APPLICATION FOR TITLE V RENEWAL

JEA – Kennedy Generating Station

Permit Application

Prepared For: JEA
21 West Church Street
Jacksonville, FL 32202

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

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

May 2012

123-87576

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Golder Associates

APPLICATION FOR AIR PERMIT

LONG FORM

Department of Environmental Protection

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: **JEA**	
2. Site Name: **Kennedy Generating Station**	
3. Facility Identification Number: **0310047**	
4. Facility Location... Street Address or Other Locator: **4215 Talleyrand Ave.** City: **Jacksonville** County: **Duval** Zip Code: **32206**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **Jay A Worley**
2. Application Contact Mailing Address... Organization/Firm: **JEA** Street Address: **21 West Church Street** City: **Jacksonville** State: **FL** Zip Code: **32202-3139**
3. Application Contact Telephone Numbers... Telephone: **(904) 665-8729** ext. Fax: **(904) 665-7376**
4. Application Contact E-mail Address: **worlja@jea.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	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. 0310047-020-AV for the JEA Kennedy Generation Station, which expires on December 31, 2012.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
015	Combustion Turbine No. 7 (CT No. 7)	AF2A	NA
016	Combustion Turbine No. 8 (CT No. 8)	AF2A	NA

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. James M. Chansler, P.E., Chief Operating Officer

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: **JEA**
   Street Address: **21 W. Church Street**
   City: **Jacksonville** State: **FL** Zip Code: **32202**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(904) 665-4433** ext. Fax: **(904) 665-7990**

5. Application Responsible Official E-mail Address: **ChanJM@jea.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.

James M. Chansler — Signature

15 May 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. **21156** 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.

Kennard F. Kosky — 5/17/12

Signature — Date

(seal)

* 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) **440.065** North (km) **3359.150**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **30/21/52** Longitude (DD/MM/SS) **81/37/25**	
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 consists of two combustion turbines (CT Nos. 7 and 8) (regulated emissions units) and a fuel oil storage tank farm (unregulated emissions units).**			

Facility Contact

1. Facility Contact Name: **Jay A Worley, Director of Environmental Programs**
2. Facility Contact Mailing Address... Organization/Firm: **JEA** Street Address: **21 West Church Street** City: **Jacksonville** State: **FL** Zip Code: **32202**
3. Facility Contact Telephone Numbers: Telephone: **(904) 665-8729** ext. Fax: **(904) 665-7376**
4. Facility Contact E-mail Address: **worlja@jea.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:	

CT No. 7 is subject to NSPS Subpart GG, Standards of Performance for Stationary Gas Turbines.
CT No. 8 is subject to NSPS Subpart KKKK, Standards of Performance for Stationary Combustion Turbines for which Construction is Commenced after February 18, 2005.

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
NOX	A	N
CO	A	N
VOC	B	N
SO2	A	N
PM	A	N
PM10	A	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: KG-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: KG-EU1-I1 ☐ 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: KG-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: **KG-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: **KG-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: **KG-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:_____
   ☐ 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: **KG-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: **02/08/2006**
   ☐ 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: **06/24/2008**
   ☐ Not Applicable (not a CAIR source)

Additional Requirements Comment

ATTACHMENT KG-FI-C1

FACILITY PLOT PLAN

LEGEND

APPROXIMATE PROPERTY BOUNDARY

REFERENCES

1. APPROXIMATE PROPERTY BOUNDARY: DUVAL COUNTY FLORIDA PROPERTY APPRAISER, 2006
2. AERIAL: ARC GIS ONLINE-BING MAPS HYBRID AERIAL, MICROSOFT CORPORATION AND ITS DATA SUPPLIERS, 2010

200 100 0 200
Feet

REV.	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RVW

PROJECT

JEA - KENNEDY GENERATING STATION
JACKSONVILLE, FL

TITLE

PLOT PLAN

Golder Associates

PROJECT No. 123-87578			FILE No. 123-87578A001		
DESIGN	JDG	05/14/2012	SCALE: AS SHOWN	REV.	0
GIS	JDG	05/17/2012	**ATTACHMENT KG-FI-C1**		
CHECK	SKM	05/17/2012			
REVIEW	SKM	05/17/2012			

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ATTACHMENT KG-FI-C3

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

ATTACHMENT KG-FI-C3

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Unconfined particulate matter emissions result during the operation of the facility. The following work practices shall constitute reasonable precautions undertaken at the facility, pursuant to Rule 62-296.320(4)(c), F.A.C. Reasonable precautions include the following:

a. Paving and maintenance of roads, parking areas and yards.

b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.

c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.

d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent 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 travelling on roadways on site.

ATTACHMENT KG-FI-CV1

LIST OF INSIGNIFICANT ACTIVITIES

ATTACHMENT KG-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES

The following emission units and/or activities at the Kennedy Generating Station are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.:

One approximately 3.2 MMBtu/hr natural gas fired fuel gas heater.

ATTACHMENT KG-FI-CV2

IDENTIFICATION OF APPLICABLE REQUIREMENTS

ATTACHMENT KG-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 60, Subpart KKKK: Standards of Performance for Stationary Combustion 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 KG-FI-CV3

COMPLIANCE REPORT AND PLAN

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: JEA

Site Name: Kennedy Generating Station Facility ID No. 0310047 County: Duval

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

X **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) *(Date)*

Name: James M. Chansler, P.E., D.P.A. Title: Chief Operations Officer

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) 2-20-12 *(Date)*

Name: Michael J. Brost, P.E. Title: Vice President, Electric Systems

{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).}

ATTACHMENT KG-FI-CV6

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

ATTACHMENT KG-FI-CV6
REQUESTED ADMINISTRATIVE CHANGES

JEA requests the following changes to the Title V permit for the Kennedy Generating Station.

Specific Condition No. B.18: Annual Tests Required

Specific Condition No. B.18 presents the performance testing frequency for CT 7 (EU 015). Condition No. B.18. states that annual testing is required for CO. JEA requests that the test frequency be eased to once every 5 years prior to obtaining a renewed Title V operating permit. Please note that CT 8, which is also a GE PG7241FA CT, is required to test for CO once every 5 years prior to Title V permit renewal (Specific Condition No. C.12).

Specific Condition No. C.12: Emissions Standards

The emissions standards for CT 8 (EU016) contained in Specific Condition No. B.12 specify both concentration-based and mass-based emissions standards for NO_x. Compliance with both concentration-based and mass-based NO_x standards is required to be demonstrated by continuous emissions monitoring system (CEMS). However, the averaging time required for the mass-based standard is a "3-hour test average", which implies that testing for NO_x may also be required to demonstrate compliance in addition to CEMS. JEA requests that a note be added to footnote "b" that says "Pound per hour (lb/hr) limit will be demonstrated if required per Specific Condition C.17".

Appendix I-1, List of Insignificant Emissions Units and/or Activities

The emergency generator and two black-start generators currently listed in Appendix I-1 are no longer present at the site. JEA Tank Nos. 5, 6, 7, 8, 9, 10, 11, 12, and 15 have also been removed from the site. JEA requests that these insignificant emissions units be removed from Appendix I-1.

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

The two No. 6 fuel oil storage tanks currently listed under EU010 are scheduled to be dismantled and removed from the site. As a result, JEA requests that EU010 be removed from Appendix U-1. The remaining No. 2 fuel oil storage tank (EU014) is not subject to any applicable requirements. The potential volatile organic compound (VOC) emission from the tank was estimated to be less than 1 ton per year (TPY). Since there are no applicable requirements for the storage tank and the potential emission of the only regulated air pollutant emitted from the tank is less than 5 TPY, JEA requests that per Rule 62-210.300(3)(b), the tank be granted an insignificant emission unit status and listed in Appendix I-1 instead of Appendix U-1.

The potential VOC emissions from the No. 2 fuel oil storage tank was estimated using EPA's TANKS 4 program and the output is attached.

The two No. 6 fuel oil storage tanks (JEA Tank Nos. 1 and 4) currently listed as EU010 in Appendix U-1 will be demolished in May 2012. JEA requests that these tanks be removed from Appendix U-1.

No other changes are requested or necessary.

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Tank A
City:	Jacksonville
State:	Florida
Company:	JEA
Type of Tank:	Vertical Fixed Roof Tank
Description:	Storage Tank (Tank# 13)

Tank Dimensions

Shell Height (ft):	30.00
Diameter (ft):	100.00
Liquid Height (ft) :	25.74
Avg. Liquid Height (ft):	25.74
Volume (gallons):	1,512,000.00
Turnovers:	15.94
Net Throughput(gal/yr):	24,100,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft)	0.00
Radius (ft) (Dome Roof)	50.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Jacksonville, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Tank A - Vertical Fixed Roof Tank
Jacksonville, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	69.96	64.29	75.63	68.02	0.0090	0.0076	0.0107	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Tank A - Vertical Fixed Roof Tank
Jacksonville, Florida

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	670.61	848.04	1,518.65

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:
Combustion Turbine (CT) No. 7

3. Emissions Unit Identification Number: **015**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A		**04/30/2000**	**49**

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

☒ Acid Rain Unit

☒ CAIR Unit

9. Package Unit:
Manufacturer: **General Electric** Model Number: **PG 7241 FA**

10. Generator Nameplate Rating: **170** MW

11. Emissions Unit Comment:
Emission unit is a General Electric (GE) Model PG 7241 FA simple-cycle combustion turbine electrical generator set.

EMISSIONS UNIT INFORMATION
Section [1]
EU 015 (CT 7)

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

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

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

1. Control Equipment/Method Description: **Water injection system**
2. Control Device or Method Code: **028**

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:	**1,623** million Btu/hr (LHV) (Natural Gas) **1,822** million Btu/hr (LHV) (Fuel Oil)
4. Maximum Incineration Rate:	pounds/hr tons/day
5. Requested Maximum Operating Schedule:	**24** hours/day — **7** days/week **52** weeks/year — (Natural Gas) **4,050** hours/year (Fuel Oil) **1,260** hours/year
6. Operating Capacity/Schedule Comment:	**The maximum heat input rates are based on a compressor inlet temperature of 59°F, 60% relative humidity, and the LHV of gas or oil.** **Maximum allowable operating hours on natural gas limited to 4,050 hr/yr.** **Maximum allowable operating hours on fuel oil limited to 1,260 hr/yr.** **Max. operation in any 12-month period (MAXHROP) calculated using the following formula:** **MAXHROP = 4,050 – (3.215 * ACTHROPFO)** **Where ACTHROPFO = actual hours of operation using fuel oil.**

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: **CT7**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **CT No. 7 stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **90** feet	7. Exit Diameter: **24** feet
8. Exit Temperature: **1,116**°F	9. Actual Volumetric Flow Rate: **2,378,000** 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): **440** North (km): **3,359.1**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) **30/21/53.6** Longitude (DD/MM/SS) **81/37/31.1**	
15. Emission Point Comment: **Stack operating parameters based on Title V permit application submitted in 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**	
4. Maximum Hourly Rate: **1.71**	5. Maximum Annual Rate: **6,925.5**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **950 (LHV)**
10. Segment Comment: **Based on nominal heat input rate of 1,623 MMBtu/hr and 4,050 hr/yr of operation. Maximum Hourly rate = 1,623 MMBtu/hr / 950 MMBtu/MMcf = 1.71 MMcf/hr Maximum Annual rate= 1.71 MMcf/hr x 4,050 hr/yr = 6,925.5 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: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **13.4**	5. Maximum Annual Rate: **16,884**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **136 (LHV)**
10. Segment Comment: **Based on nominal heat input rate of 1,822 MMBtu/hr and 1,260 hr/yr of operation. Maximum Hourly rate = 1,822 MMBtu/hr / 136 MMBtu/Mgal = 13.4 Mgal/hr Maximum Annual rate= 13.4 Mgal/hr x 1,260 hr/yr = 16,884 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
CO			EL
NOX	028, 205		EL
SO2			EL
VOC			EL
PM			EL
PM10			EL

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: **97** lb/hour **61.1** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **20 ppmvd @ 15% O2 or 97.0 lb/hr** Reference: **0310047-002-AC; 0310047-013-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 for natural gas firing limited to 15 ppmvd @ 15% O2 or 48.0 lb/hr.
Hourly emissions for fuel oil firing limited to 20 ppmvd @ 15% O2 or 97.0 lb/hr.

Potential annual: 97 lb/hr x 1,260 hr/yr x ton/2,000 lb = 61.1 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential hourly emissions based on fuel oil firing.
Annual operation on fuel oil limited to 1,260 hr/yr.
Annual operation on natural gas limited to 4,050 hr/yr.
Annual operation also limited by the formula 4,050 – 3.215 x (annual operation on oil).

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 **2**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **15 ppmvd @ 15% O2 or 48 lbs/hr**	4. Equivalent Allowable Emissions: **48** lb/hour **97.2** tons/year
5. Method of Compliance: **Annual testing using EPA Method 10**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for natural gas firing.** **Equivalent annual emissions = 48 lbs/hr x 4,050 hrs/yr x 1 ton/2,000 lb = 97.2 TPY**	

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: **20 ppmvd @ 15% O2 or 97 lbs/hr**	4. Equivalent Allowable Emissions: **97** lb/hour **61.11** tons/year
5. Method of Compliance: **Annual testing using EPA Method 10**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for fuel oil firing.** **Equivalent annual emissions = 97 lbs/hr x 1,260 hrs/yr x 1 ton/2,000 lb = 61.11 TPY**	

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: **318** lb/hour **200** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **42 ppmvd @ 15% O2 or 318 lb/hr (Oil firing)** Reference: **0310047-002-AC; 0310047-013-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:	
11. Potential, Fugitive, and Actual Emissions Comment: **Potential hourly emissions based on fuel oil firing. Annual emissions limited to 200 TPY from any combination of fuels, 12-month rolling average basis.**	

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 **2**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **15 ppmvd @ 15% O2**	4. Equivalent Allowable Emissions: **99** lb/hour **200** tons/year
5. Method of Compliance: **CEMS data (24-hr Block average)**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for natural gas firing.** **Annual emissions limited to 200 TPY from any combination of fuels, 12-month rolling average basis.**	

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: **42 ppmvd @ 15% O2**	4. Equivalent Allowable Emissions: **318** lb/hour **200** tons/year
5. Method of Compliance: **CEMS data (24-hr Block average)**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for fuel oil firing.** **Annual emissions limited to 200 TPY from any combination of fuels, 12-month rolling average basis.**	

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: **98** lb/hour **62** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **98 lb/hour** Reference: **0310047-002-AC; 0310047-013-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:	
11. Potential, Fugitive, and Actual Emissions Comment: **Potential hourly emissions based on fuel oil firing. Annual emissions limited to 62 TPY.**	

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 **2**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **98.0 lb/hr**	4. Equivalent Allowable Emissions: **98** lb/hour **62** tons/year
5. Method of Compliance: **Use of distillate fuel oil with maximum sulfur content limited to 0.05%.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for fuel oil firing.**	

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: **9.7 lb/hr**	4. Equivalent Allowable Emissions: **9.7** lb/hour **19.6** tons/year
5. Method of Compliance: **Use of natural gas with sulfur content limited to 2 grains per 100 scf.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for natural gas firing. Equivalent allowable emissions = 9.7 lb/hr x 4,050 hr/yr x ton/2000 lb = 19.6 TPY**	

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: **19** lb/hour **12.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **3.5 ppmvd @ 15% O2 or 19.0 lb/hr** Reference: **0310047-002-AC; 0310047-013-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 for natural gas firing limited to 1.4 ppmvd or 2.9 lb/hr.
Hourly emissions for fuel oil firing limited to 3.5 ppmvd or 19.0 lb/hr.

Potential annual: 19 lb/hr x 1,260 hr/yr x ton/2,000 lb = 11.97 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential hourly emissions based on fuel oil firing.
Annual operation on fuel oil limited to 1,260 hr/yr.
Annual operation on natural gas limited to 4,050 hr/yr.
Annual operation also limited by the formula 4,050 – 3.215 x (annual operation on oil).

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 **2**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **3.5 ppmvd @ 15% O2 or 19.0 lb/hr**	4. Equivalent Allowable Emissions: **19** lb/hour **11.97** tons/year
5. Method of Compliance: **None, compliance with CO emission limit serves as surrogate**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for fuel oil firing.** **Equivalent allowable emissions = 19 lb/hr x 1,260 hr/yr x ton/2000 lb = 11.97 TPY**	

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: **1.4 ppmvd @ 15% O2 or 2.9 lb/hr**	4. Equivalent Allowable Emissions: **2.9** lb/hour **5.9** tons/year
5. Method of Compliance: **None, compliance with CO emission limit serves as surrogate**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for natural gas firing.** **Equivalent allowable emissions = 2.9 lb/hr x 4,050 hr/yr x ton/2000 lb = 5.9 TPY**	

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: **PM/PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **10.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **10% Opacity** Reference: **0310047-002-AC; 0310047-013-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:

Potential annual: 17 lb/hr x 1,260 hr/yr x ton/2,000 lb = 10.7 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Permit No. 0310047-002-AC specified a PM emission limit of 17 lb/hr when firing distillate fuel oil. Limit is not federally enforceable. Permit 0310047-020-AV allows 10% opacity limit in lieu of the PM emission limit.

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 **1**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10% Opacity**	4. Equivalent Allowable Emissions: **17** lb/hour **10.7** tons/year
5. Method of Compliance: **None, compliance with opacity limit serves as surrogate.**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit 0310047-020-AV allows 10% opacity limit in lieu of PM emission limit and testing requirement.** **Equivalent annual = 17 lb/hr x 1,260 hr/yr x ton/2,000 lb = 10.71 TPY**	

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 **1**

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: **EPA Method 9**	
5. Visible Emissions Comment: **Annual testing EPA Method 9. Testing once every 5 years if operation <400 hr/yr.**	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **NOx**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **TECO** Model Number: **42 CHL**	Serial Number: **42CHL-66199-351**
5. Installation Date: **7/31/2000**	6. Performance Specification Test Date: **8/8/2000**
7. Continuous Monitor Comment: **40 CFR 75 requirement**	

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: **O2**	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: **40 CFR 75 requirement**	

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: **KG-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: **KG-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: _____ ☐ 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

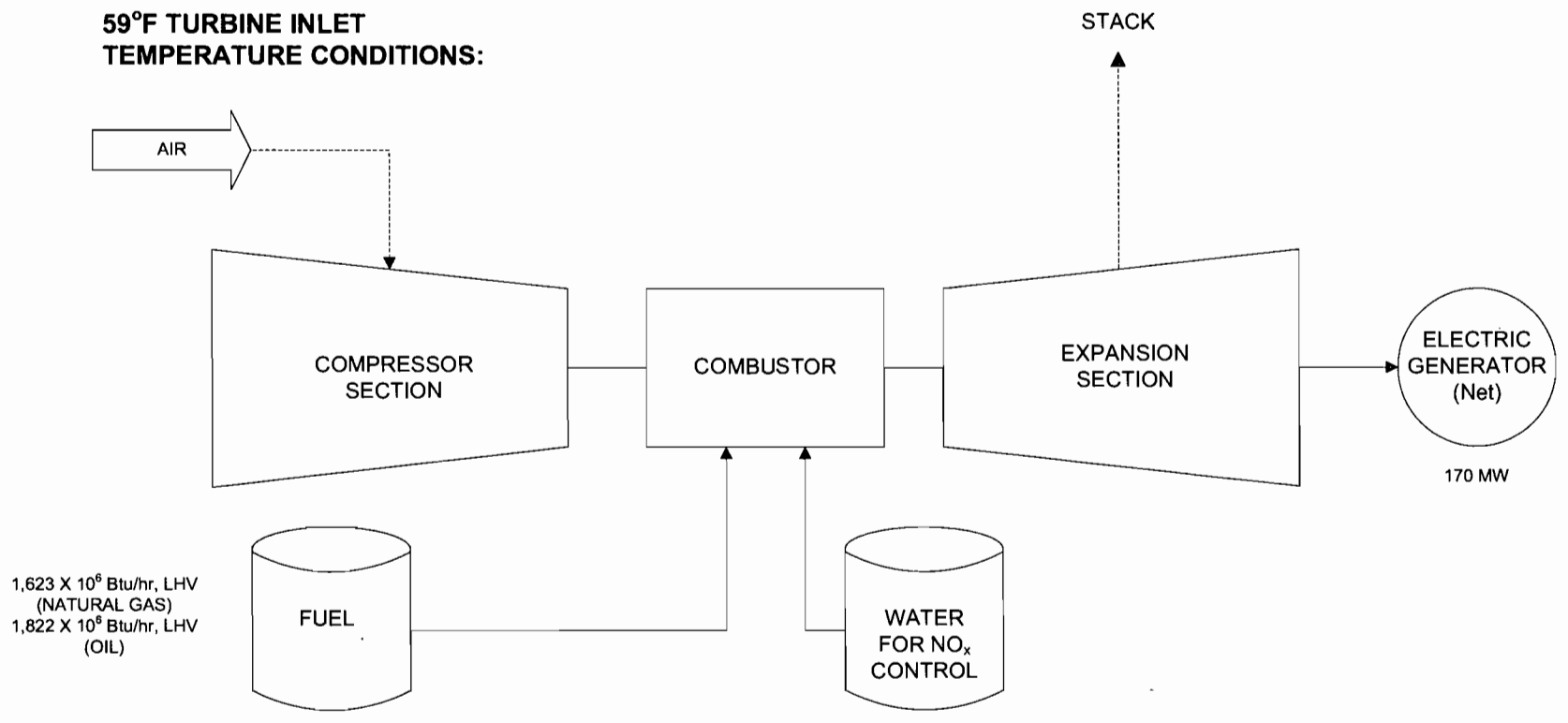
Additional Requirements for Title V Air Operation Permit Applications

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

Additional Requirements Comment

ATTACHMENT KG-EU1-I1

PROCESS FLOW DIAGRAM



Attachment KG-EU1-I1
Simplified Flow Diagram of GE Frame 7FA
Combustion Turbine (CT No. 7)
Baseload, Annual Design Conditions

Process Flow Legend
Solid/Liquid
Gas
Steam

Golder Associates

Y:\Projects\2012\123-87576 JEA Kennedy TV\TVRen\Final\Atts\EU1\KG-EU1-I1.vsd

ATTACHMENT KG-EU1-I2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT KG-EU1-I2
FUEL ANALYSIS OR SPECIFICATION

Fuel for CT7 and CT8 is specified as pipeline natural gas or No. 2 fuel oil containing no more than 0.05 percent sulfur by weight.

Recent natural gas and fuel oil analyses are attached.

SGS

Analyst's Report

Client : JEA
Product : Natural Gas

Report No : 270192
SGS File No : 240375

LIMS No : 270192 - 866536
Lab No : 866536
Sample Description :
Sample Label : JEA KENNEDY GENERATING STATION
CYL. OGC 0001 & 0002

METHOD	TEST	RESULT	
ASTM D 5504	Hydrogen Sulfide	<0.4	ppm wt
ASTM D 5504	Hydrogen Sulfide	<0.1	gr/100cf
ASTM D 5504	Total Sulfur	5	ppm
ASTM D 5504	Total Sulfur (gr/100cu ft)	0.29410	

LIMS No : 270192 - 866538
Lab No : 866538
Sample Description :
Sample Label : JEA BRANDY BRANCH GENERATING STATION
CYL. OGC 0003 & 0004

METHOD	TEST	RESULT	
ASTM D 5504	Hydrogen Sulfide	<0.4	ppm wt
ASTM D 5504	Hydrogen Sulfide	<0.1	gr/100cf
ASTM D 5504	Total Sulfur	<1	ppm
ASTM D 5504	Total Sulfur (gr/100cu ft)	<0.05882	

LIMS No : 270192 - 866539
Lab No : 866539
Sample Description :
Sample Label : JEA GREENLAND ENERGY GENERATING STATION
CYL. OGC 0005 & 0006

METHOD	TEST	RESULT	
ASTM D 5504	Hydrogen Sulfide	<0.4	ppm wt
ASTM D 5504	Hydrogen Sulfide	<0.1	gr/100cf
ASTM D 5504	Total Sulfur	<1	ppm
ASTM D 5504	Total Sulfur (gr/100cu ft)	<0.05882	

Analyst : .....

Date : 10/04/2011

Precision parameters apply in the determination of above test results. Also refer to ASTM D 3244-97/02, IP 367/96 and appendix E of IP standard methods for analysis and testing for utilization of test data to determine conformance with specifications.

Date printed. 04-Oct-2011

SGS North America Inc.
Oil, Gas & Chemicals Services 151 James Drive West St. Rose LA 70087
TEL: (504) 469-6401 FAX: (504) 463-3301

The results contained in this Analyst Report are for informational purposes only, pending issuance of the Certificate of Analysis by an authorized signatory.

Precision parameters apply in the determination of above test results. Also refer to ASTM D 3244-97/02, IP 367/96 and appendix E of IP standard methods for analysis and testing for utilization of test data to determine conformance with specifications.

ATTACHMENT KG-EU1-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS

TITLE V AIR OPERATION PERMIT

FINAL Permit No. 0310047-016-AV

Permittee

JEA
Kennedy Generating Station
Facility ID No. 0310047
Duval County, Florida

Permitting Authority

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Air Permitting North Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/921-9533

Compliance Authority

City of Jacksonville
Environmental Resource Management Department
Environmental Quality Division
117 West Duval Street, Suite 225
Jacksonville, Florida 32202
Telephone: 904/630-4900
Fax: 904/630-3638

TABLE OF CONTENTS

FINAL Permit No. 0310047-016-AV

Subsection A. Facility Description.

This facility consists of four combustion turbines (CTs Nos. 3, 4, 5 and 7) and a fuel oil storage tank farm. All of the combustion turbines fire distillate oil and CT No. 7 also fires natural gas. Also included in this permit are miscellaneous unregulated and insignificant emissions units and activities.

Based on the Title V permit renewal application received May 30, 2007, this facility is not a major source of hazardous air pollutants.

A Compliance Assurance Monitoring (CAM) plan is not required for CTs Nos. 3, 4 and 5, because there are no specific emissions limiting standards nor any post-combustion controls.

For CT No. 7, there are specific nitrogen oxides (NO_x) emissions limiting standards, a water injection system is used to reduce NO_x emissions when firing distillate oil, and NO_x emissions are greater than 100 tons per year. However, a CAM plan is not required because compliance with the NO_x standards is continuously demonstrated by data collected with the continuous emissions monitoring system (CEMS).

Subsection B. Emissions Units Summary

Regulated Emissions Units and Activities

EU No.	Description
-003	CT No. 3
-004	CT No. 4
-005	CT No. 5
-007	Boiler No. 8 (currently deactivated – Acid Rain Unit)
-008	Boiler No. 9 (currently deactivated – Acid Rain Unit)
-009	Boiler No. 10 (currently deactivated – Acid Rain Unit)
-015	CT No. 7 (Acid Rain Unit)

Unregulated Emissions Units and Activities

EU No.	Description
-010	Storage Tanks (tanks 1 and 4)
-014	Storage Tank (tank 13)

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

1. **Not federally enforceable.** Odor Nuisance. Pursuant to Jacksonville Ordinance Code (JOC) Chapter 376, any facility that causes or contributes to the emission of objectionable odors, which results in the City of Jacksonville's Environmental Resource Management Department - Environmental Quality Division (EQD) receiving and validating complaints from five (5) or more different households within a 90 day period, can be cited for objectionable odors. [JOC Chapter 376]

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. The telephone number is 301/429-5018. [40 CFR 68]

   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. Notifications and Reports. The permittee shall submit all compliance related notifications and reports required of this permit to the EQD at the following address: City of Jacksonville, Environmental Resource Management Department, Environmental Quality Division, 117 West Duval Street, Suite 225, Jacksonville, Florida 32202. The EQD telephone number is 904/630-4900 and facsimile number is 904/630-3638. Copies of all such documents shall be submitted to: Department of Environmental Protection, Northeast District, Air Resources, 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590. The District telephone number is 904/807-3300 and facsimile number is 904/448-4363.

4. 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.

5. **Not federally enforceable.** Local Program Regulations. The facility is subject to the JOC, Title X, Chapter 360 [Environmental Regulation], Chapter 362 [Air and Water Pollution], Chapter 376 [Odor Control], and City of Jacksonville Environmental Protection Board (JEPB) Rule 85-1 [Final Rules with Respect to Organization, Procedures, and Practice]. Appendix JEPB provides the applicable rules of the JEPB contained in Rule 2, Air Pollution Control, and the corresponding rules of the Department that have been adopted by reference and within the SOA (Specific Operating Agreement) signed with the Department.

6. 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, or its designee, and the 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.]

7. 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.]

8. Appendices. The Appendices attached to this permit are attached as an enforceable part of the permit unless otherwise indicated.

EMISSIONS UNITS

EU No.	Brief Description
-003	CT No. 3
-004	CT No. 4
-005	CT No. 5

Emissions units -003, -004 and -005 are CTs manufactured by Westinghouse (Model W501G) and are designated as CTs No. 3, No. 4 and No. 5, respectively. CTs Nos. 3, 4 and 5 began commercial operation in 1973. Each CT has a maximum heat input from distillate oil of 744.0 MMBtu @ 70° F, LHV (lower heating value). The distillate oil has a maximum sulfur content of 0.5%, by weight. These CTs are used as peaking units during peak demand times, during emergencies, and during controls testing, to run a nominal 56.2 MW generator (each). Emissions from the CTs are uncontrolled. Direct water spray fogger devices were installed in the inlet ducts of each CT to provide adiabatic inlet air cooling that increases turbine output and decreases heat rate. Each CT has an exhaust stack that is 12.9 feet in diameter and approximately 30 feet tall.

These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These emissions units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines.

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

A.1. Permitted Capacity. The maximum heat input rate for each CT is 744.0 MMBtu/hour based on the LHV of distillate oil and a compressor inlet temperature of 70° F. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AO16-173880; and Application No. 0310047-016-AV]

A.2. Emissions Unit Operating Rate Limitation After Testing. See Appendix STR of this permit. [Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation. Fuels. Only virgin No. 2 distillate oil, or superior, shall be fired in the CTs. [Rule 62-213.410(1), F.A.C. and AO16-173880]

A.4. Hours of Operation.

a. The CTs may operate continuously (8760 hours/year).

b. Each CT shall not exceed 399 hours of operation per year while using foggers.

[Rule 62-210.200(PTE), F.A.C.; AO16-173880; 0310047-009-AC; and 0310047-011-AV]

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 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 AO16-173880]

A.6. Fuel Sulfur Content. The sulfur content of the distillate oil shall not exceed 0.5 percent, by weight. Compliance with the liquid fuel sulfur content limit shall be by fuel analysis. [0310047-001-AV; AO16-173880; and Application No. 0310047-016-AV]

EXCESS EMISSIONS

A.7. Excess Emissions, Allowed. See Appendix CC of this permit. [Rule 62-210.700(1), F.A.C.]

A.8. Excess Emissions, Prohibited. See Appendix CC of this permit. [Rule 62-210.700(4), F.A.C.]

MONITORING OF OPERATIONS

A.9. Fuel Oil Sulfur Content. For demonstration of compliance with the liquid fuel sulfur content limit, the fuel 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. For each shipment, the permittee shall retain records of the fuel sulfur analysis. [Rule 62-213.440, F.A.C.; 40 CFR 60.335(d) & (e); and Application No. 0310047-016-AV]

TEST METHODS AND PROCEDURES

A.10. Testing Requirements. See Appendix STR (Stack Testing Requirements) of this permit for notification, testing, recordkeeping and reporting requirements regarding a performance test. [Chapter 62-297, F.A.C.]

A.11. VE Tests. The test method for VE shall be EPA Method 9. [Rules.62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

A.12. Fuel Oil Sulfur Analysis. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or equivalent. [Rules 62-213.440 and 62-297.440, F.A.C.]

A.13. VE Testing. By this permit, biennial (odd years) emissions compliance testing for VE is required for each emissions unit, but is not required for those emissions units burning distillate oil for less than 400 hours during the previous even year or the current odd year in question. [Rules 62-297.310(7)(a)4. & 8., F.A.C. and AO16-173880]

RECORDKEEPING AND REPORTING REQUIREMENTS

A.14. Excess Emissions, Notification. See Appendix CC of this permit. [Rule 62-210.700(6), F.A.C.]

A.15. Distillate Oil Consumption. Records of distillate oil consumption shall be maintained and made available to the Department and/or the EQD office(s) upon request. [Rule 62-213.440, F.A.C. and AO16-173880]

A.16. Foggers. A log book shall be maintained to show when each CT is using a fogger device and shall provide the beginning and ending times (hour and minute) of its use. [Rule 62-4.070(3), F.A.C.]

EMISSIONS UNITS

EU No.	Description
-015	CT No. 7

Emissions unit -015 is a CT manufactured by General Electric (Model PG 7241 FA) and is designated as CT No. 7. CT No. 7 began commercial operation on April 30, 2000, and replaced Boiler No. 10 (EU No. -009) identified by JEA as KE10. It is a simple cycle unit consisting of a nominal 170 MW (at 59° F) CT-electrical generator set equipped with Dry Low NOx (DLN-2.6) combustors. The maximum heat input from firing natural gas is 1623 MMBtu/hour based on a compressor inlet temperature 59° F, 60% relative humidity, and the LHV of gas. The maximum heat input from firing distillate oil is 1822 MMBtu based on a compressor inlet temperature of 59° F, 60% relative humidity, and the LHV of oil. CT No. 7 is a peaking unit used during peak demand times and emergencies. Exhaust gas exits a stack that is 24 feet in diameter and 90 feet tall.

This emissions unit is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800, F.A.C.; and 40 CFR 60, Subpart A, adopted by reference in Rule 62-204.800, F.A.C.

ESSENTIAL PTE PARAMETERS

B.1. Permitted Capacity. Based on 100% load, the LHV of each fuel, a compressor inlet temperature of 59° F and ambient conditions of 60% relative humidity and 14.7 psi, the maximum heat input rates for CT No. 7 are:

EU No.	MMBtu/hour	Fuel Type
7	1623.0	Natural Gas
	1822.0	Distillate Oil

The maximum heat input rate will vary depending upon the CT inlet conditions and the CT characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department and/or the EQD office(s) upon request. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C. and 0310047-002-AC]

B.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **B.21.** [Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation, Fuels. CT No. 7 shall fire only natural gas and new No. 2 distillate oil, or better. [Rule 62-213.410(1), F.A.C. and 0310047-002-AC]

B.4. Hours of Operation. The maximum allowable hours of operation in any 12-month period (MAXHROP) for CT No. 7 are 4050 hours on natural gas and 1260 hours on distillate oil or the hours calculated pursuant to the following formula:

MAXHROP = 4050 – (3.215 x ACTHROPFO)

Where: ACTHROPFO = actual hours of operation on fuel oil.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C. and 0310047-002-AC]

CONTROL TECHNOLOGY

B.5. DLN Combustion. DLN combustors shall be installed and operated on CT No. 7 to control NOx emissions when firing natural gas. The DLN combustion system shall be tuned to optimize emissions reductions and shall be maintained to minimize NOx emissions and carbon monoxide (CO) emissions. [0310047-002-AC]

B.6. Water Injection System, Oil Firing. A water injection system shall be installed and operated to control NOx emissions when firing distillate oil. [0310047-002-AC]

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.7. VE and Particulate Matter (PM) Emissions. VE shall not exceed 10 percent opacity when firing natural gas or distillate oil. {Permitting Note: Permit No. 0310047-002-AC specified a PM emissions limit of 17 lbs/hour (non-condensable only) when firing distillate oil. As allowed by this permit, the permittee elected an opacity limit of 10 percent when firing oil in lieu of the PM emissions limit and testing requirement.} [0310047-002-AC and Application No. 0310047-016-AV]

B.8. Sulfur Content, Distillate Oil. The sulfur content of distillate oil shall not exceed 0.05 percent, by weight. [0310047-002-AC]

B.9. NO_x Emissions, Natural Gas. While burning natural gas, the concentration of NO_x in the exhaust gas shall not exceed 15 ppmvd at 15% oxygen (O_2) based on 24-hour block average as measured by the CEMS maintained in accordance with 40 CFR 75. In addition, NO_x emissions calculated as NO_2 shall exceed neither 15 ppmvd at 15% O_2 nor 99 lbs/hour to be demonstrated by stack test. Total annual NO_x emissions shall not exceed 200 tons on a 12-month rolling total basis from firing any combination of permitted fuels. [0310047-002-AC; 0310047-013-AC; Rule 62-212.400(12)(b), F.A.C.; and 40 CFR 75]

B.10. NO_x Emissions, Distillate Oil. While burning distillate oil, the concentration of NO_x in the exhaust gas shall not exceed 42 ppmvd at 15% O_2 based on a 24-hour block average as measured by the CEMS maintained in accordance with 40 CFR 75. In addition, NO_x emissions calculated as NO_2 shall exceed neither 42 ppmvd at 15% O_2 nor 318 lbs/hour to be demonstrated by stack test. Total annual NO_x emissions shall not exceed 200 tons on a 12-month rolling total basis from firing any combination of permitted fuels. [0310047-002-AC; 0310047-013-AC; Rule 62-212.400(12)(b), F.A.C.; and 40 CFR 75]

B.11. CO Emissions. The concentration of CO in the exhaust gas shall not exceed 15 ppmvd (natural gas) and 20 ppmvd (fuel oil) as measured by EPA Method 10. CO emissions shall not exceed 48 lbs/hour (natural gas) and 97 lbs/hour (fuel oil) to be demonstrated by stack test. [0310047-002-AC and 0310047-013-AC]

B.12. Volatile Organic Compounds (VOC) Emissions. The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd (natural gas) and 3.5 ppmvd (distillate oil) as determined by EPA Methods 18, 25 or 25A. VOC emissions shall not exceed 2.9 lbs/hour (natural gas) and 19 lbs/hour (distillate oil). [0310047-002-AC and 0310047-013-AC]

B.13. Sulfur Dioxide (SO_2) Emissions. SO_2 emissions shall not exceed 9.7 lbs/hour when firing pipeline natural gas and 98 lbs/hour when firing distillate oil. Emissions of SO_2 shall not exceed 62 tons per year. Compliance with these limits shall be demonstrated by complying with the fuel sulfur monitoring and fuel consumption monitoring requirements of this subsection. [0310047-002-AC; 0310047-013-AC; and Rule 62-212.400(12)(b), F.A.C.]

EXCESS EMISSIONS

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.}

B.14. Excess Emissions, Allowed. See Appendix CC of this permit. [Rule 62-210.700(1), F.A.C.]

B.15. Excess Emissions, Prohibited. See Appendix CC of this permit. [Rule 62-210.700(4), F.A.C.]

PERFORMANCE TEST METHODS AND PROCEDURES

B.16. Testing Requirements. See Appendix STR (Stack Testing Requirements) of this permit for notification, testing, recordkeeping and reporting requirements regarding a performance test. [Chapter 62-297, F.A.C.]

B.17. Test Methods. When conducting emissions tests, the following reference methods shall be used.

a. EPA Method 5 or 17, "Determination of Particulate Emissions from Stationary Sources".

b. EPA Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".

c. EPA Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources".

d. EPA Method 20, "Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines".

e. EPA Reference Method 18 or 25 and/or 25A, "Determination of Volatile Organic Concentrations".

No other test methods may be used for compliance testing unless prior Department approval is received in writing. These reference methods are provided in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [40 CFR 60; 40 CFR 60.8; and 0310047-002-AC]

B.18. Annual Tests Required. During each federal fiscal year (October 1 - September 30), an annual compliance tests shall be performed in accordance with the specified EPA Reference methods for the following pollutants.

a. CO Emissions: Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NOx RATA testing, which is performed pursuant to 40 CFR 75. [0310047-002-AC; 40 CFR 60; 40 CFR 75; and Rule 62-297.310(7), F.A.C.]

b. NOx Emissions: Annual compliance testing for NOx is not required. Continuous compliance with the NOx standards shall be demonstrated by the CEMS maintained in accordance with 40 CFR 75. {Permitting Note: The permittee conducted initial tests in accordance with EPA Method 20 to demonstrate compliance with Subpart GG in 40 CFR 60.} [0310047-002-AC; 40 CFR 60; and 40 CFR 75]

c. VOC Emissions: No annual testing is required. Compliance with the CO emission limit serves as a surrogate. {Permitting Note: Pursuant to Permit No. 0310047-002-AC, the permittee conducted initial tests in accordance with EPA Method 25A to demonstrate compliance with VOC standards.} [0310047-002-AC]

d. PM Emissions: No annual testing is required. Pursuant to Permit No. 0310047-002-AC, the permittee elected an opacity limit of 10 percent when firing oil in lieu of the PM limit and testing requirement. [0310047-002-AC and applicant requested]

e. VE: An annual performance test is required to determine VE. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a compliance test once per each five-year period, coinciding with the term of its air operation permit. {Permitting Note: Permit No. 0310047-002-AC specified a PM emissions limit of 17 lbs/hour (non-condensable only) when firing distillate oil. As allowed

by this permit, the permittee elected an opacity limit of 10 percent when firing oil in lieu of the PM emissions limit and testing requirement.} [0310047-002-AC; Rule 62-297.310(7)(a)8., F.A.C.; and applicant requested]

f. SO_2 Emissions: No annual testing is required. Compliance with these limits shall be demonstrated by complying with the fuel sulfur monitoring and fuel consumption monitoring requirements of this subsection. [0310047-002-AC; 40 CFR 60; and 40 CFR 75]

B.19. Continuous Compliance with the NO_x Emission Limits. Continuous compliance with the NO_x emission limits shall be demonstrated with the CEMS based on the applicable averaging time of 24-hr block average. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless prohibited by Rule 62-210.700, F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two NO_x concentrations are obtained at least 15 minutes apart. These excess emissions periods shall be reported as required in specific conditions **B.29.**, **B.30.** and **B.31.** [0310047-002-AC and 40 CFR 75]

B.20. Compliance with the SO_2 and PM/PM_{10} Emission Limits. Notwithstanding the requirements of Rule 62-297.310(7), F.A.C., the method for determining compliance with the SO_2 and PM_{10} standards is the use of natural gas (2 grains per 100 standard cubic feet, maximum) and distillate oil (0.05% sulfur by weight, maximum). [0310047-002-AC]

B.21. Operating Rate During Testing. Compliance testing shall be conducted with CT No. 7 operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the manufacturer's rated heat input achievable for the average compressor inlet conditions during the test. If it is impracticable to test at permitted capacity, then the CT may be tested at less than permitted capacity. In such cases, the entire curve or table shall be adjusted downwards by the increment which reflects the reduced rate of operation at which compliance was demonstrated. This increment is equal to the difference between the manufacturer's heat input or fuel usage value and 110 percent of the value reached during the test. In this case, the data and calculations necessary to demonstrate the heat input or fuel usage rate correction shall be submitted to the Department with the compliance test report. 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. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Rule 62-204.800, F.A.C. {Permitting Note: The GE Heat Input Curves provided by the manufacturer are the nominal values to be used to aid in defining "full load" for stack testing purposes and do not constitute a limit on heat input.} [Rule 62-297.310(2), F.A.C. and 0310047-007-AC]

MONITORING OF OPERATIONS

B.22. Natural Gas Monitoring Schedule. The following custom monitoring schedule for natural gas is approved in lieu of the daily sampling requirements of 40 CFR 60.334(b)(2):

a. The permittee is committed to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).

b. This unit shall be monitored for SO_2 emissions using methods consistent with the requirements of 40 CFR 75.11 and certified by the EPA.. This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for this unit is changed to a higher sulfur fuel, SO_2 emissions must be accounted for as required pursuant to 40 CFR 75.11(d). [0310047-002-AC; 40 CFR 60; and 40 CFR 75]

B.23. Fuel Oil Monitoring Schedule.

a. For the purposes of demonstrating compliance with the SO_2 standard specified in this permit, the SO_2 standard in 40 CFR 60.333 and the limits on fuel sulfur content, the following sampling and analytical methods shall be used: ASTM D2880-71, 78 or 96, or D4294-98 (or equivalent) for the sulfur content of liquid fuels; and D1072-80 or 90 (Reapproved 1994), D3031-81, D4084-82 or D3246-81 or 94, or D3246-81, 92 or 96 (or equivalent) for the sulfur content of gaseous fuel. The owner or operator are responsible for ensuring that the procedures above are used for determination of fuel sulfur content.

b. 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 pursuant to 40 CFR 60.335(d) and (e). For each shipment, the permittee shall retain records of the fuel sulfur analysis.

[0310047-002-AC; 0310047-013-AC; 40 CFR 60.335(d) & (e)]

B.24. NO_x and O_2 CEMS. The permittee shall install, calibrate, maintain, and operate a CEMS in the stack to measure and record the NO_x emissions and the O_2 content from this unit. Periods when NO_x emissions (ppmvd at 15% oxygen) are above the standards listed in this permit shall be provided to the Department's Bureau of Air Monitoring and Mobile Sources and the EQD pursuant to 40 CFR 75. [0310047-002-AC and 40 CFR 75]

B.25. NO_x CEMS in Lieu of Water-to-Fuel Ratio. The NO_x CEMS shall be used in lieu of the water-to-fuel ratio monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. The calibration of the water-to-fuel ratio monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS. Upon request from the Department and/or the EQD, the CEMS emission rates for NO_x shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard in 40 CFR 60.332. [0310047-002-AC; 40 CFR 60; and 40 CFR 75]

B.26. CEMS Requirements. The NO_x and O_2 CEMS shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications, and 40 CFR 60.7(a)(5) or 40 CFR 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F, or 40 CFR 75. Data on CEMS equipment specifications, manufacturer, type, calibration and maintenance needs shall be kept on file for future reference and use. [0310047-002-AC; 40 CFR 60; and 40 CFR 75]

RECORDKEEPING AND REPORTING REQUIREMENTS

B.27. Records. All measurements, records, and other data required to be maintained by the permittee shall be recorded in a permanent form and retained for at least five years following the date on which such measurements, records, or data are recorded. These records shall be made available to Department and/or EQD representatives upon request. [Rule 62-213.440, F.A.C. and 0310047-002-AC]

B.28. Distillate Oil Consumption. Records of the distillate oil consumption shall be maintained and made available to the Department and/or the EQD office(s) upon request. [Rule 62-213.440, F.A.C.]

B.29. Excess Emissions, Notification. See Appendix CC of this permit. [Rules 62-210.700(6) and 62-4.130, F.A.C. and 0310047-002-AC]

B.30. Quarterly Excess Emissions Reports, Subpart GG. With regard to the emissions standards in Subpart GG of 40 CFR 60, quarterly excess emission reports shall be submitted to the Department and EQD offices in accordance with 40 CFR 60.7(c). This unit shall comply with the CEMS frequency data report as specified in 40 CFR 60.7(c). Quarterly reports are due within 30 days following each calendar quarter. [0310047-002-AC; 0310047-013-AC; and 40 CFR 60.7(c)]

B.31. Quarterly Excess Emissions Reports, Permit Standards. Periods of startup, shutdown, malfunction and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in this subsection. Following the same format in 40 CFR 60.7, quarterly excess emission reports shall be submitted to the Department and EQD offices. Quarterly reports are due within 30 days following each calendar quarter. [0310047-002-AC and 0310047-013-AC]

MISCELLANEOUS

B.32. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [0310047-002-AC]

B.33. New Source Performance Standards (NSPS). CT No. 7 shall be in compliance with the applicable provisions of Subparts A and GG in 40 CFR 60 adopted by reference in Rule 62-204.800, F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standards. See Appendix NA for the General Provisions and Appendix NGG for the Performance Standards for Stationary Gas Turbines. [0310047-002-AC and Subparts A and GG in 40 CFR 60]

Operated by: JEA
ORIS code: 0666

SUBSECTION A. ACID RAIN UNITS

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

EU No.	Description
-007	Boiler No. 8 (currently deactivated)
-008	Boiler No. 9 (currently deactivated)
-009	Boiler No. 10 (currently deactivated)
-015	Combustion Turbine #7 (start-up April 30, 2000)

A.1. Acid Rain Applications. The permit applications (DEP Form Nos. 62-210.900(1)(a) and 62-210.900(1)(a)3., F.A.C.) 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 applications received on 06/07/2007 and 07/31/2007. [Chapter 62-213 and Rule 62-214.320, F.A.C.]

A.2. Summary of SO_2 Allowances. The following table summarizes the SO_2 allowance allocations for each Acid Rain unit:

E.U. No.	EPA ID	SO_2 Allowances* for Each Year				
		2008	2009	2010	2011	2012
-007	8	196*	196*	196*	196*	196*
-008	9	553*	553*	553*	553*	553*
-009	10	1975*	1975*	1980*	1980*	1980*
-015	7	0*	0*	0*	0*	0*

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

A.3. Emissions 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
CONTENTS

FORMATS: ABBREVIATIONS, ACRONYMS, CITATIONS, AND IDENTIFICATION NUMBERS

(version dated 02/05/97)

Abbreviations and Acronyms:

°F: Degrees Fahrenheit
BACT: Best Available Control Technology
CFR: Code of Federal Regulations
DEP: State of Florida, Department of Environmental Protection
DARM: Division of Air Resource Management
EPA: United States Environmental Protection Agency
F.A.C.: Florida Administrative Code
F.S.. Florida Statute
ISO: International Standards Organization
LAT: Latitude
LONG: Longitude
MMBtu: million British thermal units
MW: Megawatt
ORIS: Office of Regulatory Information Systems
SOA: Specific Operating Agreement
UTM: Universal Transverse Mercator

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers, and ID numbers.

Code of Federal Regulations:

Example: **|40 CFR 60.334|**

Where:	40	reference to	Title 40
	CFR	reference to	Code of Federal Regulations
	60	reference to	Part 60
	60.334	reference to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

Example: **|Rule 62-213, F.A.C.|**

Where:	62	reference to	Title 62
	62-213	reference to	Chapter 62-213
	62-213.205	reference to	Rule 62-213.205, F.A.C.

ISO: International Standards Organization refers to those conditions at 288 degrees K, 60 percent relative humidity, and 101.3 kilopascals pressure.

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:

105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by state database.

Permit Numbers:

Example: 1050221-002-AV, or
1050221-001-AC, or
1050221-003-AO, or
1050221-004-AF

Where:

AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
AO = Air Operation Permit
AF = Federally Enforceable State Operation Permit
105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by permit tracking database
001 or 002 = 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185
PA95-01
AC53-208321

Where:

PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC = old Air Construction Permit numbering
208321 = identifies the specific permit project number

SECTION V. APPENDIX I-1
LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR 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:

A. Storage Tanks.

1. JEA Tank #5	Magnesium Oxide	10,000 gallons
2. JEA Tank #6	Lube Oil - Units 9/10	9,400 gallons
3. JEA Tank #7	Lube Oil - Units 8/9	4,800 gallons
4. JEA Tank #8	Black Start Diesel	3,000 gallons
5. JEA Tank #9	Mineral Acid	5,000 gallons
6. JEA Tank #10	Caustic	5,000 gallons
7. JEA Tank #11	Hypochloride	15,228 gallons
8. JEA Tank #12	$FeSO_4$	2,500 gallons
9. JEA Tank #15	Sodium BiSulfite	2,500 gallons

B. Emergency Generator.

1. There is one emergency generator at this site. The emergency generator has historically fired less than 10,000 gallons per year of diesel fuel. The emergency generator draws its fuel from a single diesel fuel oil storage tank (the fuel oil sulfur content is equal to or less than 0.5%, by weight).

C. Black-start Generators.

1. There are two black-start generators at this site. These generators have historically fired a total amount of less than 10,000 gallons per year. They draw their fuel from a single diesel storage tank (the fuel oil delivered is the same as that delivered for the emergency generator, i.e., with a sulfur content equal to or less than 0.5%, by weight).

D. Fuel Gas Heater.

1. There is one approximately 3.2 MMBtu/hr natural gas fired heater at this site.

SECTION V. APPENDIX U-1

LIST OF UNREGULATED EMISSIONS UNITS AND/OR 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.

E.U. ID No.	Brief Description of Emissions Units and/or Activity
-010	Storage Tanks (tanks 1 and 4)
-014	Storage Tank (tank 13)

A. EU-010: Storage Tanks.

1. JEA Tank #1	No. 6 Fuel Oil Storage	4,578,000 gallons
2. JEA Tank #4	No. 6 Fuel Oil Storage	4,578,000 gallons

B. EU-014: Storage Tank.

1. JEA Tank #13	No. 2 Fuel Oil Storage	1,512,000 gallons

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.

    {Permitting note: The conditional exemption for asphalt concrete plants at Rule 62-210.300(3)(c)2.g., F.A.C., requires the retention of all records for five (5) years.}

    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.

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 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 VOCs when they are not in use.
   c. Maintain all pipes, valves, fittings, etc., which handle VOCs in good operating condition.
   d. Confine rags used with VOCs 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.

   {Permitting Note: Nothing has been deemed necessary at the time of issuance of this permit.}

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

7. **Not Federally Enforceable**. 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. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)1. & 4., 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. 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.]

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. (See Appendix CS)

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) 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 KG-EU1-IV3

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT KG-EU1-IV3

ALTERNATIVE METHODS OF OPERATION SIMPLE-CYCLE COMBUSTION TURBINE 7

The simple-cycle combustion turbine (CT No. 7) at the Kennedy generating station is permitted to fire pipeline natural gas and low-sulfur No. 2 distillate fuel oil. The maximum sulfur content of the fuel oil may not exceed 0.05 percent (by weight). The turbines are permitted to operate no more than 4,050 hours on natural gas and 1,260 hours on distillate fuel oil in any 12-month period pursuant to the following formula:

$$MAXHROP = 4{,}050 - (3.215 * ACTHROPFO)$$

Where ACTHROPFO = actual hours of operation on fuel 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]
CT No. 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:
   Combustion Turbine (CT) No. 8

3. Emissions Unit Identification Number: **016**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A	**2/26/2008**	**04/16/2009**	**49**

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

   ☒ Acid Rain Unit

   ☒ CAIR Unit

9. Package Unit:
   Manufacturer: **General Electric** Model Number: **PG 7241 FA**

10. Generator Nameplate Rating: **172** MW

11. Emissions Unit Comment:
    Emission unit is a General Electric (GE) Model PG 7241 FA simple-cycle combustion turbine electrical generator set.

EMISSIONS UNIT INFORMATION
Section [2]
CT No. 8

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

1. Control Equipment/Method Description: **Dry Low NOx burners used to control NOx when firing natural gas.**
2. Control Device or Method Code: **205**

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

1. Control Equipment/Method Description: **Water injection used to control NOx when firing fuel oil.**
2. Control Device or Method Code: **028**

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: **1,804** million Btu/hr (HHV) (Natural Gas) **1,989** million Btu/hr (HHV) (Fuel Oil)	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**3,500** hours/year
6. Operating Capacity/Schedule Comment: **The maximum heat input rates are based on a compressor inlet temperature of 59°F, 60% relative humidity, and the HHV of gas or oil.** **Maximum operating hours limited to 3,500 hr/yr.** **Maximum operating hours on fuel oil limited to 500 hr/yr.**	

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: **CT8**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **CT No. 8 stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **115** feet	7. Exit Diameter: **18** feet
8. Exit Temperature: **1,110**°F	9. Actual Volumetric Flow Rate: **2,399,000** 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): **440.0** North (km): **3,359.1**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) **30/21/53.6** Longitude (DD/MM/SS) **81/37/31.1**	
15. Emission Point Comment: **Stack physical and operating parameters based on Title V Permit No. 0310047-020-AV.**		

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 (MMcf)**	
4. Maximum Hourly Rate: **1.77**	5. Maximum Annual Rate: **6,195**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,020 (HHV)**
10. Segment Comment: **Based on nominal heat input rate of 1,804 MMBtu/hr and 3,500 hr/yr of operation. Maximum Hourly rate = 1,804 MMBtu/hr / 1,020 MMBtu/MMcf = 1.77 MMcf/hr Maximum Annual rate= 1.77 MMcf/hr x 3,500 hr/yr = 6,195 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: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **14.20**	5. Maximum Annual Rate: **7,104**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **140 (HHV)**
10. Segment Comment: **Based on nominal heat input rate of 1,989 MMBtu/hr and 500 hr/yr of operation. Maximum Hourly rate = 1,989 MMBtu/hr / 140 MMBtu/Mgal = 14.20 Mgal/hr Maximum Annual rate= 14.20 Mgal/hr x 500 hr/yr = 7,104 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
CO			EL
NOX	028, 205		EL
SO2			EL
VOC			NS
PM			EL
PM10			EL

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: **66.0** lb/hour **64.5** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **20 ppmvd @ 15% O2 or 66.0 lb/hr** Reference: **0310047-018-AC; 0310047-019-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 for natural gas firing limited to 9 ppmvd @ 15% O2 or 32.0 lb/hr (3-hour average).
Hourly emissions for fuel oil firing limited to 20 ppmvd @ 15% O2 or 66.0 lb/hr (3-hour average).
Potential annual: (66 lb/hr x 500 hr/yr + 32 lb/hr x 3,000 hr/yr) x ton/2,000 lb = 64.5 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential hourly emissions based on fuel oil firing.
Annual operation on fuel oil limited to 500 hr/yr.
Annual operations limited to 3,500 hr/yr (all fuels).

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 **2**

1. Basis for Allowable Emissions Code: **ESCPSD**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **9.0 ppmvd @ 15% O2 or 32.0 lb/hr**	4. Equivalent Allowable Emissions: **32.0** lb/hour **56.0** tons/year
5. Method of Compliance: **Initial test using EPA Method 10. Subsequent testing prior to Title V renewal.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for natural gas-firing. Annual emissions = 32.0 lb/hr x 3,500 hr/yr x ton/2,000 lb = 56 TPY**	

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

1. Basis for Allowable Emissions Code: **ESCPSD**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **20 ppmvd @ 15% O2 or 66.0 lb/hr**	4. Equivalent Allowable Emissions: **66.0** lb/hour **16.5** tons/year
5. Method of Compliance: **Initial test using EPA Method 10. Subsequent testing prior to Title V renewal.**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for fuel oil-firing. Annual emissions = 66.0 lb/hr x 500 hr/yr x ton/2,000 lb = 16.5 TPY**	

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: **335.0** lb/hour **246.2** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **42 ppmvd @ 15% O2 or 335.0 lb/hr** Reference: **0310047-018-AC; 0310047-019-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 for natural gas firing limited to 15 ppmvd @ 15% O2 or 108.3 lb/hr.
Hourly emissions for fuel oil firing limited to 42 ppmvd @ 15% O2 or 335.0 lb/hr.

Potential annual: (335 lb/hr x 500 hr/yr + 108.3 lb/hr x 3,000 hr/yr) x ton/2,000 lb = 246.2 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential hourly emissions based on fuel oil firing.
Annual operation on fuel oil limited to 500 hr/yr.
Annual operations limited to 3,500 hr/yr (all fuels).

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 **2**

1. Basis for Allowable Emissions Code: **ESCPSD**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **15.0 ppmvd @ 15% O2 or 108.3 lb/hr**	4. Equivalent Allowable Emissions: **108.3** lb/hour **189.5** tons/year
5. Method of Compliance: **CEMS, 4-hour rolling average**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for natural gas-firing.** **Equivalent annual emissions = 108.3 lb/hr x 3,500 hr/yr x ton/2,000 lb = 189.5 TPY**	

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

1. Basis for Allowable Emissions Code: **ESCPSD**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **42.0 ppmvd @ 15% O2 or 335 lb/hr**	4. Equivalent Allowable Emissions: **335** lb/hour **83.8** tons/year
5. Method of Compliance: **CEMS, 4-hour rolling average**	
6. Allowable Emissions Comment (Description of Operating Method): **Allowable emissions for fuel oil-firing.** **Equivalent annual emissions = 335 lb/hr x 500 hr/yr x ton/2,000 lb = 83.75 TPY**	

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: **PM/PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **45.0** lb/hour **39.8** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **Fuel sulfur content** Reference: **0310047-018-AC; 0310047-019-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:

Maximum expected hourly emissions:
Natural gas: 19 lb/hr
Fuel oil: 45 lb/hr

Potential annual: (45 lb/hr x 500 hr/yr + 19 lb/hr x 3,000 hr/yr) x ton/2,000 lb = 39.75 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential hourly emissions based on fuel oil firing.
Annual operation on fuel oil limited to 500 hr/yr.
Annual operations limited to 3,500 hr/yr (all fuels).

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 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Firing of natural gas with 2 gr S/100 scf gas.**	4. Equivalent Allowable Emissions: **19.0** lb/hour **33.3** tons/year
5. Method of Compliance: **None. Compliance with CO and VE indication of good combustion.**	
6. Allowable Emissions Comment (Description of Operating Method): **Equivalent annual emissions = 19.0 lb/hr x 3,500 hr/yr x ton/2,000 lb = 33.25 TPY**	

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 fuel oil with 0.05% S**	4. Equivalent Allowable Emissions: **45.0** lb/hour **11.3** tons/year
5. Method of Compliance: **None. Compliance with CO and VE indication of good combustion.**	
6. Allowable Emissions Comment (Description of Operating Method): **Equivalent annual emissions = 45.0 lb/hr x 500 hr/yr x ton/2,000 lb = 11.25 TPY**	

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: **102.3** lb/hour **40.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.05% sulfur oil** Reference: **0310047-018-AC; 0310047-019-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:

Potential hourly emissions for fuel oil-firing:
1,989 MMBtu/hr / 140 MMBtu/10^3 gal x 7.1 lb/gal x 0.05/100 x (64/32) = 102.3 lb/hr

Potential hourly emissions for natural gas-firing:
1,804 MMBtu/hr / 1,020 MMBtu/MMcf x 2 gr/100 cf x lb/7,000 gr x (64/32) = 10.1 lb/hr

Potential annual: (102.3 lb/hr x 500 hr/yr + 10.1 lb/hr x 3,000 hr/yr) x ton/2,000 lb = 40.73 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential hourly emissions based on fuel oil firing.
Annual operation on fuel oil limited to 500 hr/yr.
Annual operations limited to 3,500 hr/yr (all fuels).

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 2

1. Basis for Allowable Emissions Code: **ESCPSD**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Firing of natural gas with 2 gr S/100 scf gas.**	4. Equivalent Allowable Emissions: **10.1** lb/hour **17.7** tons/year
5. Method of Compliance: **Fuel specification**	
6. Allowable Emissions Comment (Description of Operating Method): **Equivalent annual emissions = 10.1 lb/hr x 3,500 hr/yr x ton/2,000 lb = 17.7 TPY**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **ESCPSD**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Firing of fuel oil with 0.05% S**	4. Equivalent Allowable Emissions: **102.3** lb/hour **25.6** tons/year
5. Method of Compliance: **Fuel specification**	
6. Allowable Emissions Comment (Description of Operating Method): **Equivalent annual emissions = 102.3 lb/hr x 500 hr/yr x ton/2,000 lb = 25.6 TPY**	

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: **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: **EPA Method 9**	
5. Visible Emissions Comment: **BACT Requirement. 0310047-018-AC; 0310047-019-AC. VE testing not required for a fuel if operation is <400 hr/yr for that fuel.**	

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: **2 hr/24 hr** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment: **Rule 62-210.700(1), F.A.C., allows for 2 hours (120 minutes) per 24 hours for startup.**	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **NOX**
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: **TECO** Model Number: **42iLS**	Serial Number: **0820431353**
5. Installation Date: **2/27/2009**	6. Performance Specification Test Date: **5/2/2009**
7. Continuous Monitor Comment: **40 CFR 75 requirement.**	

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: **O2**	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: **40 CFR 75 requirement.**	

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: **KG-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: **KG-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: **KG-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: **KG-EU2-I5** ☐ 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

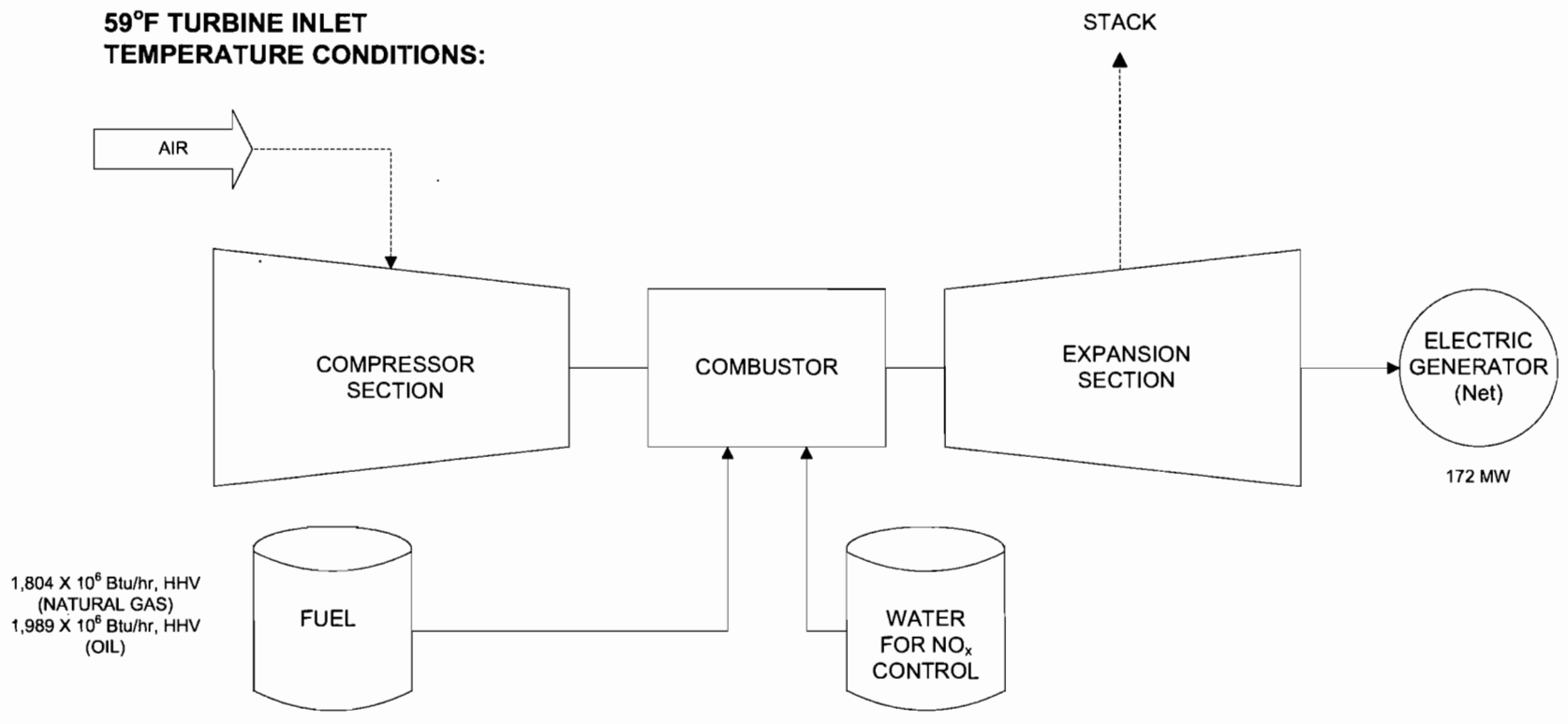
Additional Requirements for Title V Air Operation Permit Applications

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

Additional Requirements Comment

ATTACHMENT KG-EU2-I1

PROCESS FLOW DIAGRAM



Attachment KG-EU2-I1
Simplified Flow Diagram of GE Frame 7FA
Combustion Turbine (CT No. 8)
Baseload, Annual Design Conditions

Process Flow Legend
Solid/Liquid
Gas
Steam

Golder Associates

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ATTACHMENT KG-EU2-I4

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT KG-EU2-I4
PROCEDURES FOR STARTUP/SHUTDOWN

Startup and shutdown will be performed in accordance with manufacturer's operating procedures and/or plant operating procedures.

ATTACHMENT KG-EU2-I5

OPERATION AND MAINTENANCE PLAN

ATTACHMENT KG-EU2-I5
OPERATION AND MAINTENANCE PLAN

The combustion turbine will be operated and maintained in accordance with manufacturer's recommendations, operation and maintenance experience, and technical guidance taking into account protection of equipment, safety of personnel, and other factors as deemed necessary to maintain compliance with the permitted limits.

ATTACHMENT KG-EU2-IV3

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT KG-EU2-IV3

ALTERNATIVE METHODS OF OPERATION
SIMPLE-CYCLE COMBUSTION TURBINE 8

The simple-cycle combustion turbine (CT No. 8) at the Kennedy generating station is permitted to fire pipeline natural gas and low-sulfur No. 2 distillate fuel oil. The maximum sulfur content of the fuel oil may not exceed 0.05 percent (by weight). The turbine is permitted to operate no more than 3,500 hours during any consecutive 12 months. Of this amount, the turbine is permitted to operate no more than 500 hours during any 12 consecutive months.