# Tampa Electric Company
# Big Bend Station

Facility ID No. 0570039
Hillsborough County

## Title V Air Operation Permit Revision

## **Final Permit No.** 0570039-067-AV

(4th Revision of Title V Air Operation Permit No. 0570039-039-AV)

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Division of Air Resource Management

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# Title V Air Operation Permit Revision

Final Permit No. 0570039-061-AV

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Big Bend Power Station
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Permit No. 0570039-067-AV
Facility ID No. 0570039
SIC No. 4911
Project: Title V Air Operation Permit Revision

The purpose of this permit is to revise and incorporate the specific condition revisions related to Project No. 0570039-066-AC. This existing facility is located in Hillsborough County at Big Bend Road, Apollo Beach, Florida. UTM Coordinates: Zone 17, 361.9 kilometers (km) East and 3075.0 km North; Latitude: 27° 47' 36" North and Longitude: 82° 24' 11" West.

This Title V air operation permit revision 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 perform the work or operate the facility in accordance with the terms and conditions of this permit.

0570039-039-AV Renewal Effective Date: January 1, 2010
0570039-045-AV 1st Revision Effective Date: April 5, 2011
0570039-054-AV 2nd Revision Effective Date: Sept. 18, 2012
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Executed in Tallahassee

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

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**Subsection A. Facility Description.**

The Big Bend Station is a nominal 1,892 megawatt (MW) electric generation facility. This facility consists of four fossil fuel fired steam generators, Boiler Unit Nos. 1 through 4; four steam turbines; a simple cycle combustion turbine (SCCT)-generator peaking unit set; solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities; and, fuel oil storage tanks. Unit Nos. 1, 2, 3 and 4 have nominal maximum heat inputs of 4,037, 3,996, 4,115 and 4,330 million British thermal units (Btu) per hour, respectively. Unit Nos. 1 through 4 are fired with coal and with petroleum coke in a mixture with coal up to 20.0% petroleum coke/80.0% coal (by weight), or a 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 combustion turbine is fired with pipeline-quality natural gas and ultra low sulfur diesel (ULSD) fuel. In addition, there is a ship surface coating operation. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

**Subsection B. Summary of Emissions Units.**

| E.U. ID No. | Brief Description |
|---|---|
| *Regulated Emissions Units* | |
| | *Fossil Fuel Fired Steam Generator Units* |
| -001 | Fossil Fuel Fired Steam Generator Unit No. 1 |
| -002 | Fossil Fuel Fired Steam Generator Unit No. 2 |
| -003 | Fossil Fuel Fired Steam Generator Unit No. 3 |
| -004 | Fossil Fuel Fired Steam Generator Unit No. 4 |
| | *Solid Fuel Yard* |
| -010 | Solid Fuel Yard Fugitive Emissions |
| -029 | Fuel Blending Bin Cyclone Collectors (FH-032 through FH-035) |
| -030 | Fuel Mill Cyclone Collectors (FH-048 and FH-049) |
| -046 | Transloading and Off-site Transfer of Solid Fuels and Slag (by truck, rail and barge) |
| -047 | Railcar Unloading and Conveying System |
| | *Coal Bunkers with Roto-Clones* |
| -015 | Unit No. 1 Coal Bunker with Roto-Clone |
| -016 | Unit No. 2 Coal Bunker with Roto-Clone |
| -017 | Unit No. 3 Coal Bunker with Roto-Clone |
| -039 | Unit No. 4 Coal Bunker with Roto-Clone |
| | *Flyash Handling and Storage - Silo Nos. 1 & 2* |
| -008 | Fly Ash Silo No. 1 Baghouse |
| -009 | Fly Ash Silo No. 2 Baghouse |
| | *Flyash Handling and Storage - Silo No. 3* |
| -014 | Fly Ash Silo No. 3 Baghouse |
| | *Limestone Handling and Storage* |
| -012 | Limestone Silo A Baghouses (2) |
| -013 | Limestone Silo B Baghouses (2) |
| -023 | Limestone Conveyor LB/LC Baghouse |

| E.U. ID No. | Brief Description |
|---|---|
| -050 | Limestone Conveyor LD/LE Baghouse |
| | *Limestone Handling for FGD System for Units 1 & 2* |
| -020 | Limestone Conveyors LE/LF/LG/Silo C Belt Feeder Baghouse |
| -021 | Silo C Baghouse |
| | *Wastewater Treatment Plant* |
| -022 | Lime Silo for Wastewater Treatment Plant with one Baghouse |
| | *Abrasive Blasting* |
| -032 | Surface Coating of Miscellaneous Metal Parts |
| | *Surface Coating Operations* |
| | *Coal Residual Storage and Transfer from the Polk Power Station* |
| -037 | Coal Residual Storage Facility |
| -038 | Coal Residual Transfer System |
| | *Simple-Cycle Combustion Turbines* |
| -041 | SCCT 4A with a common electric generator that it shares with SCCT 4B |
| -042 | SCCT 4B with a common electric generator that it shares with SCCT 4A |
| | *Engines* |
| -043 | SCCT Black Start Diesel Engine, 1,000 ekW |
| -044 | Coal Field Diesel Generator |
| *Unregulated Emissions Units and/or Activities* | |
| -036 | Slag and Bottom Ash Sources BH-001 through BH-004 |
| -036 | Gypsum Handling and Storage Sources GH-001 through GH-017 |
| -036 | No. 2 Fuel Oil Storage Tanks > 550 gallons |
| -036 | Vehicle Refueling Operations |
| -045 | Emergency Diesel Generator and Fire Pump Diesel Engine |

**Subsection C. Applicable Requirements.**

Based on the Title V air operation permit renewal application received on June 6, 2008, this facility is a major source of hazardous air pollutants (HAP). This facility is classified as a Prevention of Significant Deterioration (PSD) major facility. A summary of important applicable requirements is shown in the following table.

| Applicable Requirement/Regulation | E.U. ID No(s). |
|---|---|
| *Federal Rule Citations* | |
| 40 CFR 60, Subpart A, New Stationary Source Performance Standards (NSPS) General Provisions | 004, 020 & 021 |
| NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 | 004 |
| 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants | 020 & 021 |
| 40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for which Construction is Commenced after February 18, 2005) | 041 & 042 |
| 40 CFR 63, Subpart A, National Emissions Standards for Hazardous Air Pollutants (NESHAP) General Provisions | 035 & 044 |
| Appendix 40 CFR 63, Subpart II - National Emissions Standards for Hazardous Air Pollutants from Shipbuilding and Ship Repair (Surface Coating) | 035 |
| 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) also referred to as the "RICE Maximum Achievable Control Technology (MACT)" | 044 & 043 |
| 40 CFR 64, Compliance Assurance Monitoring | 001, 002, 003 & 004 |
| *State Rule Citations* | |
| Rule 62-210.300, F.A.C., Permits Required | 008, 009, 037 & 038 |
| Rule 62-212.400, F.A.C., Prevention of Significant Deterioration | 004, 010, 029 & 030 |
| Rule 62-214, F.A.C., Acid Rain, Phase II $SO_2$ | 001, 002, 003 & 004 |
| Rule 62-214, F.A.C., Acid Rain, Phase II $NO_X$ | 001, 002, 003 & 004 |
| Rule 62-296.405(1), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input | 001, 002 & 003 |
| Rule 62-296.405(2), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input | 004 |
| Rule 62-296.470, F.A.C., Clean Air Interstate Rule | 001, 002, 003 & 004 |
| Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR) Retired Units | 005 & 006 |
| Rule 62-296.500, F.A.C., Reasonably Available Control Technology (RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxides ($NO_X$) Emitting Facilities | 032 |
| Rule 62-296.513, F.A.C., RACT VOC - Surface Coating of Miscellaneous Metal Parts and Products | 032 |
| Rule 62-296.700(2)(c), F.A.C., RACT PM - Exemption | 015, 016, 017, 022 & 039 |

| Applicable Requirement/Regulation | E.U. ID No(s). |
|---|---|
| Rule 62-296.700(6), F.A.C., RACT PM - O&M Plan | 001, 002, 003 & 004 |
| Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations | 020, 021, 029 & 030 |
| *Other Requirements* | |
| Consent Final Judgment (DEP vs. TEC) dated December 16, 1999. | 001, 002, 003 & 004 |

**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. Nothing was deemed necessary and ordered at this time. [Rule 62-296.320(1), F.A.C.]

**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 50 cubic yards or more; crushing, grinding, sizing and screening operations; and, static drop transfer points. These regulations do~~es~~ not impose a specific testing requirement. [Rule 62-296.320(4)(b)1., F.A.C.; and Rule 1-3.52, EPCHC]

**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.

a. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:
   (1) Chemical or water application to: unpaved roads and unpaved yard areas;
   (2) Paving and maintenance of roads, parking areas and yards;
   (3) Landscaping or planting of vegetation;
   (4) Confining abrasive blasting where possible; and
   (5) Other techniques, as necessary.
   (6) Trucks used to transport solid fuels shall utilize tarps at all times except when loading/unloading.

b. The following reasonable precaution shall be taken to control unconfined PM emissions associated with the fly ash silo/truck operations. Reasonable precautions shall include, but not limited to:
   (1) Fly ash transported by dump truck shall be adequately wetted and processed through the pugmill;
   (2) Dump trucks used to transport fly ash shall utilize tarps at all times except when loading/unloading;
   (3) Fly ash transported in a dry state shall be accomplished utilizing an enclosed tanker truck;
   (4) Fly ash spilled and/or leaked on plant grounds shall be adequately wetted and disposed of daily;
   (5) Fly ash collected from spills and/or leaks must be adequately wetted at all times;
   (6) Ensure the proper seating of the unloader chute onto the tanker inlet prior to loading;
   (7) Keep the dust extractor operational during loading;
   (8) Close the tanker's inlet as soon as practical after the loading process;
   (9) Extend the tubing from the silo into the closed tanker type trucks during loadout; and,
   (10) Periodic watering of plant roads.

c. The following reasonable precautions shall be taken to control unconfined PM emissions associated with abrasive blasting operations. Reasonable precautions shall include, but not limited to:
   (1) Maintain curtains on open ends of abrasive blasting building and keep curtains fully closed when performing abrasive blasting activities.
   (2) Maintain screens or filters on louvered vents, as necessary, to prevent fugitive emissions from the building ventilation openings.
   (3) Water yard areas surrounding abrasive blasting building, as necessary.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received on September 13, 2013.]

**Annual Reports and Fees**

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

**FW6.** Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

**FW7.** Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download 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. [Rule 62-213.205, F.A.C.]

**FW8.** 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 air operation permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

**FW9.** Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: 703/227-7650.
b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

**FW10.** Settlement Agreement. The permittee shall comply with the Consent Final Judgment (DEP vs. TEC) dated December 6, 1999. [Rules 62-4.070(1), (3) & (5) and 62-213.440, F.A.C.]

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

| E.U. ID No. | Brief Description |
|---|---|
| -001 | Fossil Fuel Fired Steam Generator Unit No. 1 |
| -002 | Fossil Fuel Fired Steam Generator Unit No. 2 |
| -003 | Fossil Fuel Fired Steam Generator Unit No. 3 |

The fuel fired in fossil fuel fired steam generator Unit Nos. 1, 2 and 3 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.

Unit No. 1 is a fossil fuel fired steam boiler electrical generating unit with a design capacity rating of 4,037 MMBtu/hour and a design electrical generating capacity of 445 megawatts (MW). It is a wet bottom utility boiler manufactured by Riley Stoker Corporation. Nitrogen oxides ($NO_X$) emissions are controlled by low $NO_X$ burners (LNB) and selective catalytic reduction (SCR) system which was installed in 2010. Particulate matter (PM) emissions are controlled by a dry electrostatic precipitator (ESP) manufactured by Western Precipitator Division, Joy Manufacturing Corporation. The PM control efficiency is 99.7%. Unit No. 1 began commercial operation in 1970.

Unit No. 2 is a fossil fuel fired steam boiler electrical generating unit with a design capacity rating of 3,996 MMBtu/hour and a design electrical generating capacity of 445 MW. It is a wet bottom utility boiler manufactured by Riley Stoker Corporation. Nitrogen oxides ($NO_X$) emissions are controlled by low $NO_X$ burners (LNB) and selective catalytic reduction (SCR) system which was installed in 2009. Particulate matter (PM) emissions are controlled by a dry electrostatic precipitator (ESP) manufactured by Western Precipitator Division, Joy Manufacturing Corporation. The PM control efficiency is 99.7%. Unit No. 2 began commercial operation in 1973.

Unit No. 1 and Unit No. 2 share a common stack (identified as CS-0W1). Immediately prior to the common stack, sulfur dioxide ($SO_2$) emissions from Unit Nos. 1 and 2 are controlled by wet flue gas desulfurization (FGD) equipment installed in 1999 and manufactured by Wheelabrator. The emissions from Unit Nos. 1 and 2 have no ability to bypass any of the installed control devices prior to exiting through the common stack. The CS-0W1 common stack parameters are: height, 490 feet; diameter, 29.0 feet; exit temperature, 132 degrees F; and, actual stack gas flow rate of 2,306,709 acfm.

Unit No. 3 is a fossil fuel fired steam boiler electrical generating unit with a design capacity rating of 4,115 MMBtu/hour and a design electrical generating capacity of 445 MW. It is a wet bottom utility boiler manufactured by Riley Stoker Corporation. Sulfur dioxide ($SO_2$) emissions from Unit No. 3 are controlled by wet flue gas desulfurization (FGD) equipment installed in 1995 and manufactured by Research Cottrell. $NO_X$ emissions are controlled by LNB and its own SCR system. The SCR system on Unit No. 3 was installed in 2008. Particulate matter emissions generated during the operation of the unit are controlled by a dry electrostatic precipitator (ESP) manufactured by Research-Cottrell, Inc. The ESP control efficiency is 99.7%. Unit No. 3 began commercial operation in 1976. The Unit No. 3 stack (stack identification BB-003) parameters are: height, 490 feet: diameter, 24.0 feet; exit temperature, 127 degrees F; and, actual stack gas flow rate, 1,389,740 acfm.

*{Permitting note(s): Fossil Fuel Fired Steam Generator Unit Nos. 1, 2 and 3 are regulated under the federal Acid Rain Program for Phase II $SO_2$ and $NO_X$; Rule 62-296.405(1), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input; Rule 62-296.700(6), F.A.C., Reasonable Available Control Technology (RACT) PM – Operation and Maintenance O&M Plan; Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR). These emissions units are also regulated under a Consent Final Judgment (DEP vs. TEC)*

*dated December 16, 1999. These units were formerly regulated under the federal Acid Rain Program as Phase I $SO_2$ substitution units.}*

**Essential Potential to Emit (PTE) Parameters**

**A.1.** Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**A.2.** Design Capacity. The design heat input rates are as follows:

| Unit No. | MMBtu/hr Heat Input |
|---|---|
| 1 | 4,037 |
| 2 | 3,996 |
| 3 | 4,115 |

These design heat input rates are based on the original design of each unit for firing coal with a certain lower heating value (LHV) that was used to design each boiler. At any given time, the actual heat input rate is a function of the actual demand load, the coal mass firing rate, and the fuel properties of the coal being fired at that time. Although the above design capacities are not intended as operational restrictions, the permittee shall obtain the appropriate air construction permits before making any physical or operational changes that would increase the actual heat input rate capabilities of a unit. [Rules 62-4.160(2), 62-210.200 (Definitions – Modification, Potential to Emit (PTE)), 62.210.300, 62-213.440 & 62-296.405(1), F.A.C.; and, Permit Nos. 0570039-014-AC (Unit Nos. 1 – 4 LNB installations) & 0570039-022-AC, Condition A.16 (Unit No. 3 SCR installation).]

*{Permitting Note: For purposes of the Acid Rain program, the actual heat input rate of each of these units is reported based on the measured exhaust gas flow rate. According to the applicant, the Acid Rain CEMS at this site have historically predicted higher heat input rates than methods based on the mass flow and fuel properties of coal.}*

**A.3.** Emissions Unit Operating Rate Limitation During Testing. Testing of emissions shall be conducted with the emissions unit operating at or above 90% of the design capacity specified in this permit. The values above represent design values which, in some cases, may be exceeded as the unit is operated at full load for stack testing. The heat input values are to be measured during stack testing to within +/- 10% of its true value using the methods/procedures contained in Specific Condition A.49. If it is impracticable to test at this rate, an emissions unit may be tested at less than 90% of the design capacity; in this case, subsequent emissions unit operation is limited to 110% of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the design capacity. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rules 62-297.310(2) & 62-213.440, F.A.C.]

**A.4.** Methods of Operation.

a. *Fuels - Normal Operation*. The only fuels allowed to be burned in Unit Nos. 1, 2 and 3 shall consist of coal, or a coal/petroleum coke blend, or coal blended with raw coal residual, or a coal/petroleum coke blend further blended with raw coal residual. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight.

b. *Fuels - Startup, Shutdown, Flame Stabilization*. In addition to the fuels allowed to be burned during normal operation, each unit may also burn new No. 2 fuel oil during startup, shutdown, flame stabilization, and during the start of an additional solid fuel mill on an already operating unit.

*c. Other Operation.*

(1) Raw Coal Residual. The total amount of raw coal residual fired at Big Bend Station (all Unit Nos. 1 - 4 combined) shall be limited to 200 tons per day. The raw coal residual is a by-product of the gasification of coal at the Polk Power Station. The permittee shall only fire raw coal residual in the event of a gasification process malfunction at the Polk Power Station that results in raw coal residual

that has some remaining fuel value. The permittee shall document all gasification process malfunctions and record the amount of raw coal residual, if any, fired at Big Bend Station. These records should be kept on site at Big Bend and made readily available to the Department and the Environmental Protection Commission of Hillsborough County upon request.

(2) Supplemental Material Injection. The following materials may be injected as needed for boiler conditioning and energy recovery purposes:

(a) Magnesium Oxide, Limestone and Fluxing Agents may be injected as needed for boiler conditioning.

(b) Fly Ash. Reinjection of on-site generated flyash for energy recovery.

d. *Daily Log*. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values.

e. *Control Devices*. All air pollution control devices shall be in operation according to manufacturer's recommendations whenever the boilers are in operation. Note: under current permitted ductwork configuration, none of the air pollution control devices can be physically bypassed. In the event of a control device malfunction resulting in excess emissions beyond the allowable periods established for these units, the associated boiler shall be removed from service until such time that the control device resumes normal operation.

[Rule 62-213.410, F.A.C.; and Permit No. 0570039-066-AC]

*{Permitting note: "Flame stabilization" is defined as the use of new No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, new No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged, or equipment is otherwise damaged, that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame "puff". In this situation, new No. 2 fuel oil must be used for stabilization to prevent flame "puffing" and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., load change occurs when the operational capacity of a unit is in the 10 to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5percent per minute or more.}*

**Air Pollution Control Technologies and Measures**

*{Permitting Note: This condition is intended to limit possible excess emissions in the event of an unexpected breakdown of the FGD system that requires its shutdown while either emissions unit is firing petroleum coke.}*

**A.5.** Low $NO_X$ Burners (LNB). Unit Nos. 1, 2 and 3 shall be operated using the low $NO_X$ burners and in accordance with the operational procedures that have been developed to minimize $NO_X$ emissions. [Permit No. 0570039-014-AC.]

**A.6.** Selective Catalytic Reduction (SCR) System. The permittee shall operate and maintain the selective catalytic reduction (SCR) systems for nitrogen oxides ($NO_X$) control on Unit Nos. 1, 2, and 3. [Permit Nos. 0570039-022-AC and 0570039-024-AC.]

*{Permitting Note: Selective catalytic reduction (SCR) systems commenced operation under the following schedule:*
*Unit No. 3 – July 1, 2008, as authorized by Permit No. 0570039-022-AC;*
*Unit No. 2 - April 30, 2009, as authorized by Permit No. 0570039-024-AC; and,*
*Unit No. 1 –April 19, 2010, as authorized by Permit No. 0570039-024-AC.}*

**A.7.** SCR System Operation. The permittee shall operate and maintain each SCR system in accordance with the SCR system supplier's recommendations or in accordance with methods established by the owner/operator through site-specific testing, including operating the SCR between minimum and maximum operating temperatures, which have been demonstrated by the applicant to assure compliance with the applicable emissions limits. [Rule 62-210.650, F.A.C.; and, Permit No. 0570039-053-AC]

**A.8.** Circumvention. The owner or operator shall not circumvent or operate the air pollution control equipment in such a manner which would violate allowable emission rates established for these units. [Rule 62-210.650, F.A.C.; and, Permit No. 0570039-066-AC]

**A.9.** SCR System. Each partial SCR system maintenance bypass duct shall be normally closed except during maintenance periods. [Permit Nos. 0570039-022-AC and 0570039-024-AC.]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Conditions **A.10. - A.25.** are based on the specified averaging time of the applicable test method.

Visible Emissions (VE)

**A.10.** VE. Visible emissions from each unit shall not exceed 20 percent opacity, except for one six-minute period per hour during which opacity shall not exceed 27 percent. Emissions units governed by this visible emissions limit shall compliance test for particulate matter emissions annually and as otherwise required by Chapter 62-297, F.A.C. [Rule 62-296.405(1)(a), F.A.C.]

**A.11.** VE - Soot Blowing and Load Change. Visible emissions from each unit shall not exceed 60 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed for boiler cleaning and load changes, at units which have installed continuous opacity monitors (COMS). [Rule 62-210.700(3), F.A.C.]

Particulate Matter (PM) Emissions

**A.12.** PM Emissions. Particulate matter emissions from each unit shall not exceed 0.03 pounds per million Btu heat input. [Permit No. 0570039-060-AC.]

*{Permitting Note: This PM limit originating from the Consent Final Judgment and/or the Consent Decree as amended; supersedes the SIP PM limit of 0.1 pounds per million Btu heat input from Rule 62-296.405(1)(b), F.A.C.}*

**A.13.** PM Emissions. The maximum particulate matter emission rate for each unit is as follows:

| Unit No. | lbs./hour | tons/yr |
|---|---|---|
| 1 | 121.1 | 530 |
| 2 | 119.9 | 525 |
| 3 | 123.5 | 541 |

In the event that the design heat input rate for a unit is reduced, the maximum permitted particulate matter emission rate for that unit shall also be reduced accordingly. [Rule 62-296.700(4)(b)1. (PM RACT - lbs./hour & tons/year), F.A.C.; and, Permit No. 0570039-060-AC.]

**A.14.** PM Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 2,767 tons/year of $PM/PM_{10}$. This cap corresponds to the average emissions of the years

1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400 (escape Prevention of Significant Deterioration (PSD)), F.A.C.; and, Permit No. 0570039-012-AC.]

**A.15.** PM - Soot Blowing and Load Change. Particulate matter emissions from each unit shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.]

Sulfur Dioxide ($SO_2$) Emissions

**A.16.** $SO_2$ - Liquid Fuel. When burning liquid fuel, sulfur dioxide emissions from each unit shall not exceed 2.75 tons per heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(c)1.j., F.A.C.]

**A.17.** $SO_2$ - Sulfur Content. The No. 2 fuel oil sulfur content from each unit shall not exceed 0.5 percent, by weight. [Rule 62-296.405(1)(e)3., F.A.C.]

**A.18.** $SO_2$ - Solid Fuel.

a. SIP Limits. Unit Nos. 1, 2 and 3, each shall not emit more than 6.5 pounds of sulfur dioxide per million Btu heat input on a two-hour average; nor shall Unit Nos. 1, 2 and 3, in total, emit more than 31.5 tons per hour of sulfur dioxide on a three-hour average and 25 tons per hour of sulfur dioxide on a 24-hour block average (midnight to midnight).

(1) Unit Nos. 1 and 2, in total, shall not emit more than 16.5 tons per hour of sulfur dioxide on a 24-hour block average. [Rules 62-296.405(1)(c)2.b. and 3., F.A.C.; and, Rule 62-204.240(1), F.A.C.]

(2) Unit No. 3 shall not emit more than 8.5 tons per hour of sulfur dioxide on a 24-hour block average.

[Rules 62.204.800(1)(b)20., and 62-296.405(1)(c)2.b. and 3., F.A.C.]

**A.19.** $SO_2$ Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 71,810 tons per year of $SO_2$. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400 (escape PSD), F.A.C.; and, Permit No. 0570039-012-AC.]

**A.20.** $SO_2$ Emissions - Unit Nos. 1 - 2. When combusting solid fuels, Unit Nos. 1 and 2, each shall meet at least one of the following limits:

a. the scrubber shall remove at least 95% of the $SO_2$ in the flue gas that entered the scrubber; or,

b. **on and after January 1, 2013**, the "emission rate" for $SO_2$ does not exceed 0.25 pound per million Btu heat input on a 30-day rolling average. The term "emission rate" is specifically defined in Specific Condition A.25.

[Permit No. 0570039-060-AC.]

**A.21.** $SO_2$ Emissions - Unit No. 3. When combusting solid fuels, Unit No. 3 shall meet at least one of the following limits:

a. the scrubber shall remove at least 95% of the $SO_2$ in the flue gas that entered the scrubber; or,

b. the "emission rate" for $SO_2$ does not exceed 0.25 pound per million Btu heat input on a 30-day rolling average. The term "emission rate" is specifically defined in Specific Condition A.25.

[Permit No. 0570039-060-AC.]

Nitrogen Oxides ($NO_x$) Emissions

**A.22.** Nitrogen Oxides (NOx) Emissions - Unit Nos. 1 and 2. NOx emissions from Unit No. 1 when combusting solid fuel, shall not exceed 0.12 lb NOx/million Btu heat input on a heat input weighted 30-day

rolling average basis {calculated equivalent NOx emissions from Unit No. 1 are 484.4 lb/hr and 2,121.9 TPY}. NOx emissions from Unit No. 2 when combusting solid fuel, shall not exceed 0.12 lb NOx/million Btu heat input on a heat input weighted 30-day rolling average basis {calculated equivalent NOx emissions from Unit No. 2 are 479.5 lb/hr and 2,100.3 TPY}. [Consent Decree (U.S. vs. TEC) dated February 29, 2000, amendment dated June 12, 2009; and, Permit No. 0570039-060-AC).]

**A.23.** Nitrogen Oxides (NOx) Emissions - Unit 3. NOx emissions from Unit No. 3 when combusting solid fuel, shall not exceed 0.12 lb NOx/million Btu heat input on a heat input weighted 30-day rolling average basis {calculated equivalent NOx emissions from Unit No. 3 are 494 lb/hr and 2,163.7 TPY}. [Consent Decree (U.S. vs. TEC) dated February 29, 2000, amendment dated June 12, 2009; and, Permit No. 0570039-022-AC (amended by 0570039-035-AC and revised by Permit No. 0570039-060-AC).]

*{Permitting Note: The Consent Decree as amended;-supersedes the SIP NOX limit of 0.70 pounds per million Btu heat input from Rules 62-296.405(1)(d)4. and 62-296.405(1)(e)4., F.A.C.}*

**A.24.** Ammonia Slip. Ammonia slip, measured at the stack downstream of all emissions control systems, shall not exceed 10 parts per million by volume (ppmv). Annual testing of ammonia slip shall be conducted and corrective measures taken if measured values exceed 5 ppmv. [Permit Nos. 0570039-022-AC and 0570039-024-AC.]

Nitrogen Oxides (NOx) and Sulfur Dioxide ($SO_2$) Emissions

**A.25.** Calculation of Emission Rate. A "30-day rolling average emission rate" for NOx and $SO_2$ shall be herein defined as the emission rate expressed as lb/MMBtu and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Unit during an operating day and the previous twenty-nine (29) operating days; second, sum the total heat input to the Unit in MMBtu during the operating day and the previous twenty-nine (29) operating days; and third, divide the total number of pounds of the pollutant emitted during the thirty (30) operating days by the total heat input during the thirty (30) operating days. A new 30-day rolling average emission rate shall be calculated for each new operating day. The 30-day rolling average emission rate:

(1) Shall include all emissions and heat input in MMBtu commencing from the time the Unit is synchronized with a utility electric distribution system through the time that the unit ceases to be synchronized with such utility electric distribution system;

(2) May exclude emissions of NOx and heat input in MMBtu occurring during the fifth and subsequent "Cold Start Up" period(s) that occur in any 30-day period if inclusion of such emissions would result in a violation of any applicable 30-day rolling average emission rate. A "Cold Start Up Period" occurs whenever there has been no fire in the boiler of a Unit (no combustion of any fossil fuel) for a period of six hours of more. The emissions to be excluded during the fifth and subsequent Cold Start Up Period(s) shall be the lesser of: (1) those NOx emissions emitted during the eight hour period commencing when the Unit is synchronized with a utility electric distribution system and concluding eight hours later, or (2) those emitted prior to the time that the flue gas has achieved the SCR operational temperature as specified by the catalyst manufacturer; and (3) may exclude NOx emissions and heat input in MMBtu occurring during any period of malfunction (as defined at 40 CFR 60.2) of the SCR; and

(3) Shall use the methodologies and procedures set forth in 40 C.F.R. Part 75, Appendix F.

[Consent Final Judgment (DEP vs. TEC) dated December 16, 1999; Consent Decree (U.S. vs. TEC) dated February 29, 2000, amendment dated June 12, 2009; and, Permit No. 0570039-060-AC.]

**Excess Emissions**

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

**A.26.** Excess Emissions Allowed - Malfunctions. Excess emissions resulting from malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**A.27.** Excess Emissions Allowed - Startup And Shutdown. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]

**A.28.** Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix BOP, Best Operational Practices for Start up and Shutdown**. [Rules 62-210.700(2) and 62-213.440(1), F.A.C.]

**A.29.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Monitoring of Operations**

**A.30.** Monitoring of Petroleum Coke Usage. The permittee shall operate and maintain equipment to record and calculate the weight percentage of petroleum coke fired in each emissions unit, to verify compliance with the percentage limitation on petroleum coke usage of this permit. [Permit No. 0570039-066-AC]

**Monitoring Requirements**

*{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on these units: opacity, $SO_2$, $NO_X$, $CO_2$ and stack gas flow.}*

**A.31.** Continuous Monitoring Systems. These emissions units shall operate and maintain continuous monitoring systems for monitoring opacity, $SO_2$, $NO_X$ and $CO_2$. [Rule 62-296.405(1)(f)1., F.A.C.]

**A.32.** Operation and Maintenance Plan. An Operation and Maintenance Plan required under RACT for PM is attached and a part of this permit pursuant to Rule 62-296.700(6), F.A.C. All activities shall be performed as scheduled and recorded data made available to the Department upon request. Records shall be maintained on file for a minimum of five (5) years. **Appendix O&M, Operation and Maintenance Plan under RACT for PM**, is attached as part of this permit. [Rule 62-296.700(6), F.A.C.]

**A.33.** CAM Plan. These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM for the controlled emissions of particulate matter. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

**Continuous Emissions Monitoring Systems (CEMS)**

**A.34.** CEMS. The continuous emissions monitoring systems shall meet the quality assurance requirements and performance specifications contained in 40 CFR 75. [Rule 62-296.405(1)(e)4., F.A.C.]

**A.35.** $SO_2$ Compliance by CEMS. The permittee shall demonstrate compliance with the sulfur dioxide limits by means of continuous emissions monitoring systems. In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed in this permit. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met, i.e., prior test notification, proper test result submittal, etc. [Rule 62-296.405(1)(f)1.b., F.A.C.]

**A.36.** NOx Compliance by CEMS. Nitrogen oxides (NOx) emissions from Unit Nos. 1, 2 and 3 shall be continuously monitored to confirm compliance, using the Unit's existing continuous emissions monitoring system (CEMS). Compliance is determined by calculating the heat input weighted average of all hourly emission rates for $NO_X$ for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction, or abnormal events. "Abnormal events" are defined as an unanticipated interruption, malfunction, or failure of the pipeline or associated equipment utilized to supply ammonia to the Big Bend Station for use in the operation of the selective catalytic reduction control system. Excess emissions occurring from operation of the boilers during an abnormal event are authorized provided that best operational practices are employed to minimize the amount and duration of the emissions during an abnormal event. Emissions data collected during "abnormal events" may be excluded from the 30-day rolling compliance averages in accordance with this condition. For the purpose of calculating a 30-day rolling average, a boiler operating day is defined as a 24-hour period (between 12:01 a.m. and 12:00 midnight) during which fossil fuel is combusted in a steam operating unit for the entire 24-hours. [Rule 62-297.310(7)(a)2 and 4, F.A.C.); 40 CFR 60.46a(g); and, Permit Nos. 0570039-022-AC and 0570039-024-AC.]

**A.37.** $SO_2$ and NOx CEMS and COMS. For Unit Nos. 1, 2 and 3, the permittee shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring opacity. For Unit Nos. 1 - 3, the permittee shall also operate calibrate, and maintain a continuous monitoring system for continuously monitoring nitrogen oxides (expressed as $NO_2$). In addition, the permittee shall operate calibrate, and maintain a continuous monitoring system for continuously monitoring sulfur dioxide for Unit Nos. 1, 2, and 3 in a manner sufficient to demonstrate compliance with the emission limits of this permit. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C. [Rule 62-296.405(1)(f), F.A.C.]

**A.38.** $O_2$/$CO_2$ Continuous Monitoring System. An oxygen or carbon dioxide continuous monitoring system shall be operated for Unit Nos. 1 - 3. Measurements of oxygen or carbon dioxide in the flue gas shall be utilized to convert nitrogen oxides and sulfur dioxide continuous emission monitoring data to units of pounds per million BTU heat input for proof of compliance. [Rule 62-296.405(1)(f)1.d., F.A.C.]

**A.39.** Continuous Monitor Performance Specifications. If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated, either:

a. in accordance with the EPA performance specifications listed below. These performance specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.
   (1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
   (2) Performance Specification 2--Specifications and Test Procedures for $SO_2$ Continuous Emission Monitoring Systems in Stationary Sources.
   (3) Performance Specification 3--Specifications and Test Procedures for $CO_2$ Continuous Emission Monitoring Systems in Stationary Sources. Or,

b. in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Excess emissions pursuant to Rule 62-210.700, F.A.C., shall be determined using the 40 CFR part 75 CEMS.

[Rule 62-297.520, F.A.C.; and 40 CFR 75]

## Test Methods and Procedures

**A.40.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Methods 1-4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Methods 5, 5B, 5F or 17 | Methods for Determining Particulate Matter Emissions |
| EPA Methods 6, 6A, 6B or 6C | Methods for Determining Sulfur Dioxide Emissions |
| Method 7, 7A, 7C, 7D or 7E | Determination of Nitrogen Oxide Emissions |
| DEP Method 9 | Visual Determination of the Opacity of Emissions |
| EPA conditional test method (CTM-027), EPA Method 320 | Methods for Determining Ammonia ($NH_3$) Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**A.41.** Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -001, -002 and -003 shall be tested to demonstrate compliance with the emission limitations and standards for VE, VE-SB (VE while soot blowing), PM, particulate matter while soot blowing (PM-SB), $NO_X$ and $SO_2$. The $NO_X$ and $SO_2$ certified CEMS and annual RATA test data shall satisfy the requirements of the annual compliance requirements. The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rule 62-297.310(7), F.A.C.]

**A.42.** 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.43.** Visible Emissions. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. [Rule 62-296.405(1)(e)1., F.A.C.]

**A.44.** DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

a. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
b. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
   (1) For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
   (2) For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole

number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value. [Rule 62-297.405, F.A.C.]

**A.45.** Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rules 62-296.405(1)(e)2. and 62-297.405, F.A.C.]

**A.46.** Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. [Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.405, F.A.C.]

**A.47.** When burning Liquid Fuel - Compliance with Sulfur Limit. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. [Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.405, F.A.C.]

**A.48.** Sulfur Content Sampling Methods. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or the respective successor ASTM method(s). [Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

**A.49.** Ammonia ($NH_3$) Slip Compliance. Compliance with the ammonia ($NH_3$) slip limit shall be determined using EPA conditional test method (CTM-027), EPA Method 320, or other methods approved by the Department. [Permit Nos. 0570039-022-AC and 0570039-024-AC.]

**A.50.** Determination of Heat Input. The heat input shall be calculated as the product of the gross heat rate (Btu/kWh) and gross power output (MW). The gross power output shall be measured on an arithmetic average during the compliance demonstration test. The gross unit heat rate will use a 3-month rolling "seasonal" average based on calculated monthly heat rates. These rates shall be determined by the tons of coal bunkered, composite coal analyses and gross power output for the month. The composite fuel samples shall be collected by on-site personnel in accordance with industry standard practices. [Rule 62-213.440, F.A.C.]

**Special Testing Requirements**

**A.51.** PM and VE Compliance Testing. Unit Nos. 1, 2 and 3 shall each be individually stack tested for particulate matter and visible emissions, under both sootblowing and non-sootblowing operation conditions. Unit Nos. 1 and 2 shall each be stack tested for particulate matter and visible emissions in the common stack (CS0W1), either while both units are in operation or while individual units are in operation. Particulate matter emissions determined in the common stack shall demonstrate compliance with the emissions standards (lb/MMBtu) for each unit. The mass emission rates (lb/hr) determined in the common stack shall be prorated based on the heat input rate contribution from a given unit to demonstrate compliance for that unit. Exceedences of the visible emissions standards from the common stack shall be attributed to both units unless

COMS data can clearly indicate which unit is operating in excess of the standards. [Rules 62-297.310(7)(a)2. & 4, F.A.C.; and, Permit No 0570039-053-AC, Condition 6.]

**A.52.** PM and VE Compliance Testing. Compliance testing for particulate matter emissions and visible emissions may be conducted either: (a) with fly ash re-injections or (b) without fly ash re-injection. If the maximum fly ash re-injection rate or percent of feed is exceeded, the unit shall be retested at the new maximum fly ash re-injection rate or percent feed. The results of the retest shall be submitted to the Department within 90 days of the exceedance. If a higher fly ash re-injection rate or percent of feed is required, the permittee shall notify the Department and retest to establish the revised maximum re-injection rate or percent of feed. The test results shall be submitted to the Department. [Rule 62-297.310(7)(a)2 & 4, F.A.C.]

**Recordkeeping and Reporting Requirements**

**A.53.** Reporting Schedule. The following report shall be submitted to the Compliance Authority:

| Report | Reporting Deadline(s) | Related Condition(s) |
|---|---|---|
| Quarterly Excess Emissions Rule 62-296.405(1)(g), F.A.C. | Every 3 months (quarterly) | **A.54 & A.55** |
| Quarterly $SO_2$ Emissions | Every 3 months (quarterly) | **A.56.** |
| Quarterly $NO_X$ Emissions | Every 3 months (quarterly) | **A.57.** |

[Rule 62-296.405(1)(g), F.A.C.]

**A.54.** Reporting of Excess Emissions Due to Malfunctions. In the 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 a quarterly report, if requested by the Department or the appropriate Local Program. [Rule 62-210.700(6), F.A.C.]

**A.55.** Quarterly Excess Emissions Report. Submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the source for a period of five years. [Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

**A.56.** Quarterly $SO_2$ Report. The permittee shall submit a quarterly $SO_2$ report to the Department and the EPCHC within 30 days following each calendar quarter. The quarterly $SO_2$ report shall consist of:

a. 2-hour average $SO_2$ emissions for each Unit Nos. 1, 2 and 3 in lb/MMBtu;
b. 3-hour average $SO_2$ emissions for Unit Nos. 1 - 3 combined in ton per hour;
c. 24-hour average $SO_2$ emissions for Unit Nos. 1 - 3 combined in tons per hour; and,
d. 24-hour average $SO_2$ emissions for Unit Nos. 1 - 2 combined and Unit 3 in tons per hour;
e. daily $SO_2$ removal efficiency for Unit Nos. 1 - 3;
f. 30-day rolling average $SO_2$ emissions for each Unit Nos. 1 - 3 in lb/MMBtu; and,
g. a statement of CEMS and/or boiler malfunction, start-up, shutdown or abnormal events.

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

**A.57.** Quarterly $NO_X$ Report. The permittee shall submit a quarterly $NO_X$ report to the Department and the EPCHC within 30 days following each calendar quarter. This report shall contain the heat input weighted 30-day $NO_X$ rolling average, all time periods of boiler operation as well as a statement of CEMS and/or boiler malfunction, start-up, shutdown or abnormal events. [Rule 62-296.405(1)(g), F.A.C.]

**A.58.** Records of Operation. The owner or operator shall make and maintain a daily record of operation of each emissions unit showing the date, fuel(s) used, and the duration of all startups, shutdowns and malfunctions.

Records of fuel bunkering and petroleum coke usage (weight percent of petroleum coke fired) shall also be made on at least a daily basis. Data that verifies compliance with the percentage limitation on petroleum coke usage shall be submitted with the annual operating report. [Rules 62-213.440(1) (Monitoring), F.A.C.]

**A.59.** Records. For Unit Nos. 1 - 3, gravimetric instrument data verifying that the 20.0% maximum petroleum coke content by weight has not been exceeded shall be maintained for two years and submitted to the Department and the EPCHC with each annual operating report (AOR). Also to be maintained and available for inspection shall be a record of operation showing the date, fuel used, and the duration of all startups, shutdowns, malfunctions and abnormal events. [Rules 62-213.440(1) (Monitoring), F.A.C.]

**A.60.** Continuous Emission Monitoring Network and Alarms. To demonstrate compliance with emission limits that are protective of ambient air quality standards (AAQS), data inputs will consist of hourly CEMS data from the $SO_2$, flow and $CO_2$ monitors for Unit Nos. 1 - 3 at Big Bend Station. The permittee shall use CEMS data from common stack CS0W1 to represent unit compliance with the emission limitations for each Unit 1 and Unit 2. In the event any monitor fails, the permittee will comply with 40 CFR 75, Subpart D - Missing Data Substitution Procedures. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**A.61.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

**Other Requirements**

**A.62.** Compliance Plan - Unfinished Work and/or Activities for Unit Nos. 1 - 3. The actions applicable to Unit Nos. 1 - 3 specified in **Appendix CP-1** have not yet been completed under the Consent Decree. [Rule 62-213.440(2), F.A.C.; Permit No. 0570039-024-AC; and, Consent Decree (U.S. vs. TEC) dated February 29, 2000, including the amendments dated October 23, 2000 and June 12, 2009.]

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

| E.U. ID No. | Brief Description |
|---|---|
| -004 | Fossil Fuel Fired Steam Generator Unit No. 4 |

Fossil Fuel Fired Steam Generator Unit No. 4 is a 4330 MMBTU/hour, dry-bottom tangentially fired utility boiler manufactured by Combustion Engineering. The generator nameplate capacity is 486 MW. Particulate matter 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 from Unit No. 4 are controlled by wet flue gas desulfurization (FGD) equipment installed in 1995 and manufactured by Research-Cottrell. $NO_X$ emissions from Unit No. 4 are controlled by low $NO_X$ burners (LNB), a separate overfire air system (SOFA) and its own selective catalytic reduction (SCR) system. The SCR system on Unit No. 4 was installed in 2007. 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. Unit No. 4 began commercial operation in 1985. The Unit No. 4 stack (stack identification BB-004) parameters are: height, 490 feet: diameter, 24.0 feet; exit temperature, 127 degrees F; and, actual stack gas flow rate, 1,614,250 acfm.

*{Permitting note(s): Fossil Fuel Fired Steam Generator Unit No. 4 is regulated under the federal Acid Rain Program for Phase II $SO_2$ and $NO_X$; Rule 62-296.405(2), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(8)(b)2., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Power Plant Siting Certification [PA 79-12]; Rule 62-296.700(6), F.A.C., RACT PM - O&M Plan; Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR). This emissions unit is also regulated under a Consent Final Judgment (DEP vs. TEC) dated December 16, 1999.}*

**Essential Potential to Emit (PTE) Parameters**

**B.1.** Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.]

**B.2.** Design Capacity. The design heat input rate is as follows:

| Unit No. | MMBtu/hr Heat Input |
|---|---|
| 4 | 4,330 |

This design heat input rate is based on the original design of the unit for firing coal with a certain lower heating value (LHV) that was used to design the boiler. At any given time, the actual heat input rate is a function of the actual demand load, the coal mass firing rate, and the fuel properties of the coal being fired at that time. Although the above design capacity is not intended as an operational restriction, the permittee shall obtain the appropriate air construction permits before making any physical or operational changes that would increase the actual heat input rate capability of the unit. [Rules 62-4.160(2), 62-210.200 (Definitions – Modification, Potential to Emit (PTE)); and, 62-296.405(1), 62.210.300 & 62-213.440, F.A.C.; and, Permit Nos. 0570039-014-AC (Unit Nos. 1 - 4) & 0570039-053-AC)

*{Permitting Note: For purposes of the Acid Rain program, the actual heat input rate of each of the unit is reported based on the measured exhaust gas flow rate. According to the applicant the Acid Rain CEMS at this site have historically predicted higher heat input rates than methods based on the mass flow and fuel properties of coal.}*

**B.3.** Emissions Unit Operating Rate Limitation During Testing. Testing of emissions shall be conducted with the emissions unit operating at or above 90% of the design capacity specified in this permit. The values above represent design values which, in some cases, may be exceeded as the unit is operated at full load for

stack testing. The heat input values are to be measured during stack testing to within +/- 10% of its true value using the methods/procedures contained in Specific Condition **B.53.** If it is impracticable to test at this rate, an emissions unit may be tested at less than 90% of the design capacity; in this case, subsequent emissions unit operation is limited to 110% of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the design capacity. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rules 62-297.310(2) & 62-213.440, F.A.C.]

**B.4.** Methods of Operation.

a. *Fuels - Normal Operation*. The only fuels allowed to be burned in Unit No. 4 shall consist of coal, or a coal/petroleum coke blend, or coal blended with raw coal residual, or a coal/petroleum coke blend further blended with raw coal residual. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight.

b. *Fuels - Startup, Shutdown, Flame Stabilization*. In addition to the fuels allowed to be burned during normal operation, each unit may also burn new No. 2 fuel oil during startup, shutdown, flame stabilization, and during the start of an additional solid fuel mill on an already operating unit.

c. *Other Operation.*

(1) Raw Coal Residual. The total amount of raw coal residual fired at Big Bend Station (all Unit Nos. 1 - 4 combined) shall be limited to 200 tons per day. The raw coal residual is a by-product of the gasification of coal at the Polk Power Station. The permittee shall only fire raw coal residual in the event of a gasification process malfunction at the Polk Power Station that results in raw coal residual that has some remaining fuel value. The permittee shall document all gasification process malfunctions and record the amount of raw coal residual, if any, fired at Big Bend Station. These records should be kept on site at Big Bend and made readily available to the Department and the Environmental Protection Commission of Hillsborough County upon request.

(2) Supplemental Material Injection. The following materials may be injected as needed for boiler conditioning and energy recovery purposes:

(a) Magnesium Oxide, Limestone and Fluxing Agents may be injected as needed for boiler conditioning.

(b) Fly Ash. Reinjection of on-site generated flyash for energy recovery.

d. *Daily Log*. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values.

e. *Control Devices*. All air pollution control devices shall be in operation according to manufacturer's recommendations whenever the boilers are in operation. Note: under current permitted ductwork configuration, none of the air pollution control devices can be physically bypassed. In the event of a control device malfunction resulting in excess emissions beyond the allowable periods established for these units, Unit 4 shall be removed from service until such time that the control device resumes normal operation.

[Permit No. 0570039-066-AC]

*{Permitting note: "Flame stabilization" is defined as the use of No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged, or equipment is otherwise damaged, that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame "puff". In this situation, No. 2 fuel oil must be used for stabilization to prevent flame "puffing" and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., load change occurs when the operational capacity of a unit is in the 10 to 100*

*percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.}*

**Air Pollution Control Technologies and Measures**

**B.5.** Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Permit No. 0570039-020-AC]

**B.6.** Circumvention. The owner or operator shall not circumvent or operate the air pollution control equipment-in such a manner which would violate allowable emission rates established for this unit. [Rule 62-210.650, F.A.C.; and, Permit No. 0570039-066-AC]

**B.7.** Future Actual Emissions Reporting. The permittee shall maintain and submit to the Department on an annual basis for a period of 5 years from the date the duct work separation initiative is placed in operation, information demonstrating in accordance with Rule 62-212.300(1)(e), F.A.C., using the emissions computation and reporting procedures in Rule 62-210.370, F.A.C., that the implementation of the initiative did not result in an emissions increase of $SO_2$ that would equal or exceed the respective significant emission rate as defined in Rule 62-210.200, F.A.C. [Permit No. 0570039-036-AC; and, Rule 62-212.300(1)(e), F.A.C.]

**B.8.** Low $NO_X$ Burners (LNB). Unit No. 4 shall be operated using the low $NO_X$ burners and in accordance with the operational procedures that have been developed to minimize $NO_X$ emissions. [Permit No. 0570039-014-AC]

**B.9.** Separate Overfire Air System (SOFA). Unit 4 shall be operated using the separate over fire air system (SOFA) and in accordance with the operational procedures that have been developed to minimize $NO_X$ emissions. [Permit No. 0570039-014-AC]

**B.10.** LNB and SOFA Systems. The permittee shall adhere to good combustion practices to achieve the BACT CO emissions limits. [PSD-FL-390/Permit No. 0570039-027-AC]

**B.11.** Selective Catalytic Reduction (SCR) System. The permittee shall operate and maintain the selective catalytic reduction (SCR) systems for nitrogen oxides ($NO_X$) control on Unit No. 4. [Permit No. 0570039-020-AC]

*{Permitting Note: A selective catalytic reduction (SCR) system commenced operation-under the following schedule:*

a. *Unit No. 4 – May 26, 2007, as authorized by Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).}*

**B.12.** SCR System Operation. The permittee shall operate and maintain the SCR system in accordance with the SCR system supplier's recommendations or in accordance with methods established by the owner/operator through site-specific testing, including operating the SCR system between minimum and maximum operating temperatures, which have been demonstrated by the applicant to assure compliance with the applicable emissions limits. [Permit No. 0570039-053-AC]

**B.13.** SCR System. The partial SCR system maintenance bypass duct shall be normally closed except during maintenance periods. [Permit No. 0570039-026-AC]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Conditions **B.14. - B.24.** are based on the specified averaging time of the applicable test method.

Visible Emissions (VE)

**B.14.** VE. Visible emissions from Unit No. 4 shall not exceed 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [Rules 62-204.800(8)(b)2. and 62-296.405(2)(a), F.A.C.; 40 CFR 60.42Da(b); and PSD-FL-040]

Particulate Matter (PM) Emissions

**B.15.** PM Emissions. Particulate matter emissions shall not exceed 0.01 pounds per million Btu heat input when burning solid or liquid fuel. This standard applies at all times except during periods of startup, shutdown, or malfunction. [Permit No. 0570039-060-AC]

*{Permitting Note: This PM limit originating from the Consent Final Judgment and/or the Consent Decree as amended; supersedes the NSPS 40 CFR 60 Subpart Da PM limit of 0.03 pounds per million Btu heat input.}*

**B.16.** PM Emissions. The maximum particulate matter emission rate for this unit is as follows:

| Unit No. | lbs./hour | tons/yr |
|---|---|---|
| 4 | 43.3 | 189.7 |

In the event that the design heat input rate for this unit is reduced, the maximum permitted particulate matter emission rate for this unit shall also be reduced accordingly. [Rule 62-296.700(4)(b)1. (PM RACT), F.A.C.; and, Permit No. 0570039-060-AC]

**B.17.** PM Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 2,767 tons/year of $PM/PM_{10}$. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400 (escape PSD), F.A.C.; and, Permit No. 0570039-012-AC]

Sulfur Dioxide ($SO_2$) Emissions

**B.18.** $SO_2$ Emissions. Sulfur dioxide emissions from Unit No. 4 when combusting solid fuel shall not exceed 0.82 lb/million Btu heat input and 10 percent of the potential combustion concentration (90 percent reduction). Based upon a heat input of 4,330 million Btu/hour, $SO_2$ emissions shall not exceed 3,551 lb/hr and 15,553.4 tons/yr. [Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.43Da(a)(1); PSD-FL-040; and, Rules 62-296.405(2)(c) and 62-213.440(1), F.A.C.]

**B.19.** $SO_2$ Emissions. Compliance with the sulfur dioxide emission limitations and percent reduction requirements is determined on a 30-day rolling average basis. [Rule 62.204.800(8)(b)2., F.A.C.; and, 40 CFR 60.43Da(g).]

**B.20.** $SO_2$ Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 71,810 tons per year of $SO_2$. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400, F.A.C.; and, Permit No. 0570039-012-AC.]

Nitrogen Oxides ($NO_X$) Emissions

**B.21.** Nitrogen Oxides ($NO_X$) Emissions - Unit 4. Unit No. 4 when combusting solid fuel, shall not emit more than 0.10 of a pound of nitrogen oxides per million Btu heat input based upon a 30-day rolling average basis-{calculated equivalent $NO_X$ emissions are 433 lb/hr and 1,896.5 TPY}. [Consent Final Judgment (DEP vs. TEC) dated December 16, 1999; Consent Decree (U.S. vs. TEC) dated February 29, 2000, amendment dated

June 12, 2009; E-mail memorandum from EPA received on September 15, 2005; Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.44Da(a); 40 CFR 60.44Da(c); and, Permit Nos. 0570039-066-AC and PSD-FL-040]

*{Permitting Note: The $NO_X$ limits from the Consent Final Judgment and/or the Consent Decree as amended; are sufficient to also comply with the PSD and NSPS 40 CFR 60 Subpart Da $NO_X$ limit of 0.60 pounds per million Btu heat input from 40 CFR 60.44a(a).}*

**B.22.** Ammonia Slip. Ammonia slip, measured at the stack downstream of all emissions control systems, shall not exceed 10 parts per million by volume (ppmv). Annual testing of ammonia slip shall be conducted and corrective measures taken if measured values exceed 5 ppmv. [Permit No. 0570039-020-AC]

Nitrogen Oxides (NOx) and Sulfur Dioxide ($SO_2$) Emissions

**B.23.** Calculation of Emission Rate. A "30-day rolling average emission rate" for $NO_X$ and $SO_2$ shall be herein defined as the emission rate expressed as lb/MMBtu and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Unit during an operating day and the previous twenty-nine (29) operating days; second, sum the total heat input to the Unit in MMBtu during the operating day and the previous twenty-nine (29) operating days; and third, divide the total number of pounds of the pollutant emitted during the thirty (30) operating days by the total heat input during the thirty (30) operating days. A new 30-day rolling average emission rate shall be calculated for each new operating day. The 30-day rolling average emission rate:

(1) Shall include all emissions and heat input in MMBtu commencing from the time the Unit is synchronized with a utility electric distribution system through the time that the unit ceases to be synchronized with such utility electric distribution system;

(2) May exclude emissions of $NO_X$ and heat input in MMBtu occurring during the fifth and subsequent "Cold Start Up" period(s) that occur in any 30-day period if inclusion of such emissions would result in a violation of any applicable 30-day rolling average emission rate. A "Cold Start Up Period" occurs whenever there has been no fire in the boiler of a Unit (no combustion of any fossil fuel) for a period of six hours of more. The emissions to be excluded during the fifth and subsequent Cold Start Up Period(s) shall be the lesser of: (1) those $NO_X$ emissions emitted during the eight hour period commencing when the Unit is synchronized with a utility electric distribution system and concluding eight hours later, or (2) those emitted prior to the time that the flue gas has achieved the SCR operational temperature as specified by the catalyst manufacturer; and (4) may exclude $NO_X$ emissions and heat input in MMBtu occurring during any period of malfunction (as defined at 40 C.F.R. 60.2) of the SCR; and

(3) Shall use the methodologies and procedures set forth in 40 CFR Part 75, Appendix F.

[Consent Final Judgment (DEP vs. TEC) dated December 16, 1999; Consent Decree (U.S. vs. TEC) dated February 29, 2000, amendment dated June 12, 2009; and, Permit No. 0570039-060-AC.]

Carbon Monoxide (CO) Emissions

**B.24.** Carbon Monoxide (CO) Emissions - Unit No. 4. 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 {calculated equivalent CO emissions are 866 lb/hr and 3,793.1 TPY}. [PSD-FL-390/Permit No. 0570039-027; and, CO Optimization Study dated December 18, 2008.]

**Excess Emissions**

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

**B.25.** Excess Emissions Allowed - Startup, Shutdown or Malfunction. Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any

24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**B.26.** Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix BOP, Best Operational Practices for Start up and Shutdown**. [Rules 62-210.700(2) and 62-213.440(1) (Operational Requirements that Assure Compliance), F.A.C.]

**B.27.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Monitoring Requirements**

*{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on this unit: opacity, $SO_2$, $NO_X$, $CO_2$ and stack gas flow.}*

**B.28.** Continuous Monitoring Systems. This emissions unit shall operate and maintain continuous monitoring systems for monitoring opacity, $SO_2$, $NO_X$, CO[1] and $CO_2$. [Rule 62-213.440(1) (Monitoring), F.A.C.; and, PSD-FL-390/Permit No. 0570039-027-AC)]

**B.29.** Operation and Maintenance Plan. An Operation and Maintenance Plan required under RACT for PM is attached and a part of this permit pursuant to Rule 62-296.700(6), F.A.C. All activities shall be performed as scheduled and recorded data made available to the Department upon request. Records shall be maintained on file for a minimum of five (5) years. **Appendix O&M, Operation and Maintenance Plan under RACT for PM**, is attached as part of this permit. [Rule 62-296.700(6), F.A.C.]

**B.30.** Continuous Monitoring Systems. The permittee shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen and/or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored. The sulfur dioxide, nitrogen dioxide, oxygen and/or carbon dioxide, and opacity monitoring devices shall meet the applicable requirements of Rule 62-214, F.A.C., 40 CFR 60.47Da., and 40 CFR 75. ). The opacity monitor shall be placed in the duct work between the electrostatic precipitator and the FGD scrubber. The continuous monitoring system will measure sulfur dioxide emissions at the inlet of each unit and outlet of the FGD system and from the Unit 4 No. 4 stack (BB004), while emissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Unit No. 4 ducts prior to the FGD system. The emissions of nitrogen oxides and opacity shall be measured in the Unit 4 duct prior to the FGD system. The emissions of carbon dioxide and sulfur dioxide are both measured in the inlet and outlet ducts. [Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.47Da(d); and, PA 79-12D]

**B.31.** CAM Plan. These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM for the controlled emissions of particulate matter. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

**B.32.** Use of CO CEMS For Continuous Compliance. Pursuant to 40 CFR 64.2(b)(1)(vi), the applicant has elected to use the existing certified CO continuous emissions monitoring system (CEMS) for continuous compliance in order to be exempt from the Compliance Assurance Monitoring (CAM) requirements contained in 40 CFR 64. [40 CFR 64.2(b)(vi)]

**B.33.** Emission Control Equipment Monitoring. The permittee shall submit to the Department a standardized plan or procedure that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible. [Rule 62-213.440(1) (Monitoring), F.A.C.; and, PA 79-12.]

**Continuous Emissions Monitoring Systems (CEMS)**

**B.34.** CEMS. The continuous emissions monitoring systems shall meet the quality assurance requirements and performance specifications contained in 40 CFR 75. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.35.** $SO_2$ Compliance by CEMS. The permittee shall demonstrate compliance with the sulfur dioxide limits by means of continuous emissions monitoring systems (CEMS). In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed in this permit. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met, i.e., prior test notification, proper test result submittal, etc. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.36.** $NO_X$ Compliance by CEMS. Nitrogen oxides ($NO_X$) emissions shall be continuously monitored to confirm compliance, using the Unit's existing continuous emissions monitoring system (CEMS). Compliance is determined by calculating the heat input weighted average of all hourly emission rates for $NO_X$ for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction, or abnormal events. "Abnormal events" are defined as an unanticipated interruption, malfunction, or failure of the pipeline or associated equipment utilized to supply ammonia to the Big Bend Station for use in the operation of the selective catalytic reduction control system. Excess emissions occurring from operation of the boilers during an abnormal event are authorized provided that best operational practices are employed to minimize the amount and duration of the emissions during an abnormal event. Emissions data collected during "abnormal events" may be excluded from the 30-day rolling compliance averages in accordance with this condition. For the purpose of calculating a 30-day rolling average, a boiler operating day is defined as a 24-hour period (between 12:01 a.m. and 12:00 midnight) during which fossil fuel is combusted in a steam operating unit for the entire 24-hours. [Rule 62-297.310(7)(a)2 and 4, F.A.C.); 40 CFR 60.46a(g); and, Permit Nos. 0570039-020-AC and 0570039-026-AC]

**B.37.** $NO_X$ Compliance. Compliance with the heat input weighted 30-day rolling average $NO_X$ emission limit of 0.10 lb $NO_X$/MMBtu shall be demonstrated using CEMS data every 30 boiler operating days. [Permit No. 0570039-026-AC]

**B.38.** CO Compliance by CEMS. Compliance with the 30-day rolling average CO emission limit shall be demonstrated using data collected from the required CO CEMS. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC)]

**B.39.** CO CEMS - Appendix CEMS. Additional requirements applicable to the CO CEMS are given in the attached **Appendix CEMS**, which is a part of this permit. [PSD-FL-390/Permit No. 0570039-027-AC)]

**B.40.** $SO_2$ and $NO_X$ CEMS and COMS. The permittee shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring opacity. The permittee shall also operate calibrate, and maintain a continuous monitoring system for continuously monitoring nitrogen oxides (expressed as $NO_2$). In addition, the permittee shall operate calibrate, and maintain a continuous monitoring system for continuously monitoring sulfur dioxide in a manner sufficient to demonstrate compliance with the emission limits of this permit. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.41.** $O_2$/$CO_2$ Continuous Monitoring System. An oxygen or carbon dioxide continuous monitoring system shall be operated. Measurements of oxygen or carbon dioxide in the flue gas shall be utilized to convert nitrogen oxides and sulfur dioxide continuous emission monitoring data to units of pounds per million BTU heat input for proof of compliance. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.42.** Continuous Monitor Performance Specifications. If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated, either:

a. in accordance with the EPA performance specifications listed below. These performance specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.
   (1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
   (2) Performance Specification 2--Specifications and Test Procedures for $SO_2$ Continuous Emission Monitoring Systems in Stationary Sources.
   (3) Performance Specification 3--Specifications and Test Procedures for $CO_2$ Continuous Emission Monitoring Systems in Stationary Sources. Or,

b. in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Excess emissions pursuant to Rule 62-210.700, F.A.C., shall be determined using the 40 CFR part 75 CEMS.

[Rule 62-297.520, F.A.C.; and 40 CFR 75]

**Test Methods and Procedures**

**B.43.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Methods 1-4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| EPA Methods 5, 5B, 5F or 17 | Methods for Determining Particulate Matter Emissions |
| EPA Methods 6, 6A, 6B or 6C | Methods for Determining Sulfur Dioxide Emissions |
| Method 7, 7A, 7C, 7D or 7E | Determination of Nitrogen Oxide Emissions |
| EPA Method 10 | Determination of Carbon Monoxide Emissions |
| EPA Method 9 | Visual Determination of the Opacity of Emissions |
| EPA conditional test method (CTM-027),or EPA Method 320 | Methods for Determining Ammonia ($NH_3$) Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**B.44.** Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), Emissions Unit ID No. -004 shall be tested to demonstrate compliance with the emission limitations and standards for VE, PM, $NO_X$ and $SO_2$. The $NO_X$ and $SO_2$ certified CEMS and annual RATA test data shall satisfy the requirements of the annual compliance requirements. [Rule 62-297.310(7), F.A.C.]

**B.45.** Compliance Test Prior To Renewal. Prior to permit renewal, Emissions Unit ID No. -004 shall be tested to demonstrate compliance with the emission limitations and standards for VE and PM. [Rule 62-297.310(7)(a)3., F.A.C.]

**B.46.** 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.47.** CO Stack Testing. The CO stack test shall be one-time only unless a special test is required. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC)]

**B.48.** Visible Emissions. The test method for visible emissions shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.49.** Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.50.** Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.51.** When burning Liquid Fuel - Compliance with Sulfur Limit. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.52.** Sulfur Content Sampling Methods. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or the respective successor ASTM method(s). [Rules 62-213.440 and 62-297.440, F.A.C.]

**B.53.** Ammonia ($NH_3$) Slip Compliance. Compliance with the ammonia ($NH_3$) slip limit shall be determined using EPA conditional test method (CTM-027), EPA Method 320, or other methods approved by the Department. [Permit No. 0570039-026-AC]

**B.54.** Determination of Heat Input. The heat input shall be calculated as the product of the gross heat rate (Btu/kWh) and gross power output (MW). The gross power output shall be measured on an arithmetic average during the compliance demonstration test. The gross unit heat rate will use a 3-month rolling "seasonal" average based on calculated monthly heat rates. These rates shall be determined by the tons of coal bunkered, composite coal analyses and gross power output for the month. The composite fuel samples shall be collected by on-site personnel in accordance with industry standard practices. [Rule 62-213.440, F.A.C.]

**Recordkeeping and Reporting Requirements**

**B.55.** Reporting Schedule. The following report shall be submitted to the Compliance Authority:

| Report | Reporting Deadline(s) | Related Condition(s) |
|---|---|---|
| Quarterly $NO_X$ Emissions | Every 3 months (quarterly) | **B.56.** |
| Quarterly CO Report | Every 3 months (quarterly) | **B.57.** |
| NSPS Excess Emissions and Monitoring System Performance | Every 6 months (semi-annually), except when more frequent reporting is specifically required | **B.60 and B.61.** |

[Rule 62-210.700(6), F.A.C.; and, 40 CFR 60, Subpart A.]

**B.56.** Quarterly $NO_X$ Report. The permittee shall submit a quarterly $NO_X$ report to the Department and the EPCHC within 30 days following each calendar quarter. This report shall contain the heat input weighted 30-day $NO_X$ rolling average, all time periods of boiler operation as well as a statement of CEMS and/or boiler malfunction, start-up, shutdown or abnormal events. [Rule 62-213.440(1) (Monitoring), F.A.C.]

**B.57.** Quarterly CO Report. Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Department and the EPCHC 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. [PSD-FL-390/Permit No. 0570039-027-AC]

**B.58.** Recordkeeping. Gravimetric instrument data verifying that the 20.0% maximum petroleum coke content by weight has not been exceeded shall be maintained for **five** years and submitted to the Department and the EPCHC with each annual operating report. Also to be maintained and available for inspection shall be a daily record of operation showing the date, fuel used, mode of operation (integrated/non-integrated), and the duration of all startups, shutdowns and malfunctions. The permittee shall maintain copies of fuel analyses containing information on sulfur content, ash content, and heating values. [PSD-FL-040; Rule 62-213.440(1)(b)2.b., F.A.C.; and, PA 79-12]

**B.59.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

**Other Requirements**

**B.60.** NSPS Requirements - Subpart A. This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

40 CFR 60.7, Notification and Recordkeeping
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,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

**B.61.** NSPS Requirements - Subpart Da. Except as otherwise provided in this permit, this emissions unit shall comply with all applicable provisions of 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(8)(b)2., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.47a. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart Da** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

**B.62.** Stack Height. The height of the boiler exhaust stack for Unit No. 4 (BB004) shall not be less than 490 ft. above grade. [Rule 62-210.550(3) (Good Engineering Practice (GEP) stack height), F.A.C.; and, PA 79-12]

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

| EU No. | Brief Description |
|---|---|
| | |
| | |

*Reserved*

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

| E.U. ID No. | Brief Description |
|---|---|
| -008 | Fly Ash Silo No. 1 Baghouse |
| -009 | Fly Ash Silo No. 2 Baghouse |

These emissions units consist of Fly Ash Silo Nos. 1 and 2, which handle fly ash from Steam Generator Unit Nos. 1, 2 and/or 3, as described below.

Fly Ash Silo No. 1 handles fly ash from Steam Generator Units No. 1 and No. 2. Fly ash is pneumatically conveyed from the individual electrostatic precipitators to Silo No. 1. Also, the fly ash may be pneumatically conveyed from tanker trucks to and/or from Silo No. 2 to Silo No. 1. The sum total loading rate to the silo for all the processes combined is 44.5 tons per hour. Fly ash from Silo No. 1 is discharged in either a wet or dry state. The dry fly ash is pneumatically conveyed to the beneficiation facility and/or gravity fed by tubing into totally enclosed tanker trucks. Fly ash is chemically or physically processed through a pugmill and then the wet ash unloaded into dump trucks. Particulate matter emissions generated by silo loading and silo unloading to a tanker truck are controlled by a 20,081 dscfm Flex Kleen Model No. 84 UDTR-640 baghouse in addition to reasonable precautions. Fly Ash Silo No. 1 truck loadout is an insignificant activity since it occurs infrequently only during emergency conditions when flyash is unable to be transferred to the beneficiation facility. All fly ash handled is generated on-site.

Fly Ash Silo No. 2 handles fly ash from Steam Generator Units Nos. 1, 2 and/or 3. Fly ash is pneumatically conveyed in a series of pipes from the individual unit precipitators (Units 1, 2 and/or 3, only two units at any time) to the silo for temporary storage. Fly ash from Silo No. 2 is discharged in either a wet or dry state. From the silo, the dry fly ash is pneumatically conveyed to the beneficiation facility and/or gravity fed by tubing into closed tanker trucks and transported to an off-site consumer. The wet fly ash is processed through a pugmill and then unloaded into a dump truck to be transported to an off-site consumer. Particulate matter emissions generated during silo loading operation and from the tanker truck loadout chutes are controlled by a 20,081 dscfm Flex Kleen, Model No. 84 UDTR-640 baghouse in addition to reasonable precautions. Fly Ash Silo No. 2 truck loadout is an insignificant activity since it occurs infrequently only during emergency conditions when flyash is unable to be transferred to the beneficiation facility.

*{Permitting note(s): These emissions units are regulated under Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County and Rules 62-210.300 (Permits Required) and 62.296.711 Reasonably Available Control Technology (RACT) PM (Materials Handling, Sizing, Screening, Crushing and Grinding Operations) F.A.C.}*

**Essential Potential to Emit (PTE) Parameters**

**D.1.** Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.]

**D.2.** Permitted Capacity. The maximum permitted loading rate for all Fly Ash Silo No. 1 processes combined is 44.5 tons per hour. The maximum permitted loading rate for all Fly Ash Silo No. 2 processes combined is 44.5 tons per-hour. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE); and, AO29-194516.]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Conditions **D.3. - D.4.** are based on the specified averaging time of the applicable test method.

**D.3.** Particulate Matter Emissions. Total maximum allowable emissions of particulate matter from the each silo baghouse shall not exceed 0.03 gr/dscf, 5.16 lbs/hr and 22.62 tons/yr based on a design flow rate of 20,081 dscfm. [Rules 62-4.160(2) and 62-296.711(2)(b), F.A.C.; AO29-160255 and AO29-161082]

**D.4.** Visible Emissions. Visible emissions from the flyash silos are limited to 5% opacity. [PA 79-12; and, Chapter 1-3.52, Rules of the EPC]

**Excess Emissions**

**D.5.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**D.6.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

**D.7.** Test Methods. Required tests shall be performed in accordance with the following reference methods:

| Method(s) | Description of Methods and Comments |
|---|---|
| EPA Methods 1 - 4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| EPA Method 5 | Methods for Determining Particulate Matter Emissions |
| EPA Method 9 | Visual Determination of the Opacity of Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**D.8.** Annual Compliance Test. Except as specified in Specific Condition **D.11.**, during each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -008, and -009 shall be tested to demonstrate compliance with the emission limitations and standards for VE. The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rule 62-297.310(7), F.A.C.]

**D.9.** 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.]

**D.10.** Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 minutes. [Rule 62-297.310(4)(a)2., F.A.C.]

**D.11.** Visible Emissions Test in Lieu of PM Stack Test. The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitation. If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rule 62-296.711(3)(c), F.A.C.]

**Recordkeeping and Reporting Requirements**

**D.12.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

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

| E.U. ID No. | Brief Description |
|---|---|
| -014 | Fly Ash Silo No. 3 Baghouse |

These emissions units consist of Fly Ash Silo No. 3, which handles fly ash from Steam Generator Unit No. 4. Also, fly ash may be pneumatically conveyed from tanker trucks to Silo No. 3. The dry fly ash is pneumatically conveyed to a beneficiation facility and/or gravity fed by tubing into totally enclosed tanker trucks. The sum total loading rate to the silo for all the processes combined is 44.5 tons per-hour. Fly ash can be chemically or physically processed through a pugmill and then the wet ash loaded into dump trucks. Particulate matter emissions are controlled by a 1,200 dscfm Flex Kleen Model 84-WRTC-80-II-G baghouse. Fly Ash Silo No. 3 truck loadout and handling system fugitives are insignificant activities since they occur infrequently only during emergency conditions when flyash is unable to be transferred to the beneficiation facility.

*{Permitting note(s): These emissions units are regulated under Rules 62.296.711 RACT PM (Materials Handling, Sizing, Screening, Crushing and Grinding Operations) and 62-212.400, (Prevention of Significant Deterioration [PSD-FL-040]), F.A.C.; Power Plant Siting Certification [PA 79-12]; and Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}*

**Essential Potential to Emit (PTE) Parameters**

**E.1.** Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**Operational Requirements**

**E.2.** Negative Pressures. The flyash silo storage shall be maintained at negative pressures and vented to a control system. [PSD-FL-040 and amended in Permit No. 0570039-066-AC (PSD-FL-040A)]

**E.3.** System Pressure Monitoring. The system pressure will be monitored quarterly to assess that the system is operating under negative pressure. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Conditions **E.4. - E.5.** are based on the specified averaging time of the applicable test method.

**E.4.** Particulate Matter Emissions. Particulate matter emissions from the flyash silo baghouse shall not exceed 0.2 lb/hr. [PA 79-12; PSD-FL-040 and amended in Permit No. 0570039-066-AC (PSD-FL-040A)]

**E.5.** Visible Emissions. Visible emissions from the flyash silo baghouse are limited to 5% opacity. [Rule 62-296.711(3)(c), F.A.C.; PA 79-12; PSD-FL-040 and amended in Permit No. 0570039-066-AC (PSD-FL-040A); and, Chapter 1-3.52, Rules of the EPC]

**Excess Emissions**

**E.6.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**E.7.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

**E.8.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Methods 1-4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| EPA Method 5 | Methods for Determining Particulate Matter Emissions |
| EPA Method 9 | Visual Determination of the Opacity of Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**E.9.** Annual Compliance Test. Except as specified in Specific Condition E.11., during each federal fiscal year (October 1st to September 30th), Emissions Unit ID No. -014 shall be tested to demonstrate compliance with the emission limitations and standards for VE. The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rules 62-297.310(7) and 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C.]

**E.10.** 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.]

**E.11.** Visible Emissions Test in Lieu of PM Stack Test. The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitation. If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rule 62-296.711(3)(c), F.A.C.]

**Recordkeeping and Reporting Requirements**

**E.12.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

**Unless otherwise specified, the specific conditions in this section apply to the following emissions units:**

| E.U. ID No. | Brief Description |
|---|---|
| *Limestone Handling and Storage* | |
| -012 | Limestone Silo A Baghouses (2) |
| -013 | Limestone Silo B Baghouses (2) |
| -023 | Limestone Conveyor LB/LC Baghouse |
| -050 | Limestone Conveyor LD/LE Baghouse |
| *Limestone Handling for FGD System for Units 1 and 2* | |
| -020 | Limestone Conveyors LE/LF/LG/Silo C Belt Feeder Baghouse |
| -021 | Silo C Baghouse |

Emissions Unit Description for E.U. ID Nos. -012, -013, -023 and -050

Limestone is received by truck and conveyed to the limestone storage building. From the storage building it is reclaimed and conveyed to the limestone silo A, B and/or C. A fully enclosed bucket elevator and a portable hopper/conveyor system are used as backup system to provide limestone to Silo C. The maximum annual tons of limestone handled is 1,471,680.

Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LB to Conveyor LC are controlled by a Sternvent Model DKED18003 baghouse. Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LD to Conveyor LE are controlled by a Sternvent Model DKED 18003 baghouse.

*{Permitting note(s): These emissions units are regulated under Rule 212.400, F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Power Plant Siting Certification [PA 79-12]; and, Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}*

Emissions Unit Description for E.U. ID Nos. -020 and -021

Components of the limestone handling system provide limestone for the flue gas desulfurization (FGD) system. The components are Silo C and its related rotary unloader, belt feeder and wet ball mill, and reversible belt conveyors LF and LG. Conveyors LF and LG replace an existing bifurcated chute which feeds from conveyor LE to silos A and B. Particulate matter emissions from drops from limestone handling conveyors LE, LF and LG and the silo C belt feeder are controlled by a baghouse: American Air Filter Fabripulse - Model B, size 12-72-1155. Particulate matter emissions from displaced air in silo C are controlled by a baghouse: American Air Filter Fabripak, size 6-16-132. The wet ball mill is a wet process with no expected particulate matter emissions.

*{Permitting note(s): These emissions units are regulated under Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C.; Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations; and, Chapter 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}*

**Essential Potential to Emit (PTE) Parameters**

**F.1.** Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**Operational Requirements**

**F.2.(This condition applies to Emissions Unit ID No. -023 and -050.)** Enclosure of Equipment. All conveyors and conveyor transfer points shall be enclosed to preclude particulate matter emissions. [PSD-FL-040.]

**F.3.(This condition applies to Emissions Unit ID No. -023 and -050.)** Best Operational Practices. The conveyor system shall be inspected and maintenance shall be conducted as needed in accordance with best operational practices. [Rule 62-213.440, F.A.C.]

**F.4.(This condition applies to Emissions Unit ID Nos. -012, -013, -023 and -050.)** Operations. The limestone handling conveyor transfer points and silos shall be maintained at negative pressures with the exhaust vented to a control system(s). [PSD-FL-040.]

**F.5.(This condition applies to Emissions Unit ID Nos. -020 and -021.)** Enclosure of Equipment. All conveyors and conveyor transfer points shall be enclosed and exhaust from this equipment shall be directed to a baghouse to minimize particulate matter emissions. [PSD-FL-040]

**F.6.(This condition applies to Emissions Unit ID Nos. -020 and -021.)** Operating Procedures. Enclosures and baghouses for these emissions units shall be properly operated and maintained at all times in a condition to minimize particulate matter emissions. All operators of air pollution control devices shall be properly trained in plant equipment. [Rule 62-213.440, F.A.C.]

## Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **F.7. - F.9.** are based on the specified averaging time of the applicable test method.

**F.7. (This condition applies to Emissions Unit ID No. -023 and -050.)** Particulate Matter and Visible Emissions. Total combined particulate matter emissions from the limestone conveyors LB/LC and LD/LE baghouses shall not exceed 0.65 lb/hr. Visible emissions are limited to 5% opacity. Compliance testing for particulate matter emissions is not required provided the opacity limit is maintained. [PSD-FL-040; PA 79-12; and, Chapter 1-3.52, Rules of the EPC]

**F.8. (This condition applies to Emissions Unit ID Nos. -012 and -013.)** Particulate Matter and Visible Emissions. Total combined particulate matter emissions from the limestone silos baghouses shall not exceed 0.05 lb/hr. Visible emissions are limited to 5% opacity. Compliance testing for particulate matter emissions is not required provided the opacity limit is maintained. [PSD-FL-040; PA 79-12; and, Chapter 1-3.52, Rules of the EPC]

**F.9. (This condition applies to Emissions Unit ID Nos. -020 and -021.)** Particulate Matter and Visible Emissions. No owner or operator shall cause or allow visible emissions from the baghouses controlling these emissions units in excess of 0.03 grains per dry standard cubic feet (gr/dscf) and 5% opacity. [40 CFR 60.672(a)(1) and (2); Rule 62-296.711(2)(b), F.A.C., Chapter 1-3.52, Rules of the EPC]

*{Permitting note(s): The visible emission limit of this condition is more stringent than the limitations of 40 CFR 60.672(a)(2) and 60.672(f), and compliance with this limit will assure compliance with those requirements.}*

## Excess Emissions

**F.10.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**F.11.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

## Test Methods and Procedures

**F.12.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Methods 1-4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| EPA Method 5 | Methods for Determining Particulate Matter Emissions |
| EPA Method 9 | Visual Determination of the Opacity of Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**F.13.** Annual Compliance Tests. Except as specified in Specific Condition **F.15.**, during each federal fiscal year (October 1st to September 30th), the emissions units with baghouses shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rule 62-297.310(7), F.A.C.]

**F.14.** 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.]

**F.15. (This condition applies to Emissions Unit ID Nos. -012, -013, -020, -021 -023 and -050.)** Visible Emissions Tests in Lieu of PM Stack Tests. The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitations of 40 CFR 60.672(a)(1) and (2). If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by the test method specified by 40 CFR 60.675. [Rule 62-296.711(3)(c), F.A.C.]

**F.16. (This condition applies to Emissions Unit ID Nos. -012, -013, -023 and -050.)** Visible Emissions Tests. The permittee shall perform an annual VE test to satisfy the periodic monitoring requirements of these conditions. In addition, the system pressure will be monitored quarterly to assess that the system is operating under negative pressure. [Rule 62-213.440(1)(b)1.b., F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]

**F.17. (This condition applies to Emissions Unit ID Nos. -020 and -021.)** Visible Emissions Tests. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of initial tests shall be 3 (three) hours and the duration of subsequent annual tests shall be 30 (thirty)-minutes.

*{Permitting note(s): The 3 (three) hour duration of initial tests complies with the requirements of the NSPS and the 30 (thirty) minute duration of subsequent tests complies with state rules.}*

[Rule 62-297.310(4)(a)2., F.A.C.; and, 40 CFR 60.11(b)]

**Recordkeeping and Reporting Requirements**

**F.18. (This condition applies to Emissions Unit ID Nos. -020 and -021.)** Records of Maintenance. The owner or operator shall make and maintain records of maintenance on the enclosures and baghouses sufficient to demonstrate compliance with the operating procedures requirements of Specific Condition **F.6.** [Rule 62-213.440, F.A.C.]

**F.19.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

**(These conditions apply to Emissions Unit ID Nos. -020 and -021.) NSPS 40 CFR 60 Requirements**

**F.20.** NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12,
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

**F.21.** NSPS Requirements - Subpart OOO. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C. These emissions units/points shall comply with **Appendix 40 CFR 60 Subpart OOO** included with this permit. [Rule 62-204.800(8)(b)64., F.A.C.]

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

| E.U. ID No. | Brief Description |
|---|---|
| *Coal Bunkers with Roto-Clones* | |
| -015 | Unit No. 1 Coal Bunker with Roto-Clone |
| -016 | Unit No. 2 Coal Bunker with Roto-Clone |
| -017 | Unit No. 3 Coal Bunker with Roto-Clone |
| -039 | Unit No. 4 Coal Bunker with Roto-Clone |

These emissions units are Coal Bunkers for Steam Generator Unit Nos. 1 - 4 with an exhaust fan/cyclone collector (Roto-Clone) controlling dust emission from each unit's respective bunker. The annual coal throughput shall not exceed 4000 TPH per bunker. Two moving transfer stations via their respective conveyor belts route coal through enclosed chutes to the various bunkers. Coal Bunkers 1- 4 are each equipped with a 9400 acfm American Air Filter (AAF) Company Type D Roto-Clone to abate dust emissions during ventilation. A number of vent pipes convey fresh air from each bunker to a Roto-Clone during particulate matter removal. Particulate matter removed by the Roto-Clones is returned to the coal bunkers via a hopper and return line. The Unit No. 1 Coal Bunker is situated west of Unit No. 2 Coal Bunker. The Unit No. 3 Coal Bunker is situated east of Unit No. 2 Coal Bunker. The Unit No. 4 Coal Bunker is located east of Unit No. 3. The roto-clones share a common head space to maintain a safe working environment in the blending bin building.

*{Permitting note(s): These emissions units are regulated under Chapter 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County. Each of these emissions units is exempt from the requirements of Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations, pursuant to Rule 62-296.700(2)(c), F.A.C., because it has an allowable emission rate of less than one ton per year.}*

**Essential Potential to Emit (PTE) Parameters**

**G.1.** Hours of Operation. The hours of operation for each bunker loading shall not exceed 4,167 hours per year. [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Conditions **G.2. - G.3.** are based on the specified averaging time of the applicable test method.

**G.2.** Particulate Matter. Particulate matter (PM) emissions shall not exceed 0.48 lbs/hr and 0.99 tons per year from each roto-clone exhaust. [Rule-62-296.700(2)(c), F.A.C.]

*{Permitting note(s): This particulate matter limitation ensures that allowable emissions are less than one ton per year from each emissions unit.}*

**G.3.** Visible Emissions. Visible emissions from each of these emissions units are limited to 5% opacity. [Permit No. AO29-163788; and Chapter 1-3.52, Rules of the EPC]

**Excess Emissions**

**G.4.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**G.5.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

**G.6.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Methods 1-4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| EPA Method 5 | Methods for Determining Particulate Matter Emissions |
| EPA Method 9 | Visual Determination of the Opacity of Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**G.7.** Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), one of the coal bunker roto-clone units shall be tested to demonstrate compliance with opacity. Each year a different roto-clone unit shall be tested in subsequent order (Unit 1, Unit 2. Etc.). The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rules 62-297.310(7) and 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]

**G.8.** 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.]

**G.9.** Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 (thirty) minutes. [Rule 62-297.310(4)(a)2., F.A.C.]

**Recordkeeping and Reporting Requirements**

**G.10.** Records. The permittee shall monitor the hours of operation of coal bunker loading. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}.]

**G.11.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

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

| E.U. ID No. | Brief Description |
|---|---|
| *Solid Fuel Yard* | |
| -010 | Fugitive Emissions from Fuel Unloading and Handling Operations |

This emissions unit consists of solid fuel handling and storage activities at the Big Bend Station as described in more detail below.

Solid fuel (consisting of coal and petroleum coke) is unloaded from ships and barges into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. Solid fuel may also be received/unloaded by railcar (see EU ID No. -047) and conveyed to the fuel yard. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins (see EU ID No. -029), which consist of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site (see EU ID No. -046).

*{Permitting note(s): These emissions units received a determination of Best Available Control Technology pursuant to Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Therefore, Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) does not apply; Rule 62-210.300, F.A.C., Permits Required; Power Plant Siting Certification [PA 79-12]; and, Chapter 1-3.52, Rules of the EPC, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}*

The emissions unit contained in this subsection is comprised of the following:

| E.U. ID No. -010: Solid Fuel Yard Unloading and Handling Operations | | |
|---|---|---|
| **Point ID** | **Brief Description** | **Pollutant** |
| *Barge Unloading Operations* | | |
| FH-001 | Barge Clamshell to Conveyor D1 | Fugitive VE |
| FH-002 | Barge Bucket Elevator to Conveyor A1 | |
| FH-003 | Conveyor A1 to Conveyor B1 | |
| FH-004 | Conveyor B1 to Conveyor D1 | |
| FH-005 | Self-Unloading Barge to Conveyor D1 | |
| *Coal Conveying Operations* | | |
| FH-006 | Conveyor D1 to Conveyor E1 | --- |
| FH-007 | Conveyor E1 to Conveyor Y or Conveyor F1 | --- |
| FH-008a | Conveyor Y to Conveyor Z | --- |
| FH-008b | Conveyor Z to West Emergency Pile | Fugitive VE |
| FH-012 | Conveyor Z to Conveyor P | --- |
| FH-013 | Conveyor P to Intermediate Conveyor | --- |
| FH-015 | North Stacker Conveyor (G2) to North/Center Storage Pile | Fugitive VE |
| FH-017 | North Stacker Conveyor (G2) to Conveyor P | --- |
| FH-022 | Conveyor F1 to South Stacker Conveyor (G1) | --- |
| FH-023 | South Stacker Conveyor (G1) to South/Center Storage Pile | Fugitive VE |
| FH-025 | South Reclaimer Conveyor (G1) to Conveyor F1 | --- |
| FH-028 | Conveyor P to Conveyor J2 | Fugitive VE |
| FH-029 | Conveyor J2 to Conveyor Q2 | --- |
| FH-030 | Conveyor F1 to Conveyor J1 | --- |
| FH-031 | Conveyor J1 to Conveyor Q1 | --- |

| | | |
|---|---|---|
| FH-052 | Conveyor U to East Emergency Storage Pile | Fugitive VE |
| FH-055 | Conveyor W1 to Conveyor L1 | --- |
| FH-056 | Conveyor W2 to Conveyor L2 | --- |
| FH-059 - FH-062 | Conveyors L1 & L2 to M1 & M2, and Conveyors M1 & M2 to Coal Bunkers (These enclosed conveyors are located inside an enclosed building and are not subject to emissions limits or testing requirements.) | --- |
| *Coal Equipment & Storage* | | |
| FH-009 | Dozer Operations on West Emergency Storage Pile | Fugitive VE |
| FH-010 | West Emergency Storage Pile | |
| FH-011a | Dozer Reclaim from West Emergency Pile to Portable Conveyor | |
| FH-011b | Portable Conveyor Feeds into Portable Hopper | --- |
| FH-011c | Portable Hopper to Conveyor F | --- |
| FH-018 | Dozer Operations on North Storage Pile | Fugitive VE |
| FH-019 | North Storage Pile | |
| FH-020 | Dozer Operations on Middle (Common) Storage Pile | |
| FH-021 | Fuel Storage - Middle (Common) Storage Pile | |
| FH-024 | South Reclaimer to South Reclaimer Conveyor (G1) | |
| FH-026 | Dozer Operations on South Storage Pile | |
| FH-027 | South Storage Pile | |
| FH-036 - FH-047 | Blending Bins to Conveyors T1, T2 | --- |
| FH-050 | Crusher to Conveyor W1 | --- |
| FH-051 | Crusher to Conveyor W2 | --- |
| FH-053 | Dozer Operations on East Emergency Storage Pile | Fugitive VE |
| FH-054 | East Emergency Storage Pile | |
| FH-057 | Dozer Reclaim from East Emergency Pile to "K" Feeders | |
| FH-058 | “K” Feeders to Conveyors L1 or L2 | --- |
| FH-063 | Dozer Operations on Storage Pile | Fugitive VE |
| FH-064 | Dozer Reclaim from Storage Pile to Loadout or Portable Conveyor | |
| FH-070 | Long Term Storage Pile | |
| FH-071 | Dozer Operations on Long Term Storage Pile | |
| FH-072 | Trucks, Full | |
| FH-073 | Trucks, Empty | |

**Essential Potential to Emit (PTE) Parameters**

The handling capacity for the conveyors and equipment that comprise the solid fuel yard emissions points is not specifically limited; however, the design capacity for the majority of the handling equipment is 4,000 tons per hour. The total annual solid fuel handling capacity is inherently limited by the amount of fuel that Boilers 1 – 4 can burn (5-6 million tons per year) plus the amount of solid fuel that can be transloaded for off-site shipment (1,428,030 tons per year, see E.U. ID No. -046). In addition, permit No. 0570039-041-AC established an annual limit of 8 million tons per year of solid fuel that can be received by railcar (see E.U. ID No. -047).

**H.1.** Methods of Operation – Materials Handling. The materials that are allowed to be handled by these emissions units are coal, petroleum coke, slag and residual coal (generated at the TEC Polk Power Station). [PA 79-12 and Permit No. 0570039-012-AC]

**H.2.** Hours of Operation. These emissions points may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions – PTE), F.A.C. and PA 79-12]

**Control Technology**

**H.3.** PM Control Devices. Particulate matter emissions shall be controlled by use of control devices. [PA 79-12]

*{Permitting Note: This requirement is satisfied by complying with Specific Conditions **H.4**. – **H.6.**}*

**H.4.** Equipment Enclosure. All conveyors and conveyor transfer points shall be enclosed to preclude particulate matter emissions excepting the coal handling stacker reclaimer, the tail end conveyor feeding the tripper and the barge unloading belt, which are exempted for feasibility considerations. [PSD-FL-040]

**H.5.** Water Sprays. Water sprays for storage piles, handling equipment, etc., including the handling equipment exempted from the conveyor enclosure requirement (see Specific Condition **H.4.**), shall be applied during dry periods and as necessary to all unconfined emissions points to maintain opacity below 20%. Water sprays and/or surfactants shall also be applied as necessary within the covered conveyors and drop points. [PSD-FL-040]

**H.6.** Minimizing Wind Erosion - Coal Storage Piles. Coal storage piles shall be shaped, compacted and oriented to minimize wind erosion. [PSD-FL-040]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging time for Specific Condition **H.7.** is based on the specified averaging time of the applicable test method.

**H.7.** VE/Opacity Limits. Pursuant to Chapter 1-3.52, Rules of the EPC, visible emissions shall not exceed 20% opacity for any unconfined emissions in the fuel yard. Unconfined emissions, as defined in Rule 62-210.200, F.A.C., shall include the static fuel piles, etc. [Rules 62-296.320(4)(b)1., 62.296.711(2), F.A.C.; PA 79-12; and, Chapter 1-3.52, Rules of the EPC]

*{Permitting Note: "Unconfined Emissions" are defined in Rule 62-210.200 as "Emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack." Based on this definition and the applicable requirements reflected in Specific Condition **H.7.**, emissions from operations related to the open storage piles (i.e. movable conveyor drops to the storage piles, the open storage piles themselves, dozer operations on the storage piles, the movable coal handling stacker reclaimer, the tail end conveyor feeding the tripper and the barge unloading belt) are considered unconfined emissions subject only to the general 20% opacity standard and regular VE testing is not required. TEC is able to meet this limit by maintaining the required enclosures and by operating water sprays or applying surfactants as needed; therefore, additional add-on PM control devices are not needed.}*

**H.8.** Reasonable Precautions to Minimize Unconfined Particulate Matter - Fuel Pile Operations. The fuel pile operations are subject to Rule 62-296.320(4)(c), F.A.C., Unconfined Emissions of Particulate Matter. Reasonable precautions to minimize unconfined particulate matter shall be in accordance with Rule 62-296.320(4)(c), F.A.C.; and, may include, but shall not be limited to, the coating of roads and construction sites used by contractors and re-grassing or watering areas of disturbed fuel. [Rule 62-296.320(4)(c) and PA 79-12.]

**Excess Emissions**

**H.9.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**H.10.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

## Recordkeeping and Reporting Requirements

**H.11.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

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

| E.U. ID No. | Brief Description |
|---|---|
| -032 | Surface Coating of Miscellaneous Metal Parts |

This emissions unit is for the surface coating of miscellaneous metal parts as defined in Rule 62-296.513, F.A.C. These parts include such things as pumps, compressors, conveyor components, fans, blowers, transformers.

*{Permitting note(s): This emissions unit is regulated under Rule 62-296.500, F.A.C., Reasonably Available Control Technology (RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) Emitting Facilities; and, Rule 62-296.513, F.A.C., VOC RACT - Surface Coating of Miscellaneous Metal Parts and Products.}*

**Essential Potential to Emit (PTE) Parameters**

**I.1.** Hours of Operation. At applicant request, miscellaneous metal parts surface coating operations are allowed to operate for a total of 3,500 hours/year. [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**I.2.** Capacity. At applicant request, the total maximum coating usage shall not exceed 2 gallons per hour, on a 24-hr basis, and 7,000 gallons per year. [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging time for Specific Condition **I.3.** is based on the specified averaging time of the applicable test method.

**I.3. (This specific condition applies if this emissions unit emits more than 15 pounds of VOC in any one day and 3 pounds VOC in any one hour.)** VOC Emission Limits for Surface Coating of Miscellaneous Metal Parts.

a. No owner or operator of a coating line for miscellaneous metal parts and products shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:
   (1) 4.3 pounds per gallon of coating (0.52 kilograms per liter), excluding water, delivered to a coating applicator that applies clear coatings;
   (2) 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator in coating application system that is air dried or forced warm air dried at temperatures up to 194 degrees Fahrenheit (90 degrees Celsius);
   (3) 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator that applies extreme performance coatings; or,
   (4) 3.0 pounds per gallon of coating (0.36 kilograms per liter), excluding water, delivered to a coating applicator for all other coatings and coating application systems.

b. If more than one emission limitation in specific condition **I.3.(a)** above applies to a specific coating, then the least stringent emission limitation shall be applied.

c. All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in condition I.6.(a) above unless the solvent is directed into containers that prevent evaporation into the atmosphere.

[Rule 62-296.513(2), F.A.C.]

**I.4. (This specific condition applies if this emissions unit emits more than 15 pounds of VOC in any one day and 3 pounds VOC in any one hour.)** Control Technology. The emission limits in specific condition **I.3.(a)** above shall be achieved by the application of low solvent coating technology. [Rule 62-296.513(3), F.A.C.]

**Excess Emissions**

**I.5.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**I.6.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

**I.7.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Method 24 | Determining VOC content |
| EPA Method 450/3-84-019 | Determining VOC content |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**I.8.** Test Methods. The VOC content shall be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coating, and inks, using EPA Reference Method 24. [Rule 62-296.500(2)(b)2., F.A.C.]

**I.9. (This specific condition applies if this emissions unit emits more than 15 pounds of VOC in any one day and 3 pounds VOC in any one hour.)** Test Methods and Procedures to Determine Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rules 62-296.513(4)(a) and (c), F.A.C.]

**I.10.** 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.]

**Recordkeeping and Reporting Requirements**

**I.11.** Recordkeeping. The permittee shall maintain records of operations for the most recent 5 year period. The records shall be made available to the local, state, or federal air pollution agency upon request. The records shall include, but not be limited to, the following:

a. The rule number applicable to the operation for which the records are being maintained.
b. The application method and substrate type (metal, etc.).
c. The amount and type of adhesive, coatings (including catalyst and reducer for multicomponent coatings), solvent, and/or graphic arts material used at each point of application, including exempt compounds.
d. The VOC content as applied in each adhesive, coating, solvent, and/or graphic arts material.
e. The date for each application of each adhesive, coating, solvent, and/or graphic arts material.
f. The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each.

[Rule 62-296.500(2)(b)1., F.A.C.]

**I.12.** Reporting. Annually, in accordance with a schedule and reporting format provided by the Department or EPCHC, The permittee shall provide EPCHC with proof of compliance with the limitations in this section. [Rule 62-296.500(2)(c), F.A.C.]

**I.13.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

## Subsection J. Reserved

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

| EU No. | Brief Description |
|---|---|
| | |
| | |
| | |

*Reserved*

## Subsection K. Reserved

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

| EU No. | Brief Description |
|---|---|
| | |

*Reserved*

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

| E.U. ID No. | Brief Description |
|---|---|
| -022 | Lime Silo for Wastewater Treatment Plant with one Baghouse |

This emissions unit is comprised of a lime silo with one baghouse (Griffin Environmental 36-LS Filter Vent) which supplies limestone to the wastewater treatment plant for the FGD chloride bleed stream. This plant will serve the FGD systems. Particulate matter emissions from displaced air from periodically filling the lime silo will be controlled with the related baghouse.

*{Permitting note(s): This emissions unit is regulated under Chapter 1-3.52, Rules of the EPC, Rules of the Environmental Protection Commission (EPC) of Hillsborough County. This emissions unit is exempt from the requirements of Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations, pursuant to Rule 62-296.700(2)(c), F.A.C., because it has an allowable emission rate of less than one ton per year.}*

**Essential Potential to Emit (PTE) Parameters**

**L.1.** Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**Operational Requirements**

**L.2.** Operating Procedures. The baghouse for this emissions unit shall be properly operated and maintained at all times in a condition to minimize particulate matter emissions. All operators of air pollution control equipment shall be properly trained in plant equipment. [Rule 62-213.440, F.A.C.]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging time for Specific Condition **L.3.** is based on the specified averaging time of the applicable test method.

**L.3.** Particulate Matter (PM) and Visible Emissions. No owner or operator shall cause or allow PM and visible emissions (VE) from the baghouse controlling this emissions unit in excess of 0.03 gr/dscf and 5% opacity. [Rule 62-296.700(2)(c), F.A.C., Chapter 1-3.52, Rules of the EPC]

*{Permitting note(s): The particulate matter limitation will ensure that allowable emissions are less than one ton per year for this emissions unit.}*

**Excess Emissions**

**L.4.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**L.5.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

**L.6.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Methods 1-4 | Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content |
| EPA Method 5 | Methods for Determining Particulate Matter Emissions |

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Method 9 | Visual Determination of the Opacity of Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**L.7.** Annual Compliance Test. Except as specified in Specific Condition **L.10.**, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rule 62-297.310(7), F.A.C.]

**L.8.** 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.]

**L.9.** Visible Emissions Test in Lieu of PM Stack Test. The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitation. If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rule 62-296.711(3)(c), F.A.C.]

**L.10.** Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 minutes. [Rule 62-297.310(4)(a)2., F.A.C.]

**Recordkeeping and Reporting Requirements**

**L.11.** Records of Maintenance. The owner or operator shall make and maintain records of maintenance on the baghouse sufficient to demonstrate compliance with the operating procedures requirements of Specific Condition **L.2.** [Rule 62-213.440, F.A.C.]

**L.12.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

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

| E.U. ID No. | Brief Description |
|---|---|
| | *Coal Residual Storage and Transfer from the Polk Power Station* |
| -037 | Coal Residual Storage Facility |
| -038 | Coal Residual Transfer System |

These emissions units consist of the storage and handling of coal residual received from the Polk Power Station. A nominal 25-ton dump truck empties a load of material into the building, and a bulldozer either pushes the material into a vacant area of the building, or it pushes the material directly into the dozer trap in the rear of the building. The dozer trap is a hopper that is partially below grade, and is used to feed the conveyor, which is capable of transferring up to 200 tons of material per hour. The conveyor is fully enclosed to prevent fugitive dust emissions, and to also prevent wetting of the material. Material inside the building shall be sprayed with water as necessary to minimize dust within the building.

*{Permitting note(s): These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required; Permit No. 0570039-012-AC; Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County; and Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations.}*

**Essential Potential to Emit (PTE) Parameters**

**M.1.** Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.]

**M.2.** Capacity. The maximum conveyor transfer rate shall be 200 tons per hour and 255,500 tons per year of coal residual that has been generated at the Polk Power Station gasification process. [Permit No. 0570039-012-AC]

**Operational Requirements**

**M.3.** Enclosure of Equipment. All conveyors and conveyor transfer points shall be enclosed to minimize particulate matter emissions. The coal residual shall be stored in an enclosed facility. Open storage of coal residual is prohibited. [Rule 62-296.320(4)(c), F.A.C., and Permit No. 0570039-012-AC]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Condition **M.4.** is based on the specified averaging time of the applicable test method.

**M.4.** Visible Emissions. Visible emissions shall not exceed 5% opacity in lieu of particulate matter sampling. [Rule 62-296.711(3)(c), F.A.C., Permit No. 0570039-012-AC; and, Chapter 1-3.52, Rules of the EPC]

**Excess Emissions**

**M.5.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**M.6.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

**M.7.** Test Methods. Required tests shall be performed in accordance with the following reference method(s):

| Method(s) | Description of Method(s) and Comment(s) |
|---|---|
| EPA Method 9 | Visual Determination of the Opacity of Emissions |

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**M.8.** Annual Compliance Test. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), these emissions units shall be tested to demonstrate compliance with the emission limitations and standards for VE. The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rule 62-297.310(7), F.A.C.]

**M.9.** 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.]

**M.10.** VE Testing Sites. Sites to be tested shall be determined by EPCHC. [Permit No. 0570039-012-AC]

**Recordkeeping and Reporting Requirements**

**M.11.** Records. The permittee shall keep records of the following parameters for each specific month/day/year:
a. Amount of raw coal residual charged (tpd); and,
b. Amount of refined/beneficiated coal residual charged (tpd).
[Permit No. 0570039-012-AC]

**M.12.** Records. The permittee shall also keep records of:
a. Annual amount of raw coal residual charged (tpy);
b. Annual amount of refined/beneficiated coal residual charged (tpy); and,
c. Annual VE tests.
[Permit No. 0570039-012-AC]

**M.13.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

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

| E.U. ID No. | Brief Description |
|---|---|
| | *Diesel Generators (Engines)* |
| -043 | SCCT Black Start Diesel Engine, 1,000 ekW |
| -044 | Coal Field Diesel Generator |

This section is comprised of two diesel compression ignition type engines. The 1,000 ekW, SCCT black start-(diesel engine) is only used to start SCCT Units 4A and 4B, Emission Unit ID Nos. -041 and -042. Air pollutant emissions from both engines are uncontrolled.

| Identification | In-service date | Manufacturer name | Horsepower (HP) | Applicable Requirement(s) for Compression Ignition Type Engines |
|---|---|---|---|---|
| SCCT Black Start Diesel Engine, 1,000 ekW | 08/2009 | Kohler | 1,495 | 40 CFR 63, Subparts A and ZZZZ and 40 CFR 60, Subparts A and IIII<br>This generator is a "new unit." |
| Coal Field Diesel Generator | 1999 | Caterpillar | 349 | 40 CFR 63, Subparts A and ZZZZ and 40 CFR 60, Subparts A and IIII<br>Manufacture date 1999; purchased 10/2009.<br>This generator is an "existing unit". |

*{Permitting note(s): These emissions units are regulated under 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) also referred to as the "RICE Maximum Achievable Control Technology (MACT)" adopted in Rule 62-204.800(11)(b), F.A.C.*

*The Diesel Emergency Black Start Generator is classified as an emergency generator according to 40 CFR 63.6675:*

*"Emergency stationary RICE means any stationary RICE that operates in an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations."}*

**The following requirements apply to the emissions unit listed above:**

**Essential Potential to Emit (PTE) Parameters**

**N.1.** Hours of Operation. The SCCT Black Start Diesel Engine is allowed to operate for no more than 500 hours per year in accordance with Rule 62-210.200, F.A.C. [Rule 62-210.200 (Definitions - Emergency Generator, F.A.C.; and, Permit No. 0570039-040-AC]

**N.2.** Hours of Operation. The SCCT Black Start Diesel Engine excluding emergency conditions is allowed to operate for no more than 100 hours per year (approximately two hours per week) for routine testing and maintenance purposes. [Permit No. 0570039-040-AC]

**N.3.** Sulfur Content. The SCCT Black Start Diesel Engine shall be fired with ultra low sulfur diesel fuel (ULSD). The ULSD shall contain a maximum sulfur content of 0.0015 percent (%), by weight. [Permit No. 0570039-040-AC]

**Reporting Requirements**

**N.4.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

**NESHAP 40 CFR 63 Requirements**

**N.5.** NESHAP 40 CFR 63 Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. These emissions units shall comply with **Appendix 40 CFR 63 Subpart A** included with this permit. [Rule 62-204.800(11)(d)1., F.A.C.]

**N.6.** "RICE MACT" 40 CFR 63 Requirements - Subpart ZZZZ. These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), which have been adopted by reference in Rule 62-204.800(11)(b), F.A.C. These emissions units shall comply with **Appendix 40 CFR 63 Subpart ZZZZ** included with this permit. [Rule 62-204.800(11)(b), F.A.C.]

**NESHAP 40 CFR 63 Reporting and Recordkeeping Requirements**

**N.7.** Notification Requirements. In accordance with 40 CFR 63.6590(b) each engine is subject to the notification requirements of this Subpart. New stationary RICE (the diesel emergency black start generator) that operate exclusively as emergency units are subject only to initial notification requirements. [Rule 62-204.800(11), F.A.C.; and, 40 CFR 63.6590(b)]

**N.8.** Recordkeeping Requirement for Applicability Determinations. In accordance with 40 CFR 63.10 (b)(3) the owner or operator must keep a record of each applicability determination on site at the source for a period of five (5) years after the determination, or until the source changes its operations to become an affected source subject to the relevant standards, whichever comes first. [Rule 62-204.800(11), F.A.C.; and, 40 CFR 63.10(b)(3)]

**NSPS 40 CFR 60 Requirements**

**N.9.** NSPS Requirements - Subpart A. The SCCT Black Start Diesel Engine shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

40 CFR 60.7, Notification and Recordkeeping
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,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

**N.10.** NSPS "4-I" or "CI-ICE" 40 CFR 60, Subpart IIII. Pursuant to 40 CFR 63.6590(c), the permittee has elected to comply with the RICE MACT for the SCCT Black Start Diesel Engine by meeting the requirements of the NSPS 40 CFR 60, Subpart IIII, attached as **Appendix 40 CFR 60 Subpart IIII**, to this permit. Pursuant to 40 CFR 63.6590(c), no further requirements apply to the engine under 40 CFR 63 Subpart ZZZZ. [Rules 62-204.800(11) & (8), F.A.C.]

**N.11.** NESHAP 40 CFR 63, Subpart ZZZZ. The Coal Field Diesel Generator shall comply with the applicable requirements of the NESHAP 40 CFR 63, Subpart ZZZZ, attached as **Appendix 40 CFR 63, Subpart ZZZZ**, to this permit. [Rule 62-204.800(11), F.A.C.]

## Subsection O. Emissions Units -041 & - 042

**The specific conditions in this section apply to the following emissions unit(s):**

| E.U. ID No. | Brief Description |
|---|---|
| -041 | SCCT 4A with a common electric generator that it shares with SCCT 4B |
| -042 | SCCT 4B with a common electric generator that it shares with SCCT 4A |

These emissions units consist of one PWPS FT8-3® SwiftPac® Aeroderivative simple cycle combustion turbine (SCCT)-generator peaking unit. SCCT 4A and SCCT 4B are coupled to one common generator having a nominal gross generation capacity of 62 MW. Each SCCT is equipped with water injection to minimize $NO_X$ emissions and an oxidation catalyst to minimize CO and VOC emissions. Each SCCT may only be operated in the simple cycle mode. Each SCCT is allowed to fire pipeline-quality natural gas (NG) containing no more than 2.0 grains of total sulfur per one hundred standard cubic feet (gr S/100 scf) and ultra low sulfur diesel fuel (ULSD) containing a maximum sulfur content of 0.0015 percent by weight.

*{Permitting Notes: Nitrogen Oxides ($NO_X$) emissions from units -041 and -042 are controlled by steam or water injection. Carbon monoxide emissions are controlled by an oxidation catalyst system. Units -041 and -042 began commercial operation on August 15, 2009. The generator nameplate rating for units -041 and -042 is 31 MW each, 62 MW total. Each unit has a separate, but identical, stack with the following parameters: Stack height = 60 feet; exit diameter = 9.5 feet; exit temperature = 893º F; and, actual volumetric flow rate = 430,737 actual cubic feet per minute (acfm). In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}*

**Essential Potential to Emit (PTE) Parameters**

**O.1.** Permitted Capacity. The maximum allowable heat input rate is as follows:

| Unit No. | MMBtu/hr Heat Input | Fuel Type |
|---|---|---|
| -041, -042 | 342.7 | Natural Gas (NG) |
| -041, -042 | 302.7 | Ultra Low Sulfur Diesel |

Heat input rates are based on 100% load with evaporative cooling, 59º F ambient temperature, 52º F compressor inlet air temperature, and the higher heating value (HHV) of the fuel. Heat input rates will vary depending upon turbine characteristics, ambient conditions and evaporative cooling. The permittee shall have provided manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. The manufacturer's curves shall be reestablished and resubmitted to DEP within 45 days following the replacement of any combustion turbine components or major turbine tuning session that could reasonably affect the performance of the turbine. 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), 62-213.440, F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 7.]

**O.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.]

**O.3.** Methods of Operation.

a. *Fuels*. The fuels that are allowed to be burned in these units are:
   (1) *NG, Primary Fuel*. The NG shall contain no more than 2.0 grains of sulfur per 100 standard cubic feet (2.0 gr S/100 scf).
   (2) *ULSD*. The ULSD shall contain a maximum sulfur content of 0.0015%, by weight.

b. *Simple Cycle Mode*. Each SCCT shall operate only in the simple cycle mode not to exceed the permitted hours of operation allowed by this permit (See Specific Condition **O.4.**). This restriction is based on the permittee's 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/connecting

to heat recovery steam generators, 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 PSD permit application complete with a proposed best available control technology (BACT) determination as if the SCCT peaking units had never been built.

c. *Simulated Facility Black Start Testing.* Subject to the CEMS data exclusions specified in Specific Condition **O.15.e.**, below, TEC may operate simple cycle combustion turbines 4A and 4B at low loads for extended periods of time in order to simulate the conditions experienced following a facility-wide shutdown. These simulated periods may be used to develop facility black start protocols and to perform periodic operator training exercises. [Rule 62-213.410, F.A.C.; and Permit Nos. 0570039-040-AC, Specific Conditions 3, 8 & 9 and 0570039-053-AC, Specific Condition 9.]

**O.4.** Hours of Operation. SCCT 4A and SCCT 4B are allowed to operate in the peaking service mode for no more than 3,500 hr/calendar year each, including no more than 500 hr/calendar year each on ULSD. Any hour used to fire ULSD will decrease an hour that could have been used to fire NG. [Rule 62-210.200(PTE), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 6.]

**Control Technology**

**O.5.** Wet Injection. The permittee shall adjust, operate, and maintain a water injection system to reduce $NO_X$ emissions from each SCCT. The water injection system shall be maintained and adjusted in accordance with the manufacturer's recommendations or determined best practices to minimize emissions. [Rule 62-4.070(3), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 4.]

**O.6.** Oxidation Catalyst. The permittee shall operate and maintain an oxidation catalyst system to reduce CO and VOC emissions from each SCCT. The system shall be maintained and operated in accordance with the manufacturer's recommendations or determined best practices to minimize emissions. [Rule 62-4.070(3), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 5.]

**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 Conditions **O.7. - O.11.** are based on the specified averaging time of the applicable test method.

The mass emission rate standards are based on a turbine inlet temperature condition of 59 °F, evaporative cooling on, and using the higher heating value (HHV) of the fuel. Mass emissions rates may be adjusted to actual test conditions in accordance with the performance curves and/or equations on file with the Department. The emissions limits listed in Specific Conditions **O.7. - O.11.** are for each SCCT, not combined.

**O.7.** Visible Emissions. Visible emissions from each unit shall not exceed 10 percent opacity, as determined by annual testing. [Permit No. 0570039-040-AC, Specific Condition 10.]

**O.8.** Nitrogen Oxide ($NO_X$). $NO_X$ emissions from each unit shall not exceed the following:

a. *When Firing Natural Gas*.
(1) 25 ppmvd @ 15% oxygen ($O_2$) (NSPS) or,
*{Permitting Note: For informational purposes, the $NO_X$ limit equates to 32 lb/hour/CT.}*

b. *When Firing Ultra Low Sulfur Diesel.*
(1)74 ppmvd @ 15 $O_2$ (NSPS) or,

c. *When operating at less than 75% of peak load.*
(1) 96 ppmvd @ 15@ oxygen (NSPS)

d. *When Firing Both NG and ULSD.* Compliance with the NSPS limit is ensured by complying with the NSPS limit, for NG or ULSD, depending on the contribution of the fuels of the total heat input: if the total heat input contribution is equal to or greater than 50 percent from NG, you must meet the corresponding limit for a NG-fired turbine when you are burning that fuel; similarly, when your total heat

input contribution is greater than 50 percent from ULSD, you must meet the corresponding limit for ULSD for the duration of the time that you burn that particular fuel.

e. *Demonstration of Compliance*. Continuous compliance shall be demonstrated with the concentration-based (ppmvd) $NO_X$ emissions limits (4-hour rolling average) for each fuel type by data collected from the required continuous emissions monitoring system (CEMS).

[40 CFR 60, Subpart KKKK; and, Permit No. 0570039-066-AC]

**O.9.** Carbon Monoxide (CO). CO emissions from each unit shall not exceed the following:

a. *When Firing Natural Gas*.
(1) 21.0 ppmvd @ 15% $O_2$ (SIP) or,
*{Permitting Note: For informational purposes, the CO limit equates to 9.1 lb/hour/CT.}*

b. *When Firing Ultra Low Sulfur Diesel.*
(1) 5.1 ppmvd @ 15% $O_2$ (SIP) or,
*{Permitting Note: For informational purposes, the CO limit equates to 2.1 lb/hour/CT.}*

c. *Demonstration of Compliance*. Continuous compliance shall be demonstrated with the concentration-based (ppmvd) CO emissions limits (3-hour rolling average) for each fuel type by data collected from the required continuous emissions monitoring system (CEMS).

[Permit No. 0570039-066-AC]

*{Permitting Note: CO is used as a surrogate for VOC emissions as a demonstration of good combustion.}*

**O.10.** Particulate Matter (PM). PM emissions are minimized by complying with the fuel sulfur specifications, combined with the efficient combustion design and operation of the turbines (good combustion). [Permit No. 0570039-040-AC, Specific Condition 10.]

*{Permitting Note: Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. No PM emissions limits or compliance demonstrations are imposed. Maximum expected $PM/PM_{10}$ emissions from each turbine are approximately 2.5 and 7.5 lb/hr for NG and ULSD, respectively.}*

**O.11.** Sulfur Dioxide ($SO_2$). $SO_2$ emissions from each unit shall not exceed the following:

a. *When Firing Natural Gas*.
(1) 2.0 grains (gr) of Sulfur (S)/100 standard cubic feet (scf) of natural gas (SIP) or,
(2) 0.90 lb/megawatt hour (MWh)/SCCT gross output (NSPS) or,
(3) 0.060 lb/MMBtu/SCCT heat input (NSPS).

b. *When Firing Ultra Low Sulfur Diesel.*
(1) 0.0015% S content, by weight (SIP) or,
(2) 0.90 lb/MWh/SCCT gross output (NSPS) or,
(3) 0.060 lb/MMBtu/SCCT heat input (NSPS).

c. *Demonstration of Compliance*. The fuel sulfur specifications effectively limit the potential emissions of $SO_2$ (and essentially sulfuric acid mist). For compliance purposes, the permittee elected to demonstrate that the fuel combusted will not exceed the potential sulfur emissions of 0.060 lb $SO_2$/MMBtu heat input (see Appendix 40 CFR 60, Subpart KKKK of the permit).

[40 CFR 60, Subpart KKKK; and, Permit No. 0570039-040-AC, Specific Conditions 8 & 10.]

**Excess Emissions**

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

**O.12.** Definitions. Rule 62-210.200(Definitions), F.A.C., defines the following terms:

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* is the cessation of the operation of an emissions unit for any purpose.

c. *Malfunction* is defined as 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.

[Permit No. 0570039-040-AC, Specific Condition 21.]

**O.13.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 22.]

**O.14.** 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. [Rule 62-210.700(4), F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 23.]

**O.15.** Allowable SIP CO and $NO_X$ Data Exclusions. Provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized, CO and $NO_X$ CEMS data collected during periods of startup, shutdown and malfunction may be excluded from the 3-hr rolling average and 4-hr rolling average, respectively, for compliance demonstrations only in accordance with the following requirements. All periods of data excluded shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown, malfunction, tuning and facility black start testing) may be excluded. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions replace the provisions in Rule 62-210.700(1), F.A.C.

a. *Startup*. In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 15 minutes of CEMS data indicating exceedences of emission limits shall be excluded for each gas turbine startup. For startups of less than 15 minutes in duration, only those minutes of exceedences attributable to startup shall be excluded. The total duration of a startup event is not limited.

b. *Shutdown.* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 15 minutes of CEMS data indicating exceedences of emission limits shall be excluded for each gas turbine shutdown. For shutdowns less than 15 minutes in duration, only those minutes of exceedences attributable to shutdown shall be excluded. The total duration of a shutdown event is not limited.

c. *Malfunction.* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than 120 minutes of CEMS data shall be excluded in a 24-hour period for each gas turbine due to malfunctions. Within one (1) 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 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 exceedences of emission limits may be excluded from the compliance demonstration periods for the two simple cycle gas turbines when operating at less than full load for extended periods in relation to simulated or actual facility black start conditions.

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 malfunction and tuning) shall be used to report annual emissions for the Annual Operating Report. [Rules 62-210.370(3), 62-210.700(5) and 62-213.440, F.A.C.; and, Permit Nos. 0570039-040-AC, Specific Condition 24 & 0570039-053-AC, Specific Condition 10.]

**O.16.** Excess Emissions NSPS – $NO_X$. See 40 CFR 60.4350 and 4380 in Appendix KKKK (NSPS Subpart KKKK Requirements for Stationary Combustion Turbines) of this permit. [40 CFR 60.4350 and 60.4380; and, Permit No. 0570039-040-AC, Specific Condition 25.]

**O.17.** Excess Emissions NSPS - $SO_2$. See 40 CFR 60.4385 in Appendix 40 CFR 60 KKKK (NSPS Subpart KKKK Requirements for Stationary Combustion Turbines) of this permit. [40 CFR 60.4385; and, Permit No. 0570039-040-AC, Specific Condition 26]

**Continuous Monitoring Requirements**

**O.18.** Continuous Emissions Monitoring Systems (CEMS). The permittee shall calibrate, maintain and operate the diluent CEMS to measure $CO_2$ emissions and CEMS to measure and record the emissions of CO and $NO_X$ from each gas turbine in a manner sufficient to demonstrate continuous compliance with the emission standards of this section.

a. *$NO_X$ Monitor*. Each $NO_X$ monitor shall be certified pursuant to the specifications of 40 CFR 75. Quality assurance procedures shall conform to the requirements of 40 CFR 75, Appendix B. The annual and required Relative Accuracy Test Audit (RATA) tests required for the $NO_X$ monitor shall be performed using EPA Method 7E or 20 in 40 CFR 60, Appendix A.

b. *CO Monitor*. Each CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 75, Appendix B. The annual and required RATA tests required for the CO monitor shall be performed using EPA Method 10 in 40 CFR 60, Appendix A, and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.

c. *$SO_2$ Monitoring*. $SO_2$ monitoring will be in accordance with 40 CFR 75, Appendix D and~~,~~ Appendix TR requirements (using sulfur content and fuel flow rates).

d. *Diluent Monitor*. The carbon dioxide ($CO_2$) content of the flue gas shall be monitored at the location where CO and $NO_X$ are monitored to correct the measured emissions rates to 15% oxygen. The oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75, Appendix B.

[Rule 62-297.520, F.A.C.; 40 CFR 75; Permit No. 0570039-066-AC; and, Appendix CEMS for EU 41 and 42 of this permit.]

**O.19.** CEMS Data Requirements. The CEMS shall be calibrated, maintained and operated in the gas turbine stacks to measure and record the emissions of CO and $NO_X$ in a manner sufficient to demonstrate compliance with the CEMS-based emission limits of this section. The CEMS shall express the results in units of ppmvd corrected to 15% oxygen. Upon request by the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable $NO_X$ standards of 40 CFR 60, Subpart KKKK, Table 1. The permittee shall be in compliance with the terms and conditions contained in Appendix CEMS for EU 41 and 42, Standard Continuous Monitoring Requirements, of this permit. [Permit No. 0570039-040-AC, Specific Condition 28.]

**O.20.** CEMS Annual Emissions Requirement: The owner or operator shall use data from the $NO_X$ and 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 Rule 62-210.370(3), F.A.C., Annual Operating Report. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit. [Rules 62-210.200(Definitions) and 62-210.370(3), F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 29.]

**O.21.** CEMS - Appendix CEMS for EU 41 and 42. Additional requirements applicable to the CEMS are given in the attached **Appendix CEMS for EU 41 and 42**, which is a part of this permit. [Permit No. 0570039-040-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.}*

**O.22.** Test Methods. 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. |
| 5 | Method for Determining Particulate Matter Emissions |
| 7E | Determination of $NO_X$ Emissions from Stationary Sources (Instrumental) |
| 6 or 6C | Determination of $SO_2$ Emissions from Stationary Sources |
| 8 | Determination of SAM and $SO_2$ Emissions from Stationary Sources |
| 9 | Visual Determination of Opacity of Emissions from Stationary Sources |
| 10 | Determination of Carbon Monoxide Emissions from Stationary Sources |
| 18 | Measurement of Gaseous Organic Compound Emissions by Gas Chromatography<br>{Note: EPA Method 18 may be used (optional) concurrently with EPA Method 25A to deduct emissions of methane and ethane from the measured VOC emissions.} |
| 19 | Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxide Emissions Rates |
| 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. [40 CFR 60, Appendix A; Rule 62-204.800, F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 13.]

**O.23.** 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.]

**O.24.** Annual Compliance Testing. During each federal fiscal year (October 1st to September 30th), each SCCT shall be tested to demonstrate compliance with the emission standard for opacity if the SCCT fired ULSD fuel more than 400 hours/year. 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. Emissions of CO and NOx recorded by the CEMS shall also be reported. [Rules 62-297.310(7)(a) and (b), F.A.C.; and, Permit No. 0570039-066-AC]

**O.25.** Compliance Tests Prior To Renewal. Any SCCT that did not fire ULSD fuel for more than 400 hours/year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit. [Rules 62-210.300(2)(a) and 62-297.310(7)(a)(8), F.A.C.]

**O.26.** Visible Emissions. The test method for visible emissions shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. [Rule 62-297.401, F.A.C. and Permit No. 0570039-040-AC, Specific Condition 13.]

**O.27.** CO Compliance. Continuous compliance shall be demonstrated with the 3-hour rolling average CO emission limits by data collected by the required CEMS. CO will be used as a surrogate for VOC emissions as a demonstration of good combustion. [Rule 62-4.070(3), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 13.]

**O.28.** Nitrogen Oxide. The permittee shall conduct an annual Relative Accuracy Test Audit (RATA) on each SCCT to demonstrate compliance with the short-term $NO_X$ emission limits (ppmvd @ 15% $O_2$ and lb/hr (mass emissions)) per fuel type. Continuous compliance shall be demonstrated with the 4-hour rolling average $NO_X$ emission limits by data collected from the required continuous emissions monitoring system (CEMS). When firing ULSD, compliance with the SIP limit ensures compliance with the NSPS limit of 74 ppmvd @ 15% $O_2$. When firing both NG and ULSD, compliance with the NSPS limit is ensured by complying with either the NSPS limit, for NG, or the SIP limit, for ULSD, depending on the contribution of the fuels of the total heat input: if the total heat input contribution is equal to or greater than 50 percent from NG, you must meet the corresponding limit for a NG-fired turbine when you are burning that fuel; similarly, when your total heat input contribution is greater than 50 percent from ULSD, you must meet the corresponding limit for ULSD for the duration of the time that you burn that particular fuel. [40 CFR 60.4350(g); and, Permit No. 0570039-040-AC, Specific Condition 13.]

**O.29.** NSPS Compliance Demonstrations for $NO_X$. See 40 CFR 60.4400 and 4405 in Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines of this permit for the compliance demonstration requirements for $NO_X$. [40 CFR 60.4400 and 60.4405; and, Permit No. 0570039-040-AC, Specific Condition 17]

**O.30.** NSPS Compliance Demonstrations for Sulfur. See 40 CFR 60.4415 in Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines of this permit for the compliance demonstration requirements for $SO_2$. A one-time compliance test on one SCCT was conducted for $SO_2$ mass emissions in order to satisfy compliance with the mass limit and the quality of the NG and ULSD. Afterwards, the use of NG and ULSD in accordance with the permit and 40 CFR 60.4415 will be used as a surrogate for $SO_2$ emissions. [40 CFR 60.4415; and, Permit No. 0570039-040-AC, Specific Condition 18.]

**O.31.** Continuous Compliance. 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 by the required CEMS. Within 45 days of conducting any RATA on a CEMS that represents the annual compliance test, the permittee shall submit a report to the Compliance Authority summarizing results of the RATA. If the RATA on a CEMS was not conducted as an annual compliance test, then the results can be submitted with the SIP Quarterly or Semiannual Report. Compliance with the CO emission standards also serves as an indicator of efficient fuel combustion, which also reduces emissions of PM. [Rules 62-4.070(3) and 62-297.310(7)(a) and (b), F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 19.]

**Recordkeeping and Reporting Requirements**

**O.32.** Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

| Report | Reporting Deadline | Related Conditions |
|---|---|---|
| CEMS RATA Reports | 15 days prior to RATA | O.34. |
| Excess Emissions Reporting | Various | O.35. |

[Rule 62-213.440, F.A.C.]

**O.33.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

**O.34.** CEMS RATA Reports. At least 15 days prior to conducting any RATA on a CEMS, the permittee shall notify the Compliance Authority of the schedule (letter, email, fax, or phone call). A summary of the RATA

reports shall be provided upon written request of the Compliance Authority and in the SIP Excess Emissions Report as specified in Specific Condition **O.39.** [Rule 62-4.070(3), F.A.C.]

**O.35.** 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 (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

b. *SIP Excess Emissions Report*. Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority of the following for each gas turbine using the NSPS format in 40 CFR 60.7(c), Subpart A: a summary of the 4-hour rolling average $NO_X$ compliance periods for the quarter; a summary of the 3-hour rolling average CO compliance periods for the quarter; a summary of $NO_X$ and CO data excluded for the quarter; a summary of any RATA tests performed during the quarter; and a summary of the CEMS systems monitor availability for the quarter.

(1) If four consecutive quarterly reports demonstrate compliance with the CEMS-based emissions standards, the reporting frequency may be reduced to semiannual reporting. As part of the fourth consecutive satisfactory quarterly report, the permittee shall provide written notification of its intent to reduce the reporting frequency to a semiannual basis. The notification shall include a statement that the units were in full compliance during the four consecutive quarters and that reporting will be reduced to a semiannual basis. Semiannual reports shall include all of the above information required for each quarter in the semiannual period. The permittee shall continue to comply with all other record keeping and monitoring provisions.

(2) If reports are being submitted on a semiannual basis and a unit is not in compliance with the CEMS-based emissions standards, the permittee shall immediately (within one day of detection) notify the Compliance Authority of the compliance status and reestablish quarterly reporting beginning with the current quarter. If compliance is reestablished for four consecutive quarters, semiannual reporting may resume as specified above.

c. *NSPS Reporting*. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under 40 CFR 60, Subpart KKKK, the owner or operator must submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown and malfunction.

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

[40 CFR 60.7 and 60.4375; Rules 62-4.130, 62-204.800 and 62-210.700(6); and, Permit No. 0570039-040-AC, Specific Condition 36.]

**O.36.** Test Reports. The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix TR, Facility-Wide Testing Requirements of this permit. [Rule 62-297.310(8), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 30.]

**O.37.** Monitoring and Recording of Capacity. The permittee shall monitor and record the heat input 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). This shall be achieved through monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75, Appendix D, and recording the data using a monitoring component of the CEMS required above (see Appendix CEMS for EU 41 and 42 of this permit). [Permit No. 0570039-040-AC, Specific Condition 31.]

**O.38.** 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 the combustion turbine 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. 0570039-040-AC, Specific Condition 32.]

**O.39.** Fuel Sulfur Records. The permittee shall demonstrate compliance with the fuel sulfur limits specified in this permit by maintaining the following records of the sulfur contents.

a. *Natural Gas Sulfur Limit*: 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 methods D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gaseous Processors Association Standard 2377, or more recent versions, or through provisions listed in 40 CFR 60, Subpart KKKK that allows alternate NG fuel sulfur monitoring.

b. *ULSD Fuel Sulfur Limit*: Compliance with the fuel sulfur limit for ULSD fuel shall be demonstrated by keeping each bill of lading report obtained from the vendor indicating the sulfur content, percent by weight, of the ULSD fuel being delivered. A representative sample shall be collected using ASTM D5287. Methods for determining the sulfur content of the ULSD fuel shall be ASTM methods D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gaseous Processors Association Standard 2377, or more recent versions, or through provisions listed in 40 CFR 60, Subpart KKKK that allows alternate sulfur monitoring for ULSD.

The above methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 60.4415 contained in Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines of this permit. [40 CFR 60.4415; Rules 62-4.070(3) and 62-4.160(15), F.A.C.; and Permit No. 0570039-040-AC, Specific Condition 33.]

**O.40.** Combustion Turbine Replacements. The SCCT may be replaced with a temporary equivalent "like-kind" overhauled or new SCCT while the existing SCCT 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 SCCT 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 SCCT and when the original SCCT 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.

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 SCCTs 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. 0570039-066-AC]

## Subsection P. Emissions Units -029 & - 030

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

| E.U. ID No. | Brief Description |
|---|---|
| *Fuel Blending and Crushing* | |
| -029 | Fuel Blending Bin Cyclone Collectors (FH-032 through FH-035) |
| -030 | Fuel Mill Cyclone Collectors (FH-048 and FH-049) |

These emissions units consist of solid fuel crushing and blending activities as described in more detail below.

Solid fuel (consisting of coal and petroleum) is unloaded from ships and barges into the solid fuel yard (see EU ID No. -010), the blending bins or directly to the tripper room via belt conveyors. Solid fuel may also be received/unloaded by railcar (see EU ID No. -047) and conveyed to the fuel yard. Solid fuel from the storage piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site (see EU ID No. -046). Particulate matter (PM) emissions from the conveyors in the blending bins are controlled by 4 rotoclones. One at the conveyor drop and 3 additional rotoclones (one for every 2 bins) control particulate matter from ventilation of the blending bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. E.U. ID Nos. -029 and -030 began commercial operation in 1970. The fuel blending bin cyclones collectors and the fuel mill cyclone collectors each have their own emissions points through the roof of the supporting structure with the following emissions parameters: height, approximately 70 feet above grade; diameter, 1.67 feet; exit temperature, 77 degrees F; and, actual stack gas flow rate, 9,400 acfm.

*{Permitting note(s): These emissions units are regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations; Rule 62-210.300, F.A.C., Permits Required; Power Plant Siting Certification [PA 79-12]; and, Chapter 1-3.52, Rules of the EPC, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}*

### Authorized Emissions Points

The emissions units contained in this subsection are comprised of the following emissions points, which are enclosed conveyors and drop points located within an enclosed building:

| **E.U. ID No. -029**: Fuel Blending Bin Rotoclone Collectors | |
|---|---|
| Point ID | Description of Emissions Point |
| FH-032-FH035 | Conveyors Q1 and Q2 to Blending Bins |

| **E.U. ID No. -030**: Fuel Mill Rotoclone Collectors | |
|---|---|
| Point ID | Description of Emissions Point |
| FH-048 | Conveyor T1 to Crusher #1 |
| FH-049 | Conveyor T2 to Crusher #2 |

### Essential Potential to Emit (PTE) Parameters

*{Permitting Note: The handling capacity for the conveyors and equipment that comprises the solid fuel yard emissions points is not specifically limited; however, the design capacity for the majority of the handling equipment is 4,000 tons per hour. The total annual solid fuel handling capacity is inherently limited by the amount of fuel that Boilers 1 – 4 can burn (5-6 million tons per year) plus the amount of solid fuel that can be*

*transloaded for off-site shipment (1,428,030 tons per year, see E.U. ID No. -046). In addition, permit No. 0570039-041-AC established an annual limit of 8 million tons per year of solid fuel that can be received by railcar (see E.U. ID No. -047).}*

**P.1.** Methods of Operation – Materials Handling. The materials that are allowed to be handled by these emissions units are coal, petroleum coke, slag and residual coal (generated at the TEC Polk Power Station). [PA 79-12 and Permit No. 0570039-012-AC]

**P.2.** Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C. and PA 79-12]

**Control Technology**

**P.3.** PM Control Devices. Particulate matter emissions shall be controlled by use of control devices. [PA 79-12.]

*{Permitting Note: This requirement is satisfied by the use of rotoclone collectors on the blending bins and-fuel mill.}*

**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 Conditions **P.4.** and **P.5.** are based on the specified averaging time of the applicable test method.

**P.4.** VE/Opacity Limit. As determined by annual compliance tests, visible emissions shall not exceed 5% opacity. [Rule 62.296.711(2), F.A.C.; Chapter 1-3.52, Rules of the EPC; and, Rule 62-297 (7) (c ) F.A.C PA 79-12]

**P.5.** Particulate Matter (PM). Compliance with the visible emissions limitation satisfies the intent of the applicable RACT rules. [Rules 62-296.711(2)(b), F.A.C. and PA 79-12; and, Permit No. 0570039-053-AC, Specific Condition 7.]

**Excess Emissions**

**P.6.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**P.7.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**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.}*

**P.8.** Test Method Required test-shall be performed in accordance with the following reference method(s):

| Method | Description of Method and Comment |
|---|---|
| EPA Method 9 | Visual Determination of the Opacity of Emissions |

The above method-is described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other method may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

**P.9.** 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.]

**P.10.** Annual Compliance Tests. During each federal fiscal year (October 1st to September 30th), (EU 029) one of the fuel blending bin roto-clones (FH-032 – FH-035) and (EU 030) one of the fuel mill roto-clones (FH-048 and FH-049) shall be tested to demonstrate compliance with. Each year a different fuel blending bin roto-clone shall be tested in subsequent order (FH-032, FH-033, etc.) and each year a different fuel mill roto-clone will be tested. The annual compliance tests will be used in lieu of the compliance test prior to renewal. [Rules 62-297.310(7), F.A.C. and 62-4.070(1) & (3) (Reasonable Assurance), F.A.C.; and, PA 79-12.]

**P.11.** Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 minutes. [Rules 62-4.070(3), 62-296.711(3)(a) and 62-297.310(4)(a)2., F.A.C.]

**Recordkeeping and Reporting Requirements**

**P.12.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

## Subsection Q. Emissions Unit -046

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

| E.U. ID No. | Brief Description |
|---|---|
| | *Solid Fuel Yard* |
| -046 | Transloading and Off-site Transfer of Solid Fuels and Slag (by truck, rail and barge) |

This emissions unit is housed within the solid fuel yard and is comprised of transfer and loading equipment designed to take material from the blending bins (E.U. ID No. -029) and/or the storage piles in the fuel yard (E.U. ID No. -010) using mobile equipment to load trucks, railcars and barges for shipment to off-site. The material that is allowed to be loaded for off-site shipment is coal, petroleum coke and slag. The main purpose of the transloading operation is to provide coal and petroleum coke to the Tampa Electric Company Polk Power Station; however, the permittee is authorized to operate as a fuel and slag supplier to other non-Tampa Electric Company facilities, as well. The coal and petroleum coke is treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential due to its glassine properties and therefore does not need to be treated with a chemical surfactant.

*{Permitting note(s): This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required; Rule 62-296. 320(4)(b), F.A.C., General Visible Emissions Standard; and, 62-296.320(4)(c), F.A.C., Unconfined Emissions of Particulate Matter; and Power Plant Siting Certification [PA 79-12]}*

Emissions unit ID No. -046 is comprised of the following:

| Point ID | Brief Description |
|---|---|
| FH-065 | Loadout Conveyor to Rail Transfer Conveyor |
| FH-066 | Railcar Loading |
| FH-067 | Non-TEC Fuel Stockpile to Loadout Conveyor |
| FH-068 | Non-TEC Fuel Truck Loading |
| FH-069 | Polk Fuel Truck Loading |
| FH-074a | Reclaim from Petroleum Coke Storage Pile to Trucks |
| FH-074b | Reclaim from Coal Storage Pile to Trucks |
| FH 074c | Reclaim from Slag Storage Pile to Trucks |
| FH-075a | Truck Traffic (paved roads, empty trucks) |
| FH-075b | Truck Traffic (paved roads, full trucks) |
| FH-076a | Truck Traffic (unpaved roads, empty trucks) |
| FH-076b | Truck Traffic (unpaved roads, full trucks) |
| FH-080a | Truck Traffic to Barge Transloading (paved roads, empty trucks) |
| FH-080b | Truck Traffic to Barge Transloading (paved roads, full trucks) |
| FH-081a | Truck Traffic to Barge Transloading (unpaved roads, empty trucks) |
| FH-081b | Truck Traffic to Barge Transloading (unpaved roads, full trucks) |

**Essential Potential to Emit (PTE) Parameters**

**Q.1.** Permitted Capacity. The maximum solid fuels/slag transloading rate for EU 046 shall not exceed 4,000 tons/hour on a 24-hour average and a total of 1,853,030 tons/year for all solid fuel and slag materials transloaded onto trucks, railcars and barges for shipment off-site. [PA 79-12C and Application No. 0570039-059-AC]

**Q.2.** Methods of Operation.

a. *Materials Allowed*. The materials that are allowed to be handled by the emissions points that comprise this emissions unit are coal, petroleum coke and slag.

b. *Material Not Allowed*. The emission points listed above as FH-074a, b and c, FH-075a and b, and FH-076a and b are not allowed to transload residual coal.

[PA 79-12 and Permit No. 0570039-025-AC]

**Q.3.** Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C. and Permit No. 0570039-025-AC]

**Control Technology**

**Q.4.** Reasonable Precautions to Prevent Unconfined Particulate Matter Emissions. The transloading, from storage piles of solid fuels (petroleum coke or coal) or slag, to trucks, railcars and barges by mobile equipment (e.g. front end loaders) is subject to the facility-wide general visible emission standard of 20%; however, annual visible emissions compliance testing is not required for these sources of fugitive emissions. The solid fuels and slag transloading operations shall be controlled under existing management practices at the facility for minimizing fugitive dust (e.g., watering open storage areas and roads sufficient to minimize entrained dust). Fugitive emissions of particulate matter associated with transloading these solid materials shall be minimized using reasonable precautions such as paving and maintenance of roads, parking areas or yards, or application of water or dust suppressant chemicals at each transloading emission point (e.g. FH-74a for reclaiming from petroleum coke storage pile to trucks, FH-74b for reclaiming from coal storage piles to trucks, and FH-074c for reclaiming from slag storage pile to trucks). Fugitive particulate matter emissions shall also be controlled onsite using reasonable precautions (e.g., tarps, applications of water or chemicals for suppression of road dust) for fugitive emission points associated with transport vehicles on paved and unpaved roads (emission points FH-75a through FH-81b). [Rule 62-296.320(4)(b)1., F.A.C.; and Permit No. 0570039-059-AC]

**Recordkeeping and Reporting Requirements**

**Q.5.** Recordkeeping and Reporting. The number of railcars trucks and barges, and the quantity and type of material loaded and transported off-site by each fuel transloading operation emissions point covered in this permit (i.e., off-loading and loading of fuel or slag {for export from Big Bend Station}) shall be recorded, maintained, and kept on file for a minimum of five years. The annual quantity of each transloaded material shall be submitted in the Annual Operation Report. All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [PA 79-12 and Permit No. 0570039-066-AC]

**Q.6.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

## Subsection R. Emissions Unit -047

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

| E.U. ID No. | Brief Description |
|---|---|
| | *Solid Fuel Yard* |
| -047 | Railcar Unloading and Conveying System |

The railcar coal unloading system consists of one railcar unloading building and a series of transfer conveyors. The railcar unloading building is an enclosed structure (except for the railcar entrance and exit openings) that unloads coal in a slow and controlled manner. As each railcar passes through the railcar unloading building, the coal is dropped through a stationary safety screen and into collecting hoppers. The coal is discharged from each collecting hopper through a series of slide gates to control the amount of coal dropped onto the variable speed belt conveyor. A water spray & chemical surfactant dust suppression system is used to control fugitive emissions as coal is unloaded into the receiving hopper. The system also includes a secondary spray & chemical surfactant dust suppression system at the end of the variable speed belt conveyor to further minimize fugitive emissions.

A system of conveyors is used to transfer coal from the variable speed belt conveyor in the railcar unloading building to the P or F conveyors in the solid fuel yard. These transfer conveyors consist of conveyors C10, C-11, C-12, C-13, C-14, C-15 and C-16. The fugitive emissions are controlled by enclosed conveyors and totally enclosed drops points at the transfer structures.

*{Permitting Note: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required; and NSPS Subpart Y of 40 CFR 60}*

Emissions unit ID No. -047 is comprised of the following:

| Point ID | Brief Description |
|---|---|
| RC-1 | Train Car Drop Unloading to Belt Feeder BF-1 |
| RC-2 | Transfer from BF-1 to Conveyor C-10 |
| RC-3 | Conveyor C-10 to Conveyor C-11 |
| RC-4 | Conveyor C-11 to Conveyor C-12 |
| RC-5 | Conveyor C-12 to Conveyor C-13 |
| RC-6 | Conveyor C-13 to Conveyor C-14 |
| RC-7 | Conveyor C-14 to Conveyor C-15 |
| RC-8 | Conveyor C-15 to Conveyor C-16 or Conveyor P |
| RC-9 | Conveyor C-16 Drop to Conveyor F |

*{Permitting Note: RC-1 (Train Car Drop Unloading to Belt Feeder BF-1, building vent) is the only emission point in the process, RC-2 through RC-9 is completely enclosed.}*

**Essential Potential to Emit (PTE) Parameters**

**R.1.** Permitted Capacity. The maximum unloading rate is 4,000 tons per hour. The maximum annual transfer for the railcar unloading operations is 8,000,000 tons per year. [Rule 62-210.200(PTE), F.A.C. and Permit No. 0570039-066-AC]

**R.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.]

**R.3.** Methods of Operation. The materials that are allowed to be handled in the Railcar Unloading and Conveying System are coal, petroleum coke and slag. [Permit No. 0570039-041-AC]

**R.4.** Hours of Operation. The hours of operation are not limited (8,760 hours per year). [Rules 62-210.200 (PTE) and 62-213.440, F.A.C.]

**Control Technology**

**R.5.** Railcar Coal Unloading Building. The permittee shall utilize the water spray system or chemical dust suppression system in the railcar unloading building to control particulate matter emissions from the railcar unloading hopper.
[Permit No. 0570039-066-AC]

**R.6.** Railcar Coal Unloading Conveying System. The permittee shall utilize the water spray system or chemical dust suppression system in the railcar unloading building to control particulate matter emissions from the railcar unloading conveying system. [Permit No. 0570039-066-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.}*

Unless otherwise specified, the averaging time for Specific Conditions **R.7.** is based on the specified averaging time of the applicable test method.

**R.7.** Opacity. As determined by EPA Method 9, visible emissions from the railcar coal unloading system shall not exceed 20% opacity. [NSPS Subpart Y of 40 CFR 60; and Permit No. 0570039-041-AC]

*{Permitting Note: In addition, the requirements in 40 CFR 60, New Source Performance Standard (NSPS) Subpart Y for Coal Preparation Plants, have been proposed to be amended on April 28, 2008 and would be applicable to all sources addressed in this standard and constructed after that date. These amended standards, including installing a baghouse on the railcar unloading building may become applicable to this project when these standards become final and are adopted in the Florida rules.}*

**Excess Emissions**

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

**R.8.** Excess Emissions Allowed. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**R.9.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

**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.}*

**R.10.** Test Methods. 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. (IF REQUIRED) |
| 5 | Method for Determining Particulate Matter Emissions (IF REQUIRED) |
| 9 | Visible Determination of the Opacity of Emissions |

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]

**R.11.** 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.]

**R.12.** Annual Compliance Tests. During each federal fiscal year (October 1st to September 30th), the Railcar Unloading Building vents shall be tested to demonstrate compliance with the emissions standard for visible emissions. [Rule 62-297.310(7)(a)4, F.A.C. and Permit No. 0570039-041-AC]

**Reporting and Recordkeeping Requirements**

**R.13.** Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements. [Rule 62-213.440, F.A.C.]

## Subsection S. Emissions Unit -048

This permit addresses the following new emissions unit:

| E.U. ID No. | Brief Description |
|---|---|
| -048 | Supplemental Material Handling J3 Conveyor System |

This supplemental material handling conveyor system consists of a grizzly in-feed hopper, which feeds material onto a 72" covered belt conveyor, a 54" covered belt conveyor, and an enclosed hopper at the existing K feeders (FH-103) (which feed into the existing L1 and L2 conveyors). The combination of the grizzly feeder, the 72" belt conveyor and the 54" belt conveyor will be collectively referred to as the J3 Conveyor System. All static drop points within the new conveyors will be completely enclosed with no emissions to the atmosphere.

The J3 Conveyor System will serve as a supplemental conveyance system for coal, coal blends and coal supplemental additives (such as limestone, flux, magnesium oxide, petroleum coke, ecotherm) for use with the existing conveyance feed system. In the event the use of an existing back up coal conveyor system or related equipment is warranted, the J3 Conveyor System will be available to operate continuously. The maximum throughput rate is designed for 2,000 TPH of solid materials, which is about half of the feed rate of the primary (existing) conveyor systems.

*{Permitting Note: This new emissions unit and associated emissions points are subject to applicable requirements of 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation Plants, adopted by reference in Rule 62-204.800(8) (b)22., F.A.C.; and, to Rule 62-296.320(4)(c), F.A.C., Unconfined Emissions of Particulate Matter. This emission unit and associated emissions points are also subject to the Hillsborough County Environmental Protection Commission (HCEPC) Rules, Chapter 1-3, Stationary Air Pollution Sources and Ambient Air Quality Standards; specifically Part 5, Rule 1-3.52, Visible Emissions. In addition, this new emission unit and associated emissions points are subject to applicable requirement of Rule 62-296.700 Reasonable Available Control Technology (RACT) and RACT Rule 62-296.711 Materials Handling, Sizing, Screening, Crushing and Grinding Operations; because Rule 1-3.51, Particulate Matter Emissions of the HCEPC requires new emissions units to be subject to the Department RACT rule.}*

The emissions unit contained in this subsection is comprised of the following:

| Point ID | Brief Description |
|---|---|
| FH-100 | Dozer Stock Pile Operations (unconfined fugitive emissions) |
| FH-101 | Dozer Operations to Grizzly Hopper (unconfined fugitive emissions) |
| FH-102 | J3 Conveyor System (enclosed static drop point) |
| FH-103 | J3 Conveyor System to "K" Feeders to L1 or L2 (enclosed static drop point) |

### PERFORMANCE RESTRICTIONS

**S.1.** Permitted Capacity. The maximum throughout rate for the J3 Conveyor System shall not exceed 2,000 tons/hour. [Rules 62-210.200 (PTE), F.A.C.; and, Permit No. 0570039-057-AC]

**S.2.** Methods of Operation – Materials Handling. The materials that are allowed to be handled by this emissions unit are coal, coal blends and supplemental coal additives. [Permit No. 0570039-057-AC]

*{Permitting Note: The materials that have been authorized by prior air construction permits to be handled at the Solid Fuel Yard are coal, petroleum coke, slag, beneficiated flyash, limestone and residual coal (generated at the TEC Polk Power Station).}*

**S.3.** Hours of Operation. This emissions unit may operate as needed, up to 8,760 hours/year. [Rule 62-210.200 (PTE), F.A.C. and Permit No. 0570039-057-AC]

Draft/Proposed

## CONTROL TECHNOLOGY

**S.4.** Equipment Enclosure. All conveyors and conveyor static drop points shall be enclosed to preclude particulate matter emissions. All covers shall remain in place when the system is in operation and reasonable precautions shall be followed to assure compliance with the opacity limits specified in **Condition S.7.** [Permit No. 0570039-057-AC]

**S.5.** Water Sprays. Water sprays for storage piles, handling equipment, etc., shall be applied during dry periods and as necessary to all unconfined emissions points to maintain opacity below 20%. [Rules 62-4.160(2) & 62-296.320(4)(c), F.A.C.; and Permit No. 0570039-057-AC]

**S.6.** Minimizing Wind Erosion - Storage Piles. Best management practices shall be used to minimize unconfined fugitive emissions from coal, coal blends and supplemental coal additives during operation. Best management practices for coal and supplemental material storage piles include (but are not limited to) shaping, compacting and orienting the piles to minimize wind erosion. [Permit No. 0570039-057-AC]

## EMISSIONS STANDARDS

**S.7.** VE/Opacity Standards. Visible emissions shall not exceed 20% opacity for the dozer operations on open storage piles (FH-100 and FH-101) and 5% opacity for the enclosed J3 Conveyor System operations (FH-102 and FH 103). [Rule 62-296.320(4)(b)1., F.A.C.; and, Rules 1-3.52.1 and 1-3.52.2, Visible Emissions, HCEPC.]

*{Permitting Note: "Unconfined Emissions" are defined in Rule 62-210.200 F.A.C., and Rule 1.3.12 HCEPC, as "Emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack." Based on this definition, emissions from operations related to the open storage piles (i.e. dozer operations on the storage piles, the open storage piles themselves, and non-fixed drop points from the dozer into the grizzly hopper) are considered unconfined emissions subject only to the general 20% opacity standard. VE testing is not required for these unconfined fugitive emissions.*

*The conveyors and static conveyor drop/transfer points are generically subject to 5% opacity. TECO is able to meet this limit by maintaining the required enclosures and by following best operating practices; therefore, additional add-on PM control devices are not needed. Because the J3 Conveyor System is fully enclosed with no emissions to the atmosphere, VE testing is not required.}*

## RECORDKEEPING AND REPORTING REQUIREMENTS

**S.8.** Fugitive Coal Dust Emissions Control Plan. In accordance with 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation and Processing Plants, the existing fugitive coal dust emissions control plan on file for this facility must be revised as needed to reflect any changes related to the construction or operation of this new emissions unit. The revised plan must be submitted to the compliance authority prior to startup of this new unit. [Rule 62-204.800, F.A.C.; and, 40 CFR 60.254(c)]

Draft/Proposed

**Operated by:** Tampa Electric Company
**ORIS Code:** 0645

**Subsection A. This Subsection addresses Acid Rain, Phase II $SO_2$.**

The emissions units listed below are regulated under Phase II $SO_2$ of the federal Acid Rain Program.

| E.U. ID No. | Brief Description |
|---|---|
| -001 | Unit No. 1 Steam Generator |
| -002 | Unit No. 2 Steam Generator |
| -003 | Unit No. 3 Steam Generator |
| -004 | Unit No. 4 Steam Generator |

**A.1.** The Phase II $SO_2$ 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(s) listed below:

a. DEP Form No. 62-210.900(1)(a) - Form, Effective: 3/16/08, received on June 6, 2008, and signed by the Designated Representative on June 5, 2008, which is included at the end of this subsection.

[Chapter 62-213, F.A.C.; and, Rule 62-214.320, F.A.C.]

**A.2.** Sulfur dioxide ($SO_2$) Emission Allowances. $SO_2$ 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. & 3., F.A.C.]

**A.3.** Comments, Notes, and Justifications; None.

# 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.**

| Big Bend<br>Plant name | Florida<br>State | 0645<br>ORIS/Plant Code |
|---|---|---|

**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 :olumn "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 |
| BB01 | No | Yes | N/A | N/A |
| BB02 | No | Yes | N/A | N/A |
| BB03 | No | Yes | N/A | N/A |
| BB04 | No | Yes | N/A | N/A |
| | | Yes | | |
| | | Yes | | |
| | | Yes | | |
| | | Yes | | |
| | | Yes | | |
| | | Yes | | |
| | | Yes | | |
| | | Yes | | |

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

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| Big Bend |
| --- |
| Plant 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; and,

**STEP 3, Continued.**

| |
|---|
| **Big Bend** |
| 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 |
| | | |
| | | |
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| | | |

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

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| |
|---|
| **Big Bend** |
| 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 required by 40 CFR 74.20-74.25.**

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

**STEP 6**

**For $SO_2$ Opt-in units only.**

**Attach additional requirements, certify and sign.**

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

| Signature | Date |
|---|---|

**STEP 7**

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

**Certification (for designated representative or alternate designated representative only)**

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

| | |
|---|---|
| **Byron T. Burrows**<br>Name | **Manager, Air Programs**<br>Title |
| **Tampa Electric Company**<br>Owner Company Name | |
| **(813) 228-1282**<br>Phone | **btburrows@tecoenergy.com**<br>E-mail address |
| Signature | Date 6/5/08 |

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Effective: 3/16/08

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**Subsection B. This subsection addresses Acid Rain, Phase II NOx.**

{Permitting note: The U.S. EPA issued Acid Rain Phase I permit(s)}

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

| E.U. ID No. | Brief Description |
|---|---|
| -001 | Unit No. 1 Steam Generator |
| -002 | Unit No. 2 Steam Generator |
| -003 | Unit No. 3 Steam Generator |
| -004 | Unit No. 4 Steam Generator |

**B.1.** The Acid Rain Phase II NOx Compliance Plan application(s) submitted for this facility, as approved by the Department, are a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. Phase II NOx Compliance Plan, EPA Form 7610-28 (12-03), received on October 7, 2009, and signed by the Designated Representative on October 6, 2009, which is included at the end of this subsection.

[Chapter 62-213 and Rule 62-214.320, F.A.C.]

**B.2.** Nitrogen oxide ($NO_X$) requirements for each Acid Rain unit are as follows:

| E.U. ID No. | EPA ID No. | NOx limit [1] |
|---|---|---|
| -001 | BB01 | The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.<br><br>This unit's applicable emission limitation for each year of the plan, is **0.84** lb/MMBtu from 40 CFR 76.6(a)(3) for wet bottom boilers.<br><br>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions. |
| -002 | BB02 | The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.<br><br>This unit's applicable emission limitation for each year of the plan, is **0.84** lb/MMBtu from 40 CFR 76.6(a)(3) for wet bottom boilers.<br><br>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions. |
| -003 | BB03 | The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.<br><br>This unit's applicable emission limitation for each year of the plan, is **0.84** lb/MMBtu from 40 CFR 76.6(a)(3) for wet bottom boilers.<br><br>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions. |

| E.U. ID No. | EPA ID No. | NOx limit [1] |
|---|---|---|
| -004 | BB04 | The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.<br><br>This unit's applicable emission limitation for each year of the plan, is **0.45** lb/MMBtu from 40 CFR 76.5(a)(1) for tangentially fired boilers.<br><br>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions. |

[1] Based on the Phase II NOx Compliance Plan, EPA Form 7610-28 (12-03), dated October 6, 2009.

**B.3.** Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator. [40 CFR 70.6(a)(1)(ii); and Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

**B.4.** Comments, Notes, and Justifications; None.

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OCT 07 2009
BUREAU OF AIR REGULATION

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

# Phase II $NO_X$ Compliance Plan

Page 1 of 2

For more information, see instructions and refer to 40 CFR 76.9

This submission is: ☐ New ☒ Revised

**STEP 1**
Indicate plant name, State, and ORIS code from NADB, if applicable

| Plant Name | State | ORIS Code |
|---|---|---|
| Big Bend Station | FL | 645 |

**STEP 2**

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

| | BB01 | BB02 | BB03 | BB04 | | |
|---|---|---|---|---|---|---|
| ID# | BB01 | BB02 | BB03 | BB04 | | |
| Type | WB | WB | WB | T | | |
| (a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers) | ☐ | ☐ | ☐ | ☒ | ☐ | ☐ |
| (f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers) | ☒ | ☒ | ☒ | ☐ | ☐ | ☐ |
| (j) $NO_x$ Averaging Plan (include $NO_x$ Averaging form) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack) | ☒ | ☒ | ☐ | ☐ | ☐ | ☐ |
| (l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with $NO_x$ Averaging (check the $NO_x$ Averaging Plan box and include $NO_x$ Averaging form) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

EPA Form 7610-28 (12-03)

Big Bend Station
Plant Name (from Step 1)

$NO_x$ Compliance - Page 2
Page 2 of 2

**STEP 2, cont'd.**

| | BB01 | BB02 | BB03 | BB04 | | |
|---|---|---|---|---|---|---|
| ID# | BB01 | BB02 | BB03 | BB04 | | |
| Type | WB | WB | WB | T | | |
| (m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| (p) Repowering extension plan approved or under review | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

**STEP 3**
**Read the standard requirements and certification, enter the name of the designated representative, sign &**

**Standard Requirements**

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

**Special Provisions for Early Election Units**

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for $NO_x$ as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).
Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.
Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for $NO_x$ for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for $NO_x$ for Phase II units with Group 1 boilers under 40 CFR 76.7.

**Certification**

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

| | |
|---|---|
| Name: Paul L. Carpinone | |
| Signature: Paul L. Carpinone | Date: October 6, 2009 |

EPA Form 7610-28 (12-03)

# Acid Rain Program
## Instructions for Phase II $NO_X$ Compliance Plan (40 CFR 76.9)

*The U.S. Environmental Protection Agency has promulgated regulations designed to substantially reduce the annual emissions of nitrogen oxides ($NO_x$) from coal-fired electric utilities. The $NO_X$ Emission Reduction regulations are found at 40 CFR part 76 and apply to each existing coal-fired utility unit that is subject to sulfur dioxide ($SO_2$) emission reduction requirements under Sections 404, 405, or 409 of the Clean Air Act. Under 40 CFR 76.9, the owner or operator of each affected unit subject to 40 CFR part 76 must include a compliance plan for $NO_X$ emissions in the Acid Rain permit application for that unit. The designated representatives (DRs) of Phase I and Phase II NOx-affected units with Group 1 or Group 2 boilers must submit an initial Phase II $NO_X$ compliance plan to the appropriate title V air permitting authority (in most cases, the State or local air permitting authority) not later than* ***January 1, 1998****. A Group 1 boiler is a tangentially fired boiler or a dry bottom wall-fired boiler. A Group 2 boiler is a cell burner boiler, cyclone boiler, vertically fired boiler, or a wet bottom boiler. Once the title V permitting authority receives the Phase II $NO_X$ compliance plans, it will in turn review them and incorporate approved plans into the Phase II Acid Rain permits issued by the permitting authority to Phase II affected sources.*

## General Instructions

(1) Please type or print in black ink.

(2) NADB is the National Allowance Data Base for the Acid Rain Program. To obtain the database on diskette, call the Acid Rain Hotline at (202) 343-9620. This data file is in dBase format for use on an IBM-compatible PC. It requires 2 megabytes of hard drive memory. If the unit is not listed in NADB, use the plant name, ORIS code, and boiler ID#(s) listed on the Certificate of Representation for the affected source.

(3) If more space is needed, photocopy the pertinent page. When you have completed the form, indicate the page order and total number of pages *(e.g., 1 of 4, 2 of 4, etc.)* in the boxes in the upper right hand corner of each page.

(4) Submit one complete set of all forms with **original** signatures to:

(a) The appropriate title V permitting authority (for $NO_X$ Averaging Plans, a copy of the plan must be submitted to any **other** title V permitting authority with jurisdiction over any of the units in the plan).

**and**

One **copy** to:

(b) U.S. Environmental Protection Agency
Clean Air Markets Division (6204J)
Attn: Phase II $NO_X$
1200 Pennsylvania Ave., NW
Washington, DC 20460

(5) For assistance, call the Acid Rain Hotline at (202) 343-9620.

## $NO_X$ Compliance Options

**STEP 2**

General

Indicate a proposed method of compliance with the $NO_X$ emissions requirements for each unit at the source affected for $NO_X$ during Phase II. A Phase II NOx compliance plan must account for each year the Phase II acid rain permit will be effective. Further, a $NO_X$ compliance plan is in effect only through the term of the acid rain permit covering the $NO_X$-affected units. **A new $NO_X$ compliance plan must be submitted when an acid rain permit renewal application is due.**

$NO_X$-affected Units

To determine if an affected unit subject to Acid Rain $SO_2$ requirements is also subject to $NO_X$ emission limitations, see 40 CFR 76.1, the definitions at 40 CFR 76.2, and the emission limitations at 40 CFR 76.5, 76.6, and 76.7. Most existing coal-fired units that are subject to Acid Rain $SO_2$ requirements and that have a Group 1 or Group 2 boiler are also subject to the $NO_X$ emission limitations under 40 CFR part 76.

2

Phase I Group 1 Boilers

Compliance options (a) and (b) are standard annual emission limitations, one of which may be selected for a Phase I Group 1 boiler. The limits also apply to Phase II Group 1 boilers that are covered by an early election plan previously approved by U.S. EPA.

Early Election

Compliance option (c), $NO_X$ early election, is available only to Phase II Group 1 boilers with early election plans submitted by January 1, 1997 and approved by U.S. EPA. All such plans terminate no later than December 31, 2007. DRs with $NO_X$ early election units must select option (c) and either (a) or (b), the Phase I Group 1 standard emissions limit specified for the unit in the plan. If the termination date of the plan will be prior to the expiration date of the acid rain permit covering an early election unit, the DR must indicate an additional $NO_X$ compliance option that will apply to the unit beginning when the plan terminates through the date by which the acid rain permit will expire. In such cases the DR must mark option (c) and either (a) or (b), as well as the additional box(es) denoting the additional, follow-on $NO_X$ compliance option. For early election units in a common stack, see also the instructions under Common Stacks.

Phase II Group 1 Boilers

Compliance options (d) and (e) denote standard annual emission limitations, one of which may be selected for a Phase II Group 1 boiler.

Phase II Group 2 Boilers

Compliance options (f) through (i) denote standard annual emission limitations, one of which may be selected for a Phase II Group 2 boiler.

$NO_X$ Averaging

Compliance option (j) denotes the annual emission limitation under a $NO_X$ averaging plan, which may be selected in lieu of a standard annual emission limit for Group 1 or Group 2 boilers with the same owner or operator and the same DR. See instructions below and include Phase II $NO_X$ averaging form.

Common Stacks

A unit that utilizes a common stack and is separately monitored for $NO_X$ (i.e, has its own NOx monitor and diluent monitor) is treated as the same as a unit that emits only through its own separate stack.

A unit (other than an early election unit) that utilizes a common stack and is not monitored separately must select one of the applicable common stack options. If the unit shares a common stack with other affected units and no non-affected units and if each of the units has a $NO_X$ emission limitation, three options are available: comply with the most stringent $NO_X$ emission limitation applicable to any unit utilizing the common stack (option (k)); include the units in a $NO_X$ averaging plan (option (l)); or use an approved method for apportioning the combined $NO_X$ emission rate in the common stack (option (m)). If the unit shares a common stack with at least one other unit that does not have a $NO_X$ emission limitation or with at least one non-affected unit, you must use an approved method for apportioning the combined $NO_X$ emission rate (option (m)), unless, of course, the unit is separately monitored. An early election unit that utilizes a common stack, that is not monitored separately, and whose early election plan specifies option (k) or (m) for the unit, must select such option.

If an apportionment option is chosen, check, in addition to option (m), the box at Step 2 that indicates the applicable emission limitation and submit to U.S. EPA the documentation supporting apportionment with the monitoring plan submission.

Alternative Emissions Limitations

Compliance option (n) must be selected by a Phase II Group 1 or Group 2 boiler that is applying for an AEL demonstration period, or final AEL, starting in Phase II. Compliance option (n) must also be chosen by a boiler that is renewing for Phase II a final AEL approved by U.S. EPA (see instructions accompanying Phase II AEL Demonstration Period, Final AEL Petition, and AEL Renewal forms and include appropriate form).

Compliance option (o) must be selected by a boiler that has applied to U.S. EPA for an AEL demonstration period or final AEL which is undergoing review by U.S. EPA. If a final AEL is subsequently approved by U.S. EPA, a revised Phase II $NO_X$ compliance plan must be submitted marking option (o) and attaching an AEL Renewal form. If an AEL demonstration period or final AEL is subsequently disapproved by U.S. EPA, a revised Phase II $NO_X$ compliance plan must be submitted indicating which Phase II $NO_X$ compliance option will be used by the boiler.

Repowering Extension Plans

Compliance option (p) must be selected by a boiler that is covered by either an approved repowering extension plan or a plan that is undergoing review. If a repowering extension plan undergoing review is subsequently disapproved, a revised Phase II $NO_X$ compliance plan must be submitted indicating which Phase II $NO_X$ compliance option will be used by the boiler. If the termination date of either the repowering extension plan undergoing review or the approved plan is prior to the expiration date of the acid rain permit covering the repowered (or replacement) boiler under the plan, the DR must indicate an additional $NO_X$ compliance option that will apply to the boiler beginning when the plan terminates through the date by which the acid rain permit will expire. In such cases the DR must mark option (p), as well as additional box(es) denoting the additional, follow-on $NO_X$ compliance option.

3

# $NO_X$ Averaging Plan

*Under 40 CFR 76.11 any affected units under control of the same owner or operator and with the same designated representative may average their $NO_X$ emission rate, rather than each unit complying on an individual-unit basis with the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7. Units with no common owner or operator may not average their emissions. You may submit an averaging plan (or a revision to an approved averaging plan) with the appropriate title V permitting authority(s) at any time up to and including January 1 of the calendar year for which the averaging plan will become effective. If the plan is restricted to units located within a single permitting authority's jurisdiction, you may submit the plan at any time up to and including July 1 of the calendar year for which the plan will become effective.*

**STEP 1**

Each unit identified for inclusion in the averaging plan in Phase II must be a Group 1 or Group 2 boiler subject to an emission limitation under 40 CFR 76.5, 76.6, or 76.7. Enter each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7 in column (a). If a unit with an alternative emission limitation demonstration period or a final alternative emission limitation under 40 CFR 76.10 participates in an averaging plan, enter the applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7, not the interim or alternative limit, in column (a).

For units utilizing a common stack that are averaging pursuant to 40 CFR 75.17(a)(2)(i)(B), the same alternative contemporaneous emission limitation must be entered in column (b) for each unit utilizing the common stack. Different annual heat input limits may be entered for these units in column (c). Units not utilizing the common stack may also be included in the averaging plan with the common stack units.

The annual heat input limit entered at column (c) will be a minimum limit if the value in column (b) is less than the value in column (a) for that unit. It will be a maximum limit if the value in column (b) is greater than the value in column (a). The values entered for each unit at columns (b) and (c) must satisfy the formula at Step 2.

**STEP 2**

The entries in Step 2 must demonstrate that the Btu-weighted annual emission rate averaged over the units in the plan is less than or equal to the Btu-weighted annual average emission rate for the same units if they are each operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7. Use the equation that appears in Step 2 to demonstrate that the alternative contemporaneous annual emission limitations and annual heat input values assigned to the units in Step 1 satisfy this criterion. For units with an interim emission limitation or an alternative emission limitation, the applicable emission limitation for the equation shall equal the applicable emissions limitation under 40 CFR 76.5, 76.6, or 76.7.

**STEP 3**

The second option is included to avoid the need to submit identical plans each for a different year if you want each plan to be effective for only one year.

**Paperwork Burden Estimate**

The burden on the public for collecting and reporting of information under this request is fixed per response indicated. Send comments regarding this collection of information, including suggestions for reducing the burden, to: Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, D.C. 20460; and to: Paperwork Reduction Project (OMB#2060-0258), Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. ***Do not send your forms to these addresses; see paragraph (4) of the General Instructions on Page 1 for form submission information.***

| FORM | HOURS |
|---|---|
| $NO_X$ Compliance Plan | 10 |
| $NO_X$ Averaging Plan | 200 |

**Clean Air Interstate Rule (CAIR).**

**Operated by**: Tampa Electric Company
**Plant Name**: Big Bend Station
**ORIS Code**: 0645

**Subsection A. This Subsection addresses CAIR.**

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

| E.U. ID No. | EPA Unit ID# | Brief Description |
|---|---|---|
| -001 | BB01 | Unit No. 1 Steam Generator |
| -002 | BB02 | Unit No. 2 Steam Generator |
| -003 | BB03 | Unit No. 3 Steam Generator |
| -004 | BB04 | Unit No. 4 Steam Generator |

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) - Form, Effective: 3/16/08), which is attached at the end of this subsection. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

2. Comments, notes, and justifications:
   a. The "Unit ID#s" on the CAIR Part Form for the existing units were incorrect. The EPA unit identification numbers under the acid rain program for the existing units have already been established and are shown in the above table.
   b. Applications for CAIR retired unit exemptions were submitted subsequent to this CAIR part application. As a result, this subsection now excludes the retired units.

# 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: X New ☐ Revised ☐ Renewal

**STEP 1**

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

| Plant Name: | State: | ORIS or EIA Plant Code: |
|---|---|---|
| Big Bend Power Station | Florida | 0645 |

**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<br>Expected Commence Commercial Operation Date | New Units<br>Expected Monitor Certification Deadline |
| 001 | X | X | X | | |
| 002 | X | X | X | | |
| 003 | X | X | X | | |
| 004 | X | X | X | | |
| 005 | X | | X | | |
| 006 | X | | X | | |
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DEP Form No. 62-210.900(1)(b) – Form
Effective: 3/16/08

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| Big Bend 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.

| Big Bend 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.

| Big Bend Power Station |
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| 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.

| Big Bend Power Station |
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| 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 CAIR $NO_X$ Ozone Season unit at the source shall submit the reports required under the CAIR $NO_X$ Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

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

Effect on Other Authorities.

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

**STEP 4**

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

**Certification (for designated representative or alternate designated representative only)**

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

| | |
|---|---|
| Paul L. Carpinone<br>Name | Acid Rain Designated Representative<br>Title |
| Tampa Electric Company<br>Company Owner Name | |
| 813-228-4858<br>Phone | plcarpinone@tecoenergy.com<br>E-mail Address |
| Signature Paul L. Carpinone | Date 4-22-08 |

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

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**Subsection B. This Subsection addresses CAIR Retired Unit Exemptions.**

| E.U. ID No. | EPA Unit ID# | Brief Description |
|---|---|---|
| -005 | TBE | Combustion Turbine No. 2 |
| -006 | TBE | Combustion Turbine No. 3 |

"TBE" - to be established

The CT Nos. 2 & 3 (E.U. ID Nos. -005 & -006), were removed from the site on December 22, 2008. **The date of permanent retirement was September 30, 2008.**

{Permitting note(s): CT Nos. 2 & 3 (E.U. ID Nos. -005 & -006) are regulated under Rules 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR) as retired CAIR units. These emissions units were not regulated under 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines.}

1. Clean Air Interstate Rule Retired Unit Exemption Applications. The Clean Air Interstate Rule Retired Unit Exemption Part Forms submitted for this facility are a part of this permit. The owners and operators of these CAIR retired units as identified in these forms must comply with the standard requirements and special provisions set forth in the CAIR Retired Unit Exemption Part Forms (EPA Form No. 7610-20 (Rev. 11-2007), which are attached at the end of this subsection. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

2. Comments, notes, and justifications: The "Unit ID#s" on the forms are the state of Florida's ARMS E.U. ID Nos. The EPA "Unit ID#s" are to be established.

United States Environmental Protection Agency
Acid Rain, CAIR, and CAMR Programs

OMB Nos. 2060-0258, 2060-0567, 2060-0570, and 2060-0584
Approval Expires 7/31/2009

# Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, and 60.4105, or a comparable state regulation, as applicable.

This submission is: [X] New [ ] Revised

**STEP 1**
Identify the unit by facility (source) name, State, ORIS/plant code and unit ID#.

| Facility (Source) Name | State | ORIS/Plant Code | Unit ID# |
|---|---|---|---|
| Big Bend Power Station | FL | 0645 | 005 |

**STEP 2**
Indicate the program(s) that the unit is subject to:

~ CAIR $NO_X$ Annual
~ CAIR $SO_2$
~ CAIR $NO_X$ Ozone Season

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**STEP 3**
Identify the date on which the unit was (or will be) permanently retired.

9/30/2008

**STEP 4**
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2009

**STEP 5**
Read the appropriate special provisions.

**Acid Rain Program Special Provisions**

(1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
(2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
(5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Rev. 11-2007)

| Big Bend Power Station<br>Plant Name (from STEP 1) | Retired Unit Exemption<br>Page 2 |
|---|---|

**CAIR $NO_X$ Annual Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 96.105(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
(2) The permitting authority will allocate CAIR $NO_X$ allowances under 40 CFR 96 subpart EE to a unit exempt under 40 CFR 96.105(a).
(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.105(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a) shall comply with the requirements of the CAIR $NO_X$ Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(5) A unit exempt under 40 CFR 96.105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a) shall lose its exemption:
(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.105(b)(5);
(ii) The date on which the CAIR designated representative is required under 40 CFR 96.105(b)(5) to submit a CAIR permit application for the unit; or
(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

**CAIR $SO_2$ Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 96.205(a) shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.205(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.205(a) shall comply with the requirements of the CAIR $SO_2$ Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 96.205(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
(5) On the earlier of the following dates, a unit exempt under 40 CFR 96.205(a) shall lose its exemption:
(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.205(b)(4);
(ii) The date on which the CAIR designated representative is required under 40 CFR 96.205(b)(4) to submit a CAIR permit application for the unit; or
(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
(6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHH, a unit that loses its exemption under 40 CFR 96.205(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

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| Big Bend Power Station<br>Plant Name (from STEP 1) | Retired Unit Exemption<br>Page 3 |
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**CAIR $NO_X$ Ozone Season Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 96.305(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
(2) The permitting authority will allocate CAIR $NO_X$ Ozone Season allowances under 40 CFR 96 subpart EEEE to a unit exempt under 40 CFR 96.305(a).
(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.305(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.305(a) shall comply with the requirements of the CAIR $NO_X$ Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(5) A unit exempt under 40 CFR 96.305(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.322 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 96.305(a) shall lose its exemption:
(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.305(b)(5);
(ii) The date on which the CAIR designated representative is required under 40 CFR 96.305(b)(5) to submit a CAIR permit application for the unit; or
(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHHH, a unit that loses its exemption under 40 CFR 96.305(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

**CAMR Hg Budget Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 60.4105(a) shall not emit any mercury, starting on the date that the exemption takes effect.
(2) The permitting authority will allocate Hg allowances under 40 CFR 60.4140 through 60.4142 to a unit exempt under 40 CFR 60.4105(a).
(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 60.4105(a) shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(4) The owners and operators and, to the extent applicable, the Hg designated representative of a unit exempt under 40 CFR 60.4105(a) shall comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(5) A unit exempt under 40 CFR 60.4105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the Hg designated representative of the source submits a complete Hg Budget permit application under 40 CFR 60.4122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 60.4105(a) shall lose its exemption:
(i) The date on which the Hg designated representative submits a Hg Budget permit application for the unit under 40 CFR 60.4105(b)(5);
(ii) The date on which the Hg designated representative is required under 40 CFR 60.4105(b)(5) to submit a Hg Budget permit application for the unit; or
(iii) The date on which the unit resumes operation, if the Hg designated representative is not required to submit a Hg Budget permit application for the unit.
(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 60.4170 through 60.4176, a unit that loses its exemption under 40 CFR 60.4105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

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| Big Bend Power Station<br>Plant Name (from STEP 1) |

Retired Unit Exemption

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**STEP 6**
Read the statement of compliance and the appropriate certification statements and sign and date.

**Statement of Compliance**
I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

**Certification (for Acid Rain, CAIR, or Hg designated representatives or alternate Acid Rain, CAIR, or Hg designated representatives only)**
I am authorized to make this submission on behalf of the owners and operators of the source and unit 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<br>Name | Manager, Air Programs<br>Title | |
| Tampa Electric Company<br>Owner Company Name | | |
| (813) 228-1282<br>Phone | BTBurrows@TECOEnergy.com<br>Email | |
| Signature | | October 2, 2008<br>Date |

**Certification (for certifying officials of units subject to the Acid Rain Program only)**
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<br>Name | Manager, Air Programs<br>Title | |
| Tampa Electric Company<br>Owner Company Name | | |
| (813) 228-1282<br>Phone | BTBurrows@TECOEnergy.com<br>Email | |
| Signature | | October 2, 2008<br>Date |

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United States Environmental Protection Agency
Acid Rain, CAIR, and CAMR Programs

OMB Nos. 2060-0258, 2060-0567, 2060-0570, and 2060-0584
Approval Expires 7/31/2009

# Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, and 60.4105, or a comparable state regulation, as applicable.

This submission is: [X] New [ ] Revised

**STEP 1**
Identify the unit by facility (source) name, State, ORIS/plant code and unit ID#.

| Facility (Source) Name | State | ORIS/Plant Code | Unit ID# |
|---|---|---|---|
| Big Bend Power Station | FL | 0645 | 006 |

**STEP 2**
Indicate the program(s) that the unit is subject to:

~ CAIR $NO_X$ Annual
~ CAIR $SO_2$
~ CAIR $NO_X$ Ozone Season

**STEP 3**
Identify the date on which the unit was (or will be) permanently retired.

9/30/2008

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**STEP 4**
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2009

**STEP 5**
Read the appropriate special provisions.

**Acid Rain Program Special Provisions**

(1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
(2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
(5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

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| Big Bend Power Station<br>Plant Name (from STEP 1) | Retired Unit Exemption<br>Page 2 |
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**CAIR $NO_X$ Annual Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 96.105(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
(2) The permitting authority will allocate CAIR $NO_X$ allowances under 40 CFR 96 subpart EE to a unit exempt under 40 CFR 96.105(a).
(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.105(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a) shall comply with the requirements of the CAIR $NO_X$ Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(5) A unit exempt under 40 CFR 96.105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a) shall lose its exemption:
(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.105(b)(5);
(ii) The date on which the CAIR designated representative is required under 40 CFR 96.105(b)(5) to submit a CAIR permit application for the unit; or
(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

**CAIR $SO_2$ Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 96.205(a) shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.205(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.205(a) shall comply with the requirements of the CAIR $SO_2$ Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 96.205(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
(5) On the earlier of the following dates, a unit exempt under 40 CFR 96.205(a) shall lose its exemption:
(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.205(b)(4);
(ii) The date on which the CAIR designated representative is required under 40 CFR 96.205(b)(4) to submit a CAIR permit application for the unit; or
(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
(6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHH, a unit that loses its exemption under 40 CFR 96.205(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

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| Big Bend Power Station<br>Plant Name (from STEP 1) | Retired Unit Exemption<br>Page 3 |
|---|---|

**CAIR $NO_X$ Ozone Season Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 96.305(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
(2) The permitting authority will allocate CAIR $NO_X$ Ozone Season allowances under 40 CFR 96 subpart EEEE to a unit exempt under 40 CFR 96.305(a).
(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.305(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.305(a) shall comply with the requirements of the CAIR $NO_X$ Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(5) A unit exempt under 40 CFR 96.305(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.322 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 96.305(a) shall lose its exemption:
(i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.305(b)(5);
(ii) The date on which the CAIR designated representative is required under 40 CFR 96.305(b)(5) to submit a CAIR permit application for the unit; or
(iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHHH, a unit that loses its exemption under 40 CFR 96.305(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

**CAMR Hg Budget Trading Program Special Provisions**

(1) A unit exempt under 40 CFR 60.4105(a) shall not emit any mercury, starting on the date that the exemption takes effect.
(2) The permitting authority will allocate Hg allowances under 40 CFR 60.4140 through 60.4142 to a unit exempt under 40 CFR 60.4105(a).
(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 60.4105(a) shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(4) The owners and operators and, to the extent applicable, the Hg designated representative of a unit exempt under 40 CFR 60.4105(a) shall comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(5) A unit exempt under 40 CFR 60.4105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the Hg designated representative of the source submits a complete Hg Budget permit application under 40 CFR 60.4122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 60.4105(a) shall lose its exemption:
(i) The date on which the Hg designated representative submits a Hg Budget permit application for the unit under 40 CFR 60.4105(b)(5);
(ii) The date on which the Hg designated representative is required under 40 CFR 60.4105(b)(5) to submit a Hg Budget permit application for the unit; or
(iii) The date on which the unit resumes operation, if the Hg designated representative is not required to submit a Hg Budget permit application for the unit.
(7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 60.4170 through 60.4176, a unit that loses its exemption under 40 CFR 60.4105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

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| Big Bend Power Station<br>Plant Name (from STEP 1) |

Retired Unit Exemption

Page 4

**STEP 6**
Read the statement of compliance and the appropriate certification statements and sign and date.

**Statement of Compliance**
I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

**Certification (for Acid Rain, CAIR, or Hg designated representatives or alternate Acid Rain, CAIR, or Hg designated representatives only)**
I am authorized to make this submission on behalf of the owners and operators of the source and unit 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<br>Name | Manager, Air Programs<br>Title | |
| Tampa Electric Company<br>Owner Company Name | | |
| (813) 228-1282<br>Phone | BTBurrows@TECOEnergy.com<br>Email | |
| Signature | | October 2, 2008<br>Date |

**Certification (for certifying officials of units subject to the Acid Rain Program only)**
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.

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| Byron T. Burrows<br>Name | Manager, Air Programs<br>Title | |
| Tampa Electric Company<br>Owner Company Name | | |
| (813) 228-1282<br>Phone | BTBurrows@TECOEnergy.com<br>Email | |
| Signature | | October 2, 2008<br>Date |

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## SECTION VI. APPENDICES.

**The Following Appendices Are Enforceable Parts of This Permit:**

Appendix A, Glossary.
Appendix BOP, Best Operational Practices for Start up and Shutdown.
Appendix CAM, Compliance Assurance Monitoring Plan.
Appendix CEMS.
Appendix CEMS for EU 41 and 42.
Appendix CFJ, Consent Final Judgment (DEP vs. TEC).
Appendix CP-1 Compliance Plan.
Appendix 40 CFR 60, Subpart A, General Provisions.
Appendix 40 CFR 60, Subpart Da, Standards of Performance for Fossil-Fuel Fired Steam Generators.
Appendix 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
Appendix 40 CFR 60, Subpart KKKK, Requirements for Stationary Combustion Turbines
Appendix 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.
Appendix 40 CFR 63, Subpart A, General Provisions.
Appendix 40 CFR 63, Subpart II, National Emission Standards for Shipbuilding and Ship Repair (Surface Coating).
Appendix 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix O&M, Operation and Maintenance Plan under RACT for PM.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, List of Unregulated Emissions Units and/or Activities.