) = 12.7 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential Hourly emissions based on oil firing during peaking mode. Annual emissions based on 2,920 hr/yr (1/3 of year) of oil firing and 5,840 hr/yr (2/3 of year) of natural gas firing. Permit Nos. 1050003-015-AV / 1050003-012-AC.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0018 lb/MMBtu**	4. Equivalent Allowable Emissions: **1.9** lb/hour **9** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 18 or 25A**	
6. Allowable Emissions Comment (Description of Operating Method): **Testing for VOC not required if in compliance with CO standards. Allowable emissions based on natural gas firing in base mode. Permit Nos. 1050003-015-AV / 1050003-012-AC**	

Allowable Emissions Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.4 ppmvd @15% O2**	4. Equivalent Allowable Emissions: **2.1** lb/hour **9** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 18 or 25A**	
6. Allowable Emissions Comment (Description of Operating Method): **Testing for VOC not required if in compliance with CO standards. Allowable emissions based on natural gas firing in peaking mode. Permit Nos. 1050003-015-AV / 1050003-012-AC**	

Allowable Emissions Allowable Emissions 3 of 4

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0045 lb/MMBtu**	4. Equivalent Allowable Emissions: **4.8** lb/hour **6.7** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 18 or 25A.**	
6. Allowable Emissions Comment (Description of Operating Method): **Testing for VOC not required if in compliance with CO standards. Allowable emissions based on No. 2 fuel oil firing in base mode. Permit Nos. 1050003-015-AV / 1050003-012-AC**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **4** of **4**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **3.5 ppmvd**	4. Equivalent Allowable Emissions: **5.1** lb/hour **6.7** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 18 or 25A.**	
6. Allowable Emissions Comment (Description of Operating Method): **Testing for VOC not required if in compliance with CO standards. Allowable emissions based on No. 2 fuel oil firing in peaking mode. Permit Nos. 1050003-015-AV / 1050003-012-AC**	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SAM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **Firing of Natural Gas or No. 2 Fuel Oil** Reference: **Permit No. 1050003-015-AV**	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential Fugitive and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Firing of natural gas**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: None	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 1050003-015-AV**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Firing of No. 2 fuel oil**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: None	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 1050003-015-AV.**	

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **Hg**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **Firing of Natural Gas or No. 2 Fuel Oil** Reference: **Permit No. 1050003-015-AV**	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential Fugitive and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Natural gas firing**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: **None**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 1050003-015-AV.**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **No.2 Fuel oil firing**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: **None**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 1050003-015-AV.**	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation **1** of **2**

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **10 %** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Annual VE test using EPA Method 9**	
5. Visible Emissions Comment: **Permit Nos. 1050003-015-AV / 1050003-016-AC. VE test not required if oil firing less than 400 hr/yr. VE test once in 5-years if annual operation less than 400 hr.**	

Visible Emissions Limitation: Visible Emissions Limitation **2** of **2**

1. Visible Emissions Subtype: **VE99**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment: **Excess emissions for startup, shutdown, or malfunction. Excess emissions limited to 2 hr/24 hr. Permit No. 1050003-014-AV. Rule 62-210.700(1), F.A.C.**	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor **1** of **3**

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Advanced Pollution Inst.** Model Number: **252**	Serial Number: **132/112**
5. Installation Date: **10/1/1999**	6. Performance Specification Test Date: **12 December 1995**
7. Continuous Monitor Comment: **CEM required persuant to 40 CFR 75.**	

Continuous Monitoring System: Continuous Monitor **2** of **3**

1. Parameter Code: **O_2**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule Other
4. Monitor Information... Manufacturer: **Graseby STI** Model Number: **DP0802**	Serial Number: **1511-1-8**
5. Installation Date: **10/1/1999**	6. Performance Specification Test Date: **12 December 1995**
7. Continuous Monitor Comment: **CEM required persuant to 40 CFR 75 for dilution with NO_x monitors.**	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor **3** of **3**

1. Parameter Code: **WTF**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule Other
4. Monitor Information... Manufacturer: **BROOKS** Model Number: **B62DB**	Serial Number: **9102-2599-1**
5. Installation Date: **10/1/1999**	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitoring of water to fuel ratio. 40 CFR 60.334.**	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-EU2-I1** ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-EU1-I2** ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-EU2-I3** ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **LE-EU2-I4** ☐ Previously Submitted, Date _____
   ☐ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: **1/17/2012, CO, VE and NOx**
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   ☐ Attached, Document ID: _____ ☒ Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1.	Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☐ Not Applicable
2.	Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☐ Not Applicable
3.	Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1.	Identification of Applicable Requirements: ☒ Attached, Document ID: **LE-EU1-IV1**
2.	Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☒ Not Applicable
3.	Alternative Methods of Operation: ☒ Attached, Document ID: **LE-EU2-IV3** ☒ Not Applicable
4.	Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements Comment

ATTACHMENT LE-EU2-F1.11

EMISSION LIMITS

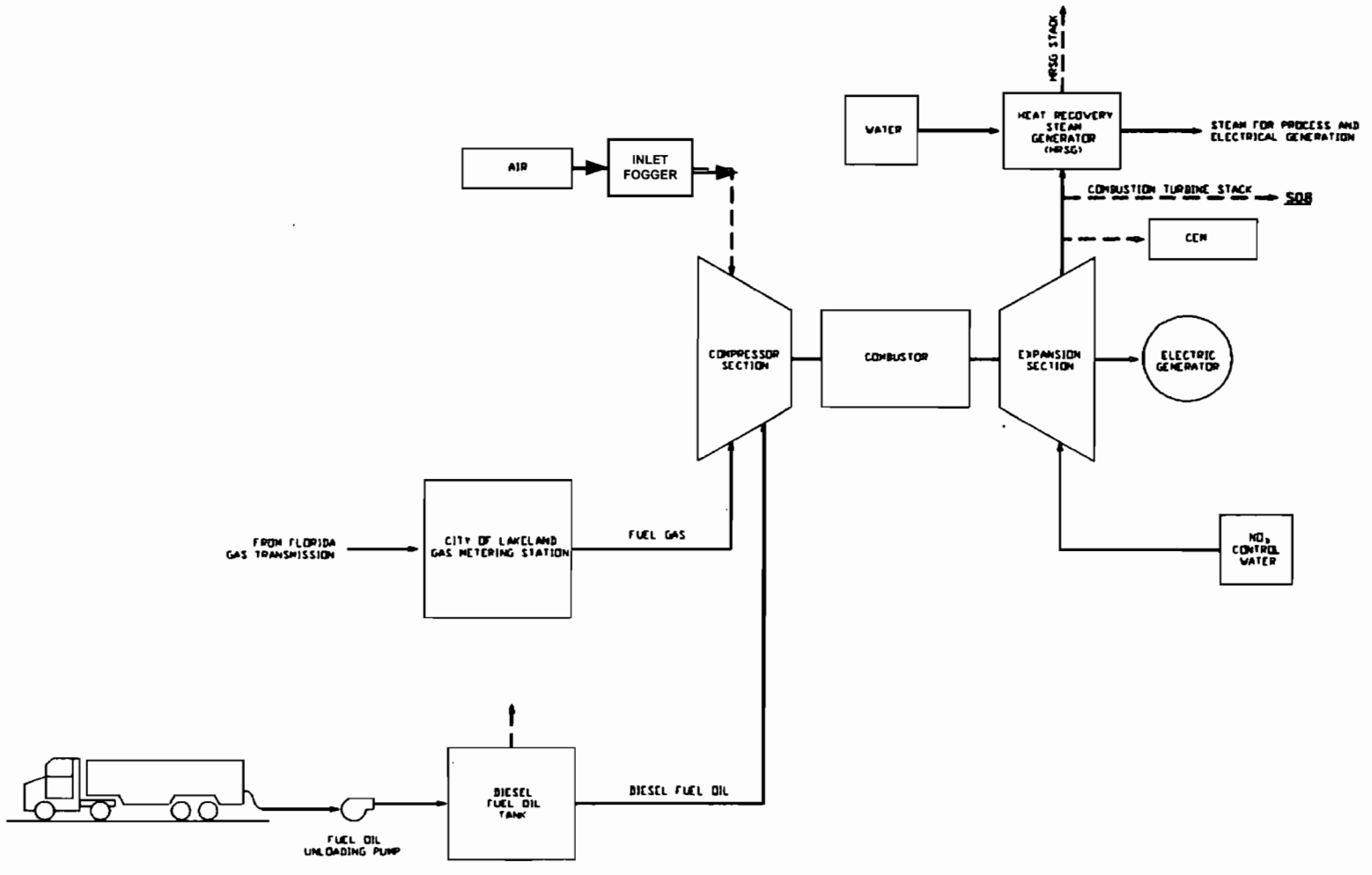
ATTACHMENT LE-EU2-F1.11
ALLOWABLE EMISSION RATES
Charles Larsen Power Plant

Pollutant	Fuel	Operating Mode	Heat Input Rate (MMBtu/hr)	Allowable Emissions *		
				Emission Factor	Hourly (lb/hr)	Annual (TPY)
NO_x	NG	Base	1,075	25 ppmvd@15% O_2	107	425
	NG	Peak	1,161	25 ppmvd@15% O_2	115	425
	Oil	Base	1,060	42 ppmvd@15% O_2	180	244
	Oil	Peak	1,149	42 ppmvd@15% O_2	192	244
SO_2	NG	Base	1,075	2 gr S/100 scf	3.5	12.9
	NG	Peak	1,161	2 gr S/100 scf	3.5	12.9
	Oil	Base	1,060	0.2 %S oil	215	316
	Oil	Peak	1,149	0.2 %S oil	234	316
PM	NG	Base	1,075	0.006 lb/MMBtu	6.5	22
	NG	Peak	1,161	0.006 lb/MMBtu	7.0	22
	Oil	Base	1,060	0.025 lb/MMBtu	27	22
	Oil	Peak	1,149	0.025 lb/MMBtu	29	22
VOC	NG	Base	1,075	0.0018 lb/MMBtu	1.9	9
	NG	Peak	1,161	1.4 ppmvd	2.1	9
	Oil	Base	1,060	0.0045 lb/MMBtu	4.8	6.7
	Oil	Peak	1,149	3.5 ppmvd	5.1	6.7
CO	NG	Base	1,075	25 ppmvd@15% O_2	59	232
	NG	Peak	1,161	25 ppmvd@15% O_2	63	232
	Oil	Base	1,060	25 ppmvd	60	79
	Oil	Peak	1,149	25 ppmvd	64	79
VE	All	All	--	10 % Opacity	--	--

* From Permit No. 1050003-014-AV

ATTACHMENT LE-EU2-I1

PROCESS FLOW DIAGRAM



Attachment LE-EU2-I1
Process Flow Diagram

Source: Golder Associates Inc.

Process Flow Legend
Solid/Liquid
Gas
Steam

Golder Associates

ATTACHMENT LE-EU2-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT LE-EU2-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Water Injection

The GE Mark IV NO_x control algorithm utilizes data from digital temperature and humidity monitors located at each combustion turbine. The algorithm receives and processes the ambient temperature and humidity on a continuous basis. A temperature/humidity correction is used in determining the amount of water to inject for NO_x control. The correction accounts for the ambient water entering the combustion chamber, and then it adds the correct amount of injection water in order to ensure compliance with the unit's required water-to-fuel ratio as determined from the water/fuel curve. This algorithm ensures compliance on a continuous basis regardless of the unit load and ambient weather conditions.

Low-NO_x Burners

Low-NO_x burners reduce NO_x by accomplishing the combustion process in stages. GE's DLN 26 combustion system reduces turbine NO_x emissions by 40 percent and enables the turbine to be operated at lower power during off-peak periods, consuming less fuel.

ATTACHMENT LE-EU2-I4

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT LE-EU2-I4
PROCEDURES FOR STARTUP/SHUTDOWN

Startup for the gas turbine begins with an electric control system using a switch to initiate the unit startup cycle. The unit generator is synchronized with the grid and can be "on line" (electrical power production) within 5 minutes from startup.

The gas turbine utilizes water injection for controlling NO_x emissions. Initiation of water injection occurs when the turbine reaches stabilized load. The amount of water is a function of load based on preset algorithms in the CT digital control system. If excess emissions are encountered during startup or shutdown, the nature and cause of any malfunction is identified, along with the corrective action taken or preventative measures adopted. Corrective actions may include switching the unit from automatic (remote) to local control. Best operating practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (electrical production) to a minimum level, opening the breaker (which disconnects the unit generator from the system electrical grid), shutting off the fuel, and coasting to a stop.

ATTACHMENT LE-EU2-IV3

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT LE-EU2-IV3
ALTERNATIVE METHODS OF OPERATION
COMBINED CYCLE UNIT

The gas turbine (Unit No. 8) can operate on both natural gas and No. 2 fuel oil. The maximum sulfur content in the fuel oil shall not exceed 0.2 percent. This unit can operate for the entire year (i.e., 8,760 hours) with natural gas or using up to 23,914,800 gallons per year of oil. The unit may operate at various loads. Routine maintenance includes injection of a turbine wash chemical to clean the inlet turbine (compressor). These chemicals consist of detergents and surfactants that are decomposed during the combustion stages of the turbine. This unit has a stack that can bypass the HRSG and can be operated in simple cycle. The inlet fogger system may be operated any time Unit 8 is in operation.

Unit No. 8 can operate at base load or peak mode. During base load operation and at an inlet temperature of 25°F, maximum heat input is limited to 1,075 MMBtu/hr (LHV) and 1,060 MMBtu/hr (LHV) for natural gas and No. 2 fuel oil, respectively.

During peak load operation and at an inlet temperature of 25°F, maximum heat input is limited to 1,161 MMBtu/hr (LHV) and 1,149 MMBtu/hr (LHV) for natural gas and No. 2 fuel oil, respectively. Peak load operation is limited to 3,000 hours during any consecutive 12 months with a maximum of 500 hours of oil firing.