

# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Mark W. Levine  
Secretary

## NOTICE OF FINAL PERMIT

*Electronically Sent -- Received Receipt Requested.*

In the Matter of an  
Application for Permit by:

Ms. Karen Sheffield  
General Manager  
Tampa Electric Company  
Post Office Box 111  
Tampa, Florida 33601-0111

**Big Bend Station**  
**Air Permit No. 0570039-027-AC**

Enclosed is Final Air Construction Permit No. 0570039-027-AC. The air construction permit authorizes the increase of carbon monoxide emissions pursuant to a determination of best available control technology, and requires the installation of a continuous emissions monitoring system following recently completed installation and operation of required nitrogen oxides control systems on the Unit No. 4 steam generator.

An electronic version of this document has been posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (U.S. EPA) Region 4 office's review. The web site address is:

<http://www.dep.state.fl.us/air/eproducts/ards/default.asp>

This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief  
Bureau of Air Regulation



# Florida Department of Environmental Protection

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Michael W. Sole  
Secretary

## PERMITTEE:

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

### *Authorized Representative:*

Ms. Karen Sheffield, General Manager  
Big Bend Station

DEP File No. 0570039-027-AC  
Final Permit No. PSD-FL-390  
Carbon Monoxide (CO) Emission Limit  
Big Bend Station Unit No. 4  
Hillsborough County  
Expires: December 31, 2008

## PROJECT AND LOCATION

This permit authorizes the increase of carbon monoxide (CO) emissions pursuant to a determination of best available control technology (BACT) and requires the installation of a continuous emissions monitoring system (CO-CEMS) following recently completed installation and operation of required nitrogen oxides (NO<sub>x</sub>) control systems on the Unit No. 4 steam generator. The Tampa Electric Company (TEC) Big Bend Station is located at 13031 Wyandotte Road, Apollo Beach, Hillsborough County. UTM Coordinates are Zone 17, 361.9 km East and 3075.0 km North; Latitude: 27° 47' 36" North and Longitude: 82° 24' 11" West.

## STATEMENT OF BASIS

This permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

## CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

Joseph Kahn, Director  
Division of Air Resource Management

  
(Date)

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this permit and all copies were sent electronically (with Received Receipt) before the close of business on

1/16/08 to the persons listed:

Karen Sheffield, General Manager, TEC: [kasheffield@tecoenergy.com](mailto:kasheffield@tecoenergy.com)

Bryon Burrows, P.E., TEC: [btburrows@tecoenergy.com](mailto:btburrows@tecoenergy.com)

Tom Davis, P.E. Environmental Consulting & Technology: [tdavis@ectinc.com](mailto:tdavis@ectinc.com)

Diana Lee, P.E., HCEPC: [lee@epchc.org](mailto:lee@epchc.org)

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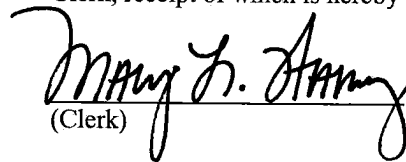
Catherine Collins, U.S. Fish and Wildlife Service: [catherine\\_collins@fws.gov](mailto:catherine_collins@fws.gov)

Sandra Silva, U.S. Fish and Wildlife Service: [sandra\\_silva@fws.gov](mailto:sandra_silva@fws.gov)

Clerk Stamp

**FILING AND ACKNOWLEDGMENT**

**FILED**, on this date, pursuant to §120.52,  
Florida Statutes, with the designated Department  
Clerk, receipt of which is hereby acknowledged.

  
(Clerk) 1/16/08  
(Date)

## **FINAL DETERMINATION**

**Tampa Electric Company  
Big Bend Station**

**Air Construction Permit No. 0570039-027-AC  
Carbon Monoxide (CO) Emission Limit**

The Department distributed a public notice package on November 20, 2007, that included an Intent to Issue Air Construction Permit No. 0570039-027-AC to the Tampa Electric Company (TEC) for the Big Bend Station, located at Wyandotte Road, Apollo Beach, Hillsborough County.

This permit authorizes the increase of carbon monoxide (CO) emissions pursuant to a determination of best available control technology (BACT) and requires the installation of a continuous emissions monitoring system (CO-CEMS) following recently completed installation and operation of required nitrogen oxides (NO<sub>x</sub>) control systems on the Unit No. 4 steam generator.

The Public Notice of Intent to Issue was published in the Tampa Tribune on December 5, 2007.

### **COMMENTS/CHANGES**

- Comments from the applicant on the draft air construction permit were received via e-mail. The comments were primarily minor language changes and clarifications. These minor changes and clarifications were adopted in the final air construction permit document.
- No other comments were received by the Department from the public, U.S.EPA, Hillsborough County, or the applicant.

### **CONCLUSION**

The final action of the Department is to issue the permit with the minor changes as indicated above.

## SECTION 1. GENERAL INFORMATION

### FACILITY AND PROJECT DESCRIPTION

This facility consists of:

- Four coal and petroleum coke-fueled steam electrical generating units (Units 1, 2, 3 and 4);
- Three simple-cycle combustion turbines (CT Nos. 1, 2, and 3);
- Solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities; and
- Fuel oil storage tanks.

Emissions from Units 1 through 4 are controlled by electrostatic precipitators (ESP), and flue gas desulfurization (FGD) systems. There are ongoing NO<sub>x</sub> control projects pursuant to a Consent Final Judgment (CFJ) between TEC and the Department and a Consent Decree (CD) between TEC and the United States Environmental Protection Agency (EPA).

This permit/project authorizes the increase of CO emissions pursuant to a BACT determination and requires the installation of a CO-CEMS following recently completed installation and operation of required NO<sub>x</sub> control systems on Unit 4. NO<sub>x</sub> emissions from Unit 4 are controlled by low NO<sub>x</sub> burners (LNB), separate overfire air (SOFA) and selective catalytic reduction (SCR) pursuant to the requirements of the CFJ and CD.

### EMISSIONS UNITS

This permit addresses the following emissions unit:

Emissions Unit ID No.	Brief Emissions Unit Description
004	Big Bend Unit No. 4 Steam Generator

### REGULATORY CLASSIFICATION

The facility is a major source of hazardous air pollutants (HAP).

The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

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

The facility operates units subject to the Standards of Performance for New Stationary Sources pursuant to 40 Code of Federal Regulations (CFR) Part 60.

Unit 4 is not subject to the National Emissions Standards for Hazardous Air Pollutants pursuant to 40 CFR Part 63.

The facility operates units subject to the Acid Rain provisions of the Clean Air Act.

The facility operates units subject to the Federal Clean Air Interstate Rule (CAIR) in accordance with the Final Department Rules issued pursuant to CAIR as implemented by FDEP in Rule 62-296.470, Florida Administrative Code (F.A.C.).

The facility operates units subject to the Federal Clean Air Mercury Rule (CAMR) implemented by the Department in Rule 62-296.480, F.A.C.

The facility was originally certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

### RELEVANT DOCUMENTS

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

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

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1. Permitting Authority: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Hillsborough County Environmental Protection Commission (HCEPC), Air Management Division. The mailing address and phone number of the HCEPC are 3629 Queen Palm Drive, Tampa, Florida 33619-1309; (813)627-2600 and (813)627-2620 (fax).
3. Appendices: The following Appendices are attached as part of this permit: Appendix BD (Final BACT Determinations and Emissions Standards); Appendix GC (General Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Bureau of Air Regulation with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

This section of the permit addresses the following emissions unit.

Emissions Unit ID No.	Detailed Emissions Unit Description
004	Unit No. 4 is a 4330 million British thermal units (mmBtu)/hour heat input, dry-bottom tangentially fired utility boiler. The generator nameplate capacity is 486 megawatts (MW). Unit No. 4 began commercial operation in 1985. Particulate matter (PM) emissions generated during the operation of the unit are controlled by a dry electrostatic precipitator (ESP) manufactured by Belco. The control efficiency of the ESP is 99.7%. Sulfur dioxide emissions are controlled by flue gas desulfurization equipment manufactured by Research-Cottrell. The fuel fired in Unit No. 4 consists of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual* generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. The unit is also equipped with an Acid Rain sulfur dioxide (SO <sub>2</sub> ) and nitrogen oxides (NO <sub>x</sub> ) continuous emissions monitoring system (CEMS) and shall be equipped with a carbon monoxide (CO) CEMS.

\* The types and amounts of allowed coal residual are given in Permit 0570039-017-AV

#### APPLICABLE STANDARDS AND REGULATIONS

1. BACT Determination: The emission unit addressed in this section is subject to a best available control technology (BACT) determination for CO. [Rule 62-212.400, F.A.C.]
2. Standards of Performance for New Stationary Sources (NSPS) Requirements: Unit 4 boiler shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(7)(b), F.A.C.
  - (a) Subpart A, General Provisions, including:
    - 40 CFR 60.7, Notification and Record Keeping
    - 40 CFR 60.8, Performance Tests
    - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
    - 40 CFR 60.12, Circumvention
    - 40 CFR 60.13, Monitoring Requirements
    - 40 CFR 60.19, General Notification and Reporting Requirements
  - (b) Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.

#### ADMINISTRATIVE REQUIREMENTS

3. Relation to Other Permits: The conditions of this permit are in addition to those of any other air construction or operation permits for this facility. The conditions contained in this permit supersede Specific Condition B.10. of Title V Permit Revision No. 0570039-028-AV. [Rule 62-4.030, 62-4.210, and 62-210.300(1)(b), F.A.C.]

#### CONTROL TECHNOLOGY

4. LNB and SOFA Systems: The permittee shall adhere to good combustion practices (GCP) to achieve the BACT CO emissions limits set by this permit. [Rules 62-4.070, 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

### EMISSION STANDARDS

5. Emission Standard for Carbon Monoxide (CO): CO emissions from Unit 4 shall not exceed 0.20 pounds per million Btu heat input (lb/mmBtu) on a heat input weighted 30-boiler operating day rolling average as demonstrated by the required CO-CEMS.  
[Rules 62-4.070(3), 62-210.200 (BACT) and 62-212.400(PSD), F.A.C.]

### INITIAL EMISSIONS COMPLIANCE DEMONSTRATION

6. Initial Compliance Demonstration: Within 45 days of issuance of this permit, the permittee shall conduct an initial compliance demonstration for CO with the LNB, SOFA and SCR systems engaged. Tests shall be conducted between 90% and 100% of permitted capacity while firing a coal and petcoke blend or a blend of coal, petcoke and coal residual.  
[Title V Permit No. 0570039-017-AV Condition B.1, Rule 62-297.310(7)(a)1, F.A.C.]
7. Stack Test Methods: The required one-time CO test shall be performed in accordance with the following reference method, or other methods approved by EPA.

Method	Description of Method and Comments
10	Determination of Carbon Monoxide Emissions

The method is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C.  
[Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

8. Stack Test Results. Compliance test results shall be submitted to the compliance authority described in Section II, Specific Condition 2, above, no later than 45 days after completion of the last test run. The test results shall include important measurements and operating ranges (such as percent oxygen, settings on the SOFA system, or other furnace parameters). 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 62-297.310(8)(c), F.A.C. and in Appendix GC of this permit. [Rule 62-297.310(8), F.A.C.]

### CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

9. Requirement to Install CEMS: The CO-CEMS shall be installed and certified by March 31, 2008.  
[Rules 62-4.070(3), 62-210.200(BACT), F.A.C.]
10. Continuous Compliance with CO limits: Upon certification of the CO-CEMS, installed pursuant to Specific Condition 9., compliance with the 30 operating day rolling average shall be demonstrated using data collected from the required CO-CEMS. [Rule 62-4.070(3), F.A.C.]
11. Additional Requirements – Appendix CEMS: Additional requirements applicable to the CO-CEMS are give in Section 4, Appendix CEMS.

### REPORTING AND RECORD KEEPING REQUIREMENTS

12. Excess Emissions Reporting:
- Malfunction Notification*: If emissions in excess of the CO standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the compliance authority within (1) working day of discovery: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. The Department may request a written summary report of the incident.



### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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- b. *SIP Quarterly Report*: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO emissions in excess of the BACT permit standard following the NSPS format in 40 CFR 60.7(c), Subpart A. In addition, the report shall summarize the CO-CEMS system monitor availability for the previous quarter.

[Rules 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C., and 40 CFR 60.7]

13. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility in accordance with Rule 62-210.370, F.A.C. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]
14. Monthly CO-CEMS Report Available Upon Request: Upon certification of the CO-CEMS, the permittee shall submit, on a monthly basis for the 6 months evaluation period only, a report in electronic file format which includes Unit 4 CO, NO<sub>x</sub>, heat input data, and information on control equipment operation. The report shall be submitted by the 15th of each month by mailing a compact disc to the Department's Bureau of Air Regulation and shall include all hourly readings from the previous month. Alternatively, upon contacting the Bureau's project engineer, the file may be emailed to the appropriate Bureau personnel.
15. Optimization Study Report: Upon completion of the 6-month evaluation period discussed in Specific Condition 14., above, the permittee shall submit to the Department a report summarizing the results of the various operational scenarios researched with the goal of overall control optimization of CO and NO<sub>x</sub>. The report shall include a recommended final BACT determination.
16. Reassessment of BACT Determination: Based on results of compliance tests and analysis of 6 months worth of continuous monitoring data, the Department will reassess the previously issued best available control technology (BACT) determination. The emission limit may be adjusted downward to make this limit more stringent provided that overall control attained for CO and NO<sub>x</sub> is optimized. Such revision shall be based on data that represents a full range of operating conditions and a representative period of time. Such revision, if required by the Department, shall be in the form of a federally enforceable permit and shall be publicly noticed by the permittee.  
[Rules 62-4.070(3), 62-210.200 (BACT) and 62-212.400(PSD), F.A.C.]

## **SECTION 4. APPENDICES**

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### **APPENDIX BD**

The Department establishes the following standards as the best available control technology (BACT) for the TEC Big Bend Unit 4 steam generator:

Emissions of CO shall not exceed the interim value of 0.20 lb/mmBtu heat input on a heat input-weighted 30-boiler operating day rolling average as demonstrated by the required CO-CEMS. An initial 3 run test will be used to demonstrate the initial compliance with a 3-hour 0.20 lb/mmBtu interim limit.

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## SECTION 4. APPENDICES

### APPENDIX CEMS

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#### UNIT 4 CO EMISSION STANDARDS AND CO-CEMS

1. Emission Standard for Carbon monoxide (CO): CO emissions from Unit 4 shall not exceed 0.20 pounds per million Btu heat input (lb/mmBtu) on a 30-operating day rolling average as demonstrated by the required CO-CEMS.  
[62-210.200 (BACT) and 62-212.400(PSD), F.A.C.]
2. CEMS Required for Demonstrating Compliance: The owner or operator shall properly install, calibrate, maintain and operate a continuous emissions monitoring system (CEMS) to measure and record emissions of CO in the units of parts per million (ppm) and convert the reading to lb/mmBtu. The owner or operator shall comply with the conditions of Appendix CEMS for the CO-CEMS required to be installed by this permit as the compliance method for a SIP-based emission standard.
3. CEMS Required for Reporting Annual Emissions: The owner or operator shall use data from the CO-CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rules 62-210.370(3) and 62-212.300(1)(e), F.A.C. The owner or operator shall follow the procedures in Appendix CEMS for calculating annual emissions.

#### CEMS OPERATION PLAN

4. CEMS Operation Plan: The owner or operator shall create and implement a plan for the proper installation, calibration, maintenance and operation of the CO-CEMS required by this permit. The owner or operator shall submit the CO-CEMS Operation Plan to the Bureau of Air Monitoring and Mobile Sources for approval at least 60 days prior to CO-CEMS installation. The CO-CEMS Operation Plan shall become effective 60 days after submittal or upon its approval. If the CO-CEMS Operation Plan is not approved, the owner or operator shall submit a new or revised plan for approval.

*{Permitting Note: The Department maintains both guidelines for developing a CO-CEMS Operation Plan and example language that can be used as the basis for the facility-wide plan required by this permit. Contact the Emissions Monitoring Section of the Bureau of Air Monitoring and Mobile Sources at (850)488-0114.}*

#### INSTALLATION, PERFORMANCE SPECIFICATIONS AND QUALITY ASSURANCE

5. Timelines: The owner or operator shall install the CO-CEMS required by this permit and conduct the appropriate performance specification for the CO-CEMS no later than March 31, 2008.
6. Installation: The CO-CEMS shall be installed such that representative measurements of emissions or process parameters from the facility are obtained. The owner or operator shall locate the CO-CEMS by following the procedures contained in the applicable performance specification of 40 CFR Part 60, Appendix B.
7. Span Values and Dual Range Monitors: The owner or operator shall set appropriate span values for the CO-CEMS. The owner or operator shall install dual range monitors if required by and in accordance with the CO-CEMS Operation Plan.
8. Moisture Correction: If necessary, the owner or operator shall determine the moisture content of the exhaust gas and develop an algorithm to enable correction of the monitoring results to a dry basis (0% moisture).

*{Permitting Note: The CO-CEMS Operation Plan will contain additional CO-CEMS-specific details and procedures for installation.}*

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## SECTION 4. APPENDICES

### APPENDIX CEMS

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9. Performance Specifications: The owner or operator shall evaluate the acceptability of the CO-CEMS by conducting the appropriate performance specification, as follows. CEMS determined to be unacceptable shall not be considered installed for purposes of meeting the timelines of this permit. For CO monitors, the owner or operator shall conduct Performance Specification 4 or 4A of 40 CFR part 60, Appendix B.
10. Quality Assurance: The owner or operator shall follow the quality assurance procedures of 40 CFR Part 60, Appendix F. The required relative accuracy test audit (RATA) tests for the CO-CEMS shall be performed using EPA Method 10 in Appendix A of 40 CFR part 60 and shall be based on a continuous sampling train.
11. Substituting RATA Tests for Compliance Tests: Data collected during CO-CEMS quality assurance RATA tests can substitute for annual stack tests, and vice versa, at the option of the owner or operator, provided the owner or operator indicates this intent in the submitted test protocol and follows the procedures outlined in the CO-CEMS Operation Plan.

### CALCULATION APPROACH

12. CO-CEMS Used for Compliance: Once adherence to the applicable performance specification for each CO-CEMS is demonstrated, the owner or operator shall use the CO-CEMS to demonstrate compliance with the applicable emission standards as specified by this permit.
13. CO-CEMS Data: Each CO-CEMS shall monitor and record emissions during all periods of operation and whenever emissions are being generated, including during episodes of startups, shutdowns, and malfunctions. All data shall be used, except for invalid measurements taken during monitor system breakdowns, repairs, calibration checks, zero adjustments and span adjustments, and except for allowable data exclusions as per Condition 20 of this appendix.
14. Operating Hours and Operating Days: For purposes of this appendix, the following definitions shall apply. An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight.
15. Unless otherwise specified by this permit, any day with at least one operating hour for an emissions unit is an operating day for that emission unit.
16. Valid Hourly Averages: The CO-CEMS shall be designed and operated to sample, analyze and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
  - a. Hours that are not operating hours are not valid hours.
  - b. For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data, the 1-hour block average is not valid, and the hour is considered as "monitor unavailable."
17. Calculation Approaches: The owner or operator shall implement the calculation approach specified by this permit for the CO-CEMS, as follows: For the 30-day rolling CO average, compliance shall be determined after each boiler operating day by calculating the arithmetic average of all the valid hourly averages from that operating day and the prior 29 operating days.

**MONITOR AVAILABILITY**

18. 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 Department 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.

**EXCESS EMISSIONS**19. Definitions:

- a. *Startup* is defined as 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. *Shutdown* means the cessation of the operation of an emissions unit for any purpose.
  - c. *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.
20. 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.
21. Data Exclusion Procedures for SIP Compliance: As per the procedures in this condition, limited amounts of CO-CEMS emissions data may be excluded from the corresponding compliance demonstration, provided that best operational practices to minimize emissions are adhered to and the duration of data excluded is minimized. The data exclusion procedures of this condition apply only to SIP-based emission limits.
- a. *Excess Emissions*. Data in excess of the applicable emission standard may be excluded from compliance calculations if the data are collected during periods of permitted excess emissions (for example, during startup, shutdown or malfunction). The maximum duration of excluded data is 2 hours in any 24-hour period, unless some other duration is specified by this permit.
  - b. *Limited Data Exclusion*. If the compliance calculation using all valid CO-CEMS emission data, as defined in Condition 13 of this appendix, indicates that the emission unit is in compliance, then no CEMS data shall be excluded from the compliance demonstration.
  - c. *Event Driven Exclusion*. The underlying event (for example, the startup, shutdown or malfunction event) must precede the data exclusion. If there is no underlying event, then no data may be excluded. Only data collected during the event may be excluded.
  - d. *Reporting Excluded Data*. The data exclusion procedures of this condition are not necessarily the same procedures used for excess emissions as defined by federal rules. Quarterly or semi-annual reports required by this permit shall indicate not only the duration of data excluded from SIP compliance calculations but also the number of excess emissions as defined by federal rules.

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## SECTION 4. APPENDICES

### APPENDIX CEMS

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22. Notification Requirements: The owner or operator shall notify the Compliance Authority within one working day of discovering any emissions that demonstrate noncompliance for a given averaging period. Within one working day of discovery of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CO-CEMS data. For malfunctions, notification is sufficient for the owner or operator to exclude CO-CEMS data.

#### ANNUAL EMISSIONS

23. CO-CEMS Used for Calculating Annual Emissions: All valid data, as defined in Condition 13 of this appendix, shall be used when calculating annual emissions.
- Annual emissions shall include data collected during startup, shutdown and malfunction periods.
  - Annual emissions shall include data collected during periods when the emission unit is not operating but emissions are being generated (for example, when firing fuel to warm up a process for some period of time prior to the emission unit's startup).
  - Annual emissions shall not include data from periods of time where the monitor was functioning properly but was unable to collect data while conducting a mandated quality assurance/quality control activity such as calibration error tests, RATA, calibration gas audit or RAA. These periods of time shall be considered missing data for purposes of calculating annual emissions.
  - Annual emissions shall not include data from periods of time when emissions are in excess of the calibrated span of the CO-CEMS. These periods of time shall be considered missing data for purposes of calculating annual emissions.
24. Accounting for Missing Data: All valid measurements collected during each hour shall be used to calculate a 1-hour block average. For each hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, the owner or operator shall account for emissions during that hour using site-specific data to generate a reasonable estimate of the 1-hour block average.
25. Emissions Calculation: Hourly emissions shall be calculated for each hour as the product of the 1-hour block average and the duration of pollutant emissions during that hour. Annual emissions shall be calculated as the sum of all hourly emissions occurring during the year.

**SECTION 4. APPENDICES**  
**APPENDIX GC. GENERAL CONDITIONS**

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

**SECTION 4. APPENDICES**  
**APPENDIX GC. GENERAL CONDITIONS**

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9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology for carbon monoxide (X);
  - b. Determination of Prevention of Significant Deterioration for carbon monoxide (X);
  - c. Compliance with National Emission Standards for Hazardous Air Pollutants (Not Applicable to this permitting action); and
  - d. Compliance with New Source Performance Standards (Not Applicable to this permitting action).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.