Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

September 27, 2004

Ms. Karen Sheffield
General Manager, Big Bend Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

Re: Air Construction Permit 0570039-016-AC and Title V Air Operation Permit No. 0570039-017-AV
Tampa Electric Company – Big Bend Station
Renewal and Revision of Title V Operation Permit including Air Construction Permit to remove redundant conditions and add clarifying language.

Dear Ms. Sheffield:

On January 16, and May 18, 2004, you respectively submitted an application for a Title V air operation permit revision and an application for an air construction permit revision to remove redundant Title V permit conditions and to clarify permit language. In addition, on June 28, 2004, you submitted an application for the renewal ofthe Title V air operation permit for Big Bend Station, which is located at Big Bend Road, North Ruskin. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "DRAFT Air Construction Permit", "Statement of Basis", "DRAFT Title V Air Operation Permit", "Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit", and "Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit".

The "Technical Evaluation and Preliminary Determination" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue the DRAFT air construction permit. The "Statement of Basis" summarizes the emissions units regulated by the Title V permit and the revisions made to the permit. The "DRAFT Air Construction Permit" and "DRAFT Title V Air Operation Permit" (DRAFT Permits) include specific conditions that regulate the emissions units at this facility. The "Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit" provides important information regarding: the Permitting Authority's intent to issue the DRAFT Permits; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue the DRAFT Permits; the procedures for submitting comments on the DRAFT Permits; the requirements for requesting a public meeting; the requirements for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Ms. Cindy Phillips, P.E., at 850/921-9534 or Cindy.Phillips@dep.state.fl.us.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

Enclosures

WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR OPERATION PERMIT

In the Matter of an
Application for Air Construction Permit and Title V Air Operation Permit by:

Ms. Karen Sheffield, General Manger
Tampa Electric Company
P.O. Box 111 .
Tampa, FL 33601-0111

DRAFT Air Permits Nos.:
0570039-016-AC & 0570039-017-AV
Big Bend Station
Title V Permit Clarifications and Renewal
Hillsborough County, Florida

Facility Location: The applicant requests a Title V air operation permit (Permit) to operate an Electric Utility, which is located at Big Bend Road in North Ruskin, Hillsborough County, Florida.

Project: On January 16, and May 18, 2004, respectively, the applicant applied to the Permitting Authority for an application for a Title V air operation permit revision and an application for an air construction permit revision to remove redundant Title V permit conditions and to clarify permit language. In addition, on June 28, 2004, the applicant applied to the Permitting Authority for the renewal of the Title V air operation permit. Details of the project are provided in the in the applications and the enclosed "Technical Evaluation and Preliminary Determination". The enclosed "Statement of Basis" summarizes the emissions units regulated by the Title V permit and the revisions made to the permit.

Permitting Authority: These applications for an air construction permit and a Title V air operation permit are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 and 62-214, Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and air permits are required to operate the facility and to renew and make revisions to the current permit. The FDEP Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: FDEP Bureau of Air Regulation at 111 S. Magnolia, Suite 4, Tallahassee, FL 32301. The Permitting Authority's mailing address is: FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400.. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the Technical Evaluation and Preliminary Determination, the DRAFT Permits, the Statement of Basis, the applications, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permits and file electronic comments by visiting the following website: http://www.dep.state.fl.us/air/eproducts/ards/ . A copy of the complete project file is also available at the following offices:

FDEP Southwest District Office, 8407 Laurel Fair Circle, Tampa, FL 33610
(Telephone: 850/488-0114).

Environmental Protection Commission of Hillsborough County, 1410 North 21 Street, Tampa, FL 33605
(Telephone: 813/272-5605)

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue permits to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a FINAL Air Construction Permit, a PROPOSED Title V Operation Permit and subsequent FINAL Title V Operation

Permit in accordance with the conditions of the DRAFT Permits unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the DRAFT Permits for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked, and all e-mail or facsimile comments must be received by the close of business (5 pm), on or before the end of this 30-day period by the Permitting Authority at the above address, email or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location on the Department's official web site for notices at **http://tlhora6.dep.state.fl.us/onw** and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permits, the Permitting Authority issue Revised DRAFT Permits and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Title V Air Operation Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's

file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the thirty (30) day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's web site at **http://www.epa.gov/region4/air/permits/Florida.htm**.

Executed in Tallahassee, Florida.

for Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this "Written Notice of Intent to Issue Air Permit" package (including the Public Notice, the Statement of Basis, and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail or electronic mail before the close of business on 9/28/04 to the persons listed below.

Ms. Karen Sheffield, TEC*
Ms. Raiza Calderon, TEC
Mr. Thomas Davis, P.E., ECT
Ms. Cindy Phillips, P.E., Bureau of Air Regulation
Mr. Jason Waters, FDEP-SWD
Ms. Alice Harman, EPCHC
EPA Region 4

Clerk Stamp

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

Barbara J. Friday (Clerk) 9/28/04 (Date)

Florida Department of Environmental Protection
DRAFT Air Construction Permit No. 0570039-016-AC
DRAFT Title V Air Operation Permit No. 0570039-017-AV
Tampa Electric Company – Big Bend Station
Hillsborough County

Applicant: The applicant for this project is Tampa Electric Company, Big Bend Station, P.O. Box 111, Tampa, FL 33601-0111. The applicant's responsible official is Ms. Karen Sheffield, General Manager.

Facility Location: The applicant operates an Electric Utility which is located at Big Bend Road in Hillsborough County, Florida.

Project: The applicant applied to the Permitting Authority for an application for a Title V air operation permit revision and an application for an air construction permit revision to remove redundant Title V permit conditions and to clarify permit language. In addition, the applicant applied to the Permitting Authority for the renewal of the Title V Air Operation Permit for this facility.

Permitting Authority: Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to operate the facility. The FDEP Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: FDEP Bureau of Air Regulation at 111 S. Magnolia, Suite 4, Tallahassee, FL 32301. The Permitting Authority's mailing address is: FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400.. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the DRAFT Permit, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permits and file electronic comments by visiting the following website: http://www.dep.state.fl.us/air/eproducts/ards/ . A copy of the complete project file is also available at the following offices:

FDEP Southwest District Office, 8407 Laurel Fair Circle, Tampa, FL 33610
(Telephone: 850/488-0114).

Environmental Protection Commission of Hillsborough County, 1410 North 21 Street, Tampa, FL 33605
(Telephone: 813/272-5605)

Notice of Intent to Issue A Permit: The Permitting Authority gives notice of its intent to issue permits to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a FINAL Air Construction Permit, a PROPOSED Title V Operation Permit and subsequent FINAL Title V Operation Permit in accordance with the conditions of the DRAFT Permits unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the DRAFT Permits for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked and all e-mail or facsimile comments must be received by the close of business (5 pm) on or before the end of this 30-day period by the Permitting Authority at the above address, email or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a

public meeting, it will publish notice of the time, date, and location on the Department's official web site for notices at **http://tlhora6.dep.state.fl.us/onw** and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permits, the Permitting Authority shall issue Revised DRAFT Permits and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of intent. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

Objections: In addition to the above right to petition, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the thirty (30) day public comment period provided in the Public Notice, unless the petitioner demonstrates to the

Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at **http://www.epa.gov/region4/air/permits/Florida.htm**.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1.0 APPLICATION INFORMATION

1.1 Applicant Name and Address

Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601-0111

Representative:
Ms. Karen Sheffield
General Manager
Big Bend Station

1.2 Reviewing and Process Schedule

05-18-04:	Date of receipt of request at FDEP Bureau of Air Regulation
05-18-04	Application deemed complete
08-xx-04:	Issued intent

2.0 FACILITY INFORMATION

2.1 Facility Location: Big Bend Station located at Big Bend Road, North Ruskin, Hillsborough County

2.2 Standard Industrial Classification Code (SIC)

Major Group No.	49	Electric, Gas, and Sanitary Services
Group No.	491	Electric Services
Industry No.	4911	Electric Services

2.3 Existing Facility/Emission Unit Description

This facility is an electric utility.
TEC Big Bend is a nominal 2,028 MW electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4); four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3); solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities, and fuel oil storage tanks. Units No. 1, 2, 3, and 4 have nominal maximum heat inputs of 4037, 3996, 4115 and 4330 million BTU per hour, respectively. Units No. 1 through 4 are fired with coal and with petcoke in a mixture with coal up to 20.0% petcoke/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 turbines are fired with No. 2 distillate fuel oil. In addition, there is a ship surface coating operation.

2.4 Regulatory Classification
The facility is classified as a major Title V source of air pollution because emissions of at least one regulated air pollutant, such as sulfur dioxide, exceed 100 tons per year.

3. PERMITTING STATUS

This facility is currently operating under Title V Operation Permit 0570039-013-AV. This Construction Permit 0570039-016-AC is being concurrently processed with Title V Operation Permit Revision 0570039-015-AV.

4. PRESENT APPLICATION AND DEPARTMENT PROPOSED ACTIONS

Tampa Electric Company (TEC) has requested to establish the deletion of redundant conditions and the clarification of process descriptions and conditions as applicable Title V Operation Permit descriptions and conditions.

The following descriptions and conditions established in the initial Title V Air Operation Permit, No. 0570039-002-AV, and the previous Title V Air Operation Permit Revisions, Nos. 0570039-010-AV and 0570039-013-AV, are proposed to be changed as follows. Additions are highlighted, and deletions are shown by ~~strikethroughs~~. Justifications for changes are provided in [brackets].

I. Subsection A. Facility Description. [Corrections to clarify the overview of the facility's operation have been made]:

Overview of the facility's operation:

Solid fuel is unloaded from ship/barge into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. 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 ~~tower~~, which consists of six storage bins, where the solid fuel may be ~~is~~ blended for use at the plant, or transloaded into trucks for shipment off site. ~~From the solid fuel yard conveyors, the solid fuel is screw conveyed into the bins.~~ Particulate matter (PM) emissions from the conveyors in the ~~solid fuel yard~~ blending bins are controlled by ~~3~~ 4 rotoclones, one at the conveyor drop and one for every 2 bins. ~~PM emissions from the screw conveyor are controlled by the fourth rotoclone.~~ Blending bins can either ~~Each has 2 hoppers, which~~ feed the transloader, or solid fuel can be ~~are~~ 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.

From the tripper room ~~solid fuel yard~~, ~~the solid fuel is conveyed to the tripper room where~~ 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. ~~Solid fuel samples are taken every 15 minutes during bunking, and composited for analysis.~~ From the bunkers, the solid fuel is gravity fed into 14 ~~crushers~~ mills, and then ~~gravity~~ fed into the boilers. There are 3 ball mills ~~tall crushers~~, each for Unit Nos. 1 – 3, and 5 bowl mills ~~crushers~~ for Unit No. 4. From the mills ~~crushers~~, the solid fuel is pneumatically fed into classifiers, two for each mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 ~~crusher~~ for a total of 23~~8~~ classifiers, and then into the respective boilers.

PM emissions from Boiler Nos. 1- ~~4~~3 are controlled by individual Electrostatic Precipitators (ESPs). Unit Nos. 1- 4 ~~PM emissions are controlled by an ESP, and the~~ SO_2 emissions are controlled by ~~an~~ FGD scrubber systems. When Unit Nos. 1-3 burns petroleum coke, the exhaust gases, following particulate matter removal by the units's ESPs, will be routed to the inlet of the ~~Unit No. 4~~ flue gas desulfurization (FGD) system scrubber. In the ~~this~~ integrated mode, Unit No. 3 will meet the same sulfur dioxide emissions limitations as Unit No. 4. The FGD scrubber will continue to treat the exhaust gas from Unit No. 4. The FGD scrubber outlet stream, consisting of the combined Unit No. 3 and Unit No. 4 treated exhaust, will then be split and discharged through stacks CS002 and CS003.

Fly ash from Units No. 1 and No. 2 is vented into Fly Ash Silo #1 which is controlled by a baghouse. Fly ash from Unit No. 3 is vented into Silo #2, which can also receive fly ash from Units No. 1 and 2; ~~while~~ fFly ash from Unit No. 4 is vented into Silo #3. The fly ash from each silo is then loaded into trucks and transported off site, while the bottom ash from Unit No. 4 is conveyed across Big Bend Road south of the Big Bend facility to a settling pond. Each fly ash silo is controlled by a baghouse.

The byproduct gypsum is conveyed to the east side of the plant for dewatering ~~diverting~~ and transporting off site. Limestone is unloaded to an underground hopper conveyor belt system to the limestone storage

building on the east side of the by-product gypsum area. ~~Particulate matter emissions from the limestone trucks unloading is controlled by a baghouse.~~ From the storage building, limestone is belt conveyed into ~~2~~ 3 storage silos and then gravity fed into the mill room. ~~Two~~ Three rotary mills grind the limestone and mix it with water to form a slurry that is stored in ~~2~~ 3 storage tanks for use in the FGD. The slurry is then pumped to the 4 reaction tanks of Units 1- 4 scrubbers that are located directly south of and adjacent to the absorption towers of the FGD scrubber. Gypsum is sold and transported offsite and can be stored south of Big Bend Road prior to offsite removal. ~~Most of the by-product gypsum is wallboard grade, however, gypsum that is produced during start-up, shutdown or upset conditions is de-watered and belt-conveyed across the street to the southeast of the plant for drying and transportation off site.~~

There are 3-combustion turbines (CT) manufactured by Westinghouse. They are all fired on No. 2 fuel oil. ~~Unit~~ CT No. 1 is near the plant and ~~Unit~~ CT Nos. 2 and 3 are on the north side of the property. There is a large No. 2 fuel oil storage tank near ~~Unit~~ CT Nos. 2 and 3 and a small day tank near ~~Unit~~ CT No. 1.

I. Subsection B.

- [Descriptions of Emissions Units 26 and 28 clarified as follows:]
  -026 Fly Ash Handling and Storage Fugitive Emissions from Unit Nos. 1-3 (all except silos)
  -028 Fly Ash Handling System Fugitive Emissions from Unit No. 4.
- [Unit No. 4 Coal Bunker, formerly included in Emission Unit 31, has been given its own identification of Emission Unit 39, for consistency with the coal bunkers for Units Nos. 1-3.]
  -039 Unit No. 4 Coal Bunker
- [Emissions Units 24 and 31 have been deleted. These emissions units are duplicates of emissions units already addressed in Emissions Units 20, 15, 16, 17, and newly created 39.]
  ~~-024 Limestone Handling Conveyor LE to South Storage Silo with Baghouse~~
  ~~-031 Cyclone collectors for bunkers (FH-059 through FH-062)~~

II.4. [Change of address]:

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

a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
~~Post Office Box 3346~~
~~Merrifield, VA 22116-3346~~
~~Telephone: 703/816-4434~~
P.O. Box 1515
Lanham-Seabrook, Maryland 20703-1515
Telephone: 301/429-5018

and,

b. The permittee shall 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]

III.A.2. [format change]:

b. Other operation:

i. In addition to the fuels allowed to be burned during normal operation, each unit may also burn new No. 2 fuel during startup, shutdown, flame stabilization, and during the start of a mill on an already operating unit.

ii. 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.

III.A.16. [Deletion of obsolete petcoke fuel sulfur content monitoring condition after 2005. SO_2 emissions are measured directly using continuous monitoring systems (CEMS), however, the permittee must submit on an annual basis through 2005, data demonstrating that removal of the sulfur content limit in the petroleum coke fired did not result in a significant increase in the representative actual annual emission of any regulated pollutant. (See Specific Condition III.A.2.]

Petcoke Sulfur Content: Until January 1, 2006, The owner or operator shall measure the sulfur content of representative samples of all petcoke received using appropriate ASTM methods to demonstrate compliance with the sulfur content limit of this permit. [Permit Nos. 0570039-003-AC & 0570039-004-AC]

III.A.26. [Deletion of obsolete petcoke fuel sulfur content recordkeeping condition after 2005. SO_2 emissions are measured directly using continuous monitoring systems (CEMS), however, the permittee must submit on an annual basis through 2005, data demonstrating that removal of the sulfur content limit in the petroleum coke fired did not result in a significant increase in the representative actual annual emission of any regulated pollutant. (See Specific Condition III.A.2.]

Records of Petcoke Sulfur Content: Until January 1, 2006, The owner or operator shall maintain records of petcoke sampling and analysis results performed as required by Specific Condition A.16. of this section. [Rule 62-4.070(3), F.A.C., and permit nos. 0570039-003-AC & 0570039-004-AC]

III.A.29. [Correction of typographical error]:
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. Also to be maintained and available for inspection shall be a record of operation showing the date, fuel used, mode of operation (integrated/non-integrated), and the duration of all startups, shutdowns and malfunctions.
[Rule 62-4.070(3), F.A.C.]

III.A.30. [Deletion of obsolete data reporting condition after 2005.]
Until January 1, 2006, fFor Unit No. 3, 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 of firing petcoke did not result in an emissions increase.
[Rule 62-4.070(3), F.A.C.]

III. Subsection B. Description. [Clarification added.]

As an option, Unit No. 3 exhaust gas, following particulate matter removal by the unit's ESP, will be routed to the inlet of the Unit No. 4 flue gas desulfurization (FGD) system scrubber. In this integrated mode, Unit No. 3 will meet the same sulfur dioxide emissions limitations as Unit No. 4. The FGD scrubber will continue to treat the exhaust gas from Unit No. 4. The FGD scrubber outlet stream, consisting of the combined Unit No. 3 and Unit No. 4 treated exhaust, will then be split and discharged through stacks CS002 and CS003. Stack CS002 does *not* include a recirculation duct to return exhaust gas to the inlet of the FGD scrubber. Continuous opacity monitoring systems (COMS) will be located at the outlet of Unit No. 3 and Unit No. 4 ESPs. Continuous SO_2 and CO_2 emissions monitoring systems (CEMS) will be located in stacks CS002 and CS003. Continuous NOx emissions monitoring systems (CEMS) will be located in the inlet ducts of each unit. These monitoring systems will be used to determine compliance with all current applicable requirements.

III.B.2. Methods of Operation - Fuels. [Format change and clarification added to condition B.2.b..; Coal washing requirement, Condition B.2.d, made redundant by inclusion of 90% SO_2 reduction requirement found in Condition B.7.]

a. Normal operation: The fuel fired in Unit No. 4 shall consist 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. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight.. The vanadium content of the petroleum coke fired shall not exceed 2660 ppm vanadium. The ash content of the petroleum coke fired shall not exceed 0.76% by weight on a dry basis. The permittee 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:

i. In addition to the fuels allowed to be burned during normal operation, Unit No. 4 may also burn new No. 2 fuel during startup, shutdown, flame stabilization and during the start of an additional solid fuel mill ~~pulverizer~~ on an already operating unit.

ii. 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. [Reserved] ~~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.

f. Beneficiated, or refined, coal residual: The total amount of beneficiated, or refined, coal residual fired at Big Bend Station (all Unit Nos. 1-4 combined) shall be limited to 500 tons per day. The beneficiated, or refined, coal residual results from using the beneficiated process, described in permit application 0570039-012-AC, to wash and screen the raw coal residual to remove fines and oversized materials. This beneficiation process shall be performed at Polk Power Station, not Big Bend Station.

g. 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. At the time of the issuance of permit 0570039-012-AC on October 4, 2001, there were approximately 100,000 tons of raw coal residual stored at Polk Power Station. Once this raw coal residual pile has been fired, TEC shall only fire raw coal residual in the event of a significant beneficiation process malfunction. TEC shall document all beneficiation 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.

h. No coal residual shall be fired in any Unit when the corresponding scrubber is not in operation. [Rules 62-4.070(3), 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; PSD-FL-040; Power Plant Siting Certification PA 79-12; Permit No. 0570039-012-AC]

III. B. 12. [Correction to cross-reference.]
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:

(1) Operating all operable flue gas desulfurization system modules, and bringing back into operation any malfunctioned module as soon as repairs are completed,

(2) 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

(3) 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 ~~B.5. and~~ B.7. for any period of operation lasting from 24 hours to 30 days when:

(i) Any one flue gas desulfurization module is not operated,
(ii) The affected facility is operating at the maximum heat input rate,
(iii) 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
(iv) 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.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.46a(d)]

III.B.19. [Clarifications to monitoring configuration.]
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), t~~The continuous monitoring system will measure sulfur dioxide emissions at the inlet of each unit and outlet of the ~~Unit 4~~ FGD system and from the Unit 3 stack (CS002) and Unit 4 stack (CS003), while emissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Units 3 and 4 ducts prior to the FGD system. When Unit 4 is operating and Unit 3 is not operating in the integrated mode, the continuous monitoring system will measure only Unit 4's inlet duct and stack for SO_2 emissions. 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(7)(b)2., F.A.C.; 40 CFR 60.47a(d); Power Plant Siting Certification PA 79-12D]

III.B.28. [Applicant request to eliminate references to optional fuel pretreatment.]
TEC shall determine compliance with the SO_2 standards in specific condition B.7. as follows:
(1) 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.

(2) [Reserved.] ~~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.~~
(3) 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 SO_2 control device and the average SO_2 input rate from the "as fired" fuel analysis for 30 successive boiler operating days.
(4) The appropriate procedures in Method 19 shall be used to determine the emission rate.
(5) The continuous monitoring systems specified in conditions B.17. and B.19. shall be used to determine the concentrations of SO_2 and CO_2 or O_2.
[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; Applicant request]

B.35. [Coal washing requirement made redundant by inclusion of 90% SO_2 reduction requirement found in condition B.7. Applicant request to eliminate references to fuel pretreatment. Deleted per permit 0570039-016-AC]

[Reserved.] ~~If fuel pretreatment credit is claimed toward the sulfur dioxide emission standards in specific condition B.7, TEC shall submit a signed statement:~~

~~(1) 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~~

~~(2) 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(e)]~~

III. Subsection D. Descriptions. [Clarifications to descriptions.]

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 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 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.

III.D.1. [Reformatting of permitted loading rate language for Fly Ash Silo No. 2 to be consistent with the format with loading rate language for Fly Ash Silo No. 1. Also, permitting note deleted because operation during testing information already contained in condition D.1. and loading rate limits in federally enforceable construction permit.]

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. ~~For Fly Ash Silo No. 2, the maximum permitted loading rate is the simultaneous maximum transfer of flyash from boiler Units 1, 2, and 3.~~ Separate testing of emissions from each unit shall be conducted with each emissions unit operation at 90 to 100 percent of the maximum permitted capacity ~~heat input rate~~. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum ~~minimum~~ permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate ~~load~~ 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 permitted capacity.

[AC29-194516; AO29-161082; Rule 62-4.160(2), and Rule 62-297.310(2), F.A.C.]

~~**{Permitting note: The material loading limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular recordkeeping is not required for material loading. Instead the owner or operator is expected to determine material loading whenever the emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of process variables for emission tests. Material loading demonstrations may be based on best engineering evaluation of the operating requirements necessary to achieve 90 to 100 percent of the rated loading, unless such operating conditions are otherwise specified by permit condition.}~~**

III.D.10. [Applicant request to remove the word "completely" from condition III.D.10.d since the truck loading valve is not normally operated completely open.]

Compliance testing for the silo and tanker truck loading operations shall be conducted under the following conditions:

a. All conveyance hoppers will be operational during the test.

b. All fly ash will be directed to the silo, no reinjection of fly ash to the boiler systems will occur during the test.
c. The boilers shall operate at the maximum capability of this unit under normal operating conditions during the test.
d. Two tanker trucks shall be loaded during the test. The loading valve shall be ~~completely~~ open to allow 90%-100% of the maximum loading rate during testing ~~filling~~. The loading valve position shall be calibrated, and the position of the valve during testing shall be recorded.
e. The visible emission test shall be at least 30 minutes in duration and the period of time during which truck loading occurred indicated on the test report.
[Rules 62-4.070(3) and 62-297.310, F.A.C.].

III. Subsection E. Description. [Clarification of description.]
Fly Ash Silo No. 3 handles fly ash from Steam Generator Unit No. 4. Also, fly ash may be pneumatically conveyed from tanker trucks to Silo No. 3. Particulate matter emissions are controlled by a 1,200 DSCFM Flex Kleen Model 84-WRTC-80-II-G baghouse. The wet flyash may be ~~is~~ processed through a pugmill and then unloaded into a dump truck.

III. Subsection F. Limestone Handling and Storage [Reference to railcar unloading deleted because limestone is no longer received by railcar. Receiving hopper baghouse requirement deleted because the limestone has a high moisture content (average moisture content of 12.4 wt. %) and therefore the limestone truck unloading process generates insignificant amounts of fugitive particulate matter emissions. Limestone truck unloading potential emission rates, using AP-42 procedures, are estimated to total 0.12 and 0.06 tons per year for PM and PM_{10} respectively. Since the existing baghouse is prone to high maintenance, and is not needed to meet current Title V operation permit limits, the permittee has requested to remove of this baghouse.]

This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-011	Truck/~~Railcar~~ Limestone Unloading Receiving Hopper ~~with baghouse~~
-012	Limestone Silo A with 2 baghouses
-013	Limestone Silo B with 2 baghouses
-023	Limestone Handling Conveyor LB to Conveyor LC with baghouse, Limestone Handling Conveyor LD to Conveyor LE with baghouse
~~-024~~	~~Limestone Handling Conveyor LE to South Storage Silo with baghouse, Limestone Handling Conveyor LE to North Storage Silo with baghouse~~
-025	Limestone Storage and Handling Fugitive Emissions

Descriptions
~~Particulate matter emissions from the truck and railcar unloading of limestone are controlled by a Mikro-Pulsaire Model 400S12TR baghouse.~~ 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. ~~Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LE to the South Storage Silo are controlled by a Flex Kleen Model 58-BVBC-36-HG baghouse. Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LE to the North Storage Silo are controlled by a Flex Kleen Model 58-BVBC-36-HG baghouse.~~

III. F.1. [Clarification of process.]
Total combined particulate matter emissions from the limestone handling ~~hoppers/~~conveyors 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; Power Plant Siting Certification PA 79-12]

III.F.4. [Receiving hopper baghouse requirement deleted because the limestone has a high moisture content.]
The limestone handling ~~receiving hopper,~~ conveyor transfer points and silos shall be maintained at negative pressures with the exhaust vented to a control system(s).
[PSD-FL-040]

Subsection G. Coal Bunkers with Roto-Clones [Removal of Unit No. 4 Coal Bunker from E.U. 031 to make new E.U. 039 for Unit No. 4 Coal Bunker for consistency with format for Unit 1-3 Coal Bunkers.]

This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-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

Descriptions
These emission units are Steam Generator Units Nos. 1-~~3~~ 4 Coal Bunkers with an exhaust fan/cyclone collector (Roto-Clone) controlling dust emission from each unit's respective bunker. Two moving transfer stations via their respective conveyor belts route coal through enclosed chutes to the various bunkers. Coal Bunkers 1-~~3~~ 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. Unit No. 1 Coal Bunker is situated west of Unit No. 2 Coal Bunker. Unit No. 3 Coal Bunker is situated east of Unit No. 2 Coal Bunker. Unit No. 4 Coal Bunker is located east of Unit No. 3.

III.G.4. [Equipment clarification.]
Since a source of less than 1 TPY is exempt from particulate matter RACT provisions, the maximum allowable particulate emissions shall not exceed 0.99 tons per year from each rotoclone ~~cyclone~~ exhaust. Also maximum allowable particulate matter emissions shall not exceed 0.48 lbs/hr from each cyclone exhaust.
[AO29-163788 to escape RACT]

Subsection H. Solid Fuel Yard [Deletion of redundant EU 031, and clarification of descriptions.]

This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-010	Solid Fuel Yard, Fugitive Emissions
-029	Cyclone collectors for fuel blending bins (FH-032 through FH-035)
-030	Cyclone collectors for fuel crushers (FH-048 and FH-049)
~~-031~~	~~Cyclone collectors for bunkers (FH-059 through FH-062)~~

Descriptions
Solid fuel is unloaded from ship/barge into the Solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. 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 ~~tower~~, which consists of six storage bins, where the solid fuel may be ~~is~~ blended for use at the plant, or transloaded into trucks for shipment off site. ~~From the solid fuel yard conveyors, the solid fuel is screw conveyed into the bins.~~ Particulate matter (PM) emissions from the conveyors in the blending bins ~~solid fuel yard~~ are controlled by ~~3~~ 4 rotoclones, one at the conveyor drop, and one for every 2 bins. ~~PM emissions from the screw conveyor are controlled by the fourth rotoclone.~~ Blending bins can either ~~Each has 2 hoppers, which~~ feed the

transloader, or solid fuel can be ~~are~~ 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.

From the tripper room ~~solid fuel yard, the solid fuel is conveyed to the tripper room where~~ 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. Solid fuel samples are taken every 15 minutes during bunkering, and composited for analysis. From the bunkers, the solid fuel is gravity fed into 14 mills ~~crushers~~, and then ~~gravity~~ fed into the boilers. There are 3 ball mills ~~tall crushers~~, each for Unit Nos. 1 – 3, and 5 bowl mills ~~crushers~~ for Unit No. 4. From the mills ~~crushers~~, the solid fuel is pneumatically fed into classifiers, two for each ~~crusher~~ mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 23~~8~~ classifiers, and then into the respective boilers.

5. CONCLUSION

The conditions agreed to by the Department provide reasonable assurance that there will be no significant increase in the representative actual annual emissions of any regulated pollutant.

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

PERMITTEE:

Tampa Electric Company
Big Bend Station
PO Box 111
Tampa, Florida 33601-0111

Permit No.	0570039-016-AC
Project:	Deletion of Redundant Conditions and Clarification of Process Descriptions
SIC:	4911
Expires:	December 31, 2004

Authorized Representative:
Karen Sheffield, General Manager
Big Bend Station

PROJECT AND LOCATION:

This air construction permit is to establish the deletion of redundant conditions, and the clarification of process descriptions and conditions as applicable Title V Operation Permit descriptions and conditions.

The Tampa Electric Company (TEC) Big Bend Station is located at Big Bend Road, North Ruskin, Hillsborough County. UTM coordinates are Zone 17; 361.9 km E; 3075.0 km N.

STATEMENT OF BASIS:

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

Attached appendices made a part of this permit:

Appendix GC Construction Permit General Conditions

Michael G. Cooke, Director
Division of Air Resource
Management

FACILITY DESCRIPTION

This facility is an electric utility.

TEC Big Bend is a nominal 2,028 MW electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4); four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3); solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities, and fuel oil storage tanks. Units No. 1, 2, 3, and 4 have nominal maximum heat inputs of 4037, 3996, 4115 and 4330 million BTU per hour, respectively. Units No. 1 through 4 are fired with coal and with petcoke in a mixture with coal up to 20.0% petcoke/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 turbines are fired with No. 2 distillate fuel oil. In addition, there is a ship surface coating operation.

EMISSIONS UNITS

This permit revision addresses the following emissions units:

EMISSION UNIT NO.	EMISSION UNIT 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
008	Fly Ash Silo No. 1 Baghouse
018	Fly Ash Silo No. 1 Truck Loadout
009	Fly Ash Silo No. 2 Baghouse
019	Fly Ash Silo No. 2 Truck Loadout
026	Fly Ash Handling and Storage Fugitive Emissions (all except silos)
014 027 028	Fly Ash Silo No. 3 Baghouse Fly Ash Silo No. 3 Truck Loadout Fly Ash Handling System Fugitive Emissions
011	Truck/Railcar Limestone Unloading Receiving Hopper with baghouse
024	Limestone Handling Conveyor LE to South Storage Silo with baghouse, Limestone Handling Conveyor LE to North Storage Silo with baghouse
039	Unit No. 4 Coal Bunker with Roto-Clone
029	Cyclone collectors for fuel blending bins (FH-032 through FH-035)
030	Cyclone collectors for fuel crushers (FH-048 and FH-049)
031	Cyclone collectors for bunkers (FH-059 through FH-062)

REGULATORY CLASSIFICATION

Because potential emissions of at least one regulated pollutant exceed 100 tons per year, the existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), and volatile organic compounds (VOC).

The existing facility is major source of hazardous air pollutants (HAPs).

The facility operates emissions units subject to the acid rain provisions of the Clean Air Act.

The facility is considered a "fossil fuel fired steam electric plant of more than 250 million BTU per hour of heat input", which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per

year. Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a PSD-major source of air pollution with respect to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) of Air Quality.

Unit 4 was certified pursuant Electrical Power Plant Siting in accordance with Chapter 62-17, F.A.C. and Chapter 403, Part II, F.S.

This facility is classified as a "Major Source of Air Pollution or Title V Source" due to emissions of at least one regulated air pollutant, such as sulfur dioxide, that exceeds 100 tons per year.

RELEVANT DOCUMENTS

- Construction Permit Application 0570039-016-AC received May 18, 2004.
- Title V Air Operation Permit Revision Application No. 0570039-015-AV received on January 16, 2004.

DRAFT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

1. Permitting Authority: All documents related to applications for permits to construct or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-0114.

2. Compliance Authority: All documents related to operation, reports, tests, and notifications should be submitted to the Environmental Protection Commission of Hillsborough County (EPC) at

Environmental Protection Commission
of Hillsborough County
1410 North 21 Street
Tampa, Florida 33605
Telephone: 813/272-5530
Fax: 813/272-5605

3. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

4. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

5. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]

6. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212, F.A.C.]

7. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

8. Completion of Construction: The permit expiration date is December 31, 2004.

9. Permit Expiration Date Extension: The permittee, for good cause, may request that this permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.080, F.A.C.).

10. Application for Title V Permit Revision: Concurrent processing of Air Construction Permit Application and Title V Permit Revision.

11. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

12. 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 plant operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

13. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without the applicable air control device operating properly. [Rule 62-210.650, F.A.C.]

14. Unconfined Particulate Matter Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

15. Test Notification: The permittee shall notify each Compliance Authority in writing at least 30 days prior to any initial performance tests and at least 15 days prior to any other required tests. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and conducting the test. [Rule 62-297.310(7)(a)9., F.A.C. and 40 CFR 60.7, 60.8]

16. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

17. Applicable Test Procedures

    a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)1. and 2., F.A.C.]

    b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet. [Rule 62-297.310(4)(b), F.A.C.]

    c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]

18. Determination of Process Variables

    a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310(5)(a), F.A.C.]

    b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5)(b), F.A.C.]

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

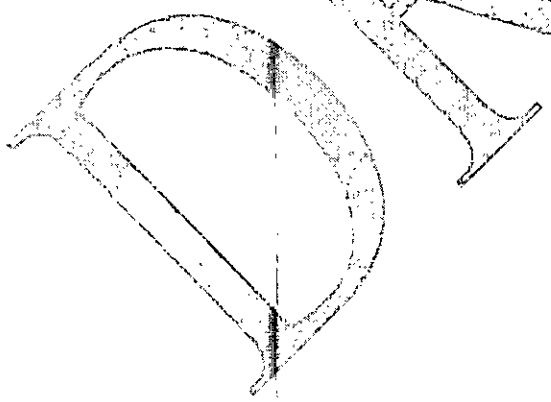
20. Stack Testing Facilities: Required stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rule 62-297.310]

21. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent 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 permitted capacity. [Rule 62-297.310(2)(b), F.A.C.]

22. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department, or EPC, upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

23. Emissions Performance Test Results Reports: A report indicating the results of any required emissions performance test shall be submitted to each Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]

24. Annual Operating Reports: The permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the Environmental Protection Commission of Hillsborough County by March 1st of each year. [Rule 62-210.370(2), F.A.C.]



The following descriptions and specific conditions established in the initial Title V Air Operation Permit, No. 0570039-002-AV, and the previous Title V Air Operation Permit Revisions, Nos. 0570039-010-AV and 0570039-013-AV, are changed as follows. Additions are highlighted, and deletions are shown by ~~strikethroughs~~:

I. Subsection A. Facility Description.

Overview of the facility's operation:

Solid fuel is unloaded from ship/barge into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. 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 ~~tower~~, which consists of six storage bins, where the solid fuel may be ~~is~~ blended for use at the plant, or transloaded into trucks for shipment off site. ~~From the solid fuel yard conveyors, the solid fuel is screw conveyed into the bins.~~ Particulate matter (PM) emissions from the conveyors in the ~~solid fuel yard~~ blending bins are controlled by ~~3~~ 4 rotoclones, one at the conveyor drop and one for every 2 bins. ~~PM emissions from the screw conveyor are controlled by the fourth rotoclone.~~ Blending bins can either ~~Each has 2 hoppers, which~~ feed the transloader, or solid fuel can be ~~are~~ 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.

From the tripper room ~~solid fuel yard, the solid fuel is conveyed to the tripper room where~~ 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. ~~Solid fuel samples are taken every 15 minutes during bunking, and composited for analysis.~~ From the bunkers, the solid fuel is gravity fed into 14 ~~crushers~~ mills, and then ~~gravity~~ fed into the boilers. There are 3 ball mills ~~tall crushers,~~ each for Unit Nos. 1 – 3, and 5 bowl mills ~~crushers~~ for Unit No. 4. From the mills ~~crushers~~, the solid fuel is pneumatically fed into classifiers, two for each mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 ~~crusher~~ for a total of 23~~8~~ classifiers, and then into the respective boilers.

PM emissions from Boiler Nos. 1- ~~4~~3 are controlled by individual Electrostatic Precipitators (ESPs). Unit Nos. 1-4 ~~PM emissions are controlled by an ESP, and the~~ SO_2 emissions are controlled by ~~an~~ FGD scrubber systems. When Unit Nos. 1-3 burns petroleum coke, the exhaust gases, following particulate matter removal by the units's ESPs, will be routed to the inlet of the ~~Unit No. 4~~ flue gas desulfurization (FGD) system scrubber. In the ~~this~~ integrated mode, Unit No. 3 will meet the same sulfur dioxide emissions limitations as Unit No. 4. The FGD scrubber will continue to treat the exhaust gas from Unit No. 4. The FGD scrubber outlet stream, consisting of the combined Unit No. 3 and Unit No. 4 treated exhaust, will then be split and discharged through stacks CS002 and CS003.

Fly ash from Units No. 1 and No. 2 is vented into Fly Ash Silo #1 which is controlled by a baghouse. Fly ash from Unit No. 3 is vented into Silo #2, which can also receive fly ash from Units No. 1 and 2. ~~while~~ fFly ash from Unit No. 4 is vented into Silo #3. The fly ash from each silo is then loaded into trucks and transported off site, while the bottom ash from Unit No. 4 is conveyed across Big Bend Road south of the Big Bend facility to a settling pond. Each fly ash silo is controlled by a baghouse.

The byproduct gypsum is conveyed to the east side of the plant for dewatering ~~diverting~~ and transporting off site. Limestone is unloaded to an underground hopper conveyor belt system to the limestone storage building on the east side of the by-product gypsum area. ~~Particulate matter emissions from the limestone trucks unloading is controlled by a baghouse.~~ From the storage building, limestone is belt conveyed into ~~2~~ 3 storage silos and then gravity fed into the mill room. ~~Two~~ Three rotary mills grind the limestone and mix it with water to form a slurry that is stored in ~~2~~ 3 storage tanks for use in the FGD. The slurry is then pumped to the 4 reaction tanks of Units 1-4 scrubbers that are located directly south of and adjacent to the absorption towers of the FGD scrubber. Gypsum is sold and transported offsite and can be stored south of Big Bend Road prior to offsite removal. ~~Most of the by-product gypsum is wallboard grade, however, gypsum that is produced during start-up, shutdown or upset conditions is de-watered and belt conveyed across the street to the southeast of the plant for drying and transportation off site.~~

There are 3-combustion turbines (CT) manufactured by Westinghouse. They are all fired on No. 2 fuel oil. ~~Unit~~ CT No. 1 is near the plant and ~~Unit~~ CT Nos. 2 and 3 are on the north side of the property. There is a large No. 2 fuel oil storage tank near ~~Unit~~ CT Nos. 2 and 3 and a small day tank near ~~Unit~~ CT No. 1.

I. Subsection B.

-026 Fly Ash Handling and Storage Fugitive Emissions from Unit Nos. 1-3 (all except silos)
-028 Fly Ash Handling System Fugitive Emissions from Unit No. 4.
-039 Unit No. 4 Coal Bunker
~~-024 Limestone Handling Conveyor LE to South Storage Silo with Baghouse~~
~~-031 Cyclone collectors for bunkers (FH-059 through FH-062)~~

II.4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
~~Post Office Box 3346~~
~~Merrifield, VA 22116-3346~~
~~Telephone: 703/816-4434~~
P.O. Box 1515
Lanham-Seabrook, Maryland 20703-1515
Telephone: 301/429-5018

and,
b. The permittee shall 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]

III.A.2. b. Other operation:

i. In addition to the fuels allowed to be burned during normal operation, each unit may also burn new No. 2 fuel during startup, shutdown, flame stabilization, and during the start of a mill on an already operating unit.

ii. 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.

III.A.16. Petcoke Sulfur Content: Until January 1, 2006, The owner or operator shall measure the sulfur content of representative samples of all petcoke received using appropriate ASTM methods to demonstrate compliance with the sulfur content limit of this permit. [Permit Nos. 0570039-003-AC & 0570039-004-AC]
III.A.26. [Deletion of obsolete petcoke fuel sulfur content recordkeeping condition after 2005. SO_2 emissions are measured directly using continuous monitoring systems (CEMS), however, the permittee must submit on an annual basis through 2005, data demonstrating that removal of the sulfur content limit in the petroleum coke fired did not result in a significant increase in the representative actual annual emission of any regulated pollutant. (See Specific Condition III.A.2.]

III.A.26. Records of Petcoke Sulfur Content: Until January 1, 2006, The owner or operator shall maintain records of petcoke sampling and analysis results performed as required by Specific Condition A.16. of this section. [Rule 62-4.070(3), F.A.C., and permit nos. 0570039-003-AC & 0570039-004-AC]

III.A.29. 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. Also to be maintained and available for inspection shall be a record of operation showing the date, fuel used, mode of operation (integrated/non-integrated), and the duration of all startups, shutdowns and malfunctions. [Rule 62-4.070(3), F.A.C.]

III.A.30. Until January 1, 2006, fFor Unit No. 3, 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 of firing petcoke did not result in an emissions increase. [Rule 62-4.070(3), F.A.C.]

III. Subsection B. Description.
As an option, Unit No. 3 exhaust gas, following particulate matter removal by the unit's ESP, will be routed to the inlet of the Unit No. 4 flue gas desulfurization (FGD) system scrubber. In this integrated mode, Unit No. 3 will meet the same sulfur dioxide emissions limitations as Unit No. 4. The FGD scrubber will continue to treat the exhaust gas from Unit No. 4. The FGD scrubber outlet stream, consisting of the combined Unit No. 3 and Unit No. 4 treated exhaust, will then be split and discharged through stacks CS002 and CS003. Stack CS002 does *not* include a recirculation duct to return exhaust gas to the inlet of the FGD scrubber. Continuous opacity monitoring systems (COMS) will be located at the outlet of Unit No. 3 and Unit No. 4 ESPs. Continuous SO_2 and CO_2 emissions monitoring systems (CEMS) will be located in stacks CS002 and CS003. Continuous NOx emissions monitoring systems (CEMS) will be located in the inlet ducts of each unit. These monitoring systems will be used to determine compliance with all current applicable requirements.

III.B.2. Methods of Operation - Fuels.

a. Normal operation: The fuel fired in Unit No. 4 shall consist 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. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight.. The vanadium content of the petroleum coke fired shall not exceed 2660 ppm vanadium. The ash content of the petroleum coke fired shall not exceed 0.76% by weight on a dry basis. The permittee 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:

i. In addition to the fuels allowed to be burned during normal operation, Unit No. 4 may also burn new No. 2 fuel during startup, shutdown, flame stabilization and during the start of an additional solid fuel mill ~~pulverizer~~ on an already operating unit.

ii. 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. [Reserved] ~~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.

f. Beneficiated, or refined, coal residual: The total amount of beneficiated, or refined, coal residual fired at Big Bend Station (all Unit Nos. 1-4 combined) shall be limited to 500 tons per day.
The beneficiated, or refined, coal residual results from using the beneficiated process, described in permit application 0570039-012-AC, to wash and screen the raw coal residual to remove fines and oversized materials. This beneficiation process shall be performed at Polk Power Station, not Big Bend Station.

g. 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. At the time of the issuance of permit 0570039-012-AC on October 4, 2001, there were approximately 100,000 tons of raw coal residual stored at Polk Power Station. Once this raw coal residual pile has been fired, TEC shall only fire raw coal residual in the event of a significant beneficiation process malfunction. TEC shall document all beneficiation 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.

h. No coal residual shall be fired in any Unit when the corresponding scrubber is not in operation. [Rules 62-4.070(3), 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; PSD-FL-040; Power Plant Siting Certification PA 79-12; Permit No. 0570039-012-AC; Permit No. 0570039-016-AC]

III. B. 12. 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:

(1) Operating all operable flue gas desulfurization system modules, and bringing back into operation any malfunctioned module as soon as repairs are completed,

(2) 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

(3) 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 ~~B.5. and~~ B.7. for any period of operation lasting from 24 hours to 30 days when:

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

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

(iii) 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

(iv) 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.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.46a(d)]

III.B.19. 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 of each unit and outlet of the ~~Unit 4~~ FGD system and from the Unit 3 stack (CS002) and Unit 4 stack (CS003), while emissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Units 3 and 4 ducts prior to the FGD system. When Unit 4 is operating and Unit 3 is not operating in the integrated mode, the continuous monitoring system will measure only Unit 4's inlet duct and stack for SO_2 emissions. 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(7)(b)2., F.A.C.; 40 CFR 60.47a(d); Power Plant Siting Certification PA 79-12D]

III.B.28. TEC shall determine compliance with the SO_2 standards in specific condition B.7. as follows:

(1) 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.

(2) [Reserved.] ~~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.~~

(3) 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 SO_2 control device and the average SO_2 input rate from the "as fired" fuel analysis for 30 successive boiler operating days.

(4) The appropriate procedures in Method 19 shall be used to determine the emission rate.

(5) The continuous monitoring systems specified in conditions B.17. and B.19. shall be used to determine the concentrations of SO_2 and CO_2 or O_2.

[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; Applicant request, 0570039-016-AC]

B.35. [Reserved:] ~~If fuel pretreatment credit is claimed toward the sulfur dioxide emission standards in specific condition B.7. TEC shall submit a signed statement:~~

~~(1) 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~~

~~(2) 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)]~~

III. Subsection D. Descriptions.

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 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 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.

III.D.1. 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. ~~For Fly Ash Silo No. 2, the maximum permitted loading rate is the simultaneous maximum transfer of flyash from boiler Units 1, 2, and 3.~~ Separate testing of emissions from each unit shall be conducted with each emissions unit operation at 90 to 100 percent of the maximum permitted capacity ~~heat input rate~~. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum ~~minimum~~ permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate ~~load~~ 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 permitted capacity. [AC29-194516; AO29-161082; Rule 62-4.160(2), and Rule 62-297.310(2), F.A.C.]

~~{Permitting note: The material loading limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular recordkeeping is not required for material loading. Instead the owner or operator is expected to determine material loading whenever the emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of process variables for emission tests. Material loading demonstrations may be based on best engineering evaluation of the operating requirements necessary to achieve 90 to 100 percent of the rated loading, unless such operating conditions are otherwise specified by permit condition.}~~

III.D.10. Compliance testing for the silo and tanker truck loading operations shall be conducted under the following conditions:

a. All conveyance hoppers will be operational during the test.

b. All fly ash will be directed to the silo, no reinjection of fly ash to the boiler systems will occur during the test.

c. The boilers shall operate at the maximum capability of this unit under normal operating conditions during the test.
d. Two tanker trucks shall be loaded during the test. The loading valve shall be ~~completely~~ open to allow 90%-100% of the maximum loading rate during testing ~~filling~~. The loading valve position shall be calibrated, and the position of the valve during testing shall be recorded.
e. The visible emission test shall be at least 30 minutes in duration and the period of time during which truck loading occurred indicated on the test report.
[Rules 62-4.070(3) and 62-297.310, F.A.C.].

III. Subsection E. Description.
Fly Ash Silo No. 3 handles fly ash from Steam Generator Unit No. 4. Also, fly ash may be pneumatically conveyed from tanker trucks to Silo No. 3. Particulate matter emissions are controlled by a 1,200 DSCFM Flex Kleen Model 84-WRTC-80-II-G baghouse. The wet flyash may be ~~is~~ processed through a pugmill and then unloaded into a dump truck.

III. SUBSECTION F. LIMESTONE HANDLING AND STORAGE

This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-011	Truck/~~Railcar~~ Limestone Unloading Receiving Hopper ~~with baghouse~~
-012	Limestone Silo A with 2 baghouses
-013	Limestone Silo B with 2 baghouses
-023	Limestone Handling Conveyor LB to Conveyor LC with baghouse, Limestone Handling Conveyor LD to Conveyor LE with baghouse
~~-024~~	~~Limestone Handling Conveyor LE to South Storage Silo with baghouse,~~ ~~Limestone Handling Conveyor LE to North Storage Silo with baghouse~~
-025	Limestone Storage and Handling Fugitive Emissions

DESCRIPTIONS

~~Particulate matter emissions from the truck and railcar unloading of limestone are controlled by a Mikro-Pulsaire Model 400S12TR baghouse.~~ 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 DKED18003 baghouse. ~~Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LE to the South Storage Silo are controlled by a Flex Kleen Model 58-BVBC-36-IIG baghouse. Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LE to the North Storage Silo are controlled by a Flex Kleen Model 58-BVBC-36-IIG baghouse.~~

III. F.1. Total combined particulate matter emissions from the limestone handling ~~hoppers~~/conveyors 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; Power Plant Siting Certification PA 79-12]

III.F.4. The limestone handling ~~receiving hopper,~~ conveyor transfer points and silos shall be maintained at negative pressures with the exhaust vented to a control system(s).
[PSD-FL-040]

Subsection G. Coal Bunkers with Roto-Clones
This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-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

Descriptions

These emission units are Steam Generator Units Nos. 1- ~~3~~ 4 Coal Bunkers with an exhaust fan/cyclone collector (Roto-Clone) controlling dust emission from each unit's respective bunker. Two moving transfer stations via their respective conveyor belts route coal through enclosed chutes to the various bunkers. Coal Bunkers 1- ~~3~~ 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. Unit No. 1 Coal Bunker is situated west of Unit No. 2 Coal Bunker. Unit No. 3 Coal Bunker is situated east of Unit No. 2 Coal Bunker. Unit No. 4 Coal Bunker is located east of Unit No. 3.

III.G.4.
Since a source of less than 1 TPY is exempt from particulate matter RACT provisions, the maximum allowable particulate emissions shall not exceed 0.99 tons per year from each rotoclone ~~cyclone~~ exhaust. Also maximum allowable particulate matter emissions shall not exceed 0.48 lbs/hr from each cyclone exhaust.
[AO29-163788 to escape RACT]

Subsection H. Solid Fuel Yard

This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-010	Solid Fuel Yard, Fugitive Emissions
-029	Cyclone collectors for fuel blending bins (FH-032 through FH-035)
-030	Cyclone collectors for fuel crushers (FH-048 and FH-049)
~~-031~~	~~Cyclone collectors for bunkers (FH-059 through FH-062)~~

Descriptions

Solid fuel is unloaded from ship/barge into the Solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. 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 ~~tower~~, which consists of six storage bins, where the solid fuel may be ~~is~~ blended for use at the plant, or transloaded into trucks for shipment off site. ~~From the solid fuel yard conveyors, the solid fuel is screw conveyed into the bins.~~ Particulate matter (PM) emissions from the conveyors in the blending bins ~~solid fuel yard~~ are controlled by ~~3~~ 4 rotoclones, one at the conveyor drop, and one for every 2 bins. ~~PM emissions from the screw conveyor are controlled by the fourth rotoclone.~~ Blending bins can either ~~Each has 2 hoppers, which~~ feed the transloader, or solid fuel can be ~~are~~ 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.

From the tripper room ~~solid fuel yard, the solid fuel is conveyed to the tripper room where~~ 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. Solid fuel samples are taken every 15 minutes during bunkering, and composited for analysis. From the bunkers, the solid fuel is gravity fed into 14 mills ~~crushers~~, and then ~~gravity~~ fed into the boilers. There are 3 ball mills ~~tall crushers~~, each for Unit Nos. 1 – 3, and 5 bowl mills ~~crushers~~ for Unit No. 4. From the mills ~~crushers~~, the solid fuel is pneumatically fed into classifiers, two for each ~~crusher~~ mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 238 classifiers, and then into the respective boilers.