FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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PERMITTEE

Florida Municipal Power Agency
Keys Energy Services
P.O. Box 6100
Key West, Florida 33041-6100

Authorized Representative:
Mr. Edward Garcia, Director of Generation

Air Permit No. 0870003-017-AC
Facility ID No. 0870003
SIC No. 4911
Excess Emissions Revision

Permit Expires: December 31, 2013

PROJECT

This is the final air construction permit, which authorizes the revision of the language of air construction permits 0870003-003-AC, 0810003-007-AC, AC44-245399/PSD-FL-210, and AC44-152197/PSD-FL-135 dealing primarily with excess emissions for various emission units located at the Stock Island Power Plant (the facility). The facility is located in Monroe County at 6900 Front Street, Stock Island, Florida.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, no changes were made to the draft permit.

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.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C., 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.

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

Syed Arif
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for Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/sa/tbc

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package 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 the date indicated below to the following persons.

Edward Garcia, Florida Municipal Power Agency: edward.garcia@keysenergy.com
Amy Deese, Florida Municipal Power Agency: amy.deese@fmpa.com
Jerome Guidry, P.E., Perigee Technical Services, Inc.: jerome.guidry@att.net
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Kathleen Forney, US EPA Region 4: (forney.kathleen@epa.gov)
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Lynn Scearce, DEP Office of Air Permitting and Compliance: lynn.scearce@dep.state.fl.us

Clerk Stamp

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

Lynn Scearce
2013.11.19
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FACILITY AND PROJECT DESCRIPTION

This facility consists of eight regulated emission units: a diesel peaking unit, a black start diesel engine, two regulated diesel generators and four simple cycle combustion turbines. The total generating capacity of these units is 130.89 megawatts (MW). To reduce pollution, a combination of control techniques is used including water injection, ignition timing retardation, and low sulfur fuel oil. A selective catalytic reduction (SCR) unit must be installed to help control its NO_X emissions when the operational hours of the 48 MW simple cycle combustion turbine (EU011) exceeds 2,500 hours, based on a 12 month rolling total.

This facility has an existing compression ignition (CI) engine (diesel peaking unit #2 (EU003)) which was reconstructed in 2010. The reconstructed compression ignition reciprocating internal combustion engine (RICE) driven generator is a regulated emission unit subject to 40 CFR 63 Subpart ZZZZ. Per 63.6590(c), the requirements of Subpart ZZZZ are satisfied by meeting the requirements of 40 CFR 60 Subpart IIII and 40 CFR 80. There are also three other compression ignition RICE (EU Nos. 005, 006 and 014) that are subject to 40 CFR 63 Subpart ZZZZ.

Also included in this permit are insignificant emissions units and activities and miscellaneous unregulated units.

The Ralph Garcia Steam Plant (previously designated as E.U. ID No. 001) was removed from the facility in 2005.

ID	Emission Unit Description
003	EP2 Diesel Peaking Unit #2 (2,250 kW/3070 HP; 10.6 L/cylinder) - originally built in 1964; reconstructed in 2010.
005	8.8 MW Medium Speed Diesel Generator [Unit #1; EPA ID D-1]
006	8.8 MW Medium Speed Diesel Generator [Unit #2; EPA ID D-2]
007	23.5 MW Simple Cycle Combustion Turbine [CT-1]
008	19.77 MW Simple Cycle Combustion Turbine [CT-2]
009	19.77 MW Simple Cycle Combustion Turbine [CT-3]
011	48.00 MW Simple Cycle Combustion Turbine [CT-4]
014	Detroit Diesel, Diesel Fired Black Start Engine

The Florida Municipal Power Agency (FMPA) Stock Island Power Plant in Key West, Florida, currently operates under Title V permit 0870003-016-AV. The purpose of this air construction permit revision is to change specific conditions of underlying existing permits AC44-152197/PSD-FL-135, AC44-245399/PSD-FL-210, 0870003-003-AC, and 0870003-007-AC/PSD-FL-348 as noted below.

The proposed revisions are as follows:

(1) To remove the requirements for the Medium Speed Diesel Generators (MSDs) to conduct permit renewal testing for PM, in stack testing for SO_2, and for VOC if the CO standards are met. For Emissions Units 005 and 006, FMPA proposes to remove the testing requirement for PM, the in stack testing requirement for SO_2, and the VOC testing requirement if the CO emission standards are met. The request to remove the PM and in-stack SO_2 testing requirements is based on the 40 CFR 63, Subpart ZZZZ requirement for the emissions units to exclusively fire ultra-low sulfur diesel as of May 3, 2013.

(2) To add "tuning, load change, full speed no load testing, and compressor blade drying" to allowable excess emissions.
(3) To waive the periodic compliance test requirements for those parameters for which compliance is demonstrated continuously. When compliance with a standard is demonstrated continuously using continuous emissions monitoring systems (CEMS), annual compliance testing and testing prior to permit renewal is not necessary.
(4) To change the excess emissions reporting requirements from quarterly to semiannually for New Source Performance Standards (NSPS) reports.
(5) Administrative changes that include typographical corrections and addition of permitting notes.

REGULATORY CLASSIFICATION

Title III: The facility is identified as an area source of hazardous air pollutants (HAP).

NESHAP: The facility operates units subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 Code of Federal Regulations (CFR) 63.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 CFR 60.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major stationary source in accordance with Rule 62-212.400, F.A.C.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete, the draft air construction permit, and the Technical Evaluation and Preliminary Determination.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department. The mailing address for the Office of Permitting and Compliance is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the South District Office. The mailing address and phone number of the South District Office are: 2295 Victoria Avenue, Suite 364, P.O. Box 2549, Fort Myers, Florida 33902, Telephone: (239) 332-6975, Fax: (239) 332-6969.
3. Appendices: The following Appendices are attached as part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); and Appendix C (Common Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
005	8.8 MW Medium Speed Diesel Generator [Unit #1; EPA ID #D-1]
006	8.8 MW Medium Speed Diesel Generator [Unit #2; EPA ID #D-2]
007	23.5 MW Simple Cycle Combustion Turbine [CT-1]
008	19.77 MW Simple Cycle Combustion Turbine [CT-2]
009	19.77 MW Simple Cycle Combustion Turbine [CT-3]
011	48 MW Simple Cycle Combustion Turbine [CT-4]

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: Except as specified below, these units remain subject to the applicable requirements established in all previous air construction and air operation permits issued for this facility. [Rule 62-4.070, F.A.C.]

Note: ~~Strikethrough~~ indicates deleted text. Double underline indicates additions.

2. To establish allowable periods for excess emissions during operations related to tuning, load change, full speed no load testing and compressor blade drying; and, to change the excess emissions reporting requirements from quarterly to semiannually for New Source Performance Standards (NSPS) reports for Emissions Units 008 and 009, Specific Condition **3.4.** is revised and **3.6.** is added (in Appendix CSC), and Specific Conditions **A.6.** and **A.14.** in Section III, of Permit No. 0870003-003-AC, are revised as follows:

3.4. Excess Emissions Requirements. [Rule 62-210.700, F.A.C.]

(a) Excess emissions resulting from startup, shutdown, tuning, load changes, full speed no load testing, compressor blade drying, or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period (except as provided for during Other Limited Use Operations in Specific Condition **3.6**) unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C. and Application No. 0870003-017-AC]

(b) Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented start-up, shutdown, tuning, load changes, full speed no load testing, compressor blade drying, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C. and Application No. 0870003-017-AC]

(c) No Change.

3.6. Other Limited Use Operations. Excess emissions which occur during any of the following limited use operational periods are permitted provided the activities are performed in accordance with the manufacturer's specifications (or industry standards).

(a) *Tuning*. Tuning means operating the gas turbine at intermittent loads throughout the full load range in order to adjust and tune the water injection system.

(b) *Compressor Blade Drying*. Following a compressor blade wash, the permittee may operate a gas turbine at very low loads to heat and dry the compressor blades. *(Permitting Note: A gas turbine would typically operate at approximately 10% of base load or less to perform compressor blade drying.)*

(c) *Full Speed No Load Testing.* As a periodic maintenance practice, the permittee may perform full speed no load tests. *(Permitting Note: An example of full speed no load testing includes, but is not limited to, checking the synchronizing instrumentation to assure safe and reliable connection to the electrical grid.)*

A.6. In order to minimize excess emissions during startup/ shutdown/ tuning/ load change/ full speed no load testing/ compressor blade drying/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C.]

A.14. The permittee shall submit a ~~quarterly~~ semi-annual excess emissions and monitoring systems performance report of the continuous monitoring system for any one-hour period during which the average water to fuel ratio falls below the water-to-fuel ratio determined to demonstrate compliance with Specific Condition **A.1.**

3. To establish allowable periods for excess emissions during operations related to tuning, load change, full speed no load testing and compressor blade drying; to waive the periodic compliance test requirements for those parameters for which compliance is demonstrated continuously (NO_X); to change the excess emissions reporting requirements from quarterly to semiannually for New Source Performance Standards (NSPS) reports; to reduce the requirement to make records related to the Monthly Operations Summary available within 1 day to 3 days; and, to clarify that the allowed annual hours of operation are inclusive of all available hours during any calendar year, for Emissions Unit 011, Specific Conditions **A.16., A.20., A.21., A.22., A.27., A.28., A.36., A.37., A.40., A.42., B.7., B.21., B.22., B.23., B.28., B.29., B.37., B.38., B.41., B.43.** and **IV.3.** of Permit No. 0870003-007-AC/PSD-FL-348 are revised as follows:

A.16. Nitrogen Oxides (NO_X): This emissions limit applies during the initial phase of operation when the combustion turbine operates no more than 2,500 hours based on a 12-month rolling total:

NO_X emissions from the combustion turbine shall not exceed a BACT emission limit of 42 ppmvd @15% O_2 during initial ~~and annual~~ tests nor exceed 42.0 ppmvd @15% O_2 on a 24-hour block average while firing fuel oil. The permittee shall demonstrate compliance with this standard by conducting performance tests (upon request) and continuous emissions monitoring (CEMS) in accordance with 40 CFR Part 60 Subpart GG and based on a 24-hour block average for data collected from the continuous emissions monitor. [Rule 62-212.400, F.A.C. (BACT)]

A.20. Definitions.

(a) – (d) No Change.

(e) Other Limited Use Operations:

1. *Tuning.* Tuning means operating the gas turbine at intermittent loads throughout the full load range in order to adjust and tune the water injection system. Tuning shall be conducted in accordance with the manufacturer's recommendations (or industry standards).

2. *Compressor Blade Drying.* Following a compressor blade wash in accordance with the manufacturer's recommendations (or industry standards), the permittee may operate a gas turbine at very low loads to heat and dry the compressor blades. *(Permitting Note: A gas turbine would typically operate at approximately 10% of base load or less to perform compressor blade drying.)*

3. *Full Speed No Load Testing.* As a periodic maintenance practice, the permittee may perform full speed no load tests in accordance with the manufacturer's recommendations (or industry standards). *(Permitting Note: An example of full speed no load testing includes, but is not limited to, checking the synchronizing instrumentation to assure safe and reliable connection to the electrical grid.)*

A.21. ~~Startup, Shutdown, Malfunction~~Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, tuning, load change, full speed no load testing, compressor blade drying, or malfunction of any emissions unit shall be permitted providing: (1) best operational practices to minimize emissions are adhered to, and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period (except as provided for in paragraph (d) for Other Limited Use Operations), unless specifically authorized by the Department for longer duration. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A written report summarizing each malfunction resulting in excess emissions shall be submitted in a quarterly report (if requested). [Rule 62-210.700(1) and (6), F.A.C.]

(a) No Change.

(b) During all startups, shutdowns, tunings, load changes, full speed no load testing activities, compressor blade drying activities, and malfunctions, the NO_X continuous emissions monitoring System (CEMS) shall monitor and record emissions. Up to 2 hours (120 minutes) of monitoring data during any 24-hour block averaging period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, load changes, and documented malfunctions. However, only data obtained during startups, shutdowns, load changes, and documented malfunctions may be used for the 2 hour exclusion period. Other arbitrary high readings may not be excluded from compliance averaging periods. [Rule 62-210.700(1) and (5)]

(c) A documented malfunction means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile, or electronic mail. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Design; Rules 62-210.700(1), (5), (6) and 62-4.130, F.A.C.]

(d) Other Limited Use Operations: Excess emissions which occur during Other Limited Use operational periods (as defined in Specific Condition **A.20.**(e)) are permitted provided the activities are performed in accordance with the manufacturer's specifications (or industry standards). [Application No. 0870003-017-AC]

A.22. Prohibition: Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, tuning, load change, full speed no load testing, compressor blade drying, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

A.27. Annual Performance Tests: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for ~~NO_X,~~ CO~~,~~ and visible emissions from the combustion turbine for each fuel. ~~If conducted at permitted capacity, NO_X emissions data collected during the annual NO_X continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test.~~ Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th). In the event that the operation of the CT is less than 400 hours per year, annual testing is not required for that year.
[Rule 62-297.310(7)(a), F.A.C.]

A.28. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall conduct performance tests for CO~~, NO_X,~~ and visible emissions from the combustion turbine. VOC emission tests are not required prior to permit renewal provided the CO emission standards are met. These tests shall be conducted within the ~~12-month period prior to renewing~~5-year term of the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test

to satisfy the requirements of this provision.
[Rule 62-297.310(7)(a)3., F.A.C.]

A.36. NO_X CEMS Data Requirements:

(a) – (b) No Change.

(c) Data Reporting. Data collected by the CEMS shall be used to demonstrate compliance with the emissions standards specified for each 24-hour block averaging period. The block averaging period shall run from midnight to midnight of each day. Emissions shall be reported in units of ppmvd corrected to 15% oxygen for each hour of operation. The compliance averages shall be determined by calculating the arithmetic average of a 24-hour block of all valid hourly emission rates. A minimum of 1 valid hour shall be required to calculate a 24-hour block average. When a monitoring system reports emissions in excess of the standards allowed by this permit, the permittee shall notify the Compliance Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. The Department may request a written report summarizing the excess emissions incident. The permittee shall also report excess emissions ~~in a quarterly report~~ as required in Specific Condition 42 of this permit.

(d) Data Exclusion. As provided in III.A.~~21-22~~20-21., valid hourly emission rates shall not include periods of startup, shutdown, tuning, load change, full speed no load testing, compressor blade drying or documented malfunction as described under the excess emissions requirements of this permit. Up to 2 hours of monitoring data during any 24-hour block averaging period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, load changes, and documented malfunctions. CEMS data collected during Other Limited Use Operations may be excluded from the compliance averages provided the activities are performed in accordance with the manufacturer's specifications (or industry standards).

A.37. Hours of Operation: Using a component of the gas turbine control system, the permittee shall monitor and record the hours of gas turbine operation. Within five working days following the end of each calendar month, the permittee shall record the total hours of operation (including hours during startups, shutdowns, tuning, load changes, full speed no load testing, compressor blade drying, and malfunctions) for the current month, and the total hours of operation for the current month plus the preceding 11 months.
[Rule 62-204.070, F.A.C., and Applicant Request]

A.40. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the hours of operation and amount of fuel fired for the combustion turbine. The information shall be recorded in a written or electronic log and shall summarize the previous month of operation and the previous 12 months of operation. All hours of operation (including hours during startups, shutdowns, tuning, load changes, full speed no load testing, compressor blade drying and malfunctions) shall be included in the demonstration of compliance with the 12-month fuel usage limitations. Information recorded and stored as an electronic file shall be available for inspection and/or printing within ~~at least one day~~ 3 days of a request from the Compliance Authority. [Rule 62-4.160(15), F.A.C.]

A.42. Excess Emissions Reporting:

(a) - (b) No Change.

(c) SIP Quarterly Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of NO_X emissions in excess of the BACT permit standards at Specific Condition 16 following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown, tuning, load changes, full speed no load testing, compressor blade drying and malfunction, shall be monitored, recorded and reported as excess emissions when

emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS systems monitor availability for the previous quarter.

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C.~~, and~~; 40 CFR 60.7, and 60.332(j)(1); and, Application No. 0870003-017-AC]

B.7. Hours of Operation: The combustion turbine ~~may~~is permitted to operate ~~8,760 hours per year~~ continuously. [Applicant Request, Rule 62-210.200, F.A.C. (PTE)]

B.21. Definitions.

(a) – (d) No Change.

(e) Other Limited Use Operations:

1. *Tuning.* Tuning means operating the gas turbine at intermittent loads throughout the full load range in order to adjust and tune the water injection system. Tuning shall be conducted in accordance with the manufacturer's recommendations (or industry standards).

2. *Compressor Blade Drying.* Following a compressor blade wash in accordance with the manufacturer's recommendations (or industry standards), the permittee may operate a gas turbine at very low loads to heat and dry the compressor blades. *(Permitting Note: A gas turbine would typically operate at approximately 10% of base load or less to perform compressor blade drying.)*

3. *Full Speed No Load Testing.* As a periodic maintenance practice, the permittee may perform full speed no load tests in accordance with the manufacturer's recommendations (or industry standards). *(Permitting Note: An example of full speed no load testing includes, but is not limited to, checking the synchronizing instrumentation to assure safe and reliable connection to the electrical grid.)*

B.22. ~~Startup, Shutdown, Malfunction~~Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, tuning, load change, full speed no load testing, compressor blade drying, or malfunction of any emissions unit shall be permitted providing: (1) best operational practices to minimize emissions are adhered to, and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period (except as provided for in paragraph (d) for Other Limited Use Operations), unless specifically authorized by the Department for longer duration. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A written report summarizing each malfunction resulting in excess emissions shall be submitted in a quarterly report (if requested). [Rule 62-210.700(1) and (6), F.A.C.]

(a) No Change.

(b) During all startups, shutdowns, tunings, load changes, full speed no load testing activities, compressor blade drying activities, and malfunctions, the NO_X continuous emissions monitoring System (CEMS) shall monitor and record emissions. Up to 2 hours (120 minutes) of monitoring data during any 24-hour block averaging period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, load changes, and documented malfunctions. However, only data obtained during startups, shutdowns, load changes, and documented malfunctions may be used for the 2 hour exclusion period. Other arbitrary high readings may not be excluded from compliance averaging periods.

(c) A documented malfunction means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile, or electronic mail. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A

full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Design; Rules 62-210.700(1), (5), (6) and 62-4.130, F.A.C.]

(d) Other Limited Use Operations: Excess emissions which occur during Other Limited Use operational periods (as defined in Specific Condition **B.21.**(e)) are permitted provided the activities are performed in accordance with the manufacturer's specifications (or industry standards). [Application No. 0870003-017-AC]

B.23. Prohibition: Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, tuning, load change, full speed no load testing, compressor blade drying, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

B.28. Annual Performance Tests: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for ~~NO_x,~~ CO~~,~~ and visible emissions from the combustion turbine for each fuel. Testing for ammonia slip is required during the first scheduled annual performance tests after the cumulative hours of operation exceed 1,500 actual hours starting from the initial installation of the SCR catalyst. Thereafter, ammonia testing is required during the first scheduled annual performance tests after subsequent cumulative 1,500 hours of operation or after regeneration, replacement or addition to the SCR catalyst system. ~~If conducted at permitted capacity, NO_x emissions data collected during the annual NO_x continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test.~~ Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th). In the event that the operation of the CT is less than 400 hours per year, annual testing is not required for that year. [Rule 62-297.31 0(7)(a), F .A.C.]

B.29. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall conduct performance tests for CO~~, NOx,~~ and visible emissions from the combustion turbine. VOC emission tests are not required prior to permit renewal provided the CO emission standards are met. Testing for ammonia slip meeting the requirements of Condition 26, Annual Performance Tests, will meet the requirements of this condition. These tests shall be conducted within the ~~12-month period prior to renewing~~5-year term of the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [Rule 62-297.310(7)(a)3., F.A.C.]

B.37. NO_X CEMS Data Requirements:

(a) – (b) No Change.

(c) Data Reporting: Data collected by the CEMS shall be used to demonstrate compliance with the emissions standards specified for each 24-hour block averaging period. The block averaging period shall run from midnight to midnight of each day. Emissions shall be reported in units of ppmvd corrected to 15% oxygen for each hour of operation. The compliance averages shall be determined by calculating the arithmetic average of a 24-hour block of all valid hourly emission rates. A minimum of 1 valid hour shall be required to calculate a 24-hour block average. When a monitoring system reports emissions in excess of the standards allowed by this permit, the permittee shall notify the Compliance Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. The Department may request a written report summarizing the excess emissions incident. The permittee shall also report excess emissions ~~in a quarterly report~~ as required in Specific Condition 43 of this permit.

(d) Data Exclusion: As provided in III.B. 21-22 valid hourly emission rates shall not include periods of startup, shutdown, tuning, load change, full speed no load testing, compressor blade drying or

documented malfunction as described under the excess emissions requirements of this permit. Up to 2 hours of monitoring data during any 24-hour block averaging period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, load changes, and documented malfunctions. CEMS data collected during Other Limited Use Operations may be excluded from the compliance averages provided the activities are performed in accordance with the manufacturer's specifications (or industry standards).

B.38. Hours of Operation: Using a component of the gas turbine control system, the permittee shall monitor and record the hours of gas turbine operation. Within five working days following the end of each calendar month, the permittee shall record the total hours of operation (including startups, shutdowns, tuning, load changes, full speed no load testing, compressor blade drying, and malfunctions) for the current month, and the total hours of operation for the current month plus the preceding 11 months.
[Rule 62-204.070, F.A.C., and Applicant Request]

B.41. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the hours of operation and amount of each fuel fired for the combustion turbine. The information shall be recorded in a written or electronic log and shall summarize the previous month of operation and the previous 12 months of operation. All hours of operation shall be included in the demonstration of compliance with the 12-month fuel usage limitations. Information recorded and stored as an electronic file shall be available for inspection and/or printing within ~~at least one day~~ 3 days of a request from the Compliance Authority. [Rule 62-4.160(15), F.A.C.]

B.43. Excess Emissions Reporting:

(a) - (b) No Change.

(c) SIP Quarterly Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of NO_X emissions in excess of the BACT permit standards at Specific Condition 16 following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown, tuning, load changes, full speed no load testing, compressor blade drying and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS systems monitor availability for the previous quarter.

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and; 40 CFR 60.7, and 60.332(j)(1); and, Application No. 0870003-017-AC]

IV.3. Hours of Operation: The hours of operation are not restricted ~~(8760 hours per year)~~.
[Applicant Request; Rule 62-210.200(PTE), F.A.C.]

4. To establish allowable periods for excess emissions during operations related to tuning, load change, full speed no load testing and compressor blade drying; to change the excess emissions reporting requirements from quarterly to semiannually for New Source Performance Standards (NSPS) reports; to remove the requirement to perform annual compliance tests for particulate matter; and, to recognize additional fuel sampling and analysis methods for Emissions Unit 007, Specific Conditions **B.2., B.3., C.1., C.2.** and **E.2.** of Permit No. AC44-245399/PSD-FL-210 are revised as follows:

Specific Condition **B.2.** is revised:

B.2. Excess emissions from the CT resulting from startup, shutdown, tuning, load changes, full speed no load testing, compressor blade drying or malfunction shall be acceptable providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period (except as provided for during Other Limited Use Operations) unless specifically authorized by the Department for longer duration. The

permittee shall provide a general description of the procedures to be followed during periods of start up, shutdown, malfunction, or load change to ensure that the best operational practices to minimize emissions will be adhered to and the duration of any excess emissions will be minimized. The description should be submitted to the Department along with the initial compliance test data. The description may be updated as needed by submitting such update to the Department within thirty days of implementation.

Specific Condition **B.3.** is added:

B.3. Other Limited Use Operations: Excess emissions which occur during any of the following limited use operational periods are permitted provided the activities are performed in accordance with the manufacturer's specifications (or industry standards).

(a) *Tuning*. Tuning means operating the gas turbine at intermittent loads throughout the full load range in order to adjust and tune the water injection system.

(b) *Compressor Blade Drying*. Following a compressor blade wash, the permittee may operate a gas turbine at very low loads to heat and dry the compressor blades. *(Permitting Note: A gas turbine would typically operate at approximately 10% of base load or less to perform compressor blade drying.)*

(c) *Full Speed No Load Testing*. As a periodic maintenance practice, the permittee may perform full speed no load tests. *(Permitting Note: An example of full speed no load testing includes, but is not limited to, checking the synchronizing instrumentation to assure safe and reliable connection to the electrical grid.)*

Specific Condition **C.1.** is revised:

C. Performance Testing

1. Initial (I) compliance tests shall be performed on the CT while firing oil. Testing of emissions shall be conducted at ~~95~~90-100% of the manufacturer's rated heat input based on the average ambient air temperature during the test. Annual (A) compliance tests shall be performed on the CT if the No. 2 fuel was used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using EPA reference methods in accordance with 40 CFR 60, Appendix A, as adopted by reference in Chapter 62-297, F.A.C.:

   a. Reference Method 5B for PM (I, ~~A~~).

   b. – f. No Change

The following permitting note is added after Specific Condition **C.2.**

{Permitting Note: The oil sampling and analysis methods and procedures, including later or equivalent versions of the test methods, specified in 40 CFR 60.335 or 40 CFR 75 Appendix D may be used to comply with this requirement.}

E.2. The project shall comply with all the applicable requirements of Chapter 62-297, F.A.C. and 40 CFR 60, Subpart A. The requirements shall include:

a. – d. No Change.

e. 40 CFR 60.7(b) – By initiating a recordkeeping system to record the occurrence and duration of any start up, shutdown, tuning, load change, full speed no load testing, compressor blade drying or malfunction of the turbine, and of any malfunction of the air pollution control equipment.

f. By postmarking or delivering a ~~quarterly~~ semi-annual excess emissions and monitoring system performance report within 30 calendar days after the end of each calendar ~~quarter~~ semi-annual period. This report shall contain the information specified in 40 CFR 60.7(c) and (d).

g. – j. No Change.

5. To remove periodic compliance testing for particulate matter; to add Method 6C for SO_2 testing, to waive the periodic compliance test requirements for those parameters for which compliance is demonstrated continuously (NO_X) and to allow CO compliance to serve as a surrogate for VOC for Emissions Units 005 and 006, Specific Condition **5.** of Permit No. AC44-152197/PSD-FL-135 is revised as follows:

5. Initial (I) and annual (A) compliance tests shall be performed using EPA methods in accordance with 40 CFR 60 Appendix A, 1987 version:

a. EPA Method 5 for PM (I, ~~A~~)
b. EPA Method 6 or 6C for SO_2, or ASTM D 2880-71 for sulfur in oil (I, A)
c. EPA Method 9 for VE (I, A)
d. EPA Method 10 for CO (I)
e. EPA Method 20 for NO_X (I, ~~A~~ upon request)
f. EPA Method 25 for VOC (I)
g. EPA Method 104 for Be, or EPA SW846 Method 3040, 7090/7091 (I)

Other DER approved test methods may be used only after Departmental approval.
Continuous emission monitors shall be installed, calibrated, maintained and operated for opacity and NO_X. Compliance with the PM limits is reasonable assured by firing ultra low sulfur fuel oil, therefore annual and renewal PM tests are waived. Since compliance with the NO_X standard is demonstrated continuously using the CEMS, annual and permit renewal NO_X testing using Method 7E and/or Method 20 is waived. VOC emission tests are not required prior to permit renewal provided the CO emission standards are met. PM, NO_X and VOC stack tests shall be performed upon request if the Department has reason to believe the limits are not being met. [Rules 62-4.070 and 62-297.310(7)(b), F.A.C.]