



Florida Department of Environmental Protection

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December 23, 2008

- CERTIFIED MAIL - RETURN RECEIPT REQUESTED -

Gwen L. Shofner, P.E.
Tampa Electric Company
Post Office Box 111
Tampa, Florida 33601-0111

RE: Tampa Electric Company Big Bend Unit 4
Modification to Conditions of Certification
DEP Case Number PA 79-12P
OGC Case Number 08-2936

ORDER MODIFYING CONDITIONS OF CERTIFICATION

Dear Ms. Shofner:

On the following dates the Department published notices of its intent to issue the subsequent permits;

4/15/05	0570039-020-AC
8/4/06	0570039-025-AC
12/8/06	0570039-026-AC
11/3/07	0570039-031-AC
5/14/08	0570039-036-AC
11/21/08	0570039-040-AC
8/15/07	0570039-028-AV

On the following dates those permits were issued by the Department;

5/6/05	0570039-020-AC
10/31/06	0570039-025-AC
12/29/06	0570039-026-AC
11/20/07	0570039-031-AC
6/6/08	0570039-036-AC
12/10/08	0570039-040-AC
11/20/07	0570039-028-AV

Also on June 15, 2007 the Department published notice of its intent to issue Revision A to the NPDES Permit FL0000817 (FL0000817-010-IW1S/RA). On July 19, 2007, the Department issued Revision A to the NPDES Permit FL0000817 (FL0000817-

010-IW1S/RA) for the Tampa Electric Company Big Bend Unit 4 Facility. Pursuant to 403.516 (1) (b), Florida Statutes ("F.S."), the Department may modify specific Conditions of a site Certification which are inconsistent with the terms of any federally delegated or approved permit. Such modification(s) may be made without further notice if the matter has been previously noticed under the requirements for any federally delegated or approved permit program. Accordingly, the above permits are hereby incorporated into the Conditions of Certification. Furthermore, the Conditions of Certification for the Tampa Electric Company Big Bend Unit 4 Facility are hereby modified as follows:

I. Air

The construction and operation of Big Bend Unit 4 at the Tampa Electric Company steam electric power plant site shall be in accordance with all applicable provisions of Chapters 62-4, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-296, 62-297, 62-302, and 62-701, Florida Administrative Code, Air Construction Permits No. 0570039-020-AC, 0570039-025-AC, 0570039-026-AC, 0570039-031-AC, 0570039-036-AC, 0570039-040-AC and Title V permit 0570039-017-AV, 0570039-021028-AV (attached hereto as Appendices A-G, respectively) and any subsequent renewals, revisions or corrections to these permits. In addition to the foregoing, the licensee shall comply with the following conditions of certification:

A. Emission Limitations

1. Based on a maximum heat input of 4,330 million BTU per hour, stack emissions from Big Bend Unit 4 (Emission Unit 004) shall not exceed the following when burning coal or a coal/petroleum coke blend:

a. ~~SO₂ - 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 4330 million Btu/hour, SO₂ emissions shall not exceed 3551 lb/hr. Compliance with sulfur dioxide emission limitations and percent reduction requirements is determined on a 30-day rolling average basis. The sulfur dioxide emission standards apply at all times except during periods of startup, shutdown, or when both emergency conditions exist and the following procedures in specific condition I.A.15. are implemented.~~

b. ~~NO_x - Nitrogen dioxide~~

1. ~~Existing limitations through May 31, 2007. Nitrogen dioxide emissions from Unit No. 4 when combusting bituminous or anthracite coal, or a coal/petroleum coke blend, shall not exceed 0.60 lb/million Btu heat input. Based upon a heat input of 4330 million Btu/hour, NO_x emissions shall not exceed 2598 lb/hr. These emission limits are based on a 30-day rolling average. These standards apply at all times except during periods of startup, shutdown, or malfunction.~~

~~2. Limitations after May 31, 2007. Nitrogen dioxide emissions from Unit No. 4 when combusting bituminous or anthracite coal, or a coal/petroleum coke blend, shall not exceed 0.10 lb per million Btu heat input. Based upon a heat input limit of 4330 million Btu/hour, NO_x emissions shall not exceed 433 lb/hour. These emission limits are based on a 30-day rolling average.~~

~~c. Particulates - 0.03 lb. per million BTU heat input. This standard applies at all times except during periods of startup, shutdown, or malfunction. Based on the maximum permitted heat input rate listed in Specific Condition I.A.1., particulate matter emissions from Unit No. 4 shall not exceed 129.9 lbs/hour, 3118 lbs/day, and 569.0 tons/year.~~

~~d. Visible emissions - 20% (6-minute average), except one 6-minute period per hour of not more than 27% opacity.~~

~~e. Carbon monoxide (CO) emissions from Unit No. 4 shall not exceed 0.029 lb/million Btu heat input, and shall not exceed 124 lb/hr.~~

~~2. The height of the boiler exhaust stack for Unit 4 shall not be less than 490 ft. above grade.~~

~~3. Particulate emissions from the coal handling facilities:~~

~~a. Pursuant to Chapter 1-3.62 Rules of the Environmental Protection Commission of Hillsborough County, visible emissions shall not exceed 20% opacity for any unconfined emission unit in the fuel yard. Unconfined emissions as defined by Rule 62-296.200, F.A.C., shall include the static fuel piles, etc.~~

~~Pursuant to Rule 62-296.711(2), F.A.C., visible emissions shall not exceed 5 percent opacity for the remaining emission units in the fuel yard. Initial and subsequent visible emissions compliance tests shall be demonstrated using EPA Reference Method 9, 40 CFR Part 60, Appendix A, Visual Determination of Fugitive Emissions from Material Sources (July 1, 1993 version). All testing shall be done within 90 days of completing reconfiguration of the fuel yard and prior notification of testing shall be submitted in writing at least 15 days beforehand to the EPC of Hillsborough County. Particulate emissions shall be controlled by use of control devices.~~

~~b. The licensee must submit to the Department within ten (10) working days after it becomes available, copies of technical data pertaining to the selected particulate emissions control for the coal handling facility. These data should include, but not be limited to, guaranteed efficiency and emission rates and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of such device if the Department determines the selected control device to be inadequate to meet the emission limits specified in 3(a) above. Such disapproval shall be issued within 30 days of receipt of the technical data.~~

~~_____ c. The fuel pile operations are subject to Rule 62-296.310(3), F.A.C., Unconfined Emissions of Particulate Matter. Reasonable precautions to minimize unconfined particulate matter shall be in accordance with Rule 62-296.310(3)(c), F.A.C., and may include, but shall not be limited to, the coating of roads and construction sites used by contractors and regrassing or watering areas of disturbed fuel.~~

~~_____ d. From each fuel transloading source/emissions point (i.e., off-loading and loading of fuel), the maximum hourly transloading transfer of fuel shall not exceed 4,000 tons, 24-hour rolling average.~~

~~_____ e. From each fuel transloading source/emissions point, (i.e., off-loading and loading of fuel), the maximum annual transloading transfer of fuel shall not exceed 1,428,030 tons.~~

~~_____ f. The number of railcars and trucks and the quantity of fuel loaded by each fuel transloading source/emissions point (i.e., off-loading and loading of fuel) shall be recorded, maintained, and kept on file for a minimum of two years. The annual quantity of fuel loaded by each fuel transloading source/emissions point shall be submitted in an annual operation report (AOR) to the Environmental Protection Commission of Hillsborough County by March 1 of each year for the previous year's operation.~~

~~_____ 4. Particulate emissions from limestone and flyash handling shall not exceed the following:~~

~~_____ a. Limestone silos - 0.05 lb/hr.~~

~~_____ b. Limestone hopper/transfer conveyors - 0.65 lb/hr.~~

~~_____ c. Flyash handling system - 0.2 lb/hr.~~

~~_____ 5. Visible emissions from the following facilities shall be limited to 5% opacity: (a) limestone and flyash handling system, (b) limestone day silos and (c) flyash silos.~~

~~_____ 6. Compliance with opacity limits of the facilities listed in Condition 5 will be determined by EPA reference method 9 (Appendix A, 40 CFR 60).~~

~~_____ 7. Construction shall reasonably conform to the plans and schedule given in the application.~~

~~_____ 8. The licensee shall report any delays in construction and completion of the project to the Department's Southwest District Office.~~

~~9. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating of roads and construction sites used by contractors, will be taken by the licensee.~~

~~10. Operation:~~

~~a. Normal operation: The only fuels fired in Unit No. 4 shall be coal or a coal/petroleum coke blend containing a maximum of 20.0% petroleum coke by weight. The vanadium content of the petroleum coke fired shall not exceed 2660 ppm. The ash content of the petroleum coke fired shall not exceed 0.76% by weight on a dry basis. The licensee shall maintain and submit to the Department, and to the Environmental Protection Commission of Hillsborough County, on an annual basis for the years 2001, 2002, 2003, 2004, and 2005 data demonstrating that removal of the sulfur content limit and the revision of the vanadium content limit in the petroleum coke fired did not result in a significant increase in the representative actual annual emissions of any regulated pollutant.~~

~~b. Other operation: In addition to the fuels allowed to be burned during normal operation, Unit No. 4 may also burn new No. 2 fuel oil during startup, shutdown, flame stabilization and during the start of an additional solid fuel crusher on an already operating unit. Evaporation of up to 150,000 gallons per year, total at the facility, is allowed of non-hazardous, but potentially HAP-emitting, mineral acid solution boiler chemical cleaning waste which was generated on-site.~~

~~c. Coal shall not be burned in Unit No. 4 unless both the electrostatic precipitator and limestone scrubber are operating properly.~~

~~d. Coal burned in Unit No. 4 shall be washed before it is transported to the plant site. TEC shall maintain records of all coal washing and preparation activities for any coal which is to be fired in Big Bend Unit No. 4. These reports shall be submitted to the Department on a quarterly basis.~~

~~e. TEC 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.~~

~~11. Tampa Electric Company is allowed to divert and integrate all of the flue gas from Unit No. 3 for purposes of treating that flue gas in the existing Unit No. 4 flue gas desulfurization (FGD) system.~~

~~12. Unit No. 4 is allowed to operate continuously, i.e., 8760 hours/year.~~

~~13. Gravimetric instrument data verifying that the 20.0 percent maximum petroleum coke by weight basis has not been exceeded shall be maintained and submitted to the Department's Southwest District Office and the Environmental~~

Protection Commission of Hillsborough County (EPCHC) with each annual operating report.

~~14. Pursuant to Rule 52-212.200(2)(d), F.A.C., the actual emissions of the No. 4 Unit shall equal the representative actual emissions as defined in 40 CFR 52.21(b)(33). The Permitted shall maintain and submit to the Department and EPCHC on an annual basis for a period of five years from the date the unit begins firing petroleum coke, data demonstrating that the operational change did not result in an emissions increase.~~

~~15. During emergency conditions in the principal company, an affected facility with a malfunctioning flue gas desulfurization system may be operated if sulfur dioxide emissions are minimized by:~~

~~a. Operating all operable flue gas desulfurization system modules, and bringing back into operation any malfunctioned module as soon as repairs are completed,~~

~~b. Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any sulfur dioxide emission reduction or which would have suffered significant physical damage if they had remained in operation, and~~

~~c. Operating a spare flue gas desulfurization system module. The Department or EPCHC may at their discretion require TEC within 60 days of notification to demonstrate spare module capability. To demonstrate this capability, the owner or operator must demonstrate compliance with the appropriate requirements of specific conditions I.A.1.a. and I.A.1.c. for any period of operation lasting from 24 hours to 30 days when:~~

~~(1) Any one flue gas desulfurization module is not operated,~~

~~(2) The affected facility is operating at the maximum heat input rate,~~

~~(3) The fuel fired during the 24-hour to 30-day period is representative of the type and average sulfur content of fuel used over a typical 30-day period, and~~

~~(4) TEC has given the Department or EPCHC at least 30 days notice of the date and period of time over which the demonstration will be performed.~~

~~16. The licensee shall install a selective catalytic reduction (SCR) system for nitrogen oxides (NOx) control on the facility's Unit No. 4 solid fuel-fired boiler.~~

~~_____~~ ***B. Air Monitoring Program***

~~_____~~ 1. ~~The licensee~~

~~_____~~ a. ~~When Units 3 and 4 are operating in the integrated mode (Unit 3 flue gasses routed through the Unit 4 FGD system), the continuous monitoring system will measure sulfur dioxide emissions at the inlet and outlet of the Unit 4 FGD system and from the Unit 3 stack, while emissions of nitrogen dioxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Unit 4 duct prior to the FGD system.~~

~~_____~~ b. ~~When Units 3 and 4 are not operating in the integrated mode, the continuous monitoring system will measure only Unit 4's inlet duct and stack for SO₂ emissions. The emissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Unit 4 duct prior to the FGD system.~~

~~_____~~ 2. ~~The licensee 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.~~

~~_____~~ 3. ~~The licensee shall provide sampling ports into the stack and shall provide access to the sampling ports, in accordance with DEP publication, Standard Sampling Techniques and Methods of Analysis for the Determination of Air Pollutants from Point Sources, July, 1975.~~

~~_____~~ 4. ~~The ambient monitoring program may be reviewed by the Department and the licensee annually beginning two years after start-up of Unit 4.~~

~~_____~~ 5. ~~Prior to operation of the source, the licensee shall submit to the Department a standardized plan or procedure that will allow the licensee to monitor emission control equipment efficiency and enable the licensee to return malfunctioning equipment to proper operation as expeditiously as possible.~~

~~_____~~ 6. ~~TEC shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Department and the Environmental Protection Commission of Hillsborough County [EPCHC]).~~

~~7. TEC shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring sulfur dioxide emissions as follows:~~

~~a. Sulfur dioxide emissions are monitored at both the inlet and outlet of the sulfur dioxide control device.~~

~~b. An "as fired" fuel monitoring system (upstream of coal pulverizers) meeting the requirements of Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates, may be used to determine potential sulfur dioxide emissions in place of a continuous sulfur dioxide emission monitor at the inlet to the sulfur dioxide control device as required in the preceding specific condition I.B.7.a.~~

~~8. TEC shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.~~

~~9. TEC 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 Section 62-214, F.A.C., 40 CFR 60.47a, and 40 CFR 75.). The opacity monitor shall be placed in the duct work between the electrostatic precipitator and the FGD scrubber. When Units 3 and 4 are operating in the integrated mode (Unit 3 flue gases routed through the Unit 4 FGD system), the continuous monitoring system will measure sulfur dioxide emissions at the inlet and outlet of the Unit 4 FGD system and from the Unit 3 stack (CS002), while emissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Unit 4 duct prior to the FGD system. When Units 3 and 4 are not operating in the integrated mode, the continuous monitoring system will measure only Unit 4's inlet duct and stack for SO₂ emissions. The emissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Unit 4 duct prior to the FGD system.~~

~~10. The continuous monitoring systems required in specific conditions B.7., B.8., and B.9., shall be operated and record data during all periods of operation of Unit No. 4 including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.~~

~~11. TEC shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, TEC shall supplement emission data with other monitoring systems approved by the Department or the EPCHC, or the reference methods and procedures as described in Specific Condition B.13.~~

~~12. The 1-hour averages required under 40 CFR 60.13(h), *Monitoring Requirements*, are expressed in lbs/million Btu heat input and used to calculate the average emission rates required in specific conditions B.13. and B.14. The 1-hour averages are calculated using the data points required under 40 CFR 60.13(b), *Monitoring Requirements*. At least two data points must be used to calculate the 1-hour averages.~~

~~13. When it becomes necessary to supplement continuous monitoring system data to meet the minimum data requirements in specific condition B.21, TEC shall use the following reference methods and procedures. Acceptable alternative methods and procedures are given in specific condition B.25.~~

~~a. Method 6 shall be used to determine the SO₂ concentration at the same location as the SO₂ monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.~~

~~b. Method 7 shall be used to determine the NO_x concentration at the same location as the NO_x monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.~~

~~c. The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B shall be used to determine the O₂ or CO₂ concentration at the same location as the O₂ or CO₂ monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.~~

~~d. The procedures in Method 10 shall be used to compute each 1-hour average concentration in lb/million Btu heat input.~~

~~14. TEC shall use the following methods and procedures to conduct the monitoring system performance evaluations required under 40 CFR 60.13(c), *Monitoring Requirements*, and the calibration checks required under 40 CFR 60.13(d), *Monitoring Requirements*. Acceptable alternative methods and procedures are given in specific condition B.25.~~

~~a. Methods 6, 7, and 3B, as applicable, shall be used to determine O₂, SO₂, and NO_x concentrations.~~

~~b. SO₂ or NO_x (NO), as applicable, shall be used for preparing the calibration gas mixtures (in N₂, as applicable) under 40 CFR 60 Appendix B, Performance Specification 2.~~

~~c. The span value for a continuous monitoring system for measuring opacity is between 60 and 80 percent and for a continuous monitoring system measuring nitrogen oxides is determined as follows.~~

Fossil Fuel	Span value for nitrogen oxides (ppm)
Solid	1,000

_____ d. _____ Reserved

_____ e. _____ For affected facilities burning fossil fuel alone or in combination with non-fossil fuel, the span value of the sulfur dioxide continuous monitoring system at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the sulfur dioxide control device is 50 percent of maximum estimated hourly potential emissions oil fuel, alone or in combination with non-fossil fuel, the span value of the fuel fired. [Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(i); 40 CFR 60.13; 40 CFR 60 Appendix A, Methods 3B, 6, and 7; 40 CFR 60 Appendix B, Performance Specification 2.]

_____ 15. _____ TEC may use the following as alternatives to the reference methods and procedures specified in conditions B.23. and B.24.

_____ a. _____ For Method 6, Method 6A or 6B (whenever Methods 6 and 3 or 3B data are used) or 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1-hour averages. If Method 6A or 6B is used under Condition I.B.24., the conditions under 40 CFR 60.46(d)(1) apply; these conditions do not apply under condition I.B.23.

_____ b. _____ For Method 7, Method 7A, 7C, 7D or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time for each run shall be 1 hour.

_____ c. _____ For Method 3, Method 3A or 3B may be used if the sampling time is 1 hour.

_____ d. _____ For Method 3B, Method 3A may be used.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(j); 40 CFR 60.46(d)(1), 40 CFR 60 Appendix A, Methods 3, 3A, 3B, 6, 6A, 6B, 6C, 7, 7A, 7C, 7D, and 7E]

_____ 16. _____ In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the methods in appendix A of 40 CFR 60 or the methods and procedures as specified in conditions B.17. through B.20., except as provided in 40 CFR 60.8(b). 40 CFR 60.8(f) does not apply to specific conditions B.18 and B.19. for SO₂ and NO_x. Acceptable alternative methods are given in specific condition B.20.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(a); 40 CFR 60.8]

~~17. TEC shall determine compliance with the particulate matter standards in specific condition B.5. as follows:~~

~~a. The dry basis F factor (O_2) procedures in Method 19 shall be used to compute the emission rate of particulate matter.~~

~~b. For the particulate matter concentration, Method 5B shall be used after wet FGD systems.~~

~~(1) The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160 ± 14 °C (320 ± 25 °F).~~

~~(2) For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O_2 concentration. The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O_2 traverse points. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of all the individual O_2 concentrations at each traverse point.~~

~~c. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(b); 40 CFR 60.11, 40 CFR 60 Appendix A, Methods 1, 3B, 5B, 9, and 19]~~

~~18. TEC shall determine compliance with the SO_2 standards in specific condition I.A.1.a. as follows:~~

~~a. The percent of potential SO_2 emissions (%Ps) to the atmosphere shall be computed using the following equation:~~

$$\%P_s = [(100 - \%R_f)(100 - \%R_g)]/100$$

~~where:~~

~~$\%P_s$ = percent of potential SO_2 emissions, percent.~~

~~$\%R_f$ = percent reduction from fuel pretreatment, percent.~~

~~$\%R_g$ = percent reduction by SO_2 control system, percent.~~

~~b. The procedures in Method 19 may be used to determine percent reduction ($\%R_f$) of sulfur by such processes as fuel pretreatment (physical coal cleaning, hydrodesulfurization of fuel oil, etc.), coal pulverizers, and bottom and flyash interactions. This determination is optional.~~

~~c. The procedures in Method 19 shall be used to determine the percent SO_2 reduction ($\%R_g$) of any SO_2 control system. Alternatively, a combination of~~

an "as fired" fuel monitor and emission rates measured after the control system, following the procedures in Method 19, may be used if the percent reduction is calculated using the average emission rate from the SO₂ control device and the average SO₂ input rate from the "as fired" fuel analysis for 30 successive boiler operating days.

_____ d. _____ The appropriate procedures in Method 19 shall be used to determine the emission rate.

_____ e. _____ The continuous monitoring systems specified in conditions B.17. and B.19. shall be used to determine the concentrations of SO₂ and CO₂ or O₂. [Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a (c); 40 CFR 60.43a; 40 CFR 60.47a(b) and (d); 40 CFR 60 Appendix A, Method 19]

_____ 19. _____ TEC shall determine compliance with the NO_x standards in specific condition I.A.1.b. as follows:

_____ a. _____ The appropriate procedures in Method 19 shall be used to determine the emission rate of NO_x.

_____ b. _____ The continuous monitoring systems specified in specific conditions B.18. and B.19. shall be used to determine the concentrations of NO_x and CO₂ or O₂. [Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(d); 40 CFR 60.44a; 40 CFR 60.47a(c); 40 CFR 60.47a(d)]

_____ 20. _____ TEC may use the following as alternatives to the reference methods and procedures specified in condition B.17:

_____ a. _____ For Method 5 or 5B, Method 17 may be used at Unit No. 4 if the stack temperature at the sampling location does not exceed an average temperature of 160 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after wet FGD systems. Method 17 shall not be used after wet FGD systems if the effluent is saturated or laden with water droplets.

_____ b. _____ The F_e factor (CO₂) procedures in Method 19 may be used to compute the emission rate of particulate matter under the stipulations of 40 CFR 60.46(d)(1). The CO₂ shall be determined in the same manner as the O₂ concentration. [Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(e); 40 CFR 60.46(d)(1); 40 CFR 60 Appendix A, Methods 5, 5B, 17, and 19]

_____ 21. _____ For sulfur dioxide, nitrogen oxides, and particulate matter emissions, the performance test data from the initial performance test and from the performance evaluation of the continuous monitors (including the transmissometer) shall be submitted to the Department and the EPCHC. [Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(a)]

~~_____ 22. For sulfur dioxide and nitrogen oxides the following information shall be reported to the Department and the EPCHC for each 24-hour period.~~

~~_____ a. Calendar date.~~

~~_____ b. The average SO₂ and NO_x emission rates (lb/ million Btu heat input) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.~~

~~_____ c. Percent reduction of the potential combustion concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.~~

~~_____ d. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification or not obtaining sufficient data; and description of corrective actions taken.~~

~~_____ e. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO₂ only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions.~~

~~_____ f. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.~~

~~_____ g. Identification of times when hourly averages have been obtained based on manual sampling methods.~~

~~_____ h. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.~~

~~_____ i. Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with 40 CFR 60 Appendix B, Performance Specifications 2 or 3.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(b); 40 CFR 60 Appendix B]~~

~~_____ 23. If the minimum quantity of emission data, as required by the emission monitoring specific conditions B.6. through B.15., is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of specific condition B.5. shall be reported to the DEP for that 30-day period:~~

_____ a. _____ The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.

_____ b. _____ The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.

_____ c. _____ The lower confidence limit for the mean outlet emission rate (E_o^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.

_____ d. _____ The applicable potential combustion concentration.

_____ e. _____ The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(c); 40 CFR 60 Appendix A, Method 19]

_____ 24. _____ If any sulfur dioxide standards under specific condition I.A.1.a. is exceeded during emergency conditions because of control system malfunction, the owner or operator of the affected facility shall submit a signed statement:

_____ a. _____ Indicating if emergency conditions existed and requirements under specific condition B.14. were met during each period, and

_____ b. _____ Listing the following information:

_____ (1) _____ Time periods the emergency condition existed;

_____ (2) _____ Electrical output and demand on the owner or operator's electric utility system and the affected facility;

_____ (3) _____ Amount of power purchased from interconnected neighboring utility companies during the emergency period;

_____ (4) _____ Percent reduction in emissions achieved;

_____ (5) _____ Atmospheric emission rate (ng/J or lb/MMBtu) of the pollutant discharged; and

_____ (6) _____ Actions taken to correct control system malfunction.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(d); 40 CFR 60.43a; 40 CFR 60.46a(d)]

_____ 25. _____ If fuel pretreatment credit is claimed toward the sulfur dioxide emission standards in specific condition B.7. TEC shall submit a signed statement:

~~_____ a. _____ Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of specific condition B.28. and Method 19 (Appendix A of 40 CFR 60); and~~

~~_____ b. _____ Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(e), 40 CFR 60.48a(c)]~~

~~_____ 26. _____ For any periods for which opacity, sulfur dioxide or nitrogen oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(f)]~~

~~_____ 27. _____ The owner or operator of the affected facility shall submit a signed statement indicating whether:~~

~~_____ a. _____ The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.~~

~~_____ b. _____ The data used to show compliance was or was not obtained in accordance with approved methods and procedures of these conditions and is representative of plant performance.~~

~~_____ c. _____ The minimum data requirements have o have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.~~

~~_____ d. _____ Compliance with the standards has or has not been achieved during the reporting period.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(g)]~~

~~_____ 28. _____ For the purposes of the reports required under 40 CFR 60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under specific condition B.6. Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(h)]~~

~~29. The owner or operator of an affected facility shall submit the written reports required under this section and subpart A to the Department and the EPCHC for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(i)]~~

~~30. 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. TEC shall maintain copies of fuel analyses containing information on sulfur content, ash content, and heating values.~~

~~[PSD-FL-040; Rules 62-4.070(3), 62-213.440(1)(b)2.b., F.A.C., and Power Plant Siting Certification PA 79-12]~~

~~31. Pursuant to Rule 62-212.200(2)(d), F.A.C., the actual emissions of the No. 4 Unit shall equal the representative actual emissions as defined in 40 CFR 52.21(b)(33). TEC shall maintain and submit to the Department and the EPCHC on an annual basis for a period of 5 years from the date the unit begins firing petroleum coke, data demonstrating that the operational change did not result in an emissions increase.~~

~~C. *Stack Testing:*~~

~~1. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated, but no later than 180 operating days after initial start-up, the licensee shall conduct performance tests for particulates, SO₂, NO_x, and visible emissions during normal operations near 4,330 MMBtu/hr heat input and furnish the Department a written report of the results of such performance tests within 30 days. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46a, 48a, and 49a.~~

~~2. Performance tests shall be conducted and data reduced in accordance with methods and procedures in accordance with DEP's Standard Sampling Techniques and Methods of Analysis for Determination on Air Pollutants from Point Sources, July, 1975.~~

~~3. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The licensee shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.~~

~~4. The licensee shall provide 30 days prior notice of the performance tests to afford the Department the opportunity to have an observer present.~~

~~5. Stack tests for particulates and SO₂ shall be performed annually in accordance with conditions C.2, 3, and 4 above.~~

~~**D. Reporting**~~

~~1. For Unit 4, stack monitoring, fuel usage and fuel analysis data shall be reported to the Department's Southwest District Office on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR, Part 60, Section 60.7, and in accordance with Section 62-296.405, FAC.~~

~~2. Utilizing the SAROAD or other format approved in writing by the Department, ambient air monitoring data shall be reported to the Bureau of Air Quality Management of the Department quarterly. Commencing on the date of certification, such reports shall be due by the last day of the month following the quarterly reporting period.~~

~~3. Beginning one month after certification, the licensee shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of equipment (including control equipment). All reports and information required to be submitted under this condition shall be submitted to the Department's Southwest District Office.~~

II. Water Discharges

Any discharges into any waters of the State during construction and operation of Big Bend Unit 4 shall be in accordance with all applicable provisions of the NPDES Permit FL0000817 (hereto attached as Appendix AH) and any amendments or revisions to this permit, Chapter 62-301, Florida Administrative Code, and 40 CFR, 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category except as provided herein. Also, the licensee shall comply with the following conditions of certification:

No Change from this point forward

The Conditions of Certification (including attachments) are available at the following web site: <http://www.dep.state.fl.us/siting/Highlights/conditions.htm> Copies of the Conditions of Certification and/or attachments may also be obtained by contacting the Siting Coordination Office, Marjory Stoneman Douglas Building, 3900 Commonwealth Boulevard, Florida 32399-3000, (850) 245-2002.

Any party to the this Order has a right to seek judicial review of it pursuant to Section 120.68, Florida Statutes by filing a Notice of Appeal, pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000, and by filing a copy of the Notice of Appeal, accompanied by the applicable filing fees, with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty days from the date this Order is filed with the Clerk of the Department of Environmental Protection.

Executed in Tallahassee, Florida.

Michael P. Halpin, P.E.

Michael P. Halpin, P.E.
Administrator, Siting Coordination Office

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

Denise Cunningham 12/23/08
Clerk Date

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