DRAFT PERMIT REVISION

PERMITTEE

JEA
21 West Church Street
Jacksonville, Florida 32202

Authorized Representative:
Mr. James Chansler, P.E.

Permit No. 0310561-004-AC/ PSD-FL-401A
Permit Expires: 12/31/13
Minor Air Construction Permit
Greenland Energy Center
Expiration Date Extension and Emissions Limit Clarification

PROJECT

This is the final air construction permit, which revises permit No. 0310561-001-AC (PSD-FL-401) for the following items: This project extends the expiration date and clarifies mass emission standard conditions. The Greenland Energy Center is a power plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Duval County at 6850 Energy Center Drive, Jacksonville, Florida. The UTM coordinates are Zone 17, 450.2 km East and 3336.4 km North.

This final permit is organized into the following sections: Section 1 (General Information) and Section 2 (Permit Revisions).

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

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

Executed in Tallahassee, Florida

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_____ _____

Jeffery F. Koerner, Program Administrator (Date)
Office of Permittng and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

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

Mr. James Chansler, JEA: chanjm@jea.com
Mr. Bert Gianazza, P.E., JEA: giannb@jea.com
Ms. Rita Felton-Smith, DEP - NED: rita.felton-smith@dep.state.fl.us
Mr. Richard Robinson, Duval County EQD: robinson@coj.net
Ms. Katy Forney, U.S. EPA Region 4: forney.kathleen@epamail.epa.gov
Ms. Ana Oquendo, EPA Region 4: oquendo.ana@epamail.epa.gov
Ms. Barbara Friday, DEP - OPC: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
Ms. Lynn Scearce, DEP – OPC: lynn.scearce@dep.state.fl.us (for reading file)

Clerk Stamp

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

(DRAFT)

_____ _____
(Clerk) (Date)

FACILITY DESCRIPTION

The existing facility is an electrical power generation facility, which consists of the following emissions units and activities: Two simple cycle combustion turbine generators firing natural gas and fuel oil as a backup fuel.

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
- The facility is subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

PROPOSED PROJECT

The project modifies the original construction permit by extending the expiration date and clarifying that the mass emission standards for NO_X and CO are for informational purposes only and emission testing is limited to an initial, one time test.

The following permit conditions are revised as indicated. ~~Strikethrough~~ is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight.

Permit Being Modified: Permit No. 0310561-001-AC (PSD-FL-401)

Affected Emissions Units: EU-001 and EU-002

1. To allow for additional time to complete the installation of the permanent fuel oil storage tank, the expiration date of the permit is changed as follows:

Expires: December 31, ~~2012~~ 2013

2. To clarify that the mass emissions limits for nitrogen oxides (NO_X) and carbon monoxide (CO) listed in the original permit were intended for informational purposes at full load and not intended as an enforceable limit subject to annual compliance testing requirements, Conditions 12, 15 and 17 in Section III are changed as follows:

12. Emission Standards: Emissions from the combustion turbine shall not exceed the following standards.

Pollutant	Emission Standard [e]	Averaging Time	Compliance Method	Basis
NO_X[a] (Gas)	9.0 ppmvd @ 15% O_2	24-hr block	CEMS	BACT
	58.5 lb/hr[g]	3 1-hr runs	~~Stack Test~~None	Equivalent
NO_X[a] (Oil)	42.0 ppmvd @ 15% O_2	4-hr rolling average[f]	CEMS	NSPS
	329.4 lb/hr[g]	3 1-hr runs	~~Stack Test~~None	Equivalent
CO[b] (Gas)	4.1 ppmvd @ 15% O_2	24-hr block	CEMS	BACT
	16.2 lb/hr[g]	3 1-hr runs	~~Stack Test~~None	Equivalent
CO[b] (Oil)	8.0 ppmvd @ 15% O_2	24-hr block	CEMS	BACT
	38.2 lb/hr[g]	3 1-hr runs	~~Stack Test~~None	Equivalent
PM/PM_{10}[c]	10 % Opacity	6-minute block	Visible Emissions Test	BACT
	2 gr S/100 SCF of gas/ 0.0015% S fuel oil	N/A	Record Keeping	
SAM/SO_2[d]	2 gr S/100 SCF of gas/ 0.0015% S fuel oil	N/A	Record Keeping	BACT

a. Continuous compliance with the 24-hour block and 4-hour rolling average NO_X standards shall be demonstrated based on data collected by the required Continuous Emissions Monitoring System (CEMS). The initial ~~and annual~~ EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart KKKK or certification of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas and ULSFO during the time of those tests. NO_X mass emission rates are at International Organization for Standardization (ISO) conditions and are defined as oxides of nitrogen expressed as NO_2.

b. Continuous compliance with the 24-hour CO standards shall be demonstrated based on data collected by the required CEMS. The initial ~~and annual~~ EPA Method 10 tests associated with the certification of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas and ULSFO. CO mass emission rates are at ISO conditions.

c. The sulfur fuel specification combined with the efficient combustion design and operation of the gas turbine represents BACT for PM/PM_{10} emissions. Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be demonstrated by keeping records of the fuel sulfur content. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.

d. The fuel sulfur specification effectively limits the potential emissions of SAM and SO_2 from the gas turbines and represents BACT for these pollutants. Compliance with the fuel sulfur specifications shall be determined by the ASTM methods or a certified fuel sulfur analysis from the fuel vendor for determination of fuel sulfur as detailed in the draft permit.

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

f. 40 CFR 60, NSPS-Subpart KKKK as described in 60.4380(b)(1).

g. For informational purposes.

15. Testing Requirements: Initial tests shall be conducted between 90% and 100% of permitted capacity; adjusted as appropriate, and at prevailing ambient conditions; otherwise, this permit shall be modified to reflect the true maximum capacity as constructed. Tests shall be conducted for each pollutant while firing each fuel in the CT. For each run during tests for visible emissions, emissions of CO recorded by the CEMS shall also be reported. ~~Data collected from the reference method during the required CEMS quality assurance relative accuracy test audit (RATA) tests may substitute for annual compliance tests for NO_x and CO, provided the owner or operator indicates this intent in the submitted test protocol, and obtains approval prior to testing.~~ The RATA tests shall be conducted while the affected facility is operating at more than 50 percent of normal load. The mass emission rate ~~standards~~equivalents are based on a turbine inlet condition of 59° F and 100 percent full load operation. Combustion turbine capacity and mass emission rate may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-297.310(7)(a), F.A.C.; 40 CFR 60.8 and 40 CFR 60 Appendix B, Spec.2]

17. Subsequent Compliance Testing: Annual compliance tests for ~~NO_x, CO (done in conjunction with RATA tests) and~~ visible emissions shall be conducted during each federal fiscal year (October 1st to September 30th)~~. If normal operation on fuel oil is less than 400 hours per calendar year, then subsequent compliance testing on fuel oil is not required for that year. If normal operation on fuel oil exceeds 400 hours per year, the Department shall require compliance testing for NO_x, CO (done in conjunction with RATA tests) and visible emissions~~ while firing natural gas. Visible emissions tests shall also be performed while firing fuel oil if fuel oil was fired for more than 400 hours during the federal fiscal year. [Rules 62-4.070, 62-210.200(BACT) and 62-297.310(7)(a)4, F.A.C.]