Tampa Electric Company
H.L. Culbreath Bayside Power Station

Facility ID No. 0570040
Hillsborough County

Title V Air Operation Permit Renewal

Permit No. 0570040-035-AV
(Renewal of Title V Air Operation Permit No. 0570040-027-AV)

DRAFT/PROPOSED

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

Telephone: (850) 717-9000
Fax: (850) 717-9097

Compliance Authority:

Environmental Protection Commission of Hillsborough County

Air Management
3629 Queen Palm Drive
Tampa, Florida 33619

Telephone: (813) 627-2600
Fax: (813) 627-2660

Title V Air Operation Permit Renewal

Permit No. 0570040-035-AV

Table of Contents

Section **Page Number**

Placard Page 1

I. Facility Information.
- A. Facility Description. 2
- B. Summary of Emissions Units. 2
- C. Applicable Regulations. 3

II. Facility-wide Conditions. 4

III. Emissions Units and Conditions.
- A. Emission Units 020 through 026, Combined Cycle Units 1 and 2. 7
- B. Emission Units 031 through 038, Simple Cycle Units 3 through 6. 17
- C. Emission Unit 039, Emergency Diesel Generator. 24
- D. Emission Units 040 and 041, Black Start and Emergency Diesel Generator. 27
- E. Emission Unit 042, Emergency Diesel Fire Pump. 30

IV. Acid Rain Part. 33

V. Clean Air Interstate Rule Part. 38

VI. Appendices. 44
- Appendix A, Glossary.
- Appendix CEMS, Continuous Monitoring Requirements.
- Appendix CFJ, Consent Final Judgment (DEP vs. TECO).
- Appendix I, List of Insignificant Emissions Units and/or Activities.
- Appendix NSPS Subpart A, General Provisions.
- Appendix NSPS Subpart GG, Standards of Performance for Stationary Gas Turbines.
- Appendix NSPS Subpart KKKK, Standards of Performance for Stationary Combustion Turbines.
- Appendix RICE, Reciprocating Internal Combustion Engines.
- Appendix RR, Facility-Wide Reporting Requirements.
- Appendix TR, Facility-Wide Testing Requirements.
- Appendix TV, Title V General Conditions.

Referenced Attachments. ..... At End
- Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 Code of Federal Regulations (CFR) 60, July, 1996).
- Table H, Permit History.
- Table 1, Summary of Air Pollutant Standards and Terms.
- Table 2, Compliance Requirements.

DRAFT/PROPOSED

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE:
Tampa Electric Company
Post Office Box 111
Tampa, Florida 33601-0111

Permit No. 0570040-035-AV
H. L. Culbreath Bayside Power Station
Facility ID No. 0570040
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing H.L. Culbreath Bayside Power Station is located at 3602 Port Sutton Road, Tampa, in Hillsborough County. UTM Coordinates are Zone 17, 360.1 kilometers (km) East and 3087.5 km North. Latitude is: 27° 54' 25.26" North; and, Longitude is: 82° 25' 12.59" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0570040-035-AV Effective Date: January 1, 2015
Renewal Application Due Date: May 20, 2019
Expiration Date: December 31, 2019

(DRAFT/PROPOSED)

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

JFK/sa/ttm

Subsection A. Facility Description.

The H. L. Culbreath Bayside Power Station is an electric power plant consisting of six primary electrical generating units. Unit 1 (EU 020 – EU 022) is a "3-on-1" combined cycle gas turbine system with a nominal generating capacity of 746 megawatt (MW), which consists of three gas turbines (169 MW each) and one steam-electrical generator (239 MW). Unit 2 (EU 023 – EU 026) is a "4-on-1" combined cycle gas turbine system with a nominal generating capacity of 1,090 MW, which consists of four gas turbines (169 MW each) and one steam-electrical generator (414 MW). These units fire natural gas as the exclusive fuel and employ selective catalytic reduction (SCR) to reduce emissions of nitrogen oxides (NO_X). Emissions of carbon monoxide (CO) and NO_X are monitored with continuous emissions monitoring systems (CEMS).

Units 3 through 6 (EU 031 – EU 038) consist of four Pratt and Whitney Model No. FT8-3 SwiftPac® aero-derivative simple cycle combustion turbine-electrical generator sets to operate in simple cycle mode. For each SwiftPac®, two combustion turbines are coupled to one common electrical generator set having a total nominal gross generation capacity of 62 MW. Each unit fires natural gas, with NO_X emissions controlled with water injection and CO emissions with catalytic oxidation. Emissions of CO and NO_X are monitored with CEMS.

This facility also includes four compression ignition (CI) internal combustion engines (ICE) consisting of: two diesel fired emergency generators (385 brake-horsepower (bhp) and 755 bhp); a diesel fired black start engine (1,495 bhp); and an emergency fire pump engine (188 bhp).

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
Bayside Unit 1 - Combined Cycle Unit with Three Gas Turbines and One Steam-Electrical Generator (746 MW, total)	
020	CT-1A – Combined Cycle Gas Turbine
021	CT-1B – Combined Cycle Gas Turbine
022	CT-1C – Combined Cycle Gas Turbine
Bayside Unit 2 - Combined Cycle Unit with Four Gas Turbines and One Steam-Electrical Generator (1,090 MW, total)	
023	CT-2A – Combined Cycle Gas Turbine
024	CT-2B – Combined Cycle Gas Turbine
025	CT-2C – Combined Cycle Gas Turbine
026	CT-2D – Combined Cycle Gas Turbine
Bayside Unit 3 – Simple Cycle Peaking Unit with Two Combustion Turbines and One Electrical Generator Set (62 MW)	
031	CT-3A - Simple Cycle Combustion Turbine
032	CT-3B - Simple Cycle Combustion Turbine
Bayside Unit 4 – Simple Cycle Peaking Unit with Two Combustion Turbines and One Electrical Generator Set (62 MW)	
033	CT-4A - Simple Cycle Combustion Turbine
034	CT-4B - Simple Cycle Combustion Turbine
Bayside Unit 5 – Simple Cycle Peaking Unit with Two Combustion Turbines and One Electrical Generator Set (62 MW)	
035	CT-5A - Simple Cycle Combustion Turbine
036	CT-5B - Simple Cycle Combustion Turbine
Bayside Unit 6 – Simple Cycle Peaking Unit with Two Combustion Turbines and One Electrical Generator Set (62 MW)	
037	CT-6A - Simple Cycle Combustion Turbine
038	CT-6B - Simple Cycle Combustion Turbine

DRAFT/PROPOSED

EU No.	Brief Description
Compression Ignition Reciprocating Internal Combustion Engines	
039	Emergency Diesel Generator
040	Black Start Diesel Generator
041	Emergency Diesel Generator
042	Emergency Diesel Fire Pump

The terms "gas turbine" and "combustion turbine" are interchangeable. The combined cycle units are referred to as "gas turbines" pursuant to New Source Performance Standards (NSPS) Subpart GG and the simple cycle peaking units are referred to as "combustion turbines" pursuant to NSPS Subpart KKKK. The F. J. Gannon Units 1 - 6 and other emissions units associated with the coal-fired boilers have been permanently shut down, dismantled and removed from the site (EU 001 - EU 007 and EU 009 - EU 019). This facility also includes other miscellaneous insignificant emissions units and activities. Please reference the permit number, facility identification number, and the corresponding emissions unit identification numbers on all correspondence, test submittals, applications, etc.

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received January 20, 2014, this facility is not a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
Federal Rule Citations	
40 CFR 60, Subpart A: NSPS General Provisions	020-026, 031-038, 039 - 042
40 CFR 60, Subpart GG: Standards of Performance for Stationary Gas Turbines	020-026
40 CFR 60, Subpart IIII: NSPS Stationary CI ICE	039 - 042
40 CFR 60, Subpart KKKK: NSPS Stationary Combustion Turbines	031-038
40 CFR 63, Subpart A: NESHAP General Provisions	039 - 042
40 CFR 63, Subpart ZZZZ: NESHAP Reciprocating Internal Combustion Engines	039 - 042
40 CFR 72: Acid Rain Program Permit Regulations	020-026, 031-038
40 CFR 75: Acid Rain Program Continuous Emissions Monitoring	020-026, 031-038
40 CFR 77: Acid Rain Program Excess Emissions	020-026, 031-038
40 CFR 78: Acid Rain Program Appeal Procedures	020-026, 031-038
40 CFR 96: Clean Air Interstate Rule	020-026, 031-038
State Rule Citations	
Rule 62-204.800, F.A.C.: Federal Regulations Adopted by Reference	020-026, 031-038, 039 - 042
Rule 62-212.400, F.A.C.: PSD of Air Quality	020-026
Rule 62-213.413, F.A.C.: Fast-Track Revisions of Acid Rain Parts.	020-026, 031-038
Chapter 62-214, F.A.C.: Sources Subject to the Federal Acid Rain Program	020-026, 031-038
Rule 62-296.470, F.A.C.: Implementation of Federal Clean Air Interstate Rule	020-026, 031-038

DRAFT/PROPOSED

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section VI, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. Emissions from the following types of activities in Hillsborough County are further subject to a general 5% opacity standard: loading or unloading of materials to or from containers such as rail cars, trucks, ships, storage structures and stockpiles; permanent conveyor systems; storage of materials in structures such as silos or enclosed bins, which have a storage capacity of fifty cubic yards or more; crushing, grinding, sizing and screening operations; and, static drop transfer points. These regulations do not impose a specific testing requirement. [Rules 62-296.320(4)(b)1, F.A.C. and Rule 1-3.52, HCEPC]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Chemical or water application to:
   (1) Unpaved roads.
   (2) Unpaved yard areas.
b. Paving and maintenance of roads, parking areas, and yards.
c. Landscaping or planting of vegetation.
d. Confining abrasive blasting where possible.
e. Other techniques, as necessary.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received January 20, 2014.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report

DRAFT/PROPOSED

(EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except CO and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, Post Office Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rules 62-210.370(3), 62-210.900 and 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. ***A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.****}*

FW7. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective.
[Rules 62-213.440(3)(a)2. and 3. and (b), F.A.C.]

FW8. Prevention of Accidental Releases (Section 112(r) of CAA).

a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. (See paragraph e., below.)
b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Division of Emergency Management, as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
c. The owner or operator shall submit the required annual registration fee to the Division of Emergency Management on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.
d. Any required written reports, notifications, certifications, and data required to be sent to the Division of Emergency Management, should be sent to: Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9970, Fax: (850) 488-1739.
e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: https://cdx.epa.gov. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: http://www.epa.gov/osweroe1/content/rmp/index.htm. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
f. Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.

DRAFT/PROPOSED

g. Send the required annual registration fee using approved forms made payable to: Cashier, Division of Emergency Management, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149.

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

DRAFT/PROPOSED

EU No.	Bayside Combustion Turbines (CT)			Steam Turbines (ST)		Total
	Unit No.	CT No.	MW, Shaft	ST Unit No.	MW, Steam	
020	Combined Cycle Unit No. 1	CT-1A	169 MW	No. 5	239	746
021		CT-1B	169 MW			
022		CT-1C	169 MW			
023	Combined Cycle Unit No. 2	CT-2A	169 MW	No. 6	414	1,090
024		CT-2B	169 MW			
025		CT-2C	169 MW			
026		CT-2D	169 MW			
Totals	2 Combined Cycle Units	7 CTs	1,183 MW	2 STs	653	1,836

Bayside Unit 1 (EU 020 – EU 022) is a "3-on-1" combined cycle gas turbine system consisting of three gas turbines (169 MW each) and one common steam-electrical generator (239 MW) with a combined nominal generating capacity of 746 MW. Bayside Unit 2 (EU 023 – EU 026) is a "4-on-1" combined cycle gas turbine system consisting of four gas turbines (169 MW each) and one common steam-electrical generator (414 MW) with a combined nominal generating capacity of 1,090 MW. The nameplate generating capacity is identified for the steam turbine-electrical generators. The final design may not fully utilize the nameplate generating capacity.

Each gas turbine is General Electric Model PG7241(FA) gas turbine-electrical generator set, which includes an automated gas turbine control system, an inlet air filtration system, an evaporative inlet air cooling system, an unfired heat recovery steam generator (HRSG), a single exhaust stack, electric fuel heaters, cooling towers and associated support equipment. At a compressor inlet air temperature of 59 degrees Fahrenheit (°F) and firing 1,842 million British thermal units per hour (MMBtu/hour) of natural gas, each unit produces a nominal 169 MW of shaft-driven electricity. Heat energy is recovered from each HRSG to produce steam, which is delivered to a common header to generate additional power from the steam-electrical generator set for each combined cycle unit. Each gas turbine is equipped with dry low- NO_X (DLN) combustion technology and a SCR system to reduce NO_X emissions. Each gas turbine is equipped with CEMS to measure and record CO and NO_X emissions as well as flue gas carbon dioxide (CO_2) content. Each gas turbine has a single exhaust stack that is 150 feet tall and 19 feet in diameter. Exhaust gases exit the stack with a volumetric flow rate of approximately 1,030,000 actual cubic feet per minute (acfm) at 220°F.

Compliance Assurance Monitoring (CAM) Plan. Although an SCR system is required to achieve the NO_X standard, a CAM Plan is not required because compliance is continuously demonstrated by CEMS.

Bayside Unit 1 became commercially operational on April 24, 2003. Bayside Unit 2 became commercially operational on January 15, 2004.

{Permitting Notes: These emissions units are regulated under: NSPS Subpart GG for Stationary Gas Turbines in 40 CFR 60 adopted and incorporated by reference in Rule 62-204.800, F.A.C.; Rule 212.400, F.A.C. for the PSD, which required Best Available Control Technology (BACT) determinations as specified in Permit No. PSD-FL-301 (as modified) for CO, particulate matter (PM)/PM with a mean particle diameter of 10 microns or less (PM_{10})), and VOC; Chapter 62-214, F.A.C., the Phase II Acid Rain Program as specified in Section IV of this permit; and Rule 62-296.470, F.A.C., the Clean Air Interstate Rule (CAIR) as specified in Section V of this permit.}

DRAFT/PROPOSED

Essential Potential to Emit (PTE) Parameters

A.1. Design Capacity. The design heat input rate of 1,842 MMBtu/hour is based on operation at 100% load, a compressor inlet air temperature of 59°F, the higher heating value (HHV) of natural gas and expected performance levels. Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, and evaporative cooling. The permittee shall maintain on site records of the manufacturer's performance curves for the gas turbines. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), and 62-212.400(BACT), F.A.C.; and, Permit Nos. 0570040-015-AC (PSD-FL-301A) and 0570040-032-AC (PSD-FL-301E)]

{Permitting Note: The heat rate is used as a guide to demonstrate operation at the maximum heat input rate during the Relative Accuracy Test Audit (RATA) annual compliance testing. The measured heat input shall be limited to within 10% of the true value to account for variances in equipment, instrumentation or calculation variables.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation.

a. *Allowable Fuels*. Each gas turbine shall fire only pipeline-quality natural gas. The fuel sulfur content shall not exceed 2 grains per 100 standard cubic feet (scf) of natural gas. Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor 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 in accordance with applicable 40 CFR Part 75 procedures, as amended or ASTM methods D4084-82, D3246-81 or equivalent methods. No other fuels are allowed. [Rules 62-210.200(PTE) and 62-213.410, F.A.C.; Permit No. 0570040-032-AC (PSD-FL-301E); and, DEP/TEC Consent Final Judgment]

b. *Operating Procedures*. The BACT determinations established by this permit rely on "good operating practices" to minimize emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the gas turbines and pollution control systems in accordance with the guidelines and procedures established by the manufacturer. The training shall include good operating practices as well as methods to minimize emissions during startup and shutdown. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

A.4. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

Control Technology

A.5. DLN Combustion Technology. The permittee shall tune, operate and maintain the General Electric dry low-NO_X combustion system (DLN 2.6 or better) to provide efficient lean premix combustion. Each system shall be maintained and tuned in accordance with the manufacturer's recommendations. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

A.6. SCR System. The permittee shall tune, operate and maintain a SCR system to reduce NO_X emissions from each combined cycle gas turbine. The SCR system shall consist of an ammonia injection grid, catalyst, ammonia storage, a monitoring and control system, electrical system, piping, and other ancillary equipment. The SCR system shall be designed to reduce NO_X emissions while minimizing ammonia slip within the permitted levels. [DEP/TEC Consent Final Judgment; and Permit No. 0570040-015-AC (PSD-FL-301A)]

{Permitting Note: In general, the SCR system is placed in service once the exhaust gas temperature reaches 446°F.}

DRAFT/PROPOSED

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Condition A.7. are based on the specified averaging time of the applicable test method.

A.7. Emissions Standards. The following standards apply to each combined cycle gas turbine (GT). The mass emission limits are based on a compressor inlet temperature of 59°F. The permittee shall maintain on site the manufacturer's performance curves (or equations) that correct for site conditions. Operating data shall be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. Unless otherwise specified, the averaging times are based on the specified averaging time of the applicable test method.

a. *Ammonia Slip*. Subject to the requirements of **Condition A.17** in this section, each SCR system shall be designed and operated for an ammonia slip target of less than 5 parts per million by volume, dry (ppmvd) corrected to 15% oxygen (O_2), based on the average of three test runs. [Permit No. 0570040-015-AC (PSD-FL-301A)]

b. *CO Emissions*. As determined by CEMS, CO emissions shall not exceed 9.0 ppmvd corrected to 15% O_2, based on a 24-hour block average. *{Permitting Note: For informational purposes, the CO limit equates to 33.1 pound (lb)/hour/GT.}* [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

c. *NO_X Emissions*. As determined by CEMS, NO_X emissions shall not exceed 3.5 ppmvd corrected to 15% O_2, based on a 24-hour block average. *{Permitting Note: For informational purposes, the NO_X limit equates to 23.1 lb/hour/GT.}* [DEP/TEC Consent Final Judgment; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

d. *PM/PM_{10} Emissions*. The exclusive firing of pipeline-quality natural gas combined with the efficient combustion design and operation of each gas turbine represent the BACT requirements for PM/PM_{10} emissions. Compliance with CO emissions standards shall serve as continuous indicators of efficient combustion to minimize PM/PM_{10} emissions. No performance tests are required. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-034-AC (PSD-FL-301F)]

e. *Sulfuric Acid Mist (SAM) and Sulfur Dioxide (SO_2) Emissions*. The exclusive firing of pipeline-quality natural gas effectively limits potential emissions of SO_2 and SAM. No performance tests are required. [DEP/TEC Consent Final Judgment; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

f. *VOC Emissions*. The exclusive firing of pipeline-quality natural gas combined with the efficient combustion design and operation of each gas turbine represent the BACT requirements for VOC emissions. Compliance with CO standards shall serve as a continuous indicator of efficient combustion to minimize VOC emissions. No performance tests are required. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

g. *Visible Emissions*. During startup and shutdown of the combined cycle units, visible emissions shall not exceed 10% opacity, based on a 6-minute average as determined by EPA Method 9. Except as allowed by **Condition A.9** of this section, this standard applies to all loads. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-034-AC (PSD-FL-301F)]

DRAFT/PROPOSED

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

A.8. Excess Emissions Prohibited. Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited. All such preventable emissions shall be included in the compliance averages determined from the CO and NO_X CEMS data. [Rule 62-210.700(4), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

A.9. Alternative Standards and CEMS Data Exclusion. As provided by the authority in Rule 62-210.700(5), F.A.C., the above requirements are established in lieu of the provisions of Rule 62-210.700(1), F.A.C. The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, malfunction and other limited-use operations. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such incidents.

a. *Definitions.* The following terms are defined in Rule 62-210.200, F.A.C. "Shutdown" means the cessation of the operation of an emissions unit for any purpose. "Malfunction" means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner. "Startup" means the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.

b. *Alternative Opacity during Startup and Shutdown.* During startup and shutdown, the opacity of the exhaust gases shall not exceed 10%, except for up to ten 6-minute averaging periods in a calendar day during which the opacity shall not exceed 20%. Data for each 6-minute averaging period shall be exclusive from other 6-minute averaging periods.

c. *Low Load Operation.* Except for other authorized periods of low-load operation, each gas turbine may operate below 50% base load providing: the gas turbine is firing natural gas and operating in full dry low-NO_X combustion mode; the CO and NO_X CEMS are functioning properly during such periods and recording valid emissions data within the span range of the monitors; and the gas turbine remains in compliance with the CO and NO_X emissions standards (24-hour block averages).

d. *CEMS Data Exclusion*. For the following specified operational periods, CO and NO_X emissions data may be excluded from the 24-hour block compliance averages in accordance with the corresponding requirements.

(1) *Standard Gas Turbine/HRSG Startups, Shutdowns, and Malfunctions*. For each gas turbine, no more than four 1-hour CEMS emission averages shall be excluded from any 24-hour block compliance average due to standard startups, shutdowns, and malfunctions (total).

(2) *Cold Steam Turbine Startup*. "Cold steam turbine startup" means a startup after the steam turbine has been offline for 24 hours or more, or the first stage turbine metal temperature is 250°F or less. More than one gas turbine may be used to complete a cold steam turbine startup; however, to minimize emissions, no more than one gas turbine per Bayside Unit at a time shall be operated during a cold steam turbine startup. For a given cold steam turbine startup, no more than sixteen 1-hour CEMS emission averages for all participating gas turbines shall be excluded from the 24-hour block compliance averages. For a gas turbine used during a cold steam turbine startup, no more than a total of sixteen 1-hour CEMS emission averages shall be excluded from any 24-hour block compliance average due to any combination of cold steam turbine startups and gas turbine/HRSG startups,

DRAFT/PROPOSED

shutdowns and malfunctions. In the event of a cold steam turbine startup and-gas turbine/HRSG startups, shutdowns and/or malfunctions within the same 24-hour period, a total of sixteen 1-hour CEMS emissions averages may be excluded with no more than four of those sixteen 1-hour CEMS emissions averages being excluded due to gas turbine/HRSG startups, shutdowns, and/or malfunctions (total).

(3) *Warm Steam Turbine Startup*. "Warm steam turbine startup" means a startup after the steam turbine has been offline for less than 24 hours and the first stage turbine metal temperature is 250°F or more. More than one gas turbine may be used to complete a warm steam turbine startup; however, to minimize emissions, no more than one gas turbine per Bayside Unit at a time shall be operated during a warm steam turbine startup. For a given warm steam turbine startup, no more than eight 1-hour CEMS emission averages for all participating gas turbines shall be excluded from the compliance averages. For a gas turbine used during a warm steam turbine startup, no more than eight 1-hour CEMS emission averages shall be excluded from any compliance average in a 24-hour block period due to any combination of warm steam turbine startups and gas turbine/HRSG startups, shutdowns and malfunctions. In the event of a warm steam turbine startup and-gas turbine/HRSG startups, shutdowns and/or malfunctions within the same 24-hour period, a total of eight 1-hour CEMS emissions averages may be excluded with no more than four of those eight 1-hour CEMS emissions averages being excluded due to gas turbine/HRSG startups, shutdowns, and/or malfunctions (total).

(4) *Other Limited-Use Operations*. CEMS data collected during any of the following limited use operational periods may be excluded from the compliance averages.

(a) *DLN Tuning*. "DLN Tuning" means operating the gas turbine at intermittent loads throughout the full load range in order to adjust and tune the DLN combustion system. DLN tuning shall be conducted in accordance with manufacturer's recommendations (or industry standards). *{Permitting Note: For example, a major tuning session would occur after combustor change-out.}*

(b) *Other Tuning*. "Other tuning" shall mean any on-line adjustments necessary following maintenance work to allow the units to operate to manufacturers' recommendations or industry standards or modifying the water-to-fuel ratio to affect a change in the post combustion air emissions. Excess CEMS emissions data collected during tuning may be excluded from the compliance averages.

(c) *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.}*

(d) *Over Speed Trip Test*. As a periodic maintenance practice, the permittee may perform over speed trip tests in accordance with the manufacturer's recommendations (or industry standards). *{Permitting Note: During this test, the gas turbine is operated at full speed, no load for approximately 5 to 6 hours. The unit is gradually accelerated to 110% speed (3960 rpm) to initiate a trip and then coasts down normally. Over speed trip tests are typically performed after a long outage or a major component overhaul.}*

To the extent practicable, the permittee shall minimize the amount and duration of emissions during periods of startup, shutdown, malfunction and other limited-use operations. If a CEMS reports emissions in excess of an emissions standard (24-hour block), the permittee shall notify the Compliance Authority within one working day with a preliminary report of: the nature, extent and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct

DRAFT/PROPOSED

the problem. In addition, the Compliance Authority may request a written summary report of the incident. All emissions data allowed for exclusion shall be summarized in the Semiannual CEMS Report required in **Condition A.19** of this subsection.

(e) *Startup and Shutdown Plan*. The permittee shall maintain on site a "Startup and Shutdown Plan" that describes procedures for startup and shutdown of the Bayside Units.

As provided by the authority in Rule 62-210.700(5), F.A.C., the above requirements are established in lieu of the provisions of Rule 62-210.700(1), F.A.C.

{Permitting Note: The durations for warm and cold steam turbine startups are not typical for combined cycle units. The Bayside Units utilize the existing Gannon steam turbines. Operating procedures require one gas turbine to operate at low loads for extended periods to gradually warm the main and hot reheat steam lines to the steam turbine as well as the steam turbine. Some steam lines are in excess of 1,700 feet. Such startups are expected to occur infrequently.}

[Rules 62-4.130, 62-210.700(5), and 62-212.400 (BACT), F.A.C.; and, Permit Nos. 0570040-015-AC (PSD-FL-301A) and 0570040-032-AC (PSD-FL-301E)]

A.10. Excess Emissions – Notification. 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 full written report on the malfunctions shall be submitted in the semiannual report. [Rule 62-210.700(6), F.A.C.; 40 CFR 60.7(c); and, Permit No. 0570040-032-AC (PSD-FL-301E)]

Monitoring of Operations

A.11. Monitoring of Operations. To demonstrate compliance with the gas turbine capacity requirements, the permittee shall monitor and record the operating rate of each gas turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Such monitoring shall be made using a monitoring component of the CEMS required above, or by monitoring daily rates of consumption and heat content of natural gas in accordance with the provisions of 40 CFR 75 Appendix D. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

A.12. Ammonia Monitoring Requirements. The permittee shall calibrate, maintain and operate, in accordance with the manufacturer's specifications, an ammonia flow meter to measure and record the ammonia injection rate through each SCR system. The permittee shall document the general range of ammonia flow rates required to meet emissions limitations over the range of gas turbine load conditions allowed in this permit by comparing NO_X emissions recorded by the NO_X monitor with ammonia flow rates recorded using the ammonia flow meter. During NO_X monitor downtimes or malfunctions, the permittee shall operate at the ammonia flow rate that is consistent with the documented flow rate for the gas turbine load. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

Continuous Emissions Monitoring Requirements

A.13. Continuous Emissions Monitoring Systems. The permittee shall calibrate, maintain, and operate a CEMS in the exhaust stack of each emissions unit to measure and record emissions of CO and NO_X in a manner sufficient to demonstrate compliance with the CEMS emission standards of this permit. The CO_2 content of the flue gas shall also be monitored at the location where CO and NO_X are monitored to correct the measured emissions rates to 15% O_2. The O_2 content of the flue gas shall be calculated by the CEMS using the CO_2 content of the flue gas and an F-factor that is appropriate for natural gas.

a. *Emission Averages*. Compliance with the 24-hour standards for CO and NO_X emissions shall be based on data collected by the required CEMS. The 24-hour block shall start at midnight of each operating day and consist of 24 consecutive 1-hour blocks. If a unit operates continuously throughout the day, the 24-hour block average shall be the average of 24 consecutive 1-hour emission averages. If a unit operates less

DRAFT/PROPOSED

than 24 hours during the day, the 24-hour block average shall be the average of available valid 1-hour emission averages collected during operation. If monitoring data is authorized for exclusion (due to startup, shutdown, malfunction, or tuning), the 24-hour block average shall be the average of the remaining available valid 1-hour emission averages collected during operation. Upon a request from the Compliance Authority, the NO_X emission rate shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

b. *Data Collection.* The CEMS shall be operated to sample, analyze, and record CO, CO_2, and NO_X data evenly spaced over the hour. Each 1-hour emission average shall be computed using at least one data point in each fifteen minute quadrant of the 1-hour block during which the unit combusted fuel. Notwithstanding this requirement, each 1-hour emission average shall be computed from at least two data points separated by a minimum of 15 minutes. If the unit does not operate in more than one quadrant of a 1-hour block, the data is insufficient to determine a 1-hour emission average and shall be ignored. (Example: Unit begins startup with only ten minutes remaining in the 1-hour block. Data is insufficient to determine a 1-hour average and is ignored.) All valid measurements or data points collected during a 1-hour block shall be used to calculate the 1-hour emission averages. If the CEMS measures concentration on a wet basis, the CEMS shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, a curve of the flue gas moisture content versus load may be developed through manual stack test measurements and used in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). The CO and NO_X CEMS shall express the 1-hour emission averages and the 24-hour block averages in terms of "ppmvd corrected to 15% O_2".

c. *Data Exclusion.* CO, CO_2, and NO_X emissions data shall be recorded by the CEMS at all times including episodes of startup, shutdown, malfunction, and tuning. CO and NO_X emissions data recorded during such episodes may be excluded from the 24-hour block compliance averages in accordance with the requirements of **Condition A.9** of this section. All periods of data excluded due to startup, shutdown or malfunction shall be consecutive for each episode. The permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions, to the extent practicable. Data recorded during startup, shutdown or malfunction shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. Excluded emissions shall be summarized in the required semiannual report.

d. *NO_X and CO_2 Certifications.* The NO_X and CO_2 monitors shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. For purposes of determining compliance with the CEMS emission standards of this permit, missing data shall not be substituted. Instead the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA required for the NO_X monitor shall be performed using EPA Method 7E or 20 as defined in Appendix A of 40 CFR 60. The span for the NO_X monitor shall not be greater than 10 ppmvd corrected to 15% O_2. A dual span monitor may be used. The RATA required for the CO_2 monitor shall be performed using EPA Method 3A, of Appendix A in 40 CFR 60.

e. *CO Certification.* The CO monitor shall meet Performance Specification 4 in Appendix B of 40 CFR 60. Quality assurance procedures for this monitor shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter and reported semi-annually to the Compliance Authority. The RATA required for the CO monitor shall be performed using EPA Method 10, of Appendix A in 40 CFR 60. The Method 10 analysis shall use a continuous sampling

DRAFT/PROPOSED

train. The span for the CO monitor shall not be greater than 25 ppmvd corrected to 15% O_2. A dual span CO monitor may be used.

f. *Monitor Availability*. The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CO CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Compliance Authority with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit. The quarterly reports shall be submitted semiannually in conjunction with the Semiannual CEMS Report in **Condition A.19**.

{Permitting Note: Compliance with these requirements will ensure compliance with the other applicable CEMS requirements such as: NSPS Subpart GG; Rule 62-297.520, F.A.C.; 40 CFR 60.7(a)(5) and 40 CFR 60.13; 40 CFR Part 51, Appendix P; 40 CFR 60, Appendix B - Performance Specifications; and 40 CFR 60, Appendix F - Quality Assurance Procedures.}

[Rules 62-210.700(5) and 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-034-AC (PSD-FL-301F)]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.14. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
5	Determination of Particulate Matter Emissions from Stationary Sources {*Note: The minimum sampling time shall be two hours per run and the minimum sampling volume shall be 60 dscf per run.}*
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources *{Note: The method shall use a continuous sampling train.}*
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography *{Note: EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the measured VOC emissions.}*
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines
25A	Determination of Volatile Organic Concentrations
320	Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Source *{Note: This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.}*

Except for Method 320 and Method CTM-027, the above methods are described in Appendix A of 40 CFR 60, which is adopted by reference in Rule 62-204.800, F.A.C. Method 320 is described in Appendix A of 40 CFR 63, which is adopted by reference in Rule 62-204.800, F.A.C. Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "http://www.epa.gov/ttn/emc/ctm.html". Although no specific tests are required for emissions of particulate matter and VOC, the test methods are included for completeness. No other methods may be used for compliance testing unless prior written approval is received

DRAFT/PROPOSED

from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

A.15. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.16. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each gas turbine shall be tested to demonstrate compliance with the emission standards for ammonia slip. The test results for ammonia slip shall also report the CO and NO_X emissions recorded by the CEMS during each test run. *{Permitting Note: Continuous compliance with the CO and NO_X standards will be demonstrated with certified CEMS data.}* [Rules 62-212.400(BACT) and 62-297.310(7)(a)4, F.A.C.; and, Permit No. 0570040-034-AC (PSD-FL-301F)]

A.17. Additional Ammonia Slip Testing. If the tested ammonia slip rate for a gas turbine exceeds 5 ppmvd corrected to 15% O_2 when firing natural gas during the annual test, the permittee shall:

a. Begin testing and reporting the ammonia slip for each subsequent calendar quarter;
b. Before the ammonia slip exceeds 7 ppmvd corrected to 15% O_2, take corrective actions that result in lowering the ammonia slip to less than 5 ppmvd corrected to 15% O_2; and
c. Test and demonstrate that the ammonia slip is less than 5 ppmvd corrected to 15% O_2 within 15 days after completing the corrective actions.

Corrective actions may include, but are not limited to, adding catalyst, replacing catalyst, or other SCR system maintenance or repair. After demonstrating that the ammonia slip level is less than 5 ppmvd corrected to 15% O_2, testing and reporting shall resume on an annual basis. [Rule 62-297.310(7)(b), F.A.C.; and, Permit No. 0570040-015-AC (PSD-FL-301A)]

Recordkeeping and Reporting Requirements

A.18. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Data Assessment Report for Quality Assurance for the CO Monitor	Done each calendar quarter and reported semi-annually to the Compliance Authority	A.13.e.
Corrective Action Report for Monitor Availability for each CO, CO_2 and NO_X Monitor	If monitor availability is less than 95% in any calendar quarter in which the unit operated for more than 760 hours, provide report to Compliance Authority identifying the problems and a plan of corrective actions.	A.13.f.
Semiannual CEMS Report for each CO and NO_X Monitor	July 30th (for January through June), and January 30th (July through December)	A.19.

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

A.19. Semiannual CEMS Report. In addition to the reports required pursuant to 40 CFR 60.7, the permittee shall submit semiannual reports for each gas turbine summarizing the CEMS data and equipment. For each calendar quarter, the report shall include: the 24-hour block compliance averages for each day of operation; the number of 1-hour emission averages excluded from each 24-hour compliance average; the emissions rate of the excluded monitoring data; the reason for excluding monitoring data; the hours of missing data due to monitor downtime; the reason for any monitor downtime; and a summary of any RATA tests performed. A report covering operations from January through June shall be submitted by July 30th of each year. A report covering operations from July through December shall be submitted by January 30th of each year. The data assessment report required by **Condition A.13(f)** shall be submitted in conjunction with the Semiannual CEMS Report. The report due dates may be modified by the Title V permit. [Rule 62-212.400(BACT), F.A.C.; and, Permit No. 0570040-034-AC (PSD-FL-301F)]

DRAFT/PROPOSED

A.20. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.

NSPS Provisions

A.21. NSPS Subparts A and GG Provisions: The combined cycle gas turbines identified in this subsection are subject to applicable requirements in NSPS Subparts A (General Provisions) and GG (Stationary Gas Turbines) in 40 CFR 60. See Appendix NS and GG, respectively. Some separate reporting and monitoring may be required by the individual subparts. [Rule 62-204.800, F.A.C. and NSPS Subparts A and GG]

DRAFT/PROPOSED

The specific conditions in this subsection apply to the following emissions units.

EU No.	Emission Unit Description	CT No.	Generation
031	Simple Cycle Peaking Unit No. 3	CT-3A	62 MW
032		CT-3B	
033	Simple Cycle Peaking Unit No. 4	CT-4A	62 MW
034		CT-4B	
035	Simple Cycle Peaking Unit No. 5	CT-5A	62 MW
036		CT-5B	
037	Simple Cycle Peaking Unit No. 6	CT-6A	62 MW
038		CT-6B	
Totals	4 - Simple Cycle Peaking Units	6-CTs	248 MW

Bayside Simple Cycle Units 1 – 4 (EU 031 – EU 038) consist of four Pratt and Whitney Model No. FT8-3 Swiftpac® aero-derivative simple cycle combustion turbine (SCCT) peaking units. Each Swiftpac® system includes two combustion turbines (CT) coupled with a single 62 MW electrical generator set. Each CT is considered an emissions unit and will fire only natural gas.

NO_X emissions are controlled with water injection; and, CO and VOC emissions are controlled with an oxidation catalyst system. Each CT has a separate stack that is approximately 9.5 feet in diameter and 60 feet tall. Exhaust gas exits each stack at a temperature of 893°F with a volumetric flow rate of 430,737 acfm. Each stack includes a CEMS for monitoring CO and NO_X emissions.

{Permitting Notes: These emissions units are regulated under: NSPS Subpart KKKK for Stationary Combustion Turbines in 40 CFR 60 adopted and incorporated by reference in Rule 62-204.800, F.A.C.; Chapter 62-214, F.A.C., the Phase II Acid Rain Program as specified in Section IV of this permit; and Rule 62-296.470, F.A.C., the CAIR as specified in Section V of this permit.}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum heat input rate to each SCCT is 342.7 MMBtu/hour when firing pipeline-quality natural gas based on 100% load, an ambient temperature of 59°F, evaporative cooling to a 52°F compressor inlet air temperature and the HHV of the fuel. Heat input rates will vary depending upon CT characteristics, ambient conditions and evaporative cooling. The permittee shall maintain on site manufacturer's performance curves (or equations) that correct for site conditions. If these performance curves are updated, the permittee shall submit updated information to the Department. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 0570040-026-AC]

B.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

B.3. Method of Operation – Fuels. Each SCCT shall fire only pipeline-quality natural gas, which shall contain no more than 2 grains of sulfur per 100 scf of natural gas. [Rules 62-210.200(PTE) and 62-212.400(PSD), F.A.C.]

B.4. Simple Cycle Mode. Each SCCT shall operate only in simple cycle mode subject to the operational restrictions specified in this subsection. This requirement is based on the permittee's initial request, which formed the basis of the PSD applicability and emission standards specified in this permit. For any request to convert these units to combined cycle operation by installing or connecting to HSRG, including changes to the fuel or quantity related to combined cycle conversion that may cause an increase in short or long-term emissions, the permittee shall submit a full application for a PSD air construction permit modification

DRAFT/PROPOSED

complete with a proposed BACT determination as if the SCCT had never been built.
[Rules 62-210.200(BACT and PTE), 62-212.400(12)(Source Obligation) and 62-212.400(PSD), F.A.C.]

B.5. Hours of Operation. Each SCCT is limited to a maximum of 3,500 hours per year of operation.
[Rules 62-210.200(PTE) and 62-212.400(12)(Source Obligation), F.A.C.; and, Permit No. 0570040-026-AC]

Control Technology

B.6. Water Injection System. The permittee shall operate and maintain a water injection system to reduce NO_X emissions from each SCCT. The water injection system shall be maintained and tuned in accordance with the manufacturer's recommendations or determined best practices to achieve the permitted NO_X emissions standards. [Permit No. 0570040-026-AC]

B.7. Oxidation Catalyst System. The permittee shall operate and maintain an oxidation catalyst system to reduce CO and VOC emissions from the SCCT. The oxidation catalyst system shall be maintained and operated in accordance with the manufacturer's recommendations or determined best practices.
[Permit No. 0570040-026-AC]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

These are the Maximum Allowable Emission Limits from each SCCT that shall not be exceeded. The mass-based emission standards are based on a turbine compressor inlet temperature of 59°F, evaporative cooling on, and the HHV of natural gas. Mass-based emission standards may be adjusted to actual test conditions in accordance with the performance curves and/or equations on file with the Department.

B.8. NOx Emissions.

a. As determined by CEMS, emissions of NO_X shall not exceed 25 ppmvd at 15% O_2, based upon a 4-hour rolling average. *{Permitting Note: For informational purposes, the NO_X limit equates to 32 lb/hour/CT.}*
b. As determined by CEMS, emissions of NO_X shall not exceed 96 ppmvd at 15% O_2 when operating at less than 75% of peak load, based upon a 4-hour rolling average.
c. As determined by stack (RATA) test, emissions of NO_X shall not exceed 32 lb/hour and 56 tons/year, based on three 1-hour runs.

[Rule 62-204.800, F.A.C.; NSPS 40 CFR 60, Subpart KKKK; and, Permit No. 0570040-034-AC]

B.9. CO Emissions.

a. As determined by CEMS, emissions of CO shall not exceed 21 ppmvd at 15% O_2, based upon a 3-hour rolling average. *{Permitting Note: For informational purposes, the CO limit equates to 9.1 lb/hour/CT.}*
b. As determined by stack (RATA) test, emissions of CO shall not exceed 9.1 lb/hour and 8.2 tons/year, based on three 1-hour runs.

{Permitting Note: CO will be used as a surrogate for VOC emissions as a demonstration of good combustion.} [Permit No. 0570040-034-AC]

B.10. PM Emissions. As determined by fuel specifications, emissions of PM, which are a surrogate for PM_{10} emissions, shall be minimized by the use of natural gas as the primary fuel with a maximum sulfur content of 2 grain S/100 scf. Compliance with the fuel specifications and CO standards shall serve as indicators of good combustion. Compliance with the fuel specification shall be demonstrated by keeping records of the fuel sulfur content. *{Permitting Note: For informational purposes, the emission of PM/PM_{10} equates to 2.5 lb/hour/CT.}* [Permit No. 0570040-034-AC]

B.11. SO_2 Emissions. As determined by fuel specifications, emissions of SO_2 shall be minimized by the use of natural gas as the primary fuel with a maximum sulfur content of 2 grains S/100 scf and 0.06 lb/MMBtu, annual average determined by pipeline vendor data. *{Permitting Note: Based on the fuel sulfur specification, potential SO_2 emissions are 1.9 lb/hour (0.03 lb/MW- hour), which is equivalent to 0.0055 lb/MMBtu and is*

DRAFT/PROPOSED

less than the Subpart KKKK standard of 0.06 lb/MMBtu.} [Rule 62-204.800, F.A.C.; NSPS 40 CFR 60, Subpart KKKK; and, Permit No. 0570040-034-AC]

B.12. SAM Emissions. As determined by fuel specifications, emissions of SAM shall be minimized by the use of natural gas as the primary fuel with a maximum sulfur content of 2 grains S/100 scf. *{Permitting Note: For informational purposes, the emission of SAM equates to 0.15 lb/hour/CT.}* [Permit No. 0570040-034-AC]

B.13. VOC Emissions. As determined by good combustion, emission of VOC shall be shall not exceed 5.1 lb/hour. CO is a surrogate for VOC emissions. [Permit No. 0570040-034-AC]

{Permitting Note: In combination with the annual restriction on hours of operation, the above emissions standards effectively limit annual potential emissions from the simple cycle combustion turbine.}

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

B.14. Excess Emissions Prohibited - SIP. Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rules 62-210.700(4), F.A.C.]

B.15. Excess CO Emissions Allowed - SIP. If excess CO emissions occur due to startup, shutdown, malfunction, tuning or black start testing, CEMS data collected during such periods may be excluded from the compliance averages in accordance with the following requirements provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized. All periods of excluded data shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown, malfunction and tuning) may be excluded in accordance with the procedures described in the CEMS Data Requirements of Appendix CEMS of this permit.

a. *Startup*. No more than the first 15 minutes of CEMS data indicating an exceedance of emission limits collected during startup shall be excluded for each SCCT. For startups of less than 15 minutes in duration, only those minutes of exceedance attributable to startup shall be excluded. The total duration of a startup event is not limited.

b. *Shutdown*. No more than the first 15 minutes of CEMS data indicating an exceedance of emission limits collected during shutdown shall be excluded for each SCCT. For shutdowns less than 15 minutes in duration, only those minutes of exceedance attributable to shutdown shall be excluded. The total duration of a shutdown event is not limited.

c. *Malfunction*. No more than 120 minutes of CEMS data in a 24-hour period shall be excluded due to malfunctions of each gas turbine or control system. Within one working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data.

d. *Tuning*. "Tuning" means any on-line adjustments necessary following maintenance work, adjusting the combustors in accordance with the manufacturer's recommendations (or industry standards) or modifying the water-to-fuel ratio to affect a change in the post-combustion air emissions. Such tuning sessions are infrequent. Excess CEMS emissions data collected during tuning may be excluded from the compliance averages.

e. *Simulated Facility Black Start Testing and Facility Black Start Events*. Up to 8 hours of CEMS data indicating an exceedance of emissions limits may be excluded from the compliance demonstration periods for the gas turbines when operating less than full load for extended periods in relation to simulated or actual facility black start conditions.

DRAFT/PROPOSED

As provided by the authority in Rule 62-210.700(5), F.A.C., the above conditions replace the provisions in Rule 62-210.700(1), F.A.C. All valid emissions data (including data collected during startup, shutdown, malfunction, tuning, and black start testing) shall be used to report annual emissions for the Annual Operating Report. The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown and malfunction) shall be used to report annual emissions for the Annual Operating Report. [Rules 62-210.200, 62-210.370(3) and 62-210.700(4), F.A.C.; and, Permit 0570040-032-AC]

B.16. Excess Emissions – NSPS. Excess NO_X emissions shall be regulated in accordance with 40 CFR 60.4350 and 60.4380. See Appendix NSPS Subpart KKKK (Requirements for Stationary Combustion Turbines) of this permit. [Rule 62-204.800, F.A.C.; and, NSPS Subpart KKKK in 40 CFR 60]

B.17. Notification Requirements. The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a standard subject to the specified averaging period and authorized data exclusion. The notice may be by telephone, facsimile transmittal or electronic mail.
[Permit No. 0570040-024-AC]

Monitoring of Operations

B.18. Monitoring of Capacity. The permittee shall monitor and record the heat input rate of each SCCT on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Such monitoring shall be made by monitoring daily rates of fuel consumption and heating value of natural gas in accordance with the provisions of 40 CFR 75, Appendix D.
[Permit No. 0570040-024-AC]

Continuous Monitoring Requirements

B.19. CEMS for Continuous Compliance. In accordance with the requirements in Appendix CEMS (Standard Continuous Monitoring Requirements) of this permit, the permittee shall calibrate, operate and maintain a CEMS to measure and record the emissions of CO and NO_X from each SCCT in terms of the applicable standards. The permittee shall demonstrate continuous compliance with the 3-hour rolling average CO emissions standards and with the 4-hour rolling average NO_X emission standards based on data collected from each certified CEMS. Results of each RATA shall be submitted with the semiannual report. Compliance with the CO emission standards also serves as an indicator of efficient fuel combustion, which also reduces emissions of PM. [Rule 62-204.800, F.A.C.; NSPS Subpart KKKK in 40 CFR 60; and, Permit No. 0570040-032-AC]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.20. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Methods for Determining Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content: These methods shall be performed as necessary to support other methods.
7E	Determination of NO_X Emissions from Stationary Sources (Instrumental)
10	Determination of Carbon Monoxide Emissions from Stationary Sources
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography {*Note: EPA Method 18 may be used (optional) concurrently with EPA Method 25A to deduct emissions*

DRAFT/PROPOSED

Method	Description of Method and Comments
	of methane and ethane from the measured VOC emissions.}
20	Determination of NO_X, SO_2, and Diluent Emissions from Stationary Combustion Turbines
25A	Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer

The methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the administrator of the Department's Emissions Monitoring Section in accordance with an alternate sampling procedure pursuant to Rule 62-297.620, F.A.C. [Rule 62-204.800, F.A.C.; and, 40 CFR 60, Appendix A]

B.21. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.22. Annual Compliance Requirements. During each federal fiscal year (October 1 – September 30), data collected from the required CEMS quality assurance RATA shall be used to demonstrate compliance with the mass-based emissions standards (lb/hour) for NO_X and CO. Unless specifically requested by the Compliance Authority pursuant to Rule 62-297.310(7)(b), F.A.C., periodic opacity tests are not required when firing natural gas.
[Rule 62-297.310(7), F.A.C.; and Permit No. 0570040-034-AC]

B.23. Testing Requirements. Compliance tests shall be conducted between 90% and 100% of permitted capacity in accordance with the requirements of Rule 62-297.310(2), F.A.C. The mass emission rate standards are based on a turbine compressor inlet temperature 59°F and 100% load. Mass emission rates may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department. [Rules 62.204.800, and 62-297.310, F.A.C.; 40 CFR 60.8; and, Permit No. 0570040-034-AC]

B.24. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

Reporting and Recordkeeping Requirements

B.25. Combustion Turbine Replacements. The CT may be replaced with a temporary equivalent "like-kind" overhauled or new CT while the existing CT is undergoing routine maintenance. The replacement CT shall not increase the CT maximum heat input rate or actual emissions. The replacement CT shall be designed and constructed to achieve the emissions standards specified in this permit. The replacement CT shall be deemed in compliance with all emissions standards by demonstrating compliance with the NO_X and CO emission standards using data from the CO and NO_X CEMS. The permittee shall meet the following requirements:

a. *Report.* The temporary CT shall only be used for a maximum of 3-months. The permittee shall notify the Department within one day prior to replacing the CT with a temporary CT and when the original CT is back in operation. The permittee shall notify the Department if additional time is needed for the replacement CT.

b. *Recordkeeping.* The permittee shall maintain a log on-site to record the date of any CT replacement, the manufacturer, model number, and serial number of the CT that is replaced during the term of this permit, and the manufacturer, model number, serial number, and the installation and removal date of the replacement CT. All records related to any testing shall be maintained on-site for five years and made available to the Department upon request.

DRAFT/PROPOSED

c. *Compliance Requirements*. The permittee shall comply with the requirements for notification, test methods, test procedures, and reporting required by this permit.
d. *PSD Applicability*. If it is determined that the CTs actual emissions, heat input or capacity increased as a result of the maintenance performed, the applicant shall submit an application for an air construction permit within 30 days to evaluate PSD applicability resulting from the modification.

[Permit No. 0570040-034-AC]

B.26. Fuel Sulfur Monitoring. The permittee shall obtain the representative fuel sulfur concentration in the pipeline-quality natural gas as determined by the pipeline vendor specifying that that the maximum total sulfur content for natural gas is 2 grains of sulfur/100 scf or less. Compliance with the fuel specification shall be demonstrated by keeping records of the fuel sulfur content. [NSPS 40 CFR 60.4365, Subpart KKKK]

B.27. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Conditions
CEM Continuous Compliance	Done each calendar quarter and reported semi-annually to the Compliance Authority	B.19.
Semiannual SIP Excess Emissions Report for CO CEMS for Each Unit	July 30th (for January through June), and January 30th (July through December)	B.33.b.
Semiannual NSPS Excess Emissions Report for NO_X CEMS for Each Unit	July 30th (for January through June), and January 30th (July through December)	B.33.c.
Corrective Action Report for Monitor Availability for each CO, CO_2 and NO_X Monitor	If monitor availability is less than 95% in any calendar quarter in which the unit operated for more than 760 hours, provide report to Compliance Authority identifying the problems and a plan of corrective actions.	Appendix CEMS Condition 14.

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

B.28. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

B.29. Monthly Operations Summary. By the 15th calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for each CT for the previous month of operation: fuel consumption, hours of operation and the updated calendar year totals for each. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. [Permit No. 0570040-024-AC]

B.30. Fuel Sulfur Records. Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. A representative sample shall be collected using ASTM D5287. Methods for determining the sulfur content of the natural gas shall be ASTM Method D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gaseous Processors Association Standard 2377, or more recent versions. Any method deemed satisfactory for purposes of NSPS Subpart KKKK may be used to demonstrate compliance with the fuel sulfur limit for natural gas. [Rules 62-4.160(15) and 62-204.800, F.A.C.; 40 CFR 60.4415]

B.31. Emissions Performance Test Reports. A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-

DRAFT/PROPOSED

297.310(8)(c), F.A.C., and in Appendix TR, Facility-Wide Testing Requirements. [Rule 62-297.310(8), F.A.C.; and, Permit No. 0570040-024-AC]

B.32. Excess Emissions Reporting.

a. *Malfunction Notification.* If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

b. *SIP Semiannual Report*. Within 30 days following the end of each calendar semiannual period, the permittee shall submit a report to the Compliance Authority summarizing periods of CO emissions in excess of the permit standards following the NSPS format in 40 CFR 60.7(c), Subpart A. A summary of data excluded from SIP compliance calculations should also be provided. In addition, the report shall summarize the CO CEMS system monitors availability for the previous semiannual period. Results of each RATA shall be submitted with the semiannual report.

c. *NSPS Semiannual Report*. Within 30 days following the calendar semiannual period, the permittee shall submit the written reports required by 40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines) for the semiannual period to the Compliance Authority. Excess NO_X emissions must be reported for all periods of unit operation, including startup, shutdown and malfunction. Results of each RATA shall be submitted with the semiannual report. {Permitting Note: NSPS monitoring of fuel sulfur for SO_2 emissions is exempt pursuant to 40 CFR 60.4365 because the units fire gas from a pipeline with a valid purchase contract, tariff sheet or transportation contract for the fuel specifying the maximum total sulfur content as 20 grains of sulfur or less per 100 scf of gas and has potential sulfur emissions of less than less than 0.060 lb SO_2/MMBtu of heat input.}

{Permitting Note: If there are no periods of excess emissions as defined in Subpart KKKK of 40 CFR 60, a statement to that effect may be submitted with the SIP Semiannual Report to suffice for the NSPS Semiannual Report.}

[Rules 62-4.130, 62-204.800 and 62-210.700(6), F.A.C.; and, 40 CFR 60.7 and 60.4375]

NSPS Provisions

B.33. NSPS Requirements: Each simple cycle combustion turbine shall comply with the applicable requirements in NSPS Subparts A (General Provisions) and KKKK (Standards of Performance for Stationary Combustion Turbines for which construction is commenced after February 18, 2005) in 40 CFR 60. See Appendix F for the NSPS Subpart A provisions and Appendix NS and KKKK, respectively. Some separate reporting and monitoring may be required by the individual subparts. [Rule 62-204.800(7)(b), F.A.C. and Subparts A and KKKK in 40 CFR 60]

DRAFT/PROPOSED

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

EU No.	Brief Description
039	Emergency Diesel Generator (385 bhp)

This emissions unit is a stationary compressions ignition (CI) reciprocating internal combustion engine (RICE) that has a maximum engine rating of 385 bhp at 100% load. The electrical generator has a nominal power rating of 287 kilowatt (kW).

The following table provides important details for the engine collectively regulated as EU 039:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder	Engine Manufacturer	Model No.
Emergency Diesel Engine (replacement)	385 (287 kW)	08/2012	2012	1.5	John Deere	6090HF484

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary CI RICE, adopted in Rules 62.204.800(11)(b) and (8)(b), F.A.C., respectively. This RICE is not used for fire pumps. This permit section addresses "new" stationary CI RICE less than 500 bhp, with a displacement less than 10 liters/cylinder, that is located at an area source of HAP and that has been manufactured after 4/1/2006 and has a 2007 model year or later. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ of 40 CFR 63.}

Essential Potential to Emit (PTE) Parameters

C.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

a. *Sulfur Content*. The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra low sulfur) for non-road fuel.
b. *Cetane and Aromatic*. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
c. *Marking Provisions.* The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
d. *Use of Existing Fuel.* Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4207(b), 80.510(b), 80.510(f)(2) and 80.510(f)(7)]

C.2. Restricted Hours of Operation.

a. *Maintenance and Testing.* These engines are authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year.
b. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations.
c. *Non-emergency Situations*. These engines may operate up to 50 hours/year in non-emergency situations, but those 50 hours are counted towards the 100 hours/year provided for maintenance and testing.
d. *Other Situations*. These engines cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(f)]

DRAFT/PROPOSED

C.3. Operation and Maintenance. The owner or operator must operate and maintain the stationary CI RICE according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in **Conditions C.4. - C.6.** over the entire life of the engine.
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4206, 4211(a)(1), (2) and (3)]

Emissions Standards

C.4. NOx + NMHC Emissions. Emissions of NO_X plus non-methane hydrocarbons (NMHC) shall not exceed 4.0 grams per kilowatt-hour (g/kW-hr) (2.98 grams per horsepower-hour (g/HP-hr)).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(b) and 89.112 (Table 1)]

C.5. CO Emissions. CO emissions shall not exceed 3.5 g/kW-hr (2.6 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(b) and 89.112 (Table 1)]

C.6. PM Emissions. PM emissions shall not exceed 0.2 g/kW-hr (0.15 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(b) and 89.112 (Table 1)]

Testing and Compliance Requirements

C.7. Engine Certification Requirements. The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Condition C.8.** [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(b)]

C.8. Compliance Requirements Due to Loss of Certification. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(g)(3)]

C.9. Testing Requirements. In the event performance tests are required pursuant to **Condition C.8.**, the following requirements shall be met:

a. *Testing Procedures*. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. Link to Subpart F

b. *NTE Standards*. Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Conditions C.4. - C.6.**, determined from the following equation:

NTE Requirement for Each Pollutant = (1.25) x (STD) (Eq. 1)

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4212(a) and (c)]

C.10. Common Testing Requirements. Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

DRAFT/PROPOSED

Monitoring Requirements

C.11. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4209(a)]

Records and Reports

C.12. Hours of Operation Records. The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4214(b)]

C.13. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Condition C.8.**, the owner or operator must keep the following records:

a. Engine manufacturer documentation and certification indicating compliance with the standards.
b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

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

C.14. Testing Notification. At such time that the requirements of **Condition C.8.** become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]

C.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

DRAFT/PROPOSED

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

EU No.	Emission Unit Description
040	Black-Start Diesel Generator (1,495 bhp)
041	Emergency Diesel Generator (755 bhp)

These emissions units are stationary CI RICE that has a maximum engine rating of 1,495 bhp (1,114.7 kW) and 755 bhp (562.9 kW), respectively, at 100% load. The black-start diesel engine is used to start the combustion turbines into operation after a power outage.

The following table provides important details for the engines collectively regulated as EU 040 and EU 041:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder	Engine Manufacturer	Model No.
Black Start Diesel Engine	1,495 (1,114.7 kW)	04/2009	2007	7.96	Detroit Diesel/MTU	16V2000 G84 R163-8A36
Emergency Diesel Backup Engine	755 (562.9 kW)	09/2008	2007	2.5	Cummins	QSX15-G9

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary CI RICE, adopted in Rules 62.204.800(11)(b) and (8)(b), F.A.C., respectively. These RICE are not used for fire pumps. This permit section addresses "new" stationary CI RICE greater than 500 HP, with a displacement less than 10 liters per cylinder, that is located at an area source of HAP and that has been manufactured after 4/1/2006 and has a 2007 model year or later. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ of 40 CFR 63.}

Essential Potential to Emit (PTE) Parameters

D.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

a. *Sulfur Content*. The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra low sulfur) for non-road fuel.
b. *Cetane and Aromatic*. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
c. *Marking Provisions.* The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
d. *Use of Existing Fuel.* Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4207(b), 80.510(b), 80.510(f)(2) and 80.510(f)(7)]

D.2. Restricted Hours of Operation.

a. *Maintenance and Testing.* These engines are authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year.
b. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations.
c. *Non-emergency Situations*. These engines may operate up to 50 hours/year in non-emergency situations, but those 50 hours are counted towards the 100 hours/year provided for maintenance and testing.

DRAFT/PROPOSED

d. *Other Situations*. These engines cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(f)]

D.3. Operation and Maintenance. The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in **Conditions D.4. - D.6.** over the entire life of the engine.
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4206, 4211(a)(1), (2) and (3)]

Emissions Standards

D.4. NO_X + NMHC Emissions. Emissions of NO_X plus NMHC shall not exceed 6.4 g/kW-hr (4.8 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(b) and 89.112 (Table 1)]

D.5. CO Emissions. CO emissions shall not exceed 3.5 g/kW-hr (2.6 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(b) and 89.112 (Table 1)]

D.6. PM Emissions. PM emissions shall not exceed 0.2 g/kW-hr (0.15 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(b) and 89.112 (Table 1)]

Testing and Compliance Requirements

D.7. Engine Certification Requirements. The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Condition D.8.** [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(b)]

D.8. Compliance Requirements Due to Loss of Certification. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(g)(3)]

D.9. Testing Requirements. In the event performance tests are required pursuant to **Condition D.8.**, the following requirements shall be met:

a. *Testing Procedures*. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. Link to Subpart F

c. *NTE Standards*. Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Conditions D.4. - D.6.**, determined from the following equation:

NTE Requirement for Each Pollutant = (1.25) x (STD) (Eq. 1)

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4212(a) and (c)]

DRAFT/PROPOSED

D.10. Common Testing Requirements. Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

D.11. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4209(a)]

Records and Reports

D.12. Hours of Operation Records. The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4214(b)]

D.13. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Condition D.8.**, the owner or operator must keep the following records:

a. Engine manufacturer documentation and certification indicating compliance with the standards.
b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

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

D.14. Testing Notification. At such time that the requirements of **Condition D.8.** become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]

D.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

DRAFT/PROPOSED

Subsection E. Emissions Unit 042

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

EU No.	Emission Unit Description
042	Emergency Diesel Fire Pump (188 bhp)

This emissions unit is a stationary CI RICE fire pump that has a maximum engine rating of 188 bhp at 100% load. The electrical generator has a nominal power rating of 140.2 kW.

The following table provides important details for the engines collectively regulated as EU 042:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder	Engine Manufacturer	Model No.
Emergency Diesel Fire Pump Engine	188 (140.2 kW)	02/2007	2006	1.0	Cummins	CFP59-F50

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary CI RICE, adopted in Rules 62.204.800(11)(b) and (8)(b), F.A.C., respectively. This permit section addresses "new" emergency stationary CI RICE fire pump engine less than 500 bhp, with a displacement less than 10 liters/cylinder, that is located at an area source of HAP and that has been manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ of 40 CFR 63.}

Essential Potential to Emit (PTE) Parameters

E.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

a. *Sulfur Content*. The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra low sulfur) for non-road fuel.

b. *Cetane and Aromatic*. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

c. *Marking Provisions.* The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.

d. *Use of Existing Fuel*. Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4207(b), 80.510(b), 80.510(f)(2) and 80.510(f)(7)]

E.2. Restricted Hours of Operation.

a. *Maintenance and Testing.* These engines are authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year.

b. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations.

c. *Non-emergency Situations*. These engines may operate up to 50 hours/year in non-emergency situations, but those 50 hours are counted towards the 100 hours/year provided for maintenance and testing.

d. *Other Situations*. These engines cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(f)]

E.3. Operation and Maintenance. The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the

DRAFT/PROPOSED

owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in **Conditions E.4. - E.6.** over the entire life of the engine.
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4206, 4211(a)(1), (2) and (3)]

Emissions Standards

E.4. NO_X + NMHC Emissions. Emissions of NO_X plus NMHC shall not exceed 10.5 g/kW-hr (7.8 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(c) and Table 4]

E.5. CO Emissions. CO emissions shall not exceed 3.5 g/kW-hr (2.6 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(c) and Table 4]

E.6. PM Emissions. PM emissions shall not exceed 0.54 g/kW-hr (0.4 g/HP-hr).
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4205(c) and Table 4]

Testing and Compliance Requirements

E.7. Engine Certification Requirements. The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Condition E.8.** [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(b)]

E.8. Compliance Requirements Due to Loss of Certification. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.
[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4211(g)(3)]

E.9. Testing Requirements. In the event performance tests are required pursuant to **Condition E.8.**, the following requirements shall be met:

a. *Testing Procedures*. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. Link to Subpart F
b. *NTE Standards*. Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Conditions E.4. - E.6.**, determined from the following equation:

NTE Requirement for Each Pollutant = (1.25) x (STD) (Eq. 1)

[Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4212(a) and (d)]

E.10. Common Testing Requirements. Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

E.11. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4209(a)]

DRAFT/PROPOSED

Records and Reports

E.12. Hours of Operation Records. The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [Rule 62-204.800(8)(b)80, F.A.C.; and, 40 CFR 60.4214(b)]

E.13. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Condition E.8.**, the owner or operator must keep the following records:

a. Engine manufacturer documentation and certification indicating compliance with the standards.
b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

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

E.14. Testing Notification. At such time that the requirements of **Condition E.8.** become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]

E.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

DRAFT/PROPOSED

Operated by: Tampa Electric Company
ORIS Code: 7873

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

EU No.	EPA Unit ID No.	Brief Description
020	CT-1A	Combined Cycle Gas Turbine CT-1A
021	CT-1B	Combined Cycle Gas Turbine CT-1B
022	CT-1C	Combined Cycle Gas Turbine CT-1C
023	CT-2A	Combined Cycle Gas Turbine CT-2A
024	CT-2B	Combined Cycle Gas Turbine CT-2B
025	CT-2C	Combined Cycle Gas Turbine CT-2C
026	CT-2D	Combined Cycle Gas Turbine CT-2D
031	CT-3A (#031)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 3A
032	CT-3B (#032)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 3B
033	CT-4A (#033)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 4A
034	CT-4B (#034)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 4B
035	CT-5A (#035)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 5A
036	CT-5B (#036)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 5B
037	CT-6A (#037)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 6A
038	CT-6B (#038)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 6B

{Permitting Note: In accordance with the Consent Final Judgment (DEP vs. TECO) dated December 6, 1999, coal-fired Emissions Units 001 through 006 are permanently shut down. As required by these agreements, Emission Units 001 through 006 are permanently shutdown, dismantled and removed from the site. Previously, the permittee submitted the appropriate Retired Emissions Units Acid Rain forms. No fuel other than natural gas has been burned at Bayside Power Station after January 1, 2005.}

A.1. The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application (DEP Form No. 62-210.900(1)(a)) dated 1/13/2014, received 2/5/2014. [Chapter 62-213, F.A.C.; and, Rule 62-214.320, F.A.C.]

A.2. <u>SO_2 Emission Allowances</u>. SO_2 emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
c. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c)1., 2. and 3., F.A.C.]

DRAFT/PROPOSED

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	State	ORIS/Plant Code
Bayside Power Station	**Florida**	**7873**

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
CT1A	No	Yes	N/A	N/A
CT1B	No	Yes	N/A	N/A
CT1C	No	Yes	N/A	N/A
CT2A	No	Yes	N/A	N/A
CT2B	No	Yes	N/A	N/A
CT2C	No	Yes	N/A	N/A
CT2D	No	Yes	N/A	N/A
CT3A (#031)	No	Yes	N/A	N/A
CT3B (#032)	No	Yes	N/A	N/A
CT4A (#033)	No	Yes	N/A	N/A
CT4B (#034)	No	Yes	N/A	N/A
CT5A (#035)	No	Yes	N/A	N/A
CT5B (#036)	No	Yes	N/A	N/A
CT6A (#037)	No	Yes	N/A	N/A
CT6B (#038)	No	Yes	N/A	N/A

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

1

Bayside Power Station
Name (from STEP 1)

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 Acid Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid 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;

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

2

and,

STEP 3, Continued.

Bayside Power Station
Plant Name (from STEP 1)

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.

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

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

3

In column "h" enter the hours.

Bayside Power Station
Plant Name (from STEP 1)

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

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 1/13/14

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.

Byron T. Burrows Name	**Manager – Air Programs, EHS** Title

Tampa Electric Company
Owner Company Name

(813) 228-4740 Phone	**btburrows@tecoenergy.com** E-mail address
Signature	Date

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

4

Clean Air Interstate Rule (CAIR).

Operated by: Tampa Electric Company
Plant: H. L. Culbreath Bayside Power Station
ORIS Code: 7873

The emissions units below ARE regulated under the Clean Air Interstate Rule.

EU No.	EPA Unit ID No.	Brief Description
020	CT-1A	Combined Cycle Gas Turbine CT-1A
021	CT-1B	Combined Cycle Gas Turbine CT-1B
022	CT-1C	Combined Cycle Gas Turbine CT-1C
023	CT-2A	Combined Cycle Gas Turbine CT-2A
024	CT-2B	Combined Cycle Gas Turbine CT-2B
025	CT-2C	Combined Cycle Gas Turbine CT-2C
026	CT-2D	Combined Cycle Gas Turbine CT-2D
031	CT-3A (#031)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 3A
032	CT-3B (#032)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 3B
033	CT-4A (#033)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 4A
034	CT-4B (#034)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 4B
035	CT-5A (#035)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 5A
036	CT-5B (#036)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 5B
037	CT-6A (#037)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 6A
038	CT-6B (#038)	Aero-derivative Simple Cycle Combustion Turbine Peaking Unit 6B

A.1. Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b)) dated 1/13/2014, which is attached at the end of this section. [Chapter 62-213, F.A.C.; and, Rule 62-210.200, F.A.C.]

DRAFT/PROPOSED

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: **Bayside Power Station**	State: **Florida**	ORIS or EIA Plant Code: **7873**

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
CT1A	X	X	X	N/A	N/A
CT1B	X	X	X	N/A	N/A
CT1C	X	X	X	N/A	N/A
CT2A	X	X	X	N/A	N/A
CT2B	X	X	X	N/A	N/A
CT2C	X	X	X	N/A	N/A
CT2D	X	X	X	N/A	N/A
CT3A (#031)	X	X	X	N/A	N/A
CT3B (#032)	X	X	X	N/A	N/A
CT4A (#033)	X	X	X	N/A	N/A
CT4B (#034)	X	X	X	N/A	N/A
CT5A (#035)	X	X	X	N/A	N/A
CT5B (#036)	X	X	X	N/A	N/A
CT6A (#037)	X	X	X	N/A	N/A
CT6B (#038)	X	X	X	N/A	N/A

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

1

Bayside Power Station
Plant Name (from STEP 1)

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.

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

2

Bayside Power Station
Plant Name (from STEP 1)

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.

Bayside Power Station
Plant Name (from STEP 1)

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, 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.

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

4

Bayside Power Station
Plant Name (from STEP 1)

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 CAR 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 operates 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.

Byron T. Burrows Name	**Manager – Air Programs, EHS** Title
Tampa Electric Company Owner Company Name	
(813) 228-4740 Phone	**btburrows@tecoenergy.com** E-mail address
Signature	Date 1/13/14

DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

5

SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix CEMS, Continuous Monitoring Requirements.
Appendix CFJ, Consent Final Judgment (DEP vs. TECO).
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NSPS Subpart A, General Provisions.
Appendix NSPS Subpart GG, Standards of Performance for Stationary Gas Turbines.
Appendix NSPS Subpart KKKK, Standards of Performance for Stationary Combustion Turbines.
Appendix RICE, Reciprocating Internal Combustion Engines.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.

DRAFT/PROPOSED