JEA - Greenland Energy Center
Simple Cycle Combustion Turbines 1 and 2

Initial Title V Operation Permit Application

July 2011

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BUREAU OF
AIR REGULATION

July 8, 2011

Bureau of Air Regulation
FDEP-Division of Air Resource Management
2600 Blair Stone Road
MS 5000
Tallahassee, FL 32399-2400

B&V Project 172437

Attention: Trina L. Vielhauer

Subject: Greenland Energy Center Initial Title V Operation Permit

Dear Ms. Vielhauer:

On behalf of JEA, Black & Veatch is pleased to submit one original and four (4) copies of the Initial Title V Operation Permit Application for the Greenland Energy Center (GEC).

Should you have any questions, please feel free to contact me at (913) 458-9837 or Bert Gianazza, P.E. of JEA at (904) 665-6247.

Very truly yours,

BLACK & VEATCH CORPORATION

Ajay N. Kasarabada, P.E.
Air Permitting Manager

bjw
Enclosure[s]

cc: Bert Gianazza, JEA

Building Community.

Greenland Energy Center

Initial Title V Operation Permit Application

B&V Project Number 172437

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Black & Veatch Corporation
11401 Lamar
Overland Park, Kansas 66211
Tel: (913) 458-2000 www.bv.com

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1.0 Introduction

This initial Title V Operation Permit application is for the Greenland Energy Center (GEC) located in Jacksonville, Florida. As required by Florida Administrative Code regulations, JEA has prepared the initial Title V Operation Permit Application on the forms provided by the Florida Department of Environmental Protection (FDEP). Supplementary attachments are included to support the information contained in the application forms.

Finally, this application makes note of differences that arise between the initial air construction permit application (PSD-FL-401) and the final as-built design of the facility. These differences are discussed in detail in Section 3.0.

2.0 Information Provided in This Application

The focus of this document is on the new emission units/emission points and applicable requirements that were permitted under the construction permit (PSD-FL-401, DEP Project No. 0310561-001-AC), issued March 10, 2009. JEA initiated operations (i.e, first fire) for Unit 1 on January 16, 2011 and Unit 2 on March 5, 2011.

This initial Title V Operation permit application incorporates by reference all the applicable administrative, facility-wide and emission unit specific requirements and standard conditions in the Construction Permit PSD-FL-401. Additionally, the insignificant activities list has been included. Through this application package JEA is requesting the:

1. Incorporation of Construction Permit PSD-FL-401 that permitted the construction of the GEC subject to the requested exception identified in Items 2 and 3, as well as Section 3.0, below.

2. Construction Permit PSD-FL-401 conditions 6, 9, and 16b, that relates to Operating Scenario 1 (Pre-Onsite Natural Gas Availability) not be included as permit conditions in the Title V Operating Permit since the natural gas pipeline construction is complete and commercial operation on natural gas has been successfully achieved on each CTG.

3. Title V Operating Permit incorporate clarification of Construction Permit PSD-FL-401 condition 31 that compliance with fuel sulfur records may be demonstrated in accordance with 40 CFR 60, Subpart KKKK. Specifically, that the fuel sampling and

analyses may be performed either by JEA, a service contractor retained by JEA, a fuel vendor, or any other qualified agency.

4. Incorporation of the Insignificant Activities and Trivial Activities List.

5. Incorporation of latest CAIR and Acid Rain forms.

6. Incorporation of the new address of the facility as 6850 Energy Center Drive, Jacksonville, FL 32256.

7. Acceptance of the minor differences in the final as-built design of the facility as discussed in Section 3.0.

3.0 Minor Differences in As-Built Design Versus Construction Permit Application

As is common with projects of this scale, minor differences often occur between the air permit application phase and the final as-built design of the facility. These differences typically center around what is received from vendors as initial estimates during the permit application phase and what is actually purchased at a later date during the construction phase. The following such minor differences have been noted for GEC:

- Change in the diesel engine fire pump size due to the actual unit purchased from 300 bhp to 197 bhp. The actual diesel fire pump has a stack height of 12.5 feet above nominal grade and a stack diameter of 0.5 feet.
- The emergency diesel generator was not included in the final as-built design for GEC and JEA does not currently intend to install an emergency diesel generator. JEA requests that the emergency diesel generator not be included in the Title V Operating Permit.
- Change in the number of 1.875 million gallon ULSFO storage tanks due to the actual number purchased from 2 to 1. The one 1.875 million gallon ULSFO storage tank has not yet been built. JEA intends to have the storage tank operational by 2012 and requests that the description of the tank be incorporated into the Title V Operating Permit to avoid a future revision to the permit.

- The second tank that has been installed is a 20,000 gallon tank that is used as a ULSFO surge tank for the combustion turbines. JEA intends to remove the 20,000 gallon tank once the 1.875 million gallon ULSFO storage tank is installed and available for use at the facility.
- Change in diesel engine fire pump fuel tank size due to the actual tank purchased from 500 gallons to 550 gallons.
- Change in the 5.84 MBtu/hour natural gas fired fuel gas heater actual stack height and actual stack diameter due to the actual unit purchased. The stack height changed from 20 feet to 16.75 feet, and the stack diameter from 2 feet to 1 foot.
- Minor changes to the facility layout after the issuance of Construction Permit PSD-FL-401 that are summarized in the letter to FDEP dated August 26, 2009. The letter to FDEP summarizing the minor changes and the response from FDEP indicating that no permit modification was needed are located in Attachment Q.

The above information is appropriately reflected in the following application forms and attachments.

FDEP Application Forms

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AIR REGULATION

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: Greenland Energy Center	
3. Facility Identification Number: 0310561	
4. Facility Location Street Address or Other Locator: 6850 Energy Center Drive City: Jacksonville County: Duval Zip Code: 32256	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☐ Yes ☒ No

Application Contact

1. Application Contact Name: N. Bert Gianazza, P.E.
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) 665-6247 ext. Fax: (904) 665-7376
4. Application Contact E-mail Address: giannb@jea.com

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 7-12-11	3. PSD Number (if applicable):
2. Project Number(s): 0310561-003-AV	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

☐ Air construction permit.

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

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

Air Operation Permit

☒ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☐ Title V air operation permit renewal.

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

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

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

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

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

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

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

Application Comment

This is the initial Title V air operation permit application for a new electric-generating facility (hereinafter referred to as Greenland Energy Center or as GEC) in Jacksonville in Duval County, Florida. The power block at the GEC consists of two General Electric (GE) 7FA-combustion turbine generators (CTGs) operating in simple cycle mode with an exhaust stack for each CTG. The CTGs will have the capability to fire both natural gas and ultra low sulfur fuel oil (ULSFO). Each CTG has a nominal rating of 176 MW while firing natural gas and 190 MW while firing ULSFO, at an ambient temperature of 59°F (ISO condition). This configuration will produce a nominal plant output of 352 MW on natural gas and 380 MW on ULSFO at ISO conditions.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
EU001	Unit 1 – General Electric PG7241FA gas turbine electric generator	NA	NA
EU002	Unit 2 – General Electric PG7241FA gas turbine electric generator	NA	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., D.P.A., Chief Operating Officer

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

   [X] 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 West 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:

APPLICATION INFORMATION

6. Application Responsible Official Certification:

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

Signature

6/28/11
Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: N. Bert Gianazza
   Registration Number: 38640
2. Professional Engineer Mailing Address...
   Organization/Firm: JEA
   Street Address: 21 West Church Street
   City: Jacksonville State: FL Zip Code: 32202
3. Professional Engineer Telephone Numbers...
   Telephone: (904) 665-6247 ext. Fax: (904) 665-7376
4. Professional Engineer E-mail Address: giannb@jea.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 [X], if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

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

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

Signature Date 6/29/11

(seal)

* Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 450.219 North (km) 3336.418		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
3. Governmental Facility Code: 4	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4911
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: N. Bert Gianazza, P.E. – Environmental Services
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) 665-6247 ext. Fax: (904) 665-7376
4. Facility Contact E-mail Address: giannb@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 INFORMATION

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. [X] Title V Source	
4. [X] 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. [X] 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:	

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
SAM	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) [X] Attached, Document ID: Attachment A [ ] 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) [X] Attached, Document ID: Attachment B [ ] 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) [X] Attached, Document ID: Attachment C [ ] 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 Attachment D ☐ 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 Attachment E
   ☐ 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 Attachment F
   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: Attachment G
   ☐ 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: Attachment H ☐ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☐ Attached, Document ID:_____ ☒ 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)):

   [X] Attached, Document ID: Attachment O [ ] Previously Submitted, Date:_____

   [ ] 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:_____

   [X] Not Applicable

   New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):

   [ ] Attached, Document ID:_____ [ ] Previously Submitted, Date:_____

   [x] Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):

   [X] Attached, Document ID: Attachment P [ ] Previously Submitted, Date:_____

   [ ] Not Applicable (not a CAIR source)

Additional Requirements Comment

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.)

[X] 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).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which have 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:
Natural Gas/Ultra-Low Sulfur Fuel Oil fired Combustion Turbine Units 1 and 2; each CTG has a nominal rating of 176 MW while firing natural gas and 190 MW while firing ultra low sulfur fuel oil (ULSFO), at an ambient temperature of 59°F (ISO conditions)

3. Emissions Unit Identification Number: 001 and 002

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A	1/28/2010	Unit 1: 1/16/2011 Unit 2: 3/05/2011	49

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

[X] Acid Rain Unit

[X] CAIR Unit

9. Package Unit:
Manufacturer: General Electric Model Number: PG7241 7FA

10. Generator Nameplate Rating: 176 MW while firing natural gas and 190 MW while firing ULSFO at ISO conditions

11. Emissions Unit Comment:

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Dry low NOx (DLN) burners to control NOx when firing natural gas. DLN burners and Water injection used to control NOx when firing ULSFO.
2. Control Device or Method Code: 205, 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:

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: 1,977 (HHV) million Btu/hr (Natural Gas, 100% load, 7°F) 2,153 (HHV) million Btu/hr (ULSFO, 100% load, 7°F)
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: The two CTGs will function as peaking units and will each operate no more than 3,500 hours during any consecutive 12 months of which up to 500 hours may be on ULSFO. Each combustion turbine shall not operate more than 17 hours exclusively on ULSFO per calendar day, or with a combination of ULSFO burning of 12 hours with 12 hours of natural gas for compliance with regional haze impact thresholds.
6. Operating Capacity/Schedule Comment: The maximum heat input shown in Field 3 is with operation at 100 percent load at the site minimum ambient temperature of 7°F. Operation at 100 percent load and at 59°F is expected to have a corresponding maximum heat input of 1,806 MBtu/hr and 1,994 MBtu/hr (HHV) for natural gas and ULSFO, respectively. Note that the heat input rates are a function of operating parameters and ambient conditions. CT operating curves (generator output vs. exhaust temperature) are provided in Attachment N.

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: Combustion Turbine Unit 1 and Unit 2	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: N/A		
5. Discharge Type Code: V	6. Stack Height: 115 feet	7. Exit Diameter: 20.0 feet
8. Exit Temperature: 1,111°F (natural gas); 1,094°F (ULSFO)	9. Actual Volumetric Flow Rate: 2,428,785 acfm (natural gas, ISO) 2,527,700 acfm (ULSFO, ISO)	10. Water Vapor:
11. Maximum Dry Standard Flow Rate:	12. Nonstack Emission Point Height:	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 450.219 (Unit 1); 450.219 (Unit 2) North (km): 3336.445 (Unit 1); 3336.391 (Unit 2)	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	

15. Emission Point Comment:

Each combustion turbine discharges through a vertical, cylindrical stack 115 ft above nominal grade.

Exit temperature and actual flow rate are with operation of each combustion turbine at 100 percent load and at ISO conditions.

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): Natural gas used in each of the two combustion turbines (post-onsite natural gas availability).		
2. Source Classification Code (SCC): 2-01-002-01	3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 2.02 (approx.)	5. Maximum Annual Rate: 6,464 per CTG	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 978 (HHV)

10. Segment Comment:
Approximate fuel use rate calculations:
(heat input at HHV)/(fuel HHV) = hourly rate

Maximum Hourly Rate:
(1,977 MBtu/hr)/(978 MBtu/million scf) = 2.02 million scf/hour per CTG

Maximum Annual Rate:
[(1,806 MBtu/hr)/(978 MBtu/million scf)]x(3,500 hr/yr x 2) = 12,927 million scf/yr (two CTGs combined)

Maximum hourly rate is based on operation at 7°F ambient temperature and maximum annual rate based on operations at 59°F ambient temperature and 3,500 hours of natural gas firing in each of the two combustion turbines

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): ULSFO used in each of the two combustion turbines.		
2. Source Classification Code (SCC): 2-01-001-01	3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 16.3	5. Maximum Annual Rate: 7,553 per CTG	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0015	8. Maximum % Ash:	9. Million Btu per SCC Unit: 132 (HHV)

10. Segment Comment:

Approximate fuel use rate calculations:
(heat input at HHV)/(fuel HHV) = hourly rate

Maximum Hourly Rate:
(2,153 MBtu/hr)/(132 MBtu/kgal) = 16.3 kgal/hour per CTG

Maximum Annual Rate:
[(1,994 MBtu/hr)/(132 MBtu/kgal)]x(500 hr/yr x 2) = 15,106 kgal/yr (two CTGs combined)

Maximum hourly rate is based on operation at 7°F ambient temperature and maximum annual rate based on operations at 59°F ambient temperature. This scenario allows the two CTGs to operate no more than 3,500 hours of natural gas firing during any consecutive 12 months of which 500 hours may be on ULSFO. Each combustion turbine will not operate more than 17 hours exclusively on ULSFO per calendar day, or with a combination of ULSFO burning 12 hours with 12 hours of natural gas in each of the two combustion turbines for compliance with regional haze impacts thresholds (See Construction Permit Condition 7 of PSD-FL-401).

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
NOx	**205**	**028 (only while firing ULSFO)**	**EL**
CO			**EL**
VOC			**NS**
SO2			**WP**
PM			**WP**
PM10			**WP**
SAM			**WP**

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: See 10 below. lb/hour / tons/year		4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year		
6. Emission Factor: Reference:		7. Emissions Method Code: 5
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:
See table in Condition 12 of current air construction permit (PSD-FL-401).

11. Potential, Fugitive, and Actual Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 4

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 15.0 ppmvd @ 15 O_2	4. Equivalent Allowable Emissions: 64 lb/hour per CTG (natural gas operation)
5. Method of Compliance: CEMS, 30-day rolling average	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is from NSPS Subpart KKKK and applies when each CTG is operating on natural gas at greater than 75 percent load. Equivalent allowable emissions are based on operation at 7°F ambient temperature and are included for informational purposes only and do not constitute permit limits.	

Allowable Emissions Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 42.0 ppmvd @ 15 O_2	4. Equivalent Allowable Emissions: 355.7 lb/hour (ULSFO)
5. Method of Compliance: CEMS, 30-day rolling average	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is from NSPS Subpart KKKK and applies when each CTG is operating on fuel oil at greater than 75 percent load. Equivalent allowable emissions are based on operation at 7°F ambient temperature and are included for informational purposes only and do not constitute permit limits.	

Allowable Emissions Allowable Emissions 3 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 9.0 ppmvd @ 15% O_2 when firing natural gas	4. Equivalent Allowable Emissions: 58.5 lb/hour per CTG (natural gas operation)
5. Method of Compliance: CEMS, 24-hour block average; Stack test, 3-run average	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on natural gas. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions.	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 4 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 42.0 ppmvd @ 15 percent O_2	4. Equivalent Allowable Emissions: 329.4 lb/hour (ULSFO)
5. Method of Compliance: CEMS, 24-hour block average; Stack test, 3-run average	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on ULSFO. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions.	

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:
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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

(Optional for unregulated emissions units.)

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

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: See 10 below. lb/hour tons/year	4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: 5
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: See table in Condition 12 of current air construction permit (PSD-FL-401).	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 4.1 ppmvd @ 15 percent O_2	4. Equivalent Allowable Emissions: 16.2 lb/hour per CTG (natural gas operation)
5. Method of Compliance: CEMS, 24-hour block average; stack test, 3-run average	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on natural gas. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions.	

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: 8.0 ppmvd @ 15 percent O_2	4. Equivalent Allowable Emissions: 38.2 lb/hour (ULSFO)
5. Method of Compliance: CEMS, 24-hour block average; stack test, 3-run average	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on ULSFO. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions.	

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: See 10 below. lb/hour tons/year	4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: 5
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: See table in Condition 12 of current air construction permit (PSD-FL-401).	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 10 percent opacity	4. Equivalent Allowable Emissions: 18.1 lb/hour (natural gas operation)
5. Method of Compliance: Annual Visible Emission Test Using USEPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on natural gas. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions, and are included for informational purposes only and do not constitute permit limits.	

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: 10 percent opacity	4. Equivalent Allowable Emissions: 34.0 lb/hour (ULSFO)
5. Method of Compliance: Annual Visible Emissions Test Using USEPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on ULSFO. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions, and are included for informational purposes only and do not constitute permit limits.	

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: See 10 below. lb/hour tons/year	4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: 5
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: See table in Condition 12 of current air construction permit (PSD-FL-401).	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: Use of natural gas with less than 2 grains sulfur per 100 standard cubic feet	4. Equivalent Allowable Emissions:
5. Method of Compliance: Compliance with the fuel sulfur limit for natural gas shall be demonstrated by maintaining a file of the fuel sulfur analysis.	
6. Allowable Emissions Comment (Description of Operating Method): JEA requests clarification that compliance with fuel sulfur records in the Title V permit can be demonstrated in accordance with 40 CFR 60, Subpart KKKK. Specifically, that the fuel sampling and analyses may be performed either by JEA, a service contractor retained by JEA, a fuel vendor, or any other qualified agency. Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D3246-81, D4084-82, D4468-85, D5504-01, D6228-98, D6667-01, or more recent versions.	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.05% sulfur, by weight, in the fuel oil	4. Equivalent Allowable Emissions: 34.0 lb/hour (ULSFO)
5. Method of Compliance: Compliance with the fuel sulfur limit for ULSFO shall be demonstrated by maintaining a permanent file of the certified fuel sulfur analysis.	
6. Allowable Emissions Comment (Description of Operating Method): JEA requests clarification that compliance with fuel sulfur records in the Title V permit can be demonstrated in accordance with 40 CFR 60, Subpart KKKK. Specifically, that the fuel sampling and analyses may be performed either by JEA, a service contractor retained by JEA, a fuel vendor, or any other qualified agency. Compliance with the distillate fuel oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and submitting the reports before initial startup. For each subsequent fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis. JEA also requests that ASTM method D7039 be added to the list of methods from PSD-FL-401 Permit Condition 31b for determining the sulfur content of the fuel oil. The initial fuel analysis for ULSFO is provided in Appendix I.	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.0015 percent sulfur content by weight	4. Equivalent Allowable Emissions: 2.45 lb/hour
5. Method of Compliance: Compliance with the fuel sulfur limit for ULSFO shall be demonstrated by maintaining a permanent file of the certified fuel sulfur analysis.	
6. Allowable Emissions Comment (Description of Operating Method): JEA requests clarification that compliance with fuel sulfur records in the Title V permit can be demonstrated in accordance with 40 CFR 60, Subpart KKKK. Specifically, that the fuel sampling and analyses may be performed either by JEA, a service contractor retained by JEA, a fuel vendor, or any other qualified agency. Compliance with the distillate fuel oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and submitting the reports before initial startup. For each subsequent fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis. JEA also requests that ASTM method D7039 be added to the list of methods from PSD-FL-401 Permit Condition 31b for determining the sulfur content of the fuel oil. The initial fuel analysis for ULSFO is provided in Appendix I.	

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: See 10 below. lb/hour tons/year	4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: 5
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: See table in Condition 12 of current air construction permit (PSD-FL-401).	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions _ of _

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
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:
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:
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: SAM	2. Total Percent Efficiency of Control:
3. Potential Emissions: See 10 below. lb/hour tons/year	4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: 5
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: See table in Condition 12 of current air construction permit (PSD-FL-401).	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: Natural gas with 2 grains per 100 scf	4. Equivalent Allowable Emissions: 3.15 lb/hour
5. Method of Compliance: Compliance with the fuel sulfur limit for natural gas shall be demonstrated by maintaining a file of the fuel sulfur analysis.	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on natural gas. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions, and are included for informational purposes only and do not constitute permit limits. JEA requests clarification that compliance with fuel sulfur records in the Title V permit can be demonstrated in accordance with 40 CFR 60, Subpart KKKK. Specifically, that the fuel sampling and analyses may be performed either by JEA, a service contractor retained by JEA, a fuel vendor, or any other qualified agency. Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D3246-81, D4084-82, D4468-85, D5504-01, D6228-98, D6667-01, or more recent versions.	

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: 0.0015 percent sulfur in ULSFO	4. Equivalent Allowable Emissions: 0.94 lb/hour
5. Method of Compliance: Compliance with the fuel sulfur limit for ULSFO shall be demonstrated by maintaining a permanent file of the certified fuel sulfur analysis.	

6. Allowable Emissions Comment (Description of Operating Method):
The allowable emissions level in Field 3 is based on the BACT Analysis and applies when each CTG is operating on ULSFO. Equivalent allowable emissions are based on operation at 100 percent load and ISO conditions, and are included for informational purposes only and do not constitute permit limits. JEA requests clarification that compliance with fuel sulfur records in the Title V permit can be demonstrated in accordance with 40 CFR 60, Subpart KKKK. Specifically, that the fuel sampling and analyses may be performed either by JEA, a service contractor retained by JEA, a fuel vendor, or any other qualified agency. Compliance with the distillate fuel oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and submitting the reports before initial startup. For each subsequent fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis. JEA also requests that ASTM method D7039 be added to the list of methods from PSD-FL-401 Permit Condition 31b for determining the sulfur content of the fuel oil. The initial fuel analysis for ULSFO is provided in Appendix I.

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: Annual USEPA Method 9 test	
5. Visible Emissions Comment: Proposed as PM BACT	

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 3

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information... Manufacturer: Thermo Environmental Model Number: 42iLS-ANSSPCB	Serial Number: 012541909 (Unit 1) 012541908 (Unit 2)
5. Installation Date: Unit 1: 1/14/2011 (In service date) Unit 2: 3/3/2011 (In service date)	6. Performance Specification Test Date: Unit 1: January 24 thru February 2, 2011 Unit 2: March 15 thru March 26, 2011
7. Continuous Monitor Comment: Rule: 40 CFR Part 75.	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: EM	2. Pollutant(s): O2
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information... Manufacturer: Servomex Model Number: 1440D	Serial Number: 4258 (Unit 1) 4259 (Unit 2)
5. Installation Date: Unit 1: 1/14/2011 (In service date) Unit 2: 3/3/2011 (In service date)	6. Performance Specification Test Date: Unit 1: January 24 thru February 2, 2011 Unit 2: March 15 thru March 26, 2011
7. Continuous Monitor Comment: Rule: 40 CFR 60.	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement: ☐ Rule ☒ Other	
4. Monitor Information... Manufacturer: Thermo Electronic Model Number: 48i-ANSCB	Serial Number: CM10090042 (Unit 1) CM10090043 (Unit 2)
5. Installation Date: Unit 1: 1/14/2011 (In service date) Unit 2: 3/3/2011 (In service date)	6. Performance Specification Test Date: Unit 1: January 24 thru February 2, 2011 Unit 2: March 15 thru March 26, 2011
7. Continuous Monitor Comment: Rule: 40 CFR 60 and 40 CFR Part 75.	

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)
   [X] Attached, Document ID: Attachment B [ ] 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)
   [X] Attached, Document ID: Attachment I [ ] 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)
   [X] Attached, Document ID: Attachment M [ ] 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)
   [X] Attached, Document ID: Attachment J [ ] 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)
   [X] Attached, Document ID: Attachment K [ ] Previously Submitted, Date _____
   [ ] Not Applicable

6. Compliance Demonstration Reports/Records:
   [ ] Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   [X] Previously Submitted, Date: Unit 1: 3/9/2011, Unit 2: 4/21/2011
   Test Date(s)/Pollutant(s) Tested: Initial Emissions Compliance Test performed February 11, 2011 (Unit 1) and March 28, 2011 (Unit 2). Pollutants Tested: NOx, CO, Visible Emissions (% Opacity)
   [ ] 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: _____ [X] 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

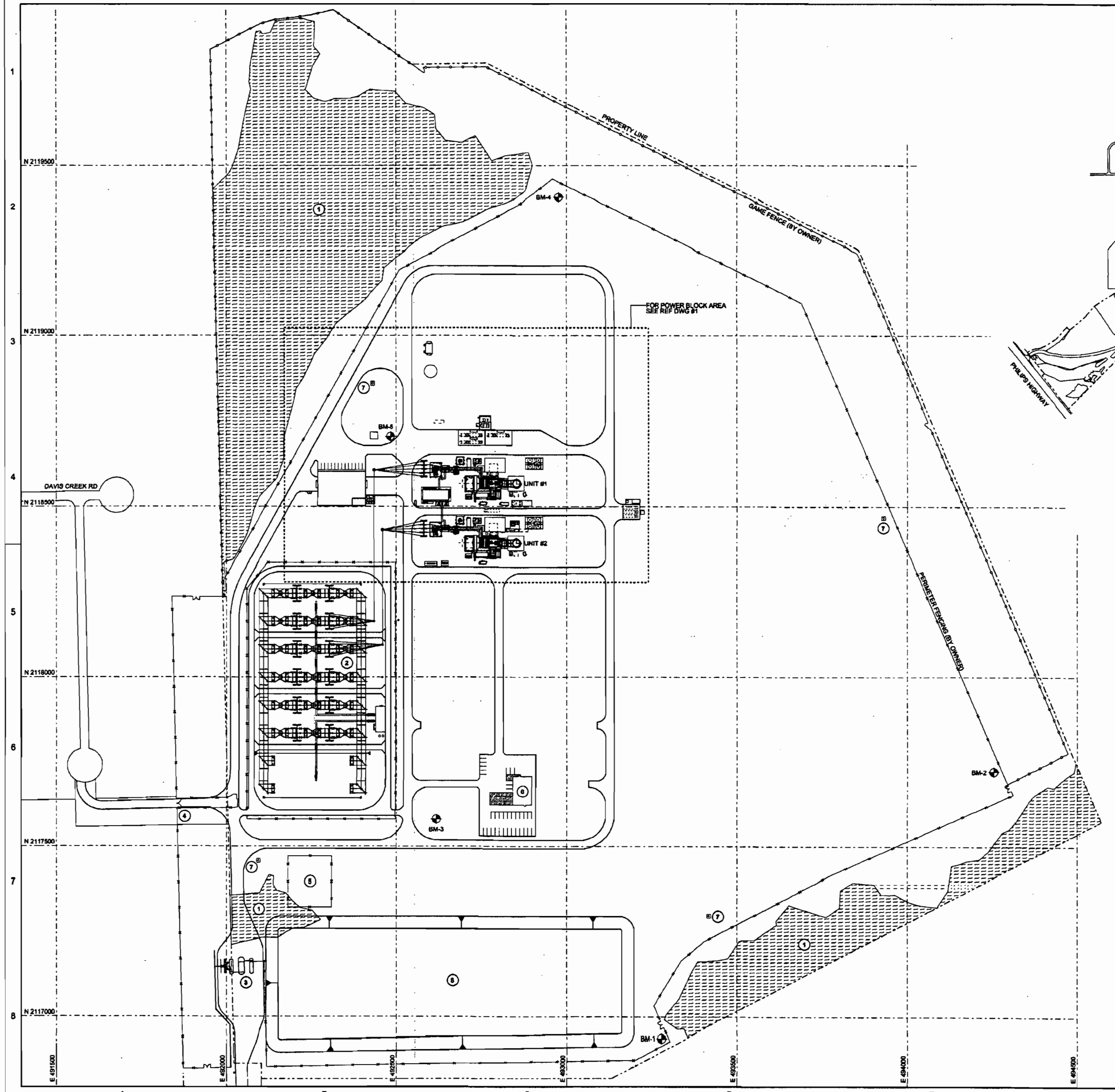
1. Identification of Applicable Requirements: ☒ Attached, Document ID: Attachment E
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Alternative Methods of Operation: ☒ Attached, Document ID: Attachment L ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☒ Not Applicable

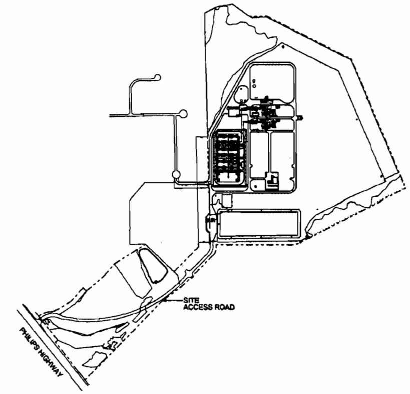
Additional Requirements Comment

Attachment A

Facility Plot Plan and Layout Drawings

DAV50746 28-FEB-2011 08:56:11





OVERALL SITE PLAN

NOT TO SCALE

SCALE
IN FEET

LEGEND

1. WETLANDS
2. SWITCHYARD (BY OWNER)
3. MAIN ENTRANCE GATE
4. EMERGENCY ENTRANCE GATE
5. FUEL GAS YARD
6. WIDE OFFICE TRAILER (6) (BY OWNER)
7. MONITORING WELL (BY OWNER)
8. DETENTION POND (BY OWNER)

GENERAL NOTES

1. FIELD TO VERIFY PROJECT CONTROL MONUMENT COORDINATES AND ELEVATIONS.

REFERENCE DRAWINGS

1. SITE RELATED WORK
GENERAL ARRANGEMENT
POWER BLOCK AREA
D013784-100L10002 SH01
2. BLACK & VEATCH
PLOT PLAN - SIMPLE CYCLE
UNITS 1 & 2
M013784-100S001 R5B

PROJECT SURVEY CONTROL

CONTROL MONUMENT LOCATIONS (SEE NOTE #1)

MONUMENT NUMBER	STATE PLANE COORDINATE		ELEVATION (NGVD 29)	ELEVATION (NAVD 88)
	NORTHING	EASTING		
BM-1	2,116,939.357	493,279.611	20.085	19.03
BM-2	2,117,722.882	494,254.361	19.405	18.35
BM-3	2,117,580.623	492,617.765	29.212	28.15
BM-4	2,119,406.707	492,976.529	28.715	27.66
BM-5	2,118,704.960	492,483.113	29.035	27.98

NOTE: BENCHMARKS ARE 5' X 12"Ø CONCRETE MONUMENTS WITH BRASS DISC IN THE TOP. HORIZONTAL CONTROL IS BASED ON THE FLORIDA STATE PLANE COORDINATE - EAST ZONE (1983/90 NAD) SYSTEM. THE ELEVATIONS ARE BASED ON THE NGVD 29 DATUM.

NOTE: THE CONVERSION FROM NGVD 29 TO NAVD 88 CAN BE MADE BY SUBTRACTING 1.06 FT FROM THE GIVEN NGVD ELEVATION.

NO	REVISIONS	DATE	DRWN	CHKD	DSND	APPD
3	UPDATED "PROJECT SURVEY CONTROL" PER AS-BUILTS	020810	CLS			
2	CHANGED "RETENTION" POND TO "DETENTION" POND	122309	CLS	RDR	DM	TLP
1	GENERAL REVISIONS	101509	CLS	RDR	MTE	JBS
0	ISSUED FOR CONSTRUCTION					

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JEA

ZACHRY

ZACHRY ENGINEERING CORPORATION · 1515 ARAPAHOE STREET, TOWER 1, SUITE 800, DENVER, CO 80202-4239
FLORIDA CERTIFICATE OF AUTHORIZATION
AMARILLO, TX CHARLOTTE, NC HOUSTON, TX MINNEAPOLIS, MN OMAHA, NE SAN ANTONIO, TX

4-7-10

HEIDI BLASINGAME LICENSE No. 70073 STATE OF FLORIDA PROFESSIONAL ENGINEER

NAME HEIDI BLASINGAME
LICENSE NO. 70073

GREENLAND ENERGY CENTER
SITE RELATED WORK
GENERAL ARRANGEMENT
OVERALL SITE PLAN

DRAWN 072409	DESIGNED	CHECKED 091109	CHECKED
C STEPHENS	M ELLIS	R RICHERSON	M ELLIS

APPROVED: S MCKINA
APPROVED: S. Becker

DRAWING NUMBER: D013784-100L10001 | SHEET: 01 | REV: 3

Plotted 2:35:46 PM 4/7/2010

P160167.70.0100.05-10001 0001 St:RD 04/15/10 MM-00596

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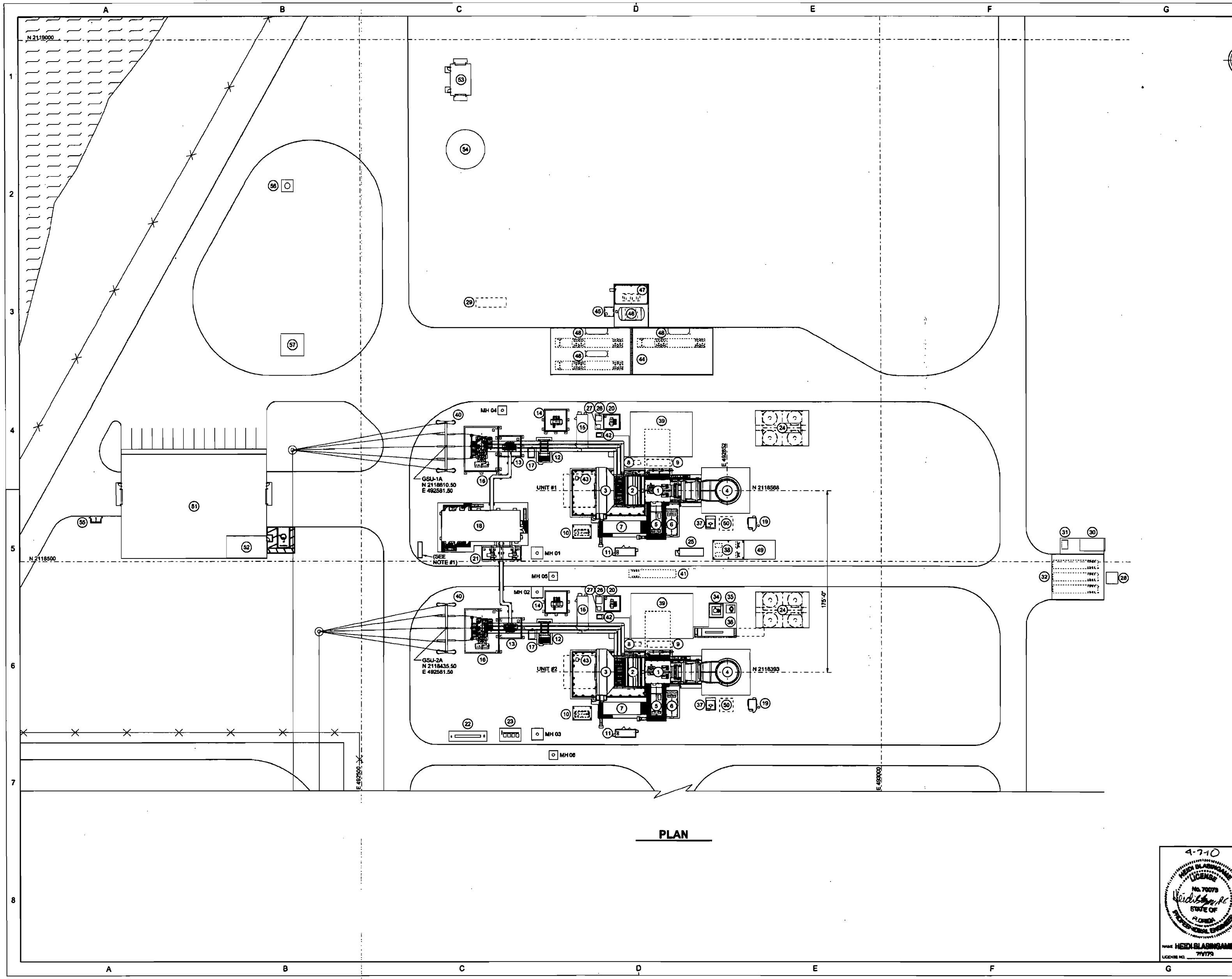

LEGEND

1. COMBUSTION TURBINE
2. CT GENERATOR
3. CT INLET AIR FILTER
4. CT EXHAUST STACK
5. CT ACCESSORY MODULE
6. CT LIQUID FUEL ATOMIZING AIR MODULE (LFAA)
7. CT ELECTRICAL PACKAGE (PEECC)
8. FALSE START DRAINS TANK
9. WATER WASH DRAINS TANK
10. FIRE PROTECTION / CO2 SKID WITH SUN SHADE
11. WATER INJECTION SKID
12. GENERATOR CIRCUIT BREAKER
13. UNIT AUXILIARY TRANSFORMERS (UAT)
14. ISOLATION TRANSFORMER
15. LCI / EXCITATION COMPARTMENT
16. GENERATOR STEP-UP TRANSFORMER (GSU)
17. FIRE WATER DELUGE STATION
18. POWER DISTRIBUTION CENTER (PDC)
19. CEMS SHELTER
20. EXCITATION TRANSFORMER
21. 4160 / 480V TRANSFORMERS
22. HYDROGEN STORAGE BOTTLE RACK
23. CO2 STORAGE BOTTLE RACK
24. COOLING WATER MODULE
25. WATER WASH SKID
26. DC LINK REACTOR
27. AC REACTOR
28. DEMINERALIZED WATER SUMP
29. OIL WATER SEPARATOR
30. DEMINERALIZED WATER SURGE TANK
31. DEMINERALIZED WATER TRANSFER PUMPS
32. DEMIN WATER TREATMENT TRAILER PARKING
33. NOT USED
34. FUEL GAS FLASH DRAINS TANK
35. FUEL GAS SCRUBBER
36. FUEL GAS DEWPOINT HEATER
37. FUEL GAS FILTER / SEPARATOR
38. SERVICE / INSTRUMENT AIR COMPRESSOR UNITS, RECEIVER, & AIR DRYERS WITH SUN SHADE
39. MOBILE EQUIPMENT CONCRETE PAD
40. DEAD END STRUCTURE (BY OWNER)
41. DEMINERALIZED WATER TRAILER PARKING
42. LCI MANUAL DISCONNECT SWITCH
43. HYDROGEN GAS DRYER
44. FUEL OIL UNLOADING STATION
45. FUEL OIL AREA SUMP
46. FUEL OIL SURGE TANK
47. FUEL OIL FORWARDING PUMPS WITH SUN SHADE
48. FUEL OIL UNLOADING PUMPS
49. FUTURE AIR COMPRESSOR EQUIPMENT
50. FUTURE FUEL GAS FILTER / SEPARATOR AREA
51. WAREHOUSE
52. CONTROL ROOM
53. FIRE PUMP BUILDING
54. FIRE WATER TANK
55. COMPRESSED GAS BOTTLE STORAGE
56. MONITORING WELL (BY OWNER)
57. HAZARDOUS STORAGE PAD (BY OWNER)

GENERAL NOTES

1. OWNER INDICATED LOCATION FOR POTABLE WATER, SANITARY SEWER AND WASTE WATER TIE-IN.

REFERENCE DRAWINGS

1. SITE RELATED WORK
GENERAL ARRANGEMENT - SITE PLAN
D013784 - 100L10001 SH01

NO	REVISIONS	DATE	DRWN	CHKD	DSND	APPD
2	GENERAL REVISIONS	040710	CLS	[illegible]	MTE	[illegible]
1	GENERAL REVISIONS	101608	CLS	RDR	MTE	JBS
0	ISSUED FOR CONSTRUCTION					

ZACHRY ENGINEERING CORPORATION (ZEC) RETAINS ALL RIGHT, TITLE AND INTEREST, IN AND TO ALL INFORMATION INCLUDING, BUT NOT LIMITED TO, ALL INTELLECTUAL PROPERTY DEVELOPED BY, OR ON BEHALF OF, ZEC. NEITHER THIS DRAWING, NOR ANY INFORMATION CONTAINED HEREIN, SHALL BE REPRODUCED, USED OR RELIED UPON FOR THE PREPARATION OF DRAWINGS OR APPARATUS, OR FOR ANY OTHER PURPOSE, EXCEPT AS EXPRESSLY AUTHORIZED IN WRITING BY ZEC.

JEA

ZACHRY

ZACHRY ENGINEERING CORPORATION - 1515 ARAPAHOE STREET, TOWER 1, SUITE 800, DENVER, CO
FLORIDA CERTIFICATE OF AUTHORIZATION
AMARILLO, TX CHARLOTTE, NC HOUSTON, TX MINNEAPOLIS, MN OMAHA, NE SAN ANTONIO, TX

4-7-10

HEIDI BLASINGAME LICENSE No. 70079 STATE OF FLORIDA PROFESSIONAL ENGINEER

NAME HEIDI BLASINGAME
LICENSE NO. 70079

GREENLAND ENERGY CENTER
SITE RELATED WORK
GENERAL ARRANGEMENT
POWER BLOCK AREA

DRAWN 072408	DESIGNED	CHECKED 091408	CHECKED
C STEPHENS	M ELLIS	R RICHERSON	M ELLIS

APPROVED	DRAWING NUMBER	SHEET	REV
S MICKNA	D013784-100L10002	01	2
APPROVED S. Becker			

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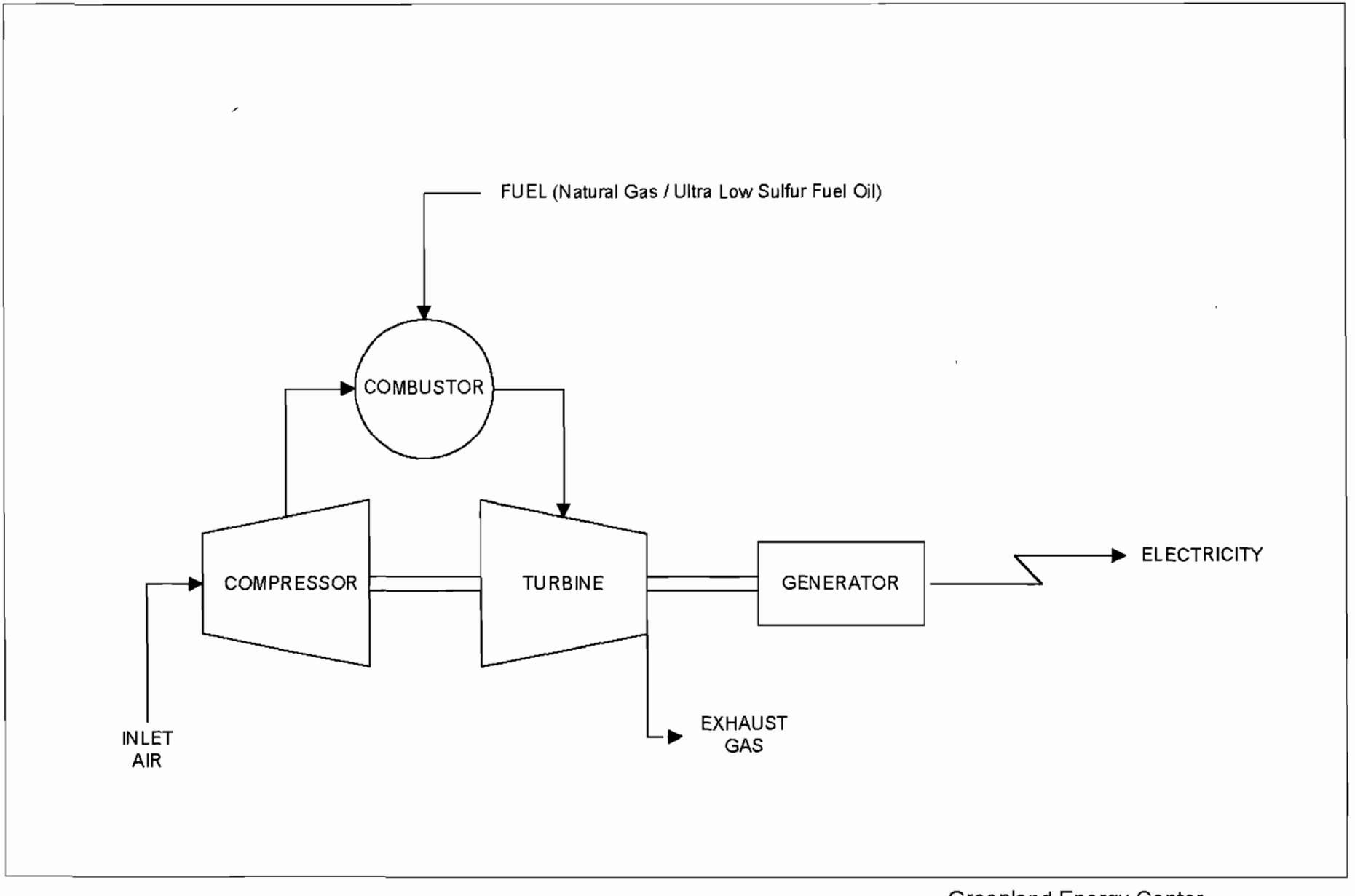
Attachment B

Process Flow Diagrams



Greenland Energy Center
Simple Cycle Combustion Turbine
Process Flow Diagram

Attachment C

Precautions to Prevent Emissions of Unconfined Particulate Matter

Precautions to Prevent Emissions of Unconfined Particulate Matter

Reasonable precautions to control unconfined emissions of particulate matter as listed in Rule 62-296.320(4), FAC is employed as appropriate. Additionally, watering is used as needed to prevent emissions from unpaved areas.

Attachment D

List of Insignificant and Unregulated Activities

List of Insignificant Emissions Units and/or Activities

JEA
Greenland Energy Center

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:

- **Emergency Diesel Fire Pump:** The 197 bhp emergency diesel fire pump will combust no more than 32,000 gallons of diesel fuel per year. This emission unit is categorically exempt in accordance with 62-210-300(3)(a)36.

- **5.84 MBtu/hour natural gas fired fuel gas heater:** The fuel gas heater is categorically exempt in accordance with 62-210.300(3)(a)33.

- **One 1.875 Million Gallon ULSFO Storage Tank:** The ULSFO storage tank is generically exempt from the permitting requirements of Chapter 62-213, F.A.C. because it satisfies the applicable criteria of paragraph 62-210.300(3)(b)1.,F.A.C.

- **20,000 gallon ULSFO Surge Tank:** This tank is generically exempt from the permitting requirements of Chapter 62-213, F.A.C. because it satisfies the applicable criteria of paragraph 62-210.300(3)(b)1., F.A.C.

- **550 gallon ULSFO Day Tank for the Emergency Diesel Fire Pump:** This tank is generically exempt from the permitting requirements of Chapter 62-213, F.A.C. because it satisfies the applicable criteria of paragraph 62-210.300(3)(b)1., F.A.C.

List of Trivial Activities

Indoor sand blasting and abrasive grit blasting where temporary enclosures are used to contain particulates

Open stockpiling of material

Plant grounds maintenance

Routine maintenance/repair activities such as cleaning, welding, grinding, non-asbestos insulation removal, hand held tools/equip., meter repair/maintenance, on-line/off-line cleaning of equip.

Indoor fugitives such as vacuum cleaning, solvent storage, office supplies/equipment

Testing equipment such as CEMs, stack sampling calibration gases, oxygen detector

Internal combustion engines which drive compressors, generators, water pumps, or other auxiliary equipment

HVAC (heating, ventilation, and air conditioning systems)

Vent/exhaust systems for:

- Print room storage cabinets
- Transformer bldg.
- Maint./welding bldgs.
- Operating equipment vents
- Degasifier/dearators/decarbonators
- Air blowers/evacuators/air locks
- Oil/water separator vents

Transformers, switches, and switchgear processing (including cleaning and changing)

Generator venting

Vent/exhaust from kitchen and breakrooms

Vents/stacks for sewer lines or enclosed areas req. for safety or by code

Sewage treatment fac./equip. ranging in size from porta-john to sewage treatment plants

Steam releases

Storage and use of chemicals solely for water/waste water treatment

Transfer sumps

Lawn maintenance equipment/activities

Application of fungicide, herbicide, pesticide

Air compressors and centrifuges used for compressing air

Recovered materials recycling systems including: bulb crushers, aerosol can puncturing

Waste accumulation/consolidation

Compressed air system

Storage tanks less than 550 gallons

Storage of products in sealed containers

Fires

Chemical spills, leaks & transfers

Oil spills, leaks & change out

Insulating activities

Asphalt or concrete sealing

High pressure water blasting

Excavation for construction activities

Chemical cleaning

Welding all types

Cutting all types

Sanding or grinding all types

Emissions from portable equipment:

- Welding machines (diesel or gas)
- Pumps (diesel or gas)

Sweeping

Filter change out (oil & air)

Air conditioner repairs

Battery maintenance

Fuel oil storage tank cleaning

A/C servicing by licensed contractor

Lube oil changes

Receiving fuel oil (trucks & pipeline)

Aerosol can use (cleaners, etc.)

Turbine washing

Vehicle servicing (oil changes, antifreeze changes, etc.)

Soldering of electrical components (silver, tine solder)

Portable equipment and tools, including electric and gasoline powered

Electro plating

Welding, grinding and cutting activities (metal fumes)

Machining metal parts (cutting oil, metal fumes)

Oil-filled electrical equipment vents

Fume hood in laboratory

Space heaters

Fire and safety equipment

Portable emergency generators

Mercury containing equipment such as manometers

Non-chlorinated solvent degreasing equipment

Vacuum pumps in laboratory operations

Equipment use for steam cleaning

Attachment E

List of Applicable Requirements

Attachment E - List of Applicable Requirements

The Greenland Energy Center currently operates under the PSD Construction Permit PSD-FL-401, which was issued under the provisions of Chapter 403, Florida Statutes (F.S); Florida Administrative Code (F.A.C) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The following requirements are applicable.

Applicable Requirements for the Entire Facility

- State: Rule 62-4.070 – Standards for Issuing or Denying Permits.
- State: Rule 62-210.300 – Permits Required.
- State: Rule 62-212.300 – General Preconstruction Review Requirements.
- State: Rule 62-212.400 – Prevention of Significant Deterioration.

Applicable Requirements for the GE 7FA Simple Cycle Combustion Turbines Units 1 and 2

Not Applicable Federal:

1. Federal: 40 CFR Part 63 Subpart YYYY, *National Emission Standards for Stationary Combustion Turbines*. This standard is only applicable to emission units at a facility that is a major source of HAPs. Because the GEC is not a major source of HAPs, 40 CFR 63 Subpart YYYY does not apply to the combustion turbine.
2. Federal: 40 CFR Part 60 Subpart GG (Rule 62-204.800(8)(b).39) – *Standards of Performance for Stationary Gas Turbines.* Because the two SCCTs are each subject to NSPS Subpart KKKK, they are not subject to Subpart GG.

Applicable Federal:

1. Federal: 40 CFR Part 60 Subpart KKKK – *Standards of Performance for Stationary Gas Turbines*
2. Federal: 40 CFR Part 60 Subpart A – *General Provisions.*
3. Federal: 40 CFR Part 72 – *Permits Regulation (Acid Rain)*
4. Federal: 40 CFR Part 75 – *Continuous Emissions Monitoring*

Applicable State:

1. State: Rule 62-212.400 – *Prevention of Significant Deterioration* applies since the potential emissions of certain PSD applicable pollutants are greater than the PSD major source thresholds.
2. State: Rule 62-204.800(8)(d) – *General Provisions Adopted – 40 CFR 60 Subpart A – General Provisions adopted by reference, with exceptions.*
3. State: Rule 62-212.300 – *General Preconstruction Review Requirements.* Applies to all pollutants.
4. State: Rule 62-297.310 – *General Compliance Test Requirements.*

Applicable Requirements for the one 1.875 Million Gallon, 20,000 Gallon, and 550 Gallon ULSFO Storage Tanks

Not Applicable Federal:

Federal: 40 CFR Part 60 Subpart Kb, AS REVISED OCTOBER 15, 2003 – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.* Because the maximum true vapor pressure of ULSFO is less than 3.5 kPa, the 1.875 million gallon and 20,000 gallon storage tanks are not subject to 40 CFR Part 60 Subpart Kb. The 550 gallon ULSFO storage tank is less than the 75 cubic meters threshold, and is not applicable to 40 CFR Part 60 Subpart Kb.

Applicable Requirements for the Emergency Diesel Fire Pump

Not Applicable Federal:

Federal: 40 CFR Part 63 Subpart ZZZZ, *National Emission Standards for Reciprocating Internal Combustion Engines.* This standard is only applicable to emission units at a facility that is a major source of HAPs. Because the GEC is not a major source of HAPs, 40 CFR 63 Subpart ZZZZ does not apply to the emergency diesel fire pump.

Applicable Federal:

Federal: 40 CFR 60 Subpart IIII, *New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines*

The emergency diesel fire pump is subject to the manufacturer's certification requirements of compliance under the NSPS for RICE (40 CFR Part 60, Subpart IIII). The rule provides various emission standards based on the engine's classification, use, manufacture date, and engine size. The fire pump engines meet the emission requirements listed in Table 4 of the regulation.

Applicable State:

State: Rule 62-212.400 – *Prevention of Significant Deterioration (PSD)*

This Application also incorporates by reference all permit conditions listed in the Construction Permit PSD-FL-401, subject to the requests provided in Section 2.0 and 3.0 of the application support document.

Additional Applicable Requirements

Currently, JEA has identified and addressed all applicable regulatory requirements. If new regulatory requirements become applicable in the future, or if non-compliance items are discovered after submittal of this application, the necessary steps will be taken to ensure compliance in a timely manner. This is in accordance with company policy of maintaining continuous compliance with all applicable rules and regulations.

Attachment F

Compliance Report and Plan

Compliance Report and Plan

At the time of the filing of this application, all units are in compliance with applicable rules and regulations.

Attachment G

List of Equipment/Activities Regulated Under Title VI

List of Equipment/Activities Regulated Under Title VI

There are no equipment on site that contain more than 50 pounds of charge of any Class I or Class II ozone-depleting substances regulated under Title VI of the Clean Air Act.

Attachment H

Verification of Risk Management Plan Submittal

Verification of Risk Management Plan Submittal

Submission of a Risk Management Plan (RMP) is not required for GEC since no ammonia gas or liquid is stored on site.

Attachment I

Fuel Analysis Specifications

Fuel Analysis Specifications

Fuel is specified as pipeline natural gas containing less than 2 grains of sulfur per 100 standard cubic feet or ultra low sulfur No. 2 fuel oil containing no more than 0.0015 percent sulfur. Additionally, the natural gas and fuel oil sample analysis reports are attached here.

Report of Analysis

Client: Colonial Oil Industries
Job Location: Nustar Energy L.P. Terminals
Vessel: ALPINE LOYALTY
Our Reference Number: US240-0006212
Lab Reference Number: 2011-JACK-000120

Client Reference Number:
VES11VO00023

Description	Method	Test	Result	Units
ULSD 04-Mar-2011 Tank 15002 Running				
2011-JACK-000120-030	ASTM D4052	API Gravity @ 60°F	33.0	°API
	ASTM D7039	Sulfur	7.0	mg/kg
	ASTM D93 - IP 34	Corrected Flash Point	136	°F
	ASTM D445	Kinematic Viscosity @ 122 °F/ 50 °C	2.250	mm²/s
	ASTM D2161	Analysis Temperature	122	°F
		Saybolt Universal Viscosity	33.5	SUS
	ASTM D4868	Gross Heat of Combustion	19527	BTU/lb
	ASTM D4868	Gross Heat of Combustion	139855	BTU/gal
	ASTM D4737	Cetane Index by D4737 (Procedure B)	41.3	
	ASTM D976	Cetane Index	43.0	
	ASTM D86	IBP Recovery	342.4	°F
		10% Recovery	403.8	°F
		50% Recovery	503.6	°F
		90% Recovery	633.7	°F
		FBP Recovery	680.1	°F
		Residue	1.2	Vol %
		Corrected Loss	0.7	Vol %
		Corrected Recovery	98.1	Vol %
	ASTM D2624	Electrical Conductivity	140	pS/M
	ASTM D6079	Fluid Temperature	60	°C
		Major Axis	0.40	mm
		Minor Axis	0.38	mm
		Wear Scar Diameter	390	um

Signed: _____ Date: _____

Intertek
Bruce Cline, Laboratory Manager

5401 Evergreen Avenue, Jacksonville, Florida 32208 USA
Tel.: +1 904 353 1220 Fax.. +1 904 353 1230

SNG Meter 060000 Elba

Prod DateTime	TSLS (GRAINS PER 100CF)	Analysis Method
3/2/2011	<0.05	ASTM D3246

SNG Meter 094200 Savannah

Prod DateTime	TSLS (GRAINS PER 100CF)	Analysis Method
3/2/2011	<0.05	ASTM D3246

* Reports provided by El Paso Pipeline Group

Seacoast Natural Gas Pipeline
Gas Composition Data

Month: March
Year: 2011

Gas Day	Point Name	BTU	C02	N2	Methane	Ethane	Propane	Sulfur	Specific Gravity	Wobbe
3/1/2011	SeaCoast	1.01941	1.001	0.374	96.645	1.626	0.2	0.0000	0.578	1340.37
3/2/2011	Seacoast	1.02048	0.96	0.35	96.695	1.636	0.216	0.0000	0.578	1342.84
3/3/2011	Seacoast	1.0209	0.953	0.349	96.693	1.649	0.223	0.0000	0.579	1342.84
3/4/2011	Seacoast	1.02027	1.039	0.388	96.475	1.73	0.228	0.0000	0.58	1340.17
3/5/2011	Seacoast	1.03618	0.4	0.156	96.636	2.282	0.356	0.0000	0.576	1364.29
3/6/2011	Seacoast	1.02801	0.512	0.209	96.996	1.962	0.228	0.0000	0.574	1357.04
3/7/2011	Seacoast	1.02085	0.909	0.356	96.76	1.689	0.186	0.0000	0.576	1344.12
3/8/2011	Seacoast	1.0214	0.857	0.319	96.704	1.743	0.213	0.0000	0.577	1344.03
3/9/2011	Seacoast	1.02469	0.767	0.269	98.813	1.819	0.215	0.0000	0.578	1349.74
3/10/2011	Seacoast	1.02039	0.945	0.313	96.83	1.586	0.177	0.0000	0.577	1343.1
3/11/2011	Seacoast	1.02049	0.921	0.292	96.876	1.611	0.17	0.0000	0.577	1343.71
3/12/2011	Seacoast	1.0178	1.037	0.293	96.934	1.465	0.144	0.0000	0	1340.09
3/13/2011	Seacoast	1.0173	1.05	0.298	96.961	1.412	0.154	0.0000	0.577	1339.47
3/14/2011	Seacoast	1.02162	0.973	0.292	96.775	1.567	0.221	0.0000	0.578	1343.5
3/15/2011	Seacoast	1.02362	1.007	0.315	96.517	1.716	0.252	0.0000	0.58	1343.99
3/16/2011	Seacoast	1.02233	1.136	0.369	96.296	1.705	0.277	0.0000	0.582	1339.89
3/17/2011	Seacoast	1.02339	1.095	0.331	96.445	1.596	0.254	0.0000	0.581	1341.7
3/18/2011	Seacoast	1.01843	1.087	0.33	96.727	1.527	176	0.0000	0.578	1338.99
3/19/2011	Seacoast	1.01678	1.075	0.302	96.993	1.346	0.149	0.0000	0.577	1338.72
3/20/2011	Seacoast	1.01705	1.079	0.316	96.943	1.375	0.159	0.0000	0	1338.68
3/21/2011	Seacoast	1.01862	1.029	0.305	96.852	1.511	0.171	0.0000	0.577	1340.55
3/22/2011	Seacoast	1.01888	1.048	0.318	96.76	1.56	0.181	0.0000	0.578	1340.16
3/23/2011	Seacoast	1.0186	1.097	0.341	96.662	1.574	0.187	0.0000	0.587	1338.9
3/24/2011	Seacoast	1.01821	1.121	0.351	96.594	1.599	0.199	0.0000	0.579	1337.82
3/25/2011	Seacoast	1.0268	0.811	0.256	96.572	1.909	0.284	0.0000	0.579	1349.89
3/26/2011	Seacoast	1.01644	1.192	0.348	96.672	1.483	0.168	0.0000	0.579	1335.72
3/27/2011	Seacoast	1.01557	1.186	0.359	96.7	1.489	0.151	0.0000	0.578	1335.19
3/28/2011	Seacoast	1.01597	1.195	0.363	96.66	1.49	0.161	0.0000	0.579	1335.1
3/29/2011	Seacoast	1.01675	1.218	0.381	96.527	1.554	0.177	0.0000	0.58	1334.88
3/30/2011	Seacoast	1.01636	1.249	0.391	96.477	1.566	0.179	0.0000	0.58	1334.12
3/31/2011	Seacoast	1.01884	1.116	0.352	96.509	1.645	0.23	0.0000	0.58	1337.91

Attachment J

Procedures for Startup and Shutdown

Procedures for Startup and Shutdown

Procedures for startup and shutdown have been completed in accordance with the manufacturers' operating procedures and/or based on plant experience. Excess emissions resulting from startups and shutdowns of less than 30 minutes in duration are excludable based on construction permit condition 23 of PSD-FL-401.

Attachment K

O&M Plan

O&M Plan

The emission units will be operated and maintained in accordance with manufacturer's recommendations, operations 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 L

Alternative Methods of Operation

Alternative Methods of Operation

Unit 1 and Unit 2 can be operated on either pipeline quality natural gas as the primary fuel or ultra low sulfur (0.0015 percent) No. 2 fuel oil as an alternate fuel. Construction permit condition 7 of PSD-FL-401 limits the operation of each combustion turbine to no more than 3,500 hours during any consecutive 12 months of which 500 hours may be on ULSFO. Additionally, each combustion turbine shall not operate more than 17 hours exclusively on ULSFO per calendar day, or with a combination of ULSFO burning of 12 hours with 12 hours of natural gas for compliance with regional haze impact thresholds.

The pre-onsite natural gas availability permit condition in PSD-FL-401 is no longer applicable since the natural gas pipeline construction has been completed and natural gas fuel is available onsite and commercial operation on natural gas has been successfully achieved on each CTG. Therefore, JEA requests that construction permit conditions related to the pre-onsite natural gas availability scenario not be included in the Title V operation permit.

Attachment M

Detailed Description of Control Equipment

Detailed Description of Control Equipment

Dry Low-NO_x (DLN) Burners: NO_x formation can be limited by lowering combustion temperatures and by staging combustion (i.e., creating a reducing atmosphere followed by an oxidizing atmosphere). These combustor designs are called DLN burners because, when firing natural gas, injecting water into the combustion chamber is not necessary to achieve low NO_x emissions. This type of lean premix combustion system is the state of the art for NO_x controls in combustion turbines and is virtually an industry standard.

Water Injection: A control technology used to limit NO_x emissions. The thermal NO_x contribution to total NO_x emissions is reduced by lowering the combustion temperature through the use of water injection in the combustion zones of the combustion turbine. The degree of reduction in NO_x formation is proportional to the amount of water injected into the combustion turbine. A limit exists, however, on the amount of water that can be injected into the system before reliability of the combustion turbine is seriously degraded and operational life is affected. This type of control can also be counterproductive with regard to CO and VOC emissions that are formed as a result of incomplete combustion. The development of dry low-NO_x burners has replaced the use of wet controls, except for certain cases, such as oil firing. Since Unit 1 and Unit 2 will fire natural gas as the primary fuel with ultra-low sulfur fuel oil as a back up, water injection is typically only used during oil firing.

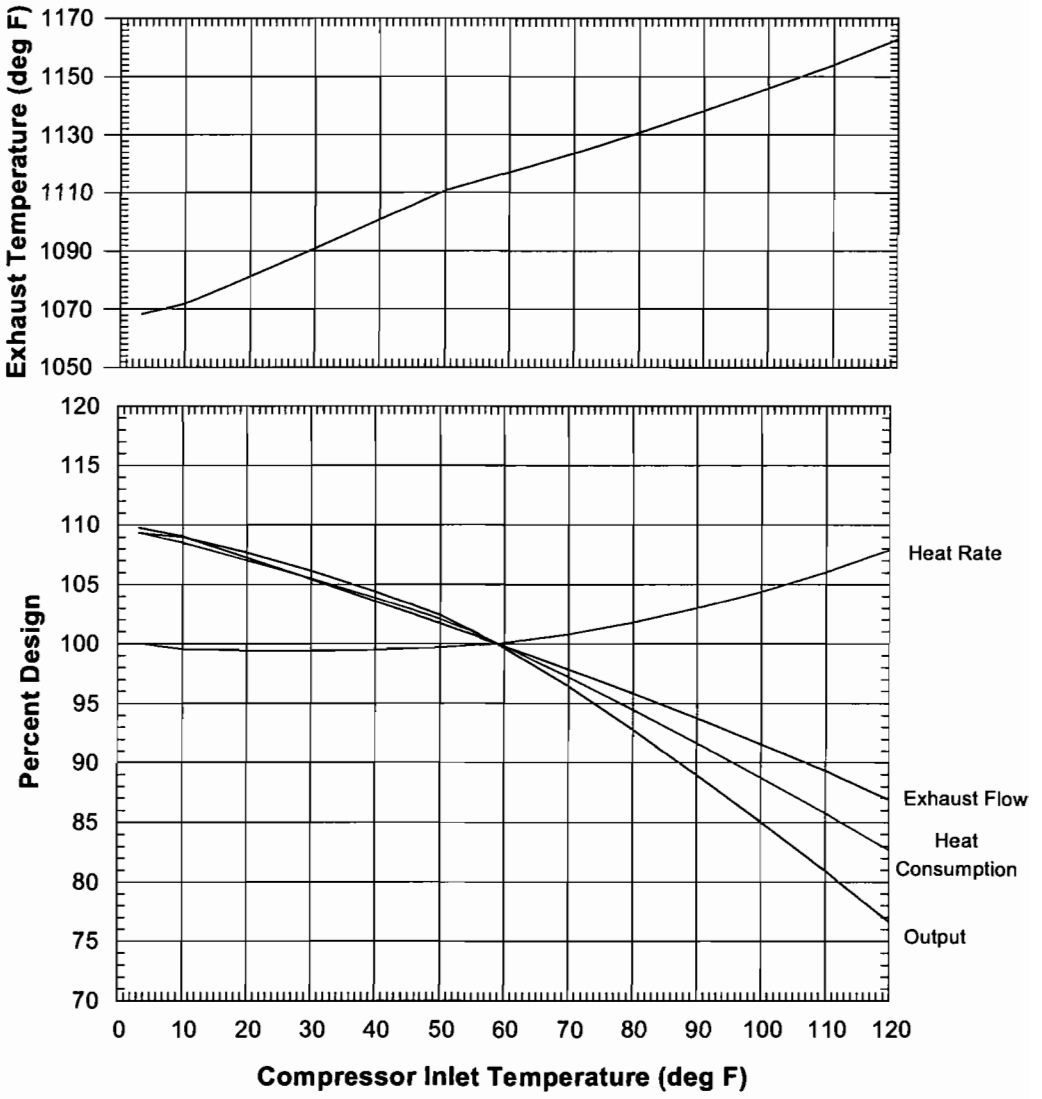
Attachment N

GEC CT Chart

GENERAL ELECTRIC MODEL PG7241(FA) GAS TURBINE

Effect of Compressor Inlet Temperature on Output, Heat Rate, Heat Consumption, Exhaust Flow And Exhaust Temperature at Baseload

Fuel: Natural Gas
Design Values on Curve 522HA851 Rev A
DLN Combustor



J. Van Deusen
4/17/98

522HA852
Rev - A

Attachment O

Acid Rain Forms

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: ☐ New ☑ Revised ☐ Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Plant name: Greenland Energy Center	State: FL	ORIS/Plant Code: 56799

STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO_2 Opt-in unit, enter "yes" in column "b".

For new units or SO_2 Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO_2 Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO_2 Opt-in Units Commence Operation Date	New or SO_2 Opt-in Units Monitor Certification Deadline
1	No	Yes	June 2011	
2	No	Yes	June 2011	
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

Plant Name (from STEP 1): Greenland Energy Center

STEP 3

Read the standard requirements.

Acid Rain Part Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
(2) The owners and operators of each Acid Rain source and each Acic Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acic Rain Part issued by the DEP; and
(ii) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
(4) For applications including a SO_2 Opt-in unit, a monitoring plan for each SO_2 Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO_2 Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements.

The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
(i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and.

Plant Name (from STEP 1): Greenland Energy Center

STEP 3, Continued.

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_X averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4
For SO_2 Opt-in units only.

In column "f" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

Plant Name (from STEP 1): Greenland Energy Center

STEP 5

For SO_2 Opt-in units only.

(Not required for SO_2 Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO_2 Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO_2 Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO_2 Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO_2 Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO_2 Opt-in units only.

Attach additional requirements, certify and sign.

A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
D. Attach a complete compliance plan for SO_2 under 40 CFR 72.40.
E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature | Date

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I 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.

Name: Athena T. Mann | Title: Vice President, Environmental Services

Owner Company Name: JEA

Phone: (904) 665-6252 | E-mail address: mannat@jea.com

Signature A T Mann | Date 5/12/10

Acid Rain Program
Instructions for
Acid Rain Part Application
(40 CFR 72.30 - 72.31, and 74; and Rule 62-214.320, F.A.C.)

The Acid Rain Program requires the designated representative to submit an Acid Rain Part application for each source with an Acid Rain unit. A complete Certificate of Representation must be received by DEP before an Acid Rain Part application is submitted to the DEP Bureau of Air Regulation. A complete Acid Rain Part application, once submitted, is binding on the owners and operators of the Acid Rain source and is enforceable in the absence of an Acid Rain Part until the DEP Bureau of Air Regulation issues an Acid Rain Part to the source or disapproves the application.

DEFINITIONS
"Act" – The federal Clean Air Act:
"CFR" - Code of Federal Regulations
"DOE" – U.S. Department of Energy
"EIA" – U.S. Energy Information Agency
"F.A.C." - Florida Administrative Code
"DEP" - Florida Department of Environmental Protection
"lbs" - pounds
"mmBtu" – million British thermal units
"NO_x" – Nitrogen oxides
"SO_2 Opt-in unit" - A combustion unit that has elected to become an affected unit under the Acid Rain Program. For the purposes of applying 40 CFR Parts 72, 73, 75, 77, and 78, and Chapter 62-214, F.A.C., each SO_2 Opt-in unit shall be treated as an Acid Rain unit.
"ORIS" - Office of Regulatory Information Systems

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the DEP Bureau of Air Regulation at (850) 488-0114.

STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4-digit number assigned by the EIA at the DOE to power plants owned by utilities. If the plant is not owned by a utility but has a 5-digit plant code (also assigned by EIA), use the plant code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 586-2402.

STEP 2 For column "a," identify each Acid Rain unit at the Acid Rain source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation and with unit identification numbers used in reporting to the DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements. If the unit is a SO_2 Opt-in unit, or electing to become one, enter "yes" in column "b." For columns "d" and "e," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 72.2 and 75.4, respectively.

STEP 3 Read the standard requirements.

STEP 4 **For SO_2 Opt-in units only.** In column "f" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" of STEP 2. For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration. If not a renewal application, in column "h" enter the number of hours each unit operated in the six months preceding initial application and attach supporting documentation.

STEP 5 **For SO2 Opt-in units only. (Not required for renewal applications.)** In column "i" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" (and in column "f"). For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

STEP 6 **For SO_2 Opt-in units only.** Complete the additional requirements A - F. The designated representative or alternate designated representative must read the certification statement, sign and date.

The Administrator shall be responsible for the following activities under the opt-in provisions of the Acid Rain Program:

(1) *Calculating* the baseline or alternative baseline and allowance allocation, and allocating allowances for combustion or process sources that become affected units under 40 CFR Part 74;

(2) Certifying or recertifying monitoring systems for combustion or process sources as provided under 40 CFR 74.20;

(3) Establishing allowance accounts, tracking allowances, assessing end-of-year compliance, determining reduced utilization, approving thermal energy transfer and accounting for the replacement of thermal energy, closing accounts for opt-in sources that shut down, are reconstructed, become affected under 40 CFR 72.6, or fail to renew their opt-in permit, and deducting allowances as provided under 40 CFR Part 74, Subpart E; and

(4) Ensuring that the opt-in source meets all withdrawal conditions prior to withdrawal from the Acid Rain Program as provided under 40 CFR 74.18; and

(5) Approving and disapproving the request to withdraw from the Acid Rain Program.

The DEP shall be responsible for the following activities:

(1) Issuing the draft and final opt-in permit;

(2) Revising and renewing the opt-in permit; and

(3) Terminating the opt-in permit for an opt-in source as provided in 40 CFR 74.18 (withdrawal), 40 CFR 74.46 (shutdown, reconstruction or change in affected status) and 40 CFR 74.50 (deducting allowances).

STEP 7 The designated representative or alternate designated representative must read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign and date.

Submission Deadlines

For new units, an initial Acid Rain Part application must be submitted to the DEP Bureau of Air Regulation 24 months before the date the unit commences operation

Acid Rain Part renewal applications must meet the same submission deadline as the Title V permit renewal application for the source.

The designated representative of any operating combustion unit that wishes the unit to become a SO_2 Opt-in unit may submit an Acid Rain Part application and a monitoring plan to the Administrator and DEP Bureau of Air Regulation at any time. Within 21 calendar days from the date the DEP Bureau of Air Regulation issues or denies a draft Title V permit revision incorporating the unit as an acid rain unit, the designated representative of the unit must submit to the Administrator and DEP Bureau of Air Regulation, in writing, a confirmation or rescission of the unit's intention to become a SO_2 Opt-in unit. The Administrator shall treat the failure to make a timely submission as a rescission of the unit's intention to become a SO_2 Opt-in unit and as a withdrawal of the application.

Submit this form and a copy to:

DEP Bureau of Air Regulation
MS 5505
2600 Blair Stone Rd
Tallahassee, FL 32399-2400

For SO_2 Opt-in units, also send this form or its equivalent to the Administrator at:

U.S. Environmental Protection Agency
Clean Air Markets Division (6204J)
1200 Pennsylvania Ave NW
Washington, DC 20460

Attachment P

Clear Air Interstate Rule Forms

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: ✓ New ☐ Revised ☐ Renewal

STEP 1

Identify the source by *plant name* and ORIS or EIA plant code

Plant Name: Greenland Energy Center	State: Florida	ORIS or EIA Plant Code: 56799

STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f.

a	b	c	d	e	f
Unit ID#	Unit will hold nitrogen oxides (NO_x) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur dioxide (SO_2) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO_x Ozone Season allowances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Commercial Operation Date	New Units Expected Monitor Certification Deadline
1	X	X	X	June 2011	
2	X	X	X	June 2011	

Plant Name (from STEP 1) Greenland Energy Center

STEP 3

Read the standard requirements.

CAIR NO_x ANNUAL TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_x source and each CAIR NO_x unit at the source shall:
(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
(ii) [Reserved];
(2) The owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_x source with the following CAIR NO_x Emissions Requirements.

NO_x Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
(2) A CAIR NO_x unit shall be subject to the requirements under paragraph (1) of the NO_x Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
(3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Requirements, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
(4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
(5) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
(6) A CAIR NO_x allowance does not constitute a property right.
(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x unit.

Excess Emissions Requirements.

If a CAIR NO_x source emits NO_x during any control period in excess of the CAIR NO_x emissions limitation, then:
(1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
(i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_x unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program.
(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program.
(2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

STEP 3, Continued

Liability.

(1) Each CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program.
(2) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source or the CAIR designated representative of a CAIR NO_x source shall also apply to the owners and operators of such source and of the CAIR NO_x units at the source.
(3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit or the CAIR designated representative of a CAIR NO_x unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO_2 TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall:
(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
(ii) [Reserved];
(2) The owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO_2 source and each SO_2 CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96 ,Subpart HHH, and Rule 62-296.470, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO_2 source with the following CAIR SO_2 Emission Requirements.

SO_2 Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO_2 allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO_2 units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
(2) A CAIR SO_2 unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
(3) A CAIR SO_2 allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO_2 Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO_2 allowance was allocated.
(4) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
(5) A CAIR SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
(6) A CAIR SO_2 allowance does not constitute a property right.
(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO_2 allowance to or from a CAIR SO_2 unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO_2 unit.

Excess Emissions Requirements.

If a CAIR SO_2 source emits SO_2 during any control period in excess of the CAIR SO_2 emissions limitation, then:
(1) The owners and operators of the source and each CAIR SO_2 unit at the source shall surrender the CAIR SO_2 allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

Plant Name (from STEP 1) Greenland Energy Center

STEP 3, Continued

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO_2 source and each CAIR SO_2 unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO_2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO_2 Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO_2 Trading Program or to demonstrate compliance with the requirements of the CAIR SO_2 Trading Program.

(2) The CAIR designated representative of a CAIR SO_2 source and each CAIR SO_2 unit at the source shall submit the reports required under the CAIR SO_2 Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO_2 source and each CAIR SO_2 unit shall meet the requirements of the CAIR SO_2 Trading Program.

(2) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 source or the CAIR designated representative of a CAIR SO_2 source shall also apply to the owners and operators of such source and of the CAIR SO_2 units at the source.

(3) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 unit or the CAIR designated representative of a CAIR SO_2 unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO_2 Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO_2 source or CAIR SO_2 unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall:
(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
(ii) [Reserved];

(2) The owners and operators of each CAIR NO_X Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_X Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_X Ozone Season source with the following CAIR NO_X Ozone Season Emissions Requirements.

NO_X Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_X Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_X emissions for the control period from all CAIR NO_X Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO_X Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_X Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.

(3) A CAIR NO_X Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_X Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_X Ozone Season allowance was allocated.

(4) CAIR NO_X Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_X Ozone Season allowance is a limited authorization to emit one ton of NO_X in accordance with the CAIR NO_X Ozone Season Trading Program. No provision of the CAIR NO_X Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_X Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_X Ozone Season allowance to or from a CAIR NO_X Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_X Ozone Season unit.

Plant Name (from STEP 1) Greenland Energy Center

STEP 3, Continued

Excess Emissions Requirements.

If a CAIR NO_x Ozone Season source emits NO_x during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:
(1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
(i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Ozone Season Trading Program.
(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Ozone Season Trading Program.
(2) The CAIR designated representative of a CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall submit the reports required under the CAIR NO_x Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

(1) Each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit shall meet the requirements of the CAIR NO_x Ozone Season Trading Program.
(2) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season source or the CAIR designated representative of a CAIR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_x Ozone Season units at the source.
(3) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season unit or the CAIR designated representative of a CAIR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Ozone Season source or CAIR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR 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.

Name: Athena T. Mann	Title: Vice President, Environmental Services
Company Owner Name: JEA	
Phone: (904) 665-6252	E-mail Address: mannat@jea.com
Signature: A T Mann	Date: 5/12/10

Clean Air Interstate Rule (CAIR) Program

Instructions for CAIR Part Form

(40 CFR 96.121, 96.122, 96.221, 96.222, 96.321, 96.322, and Rule 62-296.470, F.A.C.)

The CAIR Program requires the designated representative or alternate designated representative to submit a CAIR Part form for each source with a CAIR unit. A complete Certificate of Representation must be received by EPA before the CAIR Part form is submitted to the DEP Bureau of Air Regulation.

DEFINITIONS:
"CAIR" – Clean Air Interstate Rule
"CFR" - Code of Federal Regulations
"DOE"- U.S. Department of Energy
"EIA" – U.S. Energy Information Agency
"F.A.C." - Florida Administrative Code
"DEP" - Florida Department of Environmental Protection
"NO_x" – Nitrogen oxides
"ORIS" - Office of Regulatory Information Systems
"SO_2" – Sulfur dioxide

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the DEP Bureau of Air Regulation at (850) 488-0114.

STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4-digit number assigned by the EIA at the DOE to power plants owned by utilities. If the plant is not owned by a utility but has a 5-digit plant code (also assigned by EIA), use the plant code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 586-2402.

STEP 2 For column "a," identify each CAIR unit at the CAIR source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements. For columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s). For columns "e" and "f," enter the expected commence commercial operation date(s) and expected monitor certification deadline(s) for new units in accordance with 40 CFR 96.102, 96.202, and 96.302; and 40 CFR 96.170(b), 96.270(b), and 96.370(b), respectively.

STEP 3 Read the standard requirements.

STEP 4 *Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign,* and date.

Submission deadlines: See Rule 62-213.420, F.A.C.

Submit this form to:
DEP Bureau of Air Regulation
MS 5505
2600 Blair Stone Rd
Tallahassee, FL 32399-2400

Attachment Q

FDEP Correspondence

21 West Church Street
Jacksonville, Florida 32202-3139

August 26, 2009

Ms. Trina L. Vielhauer, Chief
Bureau of Air Regulation
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: JEA Greenland Energy Center Air Construction Permit PSD-FL-401
Notification of Minor Changes to Facility Layout

Dear Ms. Vielhauer:

The purpose of this letter is to notify the Florida Department of Environmental Protection (FDEP) of planned changes to the facility layout for the Greenland Energy Center. As will be demonstrated later in this letter, the proposed changes to the facility layout will not affect the conditions of the Air Construction Permit PSD-FL-401.

As you may recollect, the Air Construction Permit PSD-FL-401 authorized the construction of two General Electric PG7241FA simple cycle combustion turbine (SCCT) electrical generators with a nominal output of 352 megawatts (MW) on natural gas and 380 MW on ultra low sulfur fuel oil at the new Greenland Energy Center (GEC) located at 12121 Phillips Road, Jacksonville, in Duval County. As part of the final design update to GEC's facility layout, the following is being proposed:

- Relocating the warehouse building (item no. 4 on the original layout drawing 160167-CMA-S1000) closer to the SCCTs.
- Eliminating the administration/control/maintenance building (item no. 16 on the original layout drawing 160167-CMA-S1000)
- Relocating the fuel gas heater (item no. 12 on the original layout drawing 160167-CMA-S1000) from the southern part of the facility to a location just north of the SCCT No. 2.
- Adjusting the facility fence line to match the latest survey and engineering design.

The changes highlighted above will not cause any change in the permitted emission rates at GEC. Additionally, JEA has remodeled (using AERMOD) the entire facility with the updated layout. As shown in Table 1 attached, the Class II ambient air quality impacts continue to remain below the Significant Impact Levels (SILs). A CD-ROM that contains all the relevant air dispersion modeling files, and the updated facility layout drawing are attached. Please note that the changes in the facility layout do not affect the location of the combustion turbines or the combustion turbine stack parameters. Consequently, the Class I Area visibility impacts are unaffected by these minor revisions to the facility layout.

JEA is requesting FDEP's concurrence that no changes/amendments to the Air Construction Permit PSD-FL-401 will be required as a result of the updated facility layout.

If you have any questions, please contact Bert Gianazza at 904-665-6247.

Sincerely,

James M. Chansler, P.E., D.P.A.
Chief Operating Officer
Responsible Official

Attachments: As Noted.

Cc: Syed Arif, P.E., FDEP

Table 1

AERMOD Model-Predicted Class II SCCT Impacts

Comparison of April 2008 PSD Air Permit Application and Revised August 2009 Modeling

Pollutant	Fuel	Averaging Period	April 2008 Model-Predicted Impact[a,b] ($\mu g/m^3$) Ref: Table 4-2 of PSD Permit Application			Updated August 2009 Model-Predicted Impact[a] [b] ($\mu g/m^3$)			PSD Class II SIL[c] ($\mu g/m^3$)	August 2009 Modeling Exceed SILs?
			100%	75%	50%	100%	75%	50%		
NO_x	NG/ULSFO[d,b]	Annual	0.73	0.73	0.73	0.84	0.84	0.84	1	NO
SO_2	NG/ULSFO[d,b]	Annual	0.01	0.01	0.01	0.01	0.01	0.01	1	NO
	NG	24 Hour	0.22	0.20	0.18	0.22	0.20	0.18	5	NO
	ULSFO	24 Hour	0.11	0.11	0.11	0.09	0.09	0.09	5	NO
	NG	3 Hour	0.62	0.57	0.52	0.62	0.57	0.52	25	NO
	ULSFO	3 Hour	0.18	0.17	0.15	0.18	0.17	0.16	25	NO
PM/PM_{10}[e]	NG/ULSFO[d,b]	Annual	0.06	0.06	0.06	0.06	0.07	0.07	1	NO
	NG	24 Hour	4.02	4.02	4.02	3.61	3.61	3.62	5	NO
	ULSFO	24 Hour	4.03	4.03	4.03	3.44	3.44	3.45	5	NO
CO	NG	8 Hour	16.92	16.93	16.93	22.12	22.13	22.12	500	NO
	ULSFO	8 Hour	16.92	16.93	16.93	19.64	19.64	19.64	500	NO
	NG	1 Hour	27.56	27.56	27.56	32.25	32.25	32.25	2,000	NO
	ULSFO	1 Hour	26.53	26.53	26.53	27.25	27.26	27.25	2,000	NO

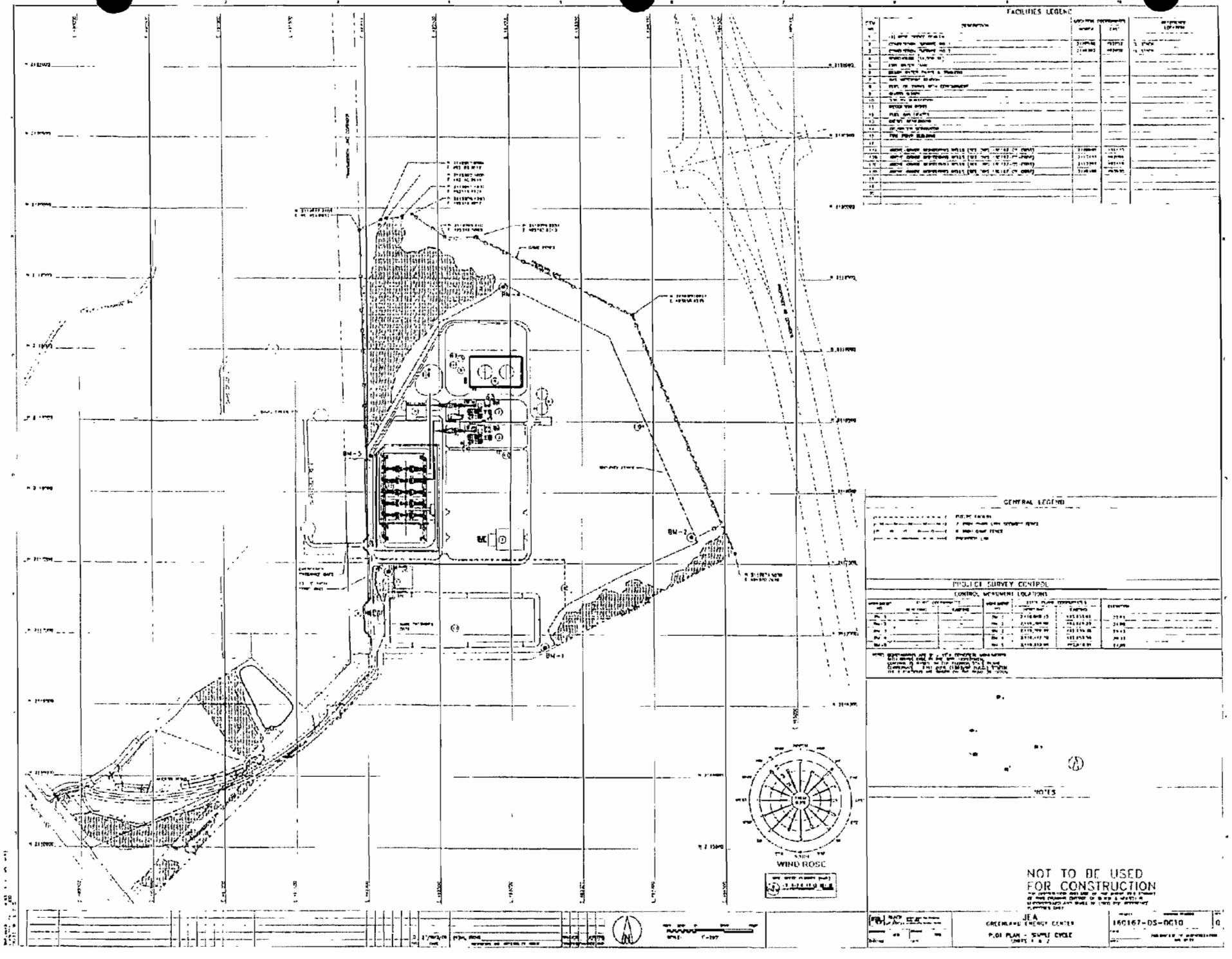
[a] Impacts represent the highest first high model-predicted concentration from all 5 years of meteorological data: 2001, 2002, 2003, 2004, and 2005 modeled at each corresponding load and include operation of the two CTGs, emergency diesel engine generator, fire pump, and natural gas heater

[b] Model predicted impacts reflect the updated fence line as well as the new location of the fuel gas heater.

[c] Predicted impacts that are below the specified level indicate that the proposed project will not have predicted significant impacts for that pollutant and further modeling is not necessary for that pollutant.

[d] Impacts are from one of the following annual modeling scenarios: 1) 3,500 hours of operation on natural gas; 2) 3,000 hours per year of operation on natural gas with an additional 500 hours per year of operation on ULSFO; or 3) 1,000 hours of operation on ULSFO; whichever scenario produced the higher emissions profile.

[e] Note that the PM_{10} impacts are below the PM_{10} PSD Class II SILs and that the AAQS for $PM_{2.5}$ are significantly greater than the PM_{10} SILs. Therefore, if one were to conservatively assume that $PM_{2.5}$ impacts would be the same as the PM_{10} impacts (in accordance with the USEPA's guidance memorandum related to the interim implementation of NSR for PM 2.5), then the impacts would be significantly below the $PM_{2.5}$ AAQS.


FACILITIES LEGEND
GENERAL LEGEND
PROJECT SURVEY CONTROL
CONTROL MONUMENT LOCATIONS
NOTES
WIND ROSE
NOT TO BE USED
FOR CONSTRUCTION
JEA
GREENLAND ENERGY CENTER
P&ID PLAN - SIMPLE CYCLE
160167-DS-0010

Walker, Elizabeth (AIR)

From: Holladay, Cleve
Sent: Monday, September 21, 2009 3:23 PM
To: 'giannb@jea.com'
Cc: Arif, Syed; Walker, Elizabeth (AIR)
Subject: JEA Greenland-Air Construction Permit PSD-FL-401 Notification of Minor Changes to Facility Layout

Bert,

I have reviewed the letter dated August 26, 2009, to Trina Vielhauer and received September 2, 2009, on minor changes to the facility layout. I did additional modeling using an updated 2001-2005 Jacksonville data set, which uses a 1 km radius to determine surface roughness. Based on my review of the modeling, there will only be small increases in impacts. All predicted impacts remain under the modeling significant impact levels. There is no need for any further modeling analysis. Based on the modeling results, there will be no need to do a permit modification for this request. If you have any further questions, you can contact me at 850-921-8986 or Syed Arif.

Thanks
Cleve